New York City Environmental Quality Review

Revised Environmental Assessment Statement and Supplemental Report

East 147th Street Rezoning

Prepared For:

MLK Plaza LLC

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New York, NY 10103

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Lead Agency:

New York City Department of City Planning

120 Broadway, 31st Floor

New York, NY 10271

CEQR Number: 16DCP154X

October 2016

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* East 147th Street Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
16DCP154X	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
160251ZMX and N160250ZRX	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
NYC Department of City Planning			MLK Plaza LLC		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Robert Dubruskin			Steven M. Sinacori		
ADDRESS 120 Broadway, 31 FL			ADDRESS 666 Fifth Ave, 20th Floor		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10103
TELEPHONE 212-720-3423	EMAIL rdubrus@planning.nyc.gov		TELEPHONE 212-822-	EMAIL steven.sinacori@akerman.com	

5. *Project Description*

The Applicant, MLK Plaza LLC is seeking a rezoning from M1-2 zone to R7X zoning district, M1-3 zone to R7X zoning district, and an M1-2 zone to R7X/C1-4 zoning district, affecting multiple (17) tax lots on a portion of Block 2600 "the affected area' located in the Mott Haven neighborhood of Bronx Community District 1. The Applicant also seeks a text amendment to Appendix F of the New York City Zoning Resolution ("ZR") in order to map a Mandatory Inclusionary Housing Area ("MIH"). The affected area is bound by Southern Boulevard to the west and Austin Place to the east, and is bisected by Timpson Place and East 147th Street. The Applicant owned property includes lots 187, 222, 220, 213.

Collectively the proposed actions would facilitate a proposal by the applicant to construct a 164,592 gross square foot (gsf) residential building consisting of 165 dwelling units (of which 100% is affordable per MIH). The proposed development would also include 25 spaces of accessory parking at the cellar level of the proposed building accessed via a curb cut located along on Austin Place.

Project Location

BOROUGH Bronx	COMMUNITY DISTRICT(S) 1	STREET ADDRESS N/A
TAX BLOCK(S) AND LOT(S) Block 2600, Lots 30 (p/o), 47, 49, 50, 51, 89 (p/o), 96, 99, 199, 191, 193, 131, 186, 187, 222, 220, 213		ZIP CODE 10455
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS East 147th Street between Timpson Place (west) and Austin Place (east)		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-2, M1-3		ZONING SECTIONAL MAP NUMBER 6c

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
☐ RULEMAKING
☐ CONSTRUCTION OF PUBLIC FACILITIES
☐ FUNDING OF CONSTRUCTION, specify:
☐ POLICY OR PLAN, specify:
☒ FUNDING OF PROGRAMS, specify: 4% Low Income Housing Tax Credits Bond Cap, and subsidies from NYCHPD and NYCHDC through the Extremely Low & Low-Income Affordability (ELLA) Program
☐ 384(b)(4) APPROVAL
☐ PERMITS, specify:
☐ OTHER, explain:

Other City Approvals Not Subject to CEQR (check all that apply)
☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)
☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
☐ OTHER, explain:

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

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

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

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

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 24,143 (Applicant Site); 115,953 (Full Rezoning Area) *For conservative analysis refer to Attachment A

Waterbody area (sq. ft) and type: 0

Roads, buildings, and other paved surfaces (sq. ft.): 24,143 (Applicant Site) *For conservative analysis refer to Attachment A

Other, describe (sq. ft.):

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

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 164,592 gsf (Applicant Site); 385,284 gsf (Full Rezoning Area) *For conservative analysis refer to Attachment A

NUMBER OF BUILDINGS: 1 (Applicant Site) *For conservative analysis refer to Attachment A

GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 164,592 gsf (Applicant Site) *For conservative analysis refer to Attachment A

HEIGHT OF EACH BUILDING (ft.): 135 ft, comprised of 125' plus a 10' bulkhead (Applicant Site) *For conservative analysis refer to Attachment A

NUMBER OF STORIES OF EACH BUILDING: 12 (Applicant Site) *For conservative analysis refer to Attachment A

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: 24,143 sf
The total square feet not owned or controlled by the applicant: 91,810 sf *For conservative analysis refer to Attachment A

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: 24,143 sq. ft. (width x length) VOLUME OF DISTURBANCE: cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 24,143 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.)	164,592 gsf *For conservative analysis refer to Attachment A	0	0	0
Type (*e.g.,* retail, office, school)	165 units	0	0	

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 470 *For conservative analysis refer to Attachment A NUMBER OF ADDITIONAL WORKERS: 0

Provide a brief explanation of how these numbers were determined: Gross Additional Residents = Gross Additional DU multipled by 2.85 (average household size in the Bronx) *Source: U.S. Census 2009-2013

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

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

If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly: In coordination with DCP, Projected Development Site #2 (Lot 30, Block 2600) is reasonably expected in the No-Action condition to be developed into a two-story commercial/retail structure with a maximum bulk of 11,700 gsf. Commercial/retail use is expected to consist of general local retail or services in addition to food stores smaller than 2,000 sf. Approximately 39 total parking spaces would be required (pursuant to ZR 44-21). The site is currently under single ownership, cleared of debris, and has sufficient frontage along an existing commercial strip for commercial/retail developments to be economically viable. The owner of Projected Development Site #2 has also developed other properties in the area for commercial/retail use within the immediate vicinity of the site.

9. *Analysis Year* CEQR Technical Manual Chapter 2

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

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 24 months (Development Site); N/A (Rezoning Area)

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Refer to Attachment T "Construction"

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

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

Part II: TECHNICAL ANALYSIS

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

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

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

	YES	NO
5. *SHADOWS*: CEQR Technical Manual Chapter 8		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See Attachment G		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
○ If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☒	☐
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☐	☒
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☒	☐
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: Phase I ESA for Applicant's Development Site revealed the following RECs: 1) Potential exists for USTs to be present at the site. 2) Potential for hazardous compounds to be present in subsurface soil and groundwater. 3) Urban historic fill identified and can contain contaminants such as heavy metals and semi-volatile organic compounds. 4) Unlikely to be impacted by vapor migration from on-site sources but potential still exists from unknown or unclassified sources on site, ungradient, or sidegradient of the Applicant's Development Site.	☒	☐
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?	☐	☒

	YES	NO
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(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): 15,006		
○ 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): 45,880,731		
(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)	☐	☐
(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?	☒	☐

	YES	NO
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☒	☐
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; 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 R		
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 S		
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 T		

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
Ranjani Sarode	10/14/2016

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.

	Potentially Significant Adverse Impact	
IMPACT CATEGORY	**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	October 14, 2016

SIGNATURE

Attachment A: Project Description

I. INTRODUCTION

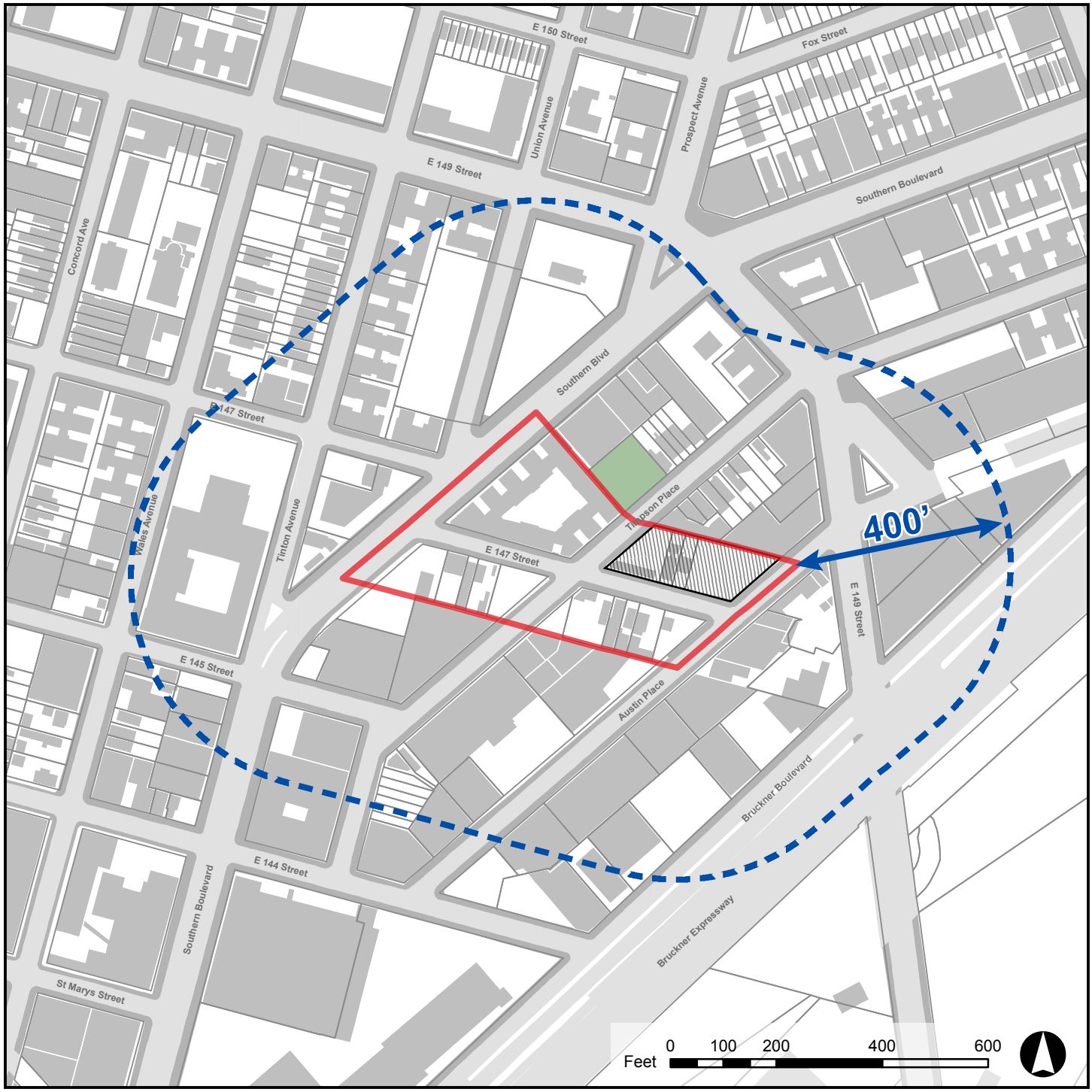
MLK Plaza LLC (the "Applicant") seeks to rezone a multi-lot portion of Block 2600 in the Bronx from its existing zoning designation of M1-2 to R7X, M1-3 to R7X, and M1-2 to R7X/C1-4 to facilitate the development of a new residential building on Lots 187, 222, 220, and 213 (the "Development Site"), located in Bronx Community District One. The rezoning boundary (the "Project Area"), based on an agreement with the New York City Department of City Planning (NYCDCP), is bounded by Southern Boulevard to the west and Austin Place to the southeast, and is bisected by Timpson Place and East 147th Street **(Figure A-1: Site Location Map)**. The Project Area is currently zoned M1-2 and M1-3, and includes 17 tax lots, of which 2 are partially included in tax lots within Block 2600. Land uses in this area are dominated by residential uses to the west, north and northeast of the Project Area, and primarily manufacturing/ industrial uses to the south and southeast **(Figure A-5: Land Use Map)**. Development trends in the area suggests increasing demand for residential use in conjunction with rising population within Bronx Community District One.

According to the *Zoning for Quality and Affordability (ZQA)*, and *Mandatory Inclusionary Housing (MIH)* text amendments (both approved by the New York City Council on March 22, 2016), the provision of affordable housing on the Development Site allows a 20% increase in Floor Area Ratio (FAR) under R7X zoning designation, raising the maximum allowable FAR from 5.0 to 6.0. The proposed residential construction on the 24,143 sf Development Site will be 135-foot tall, 12-stories, 164,592 gross square foot (gsf), and will have a total 165 affordable dwelling units (DU) with 25 underground accessory parking that can be accessed by a curb cut located on Austin Place **(Figure A-2: Illustrative Site Plan)**. The affordable DU breakdown is as follows:

- 33 DUs for residents with a family income at or below 90% AMI (20% of total DUs)
- 83 DUs for residents with a family income at or below 60% AMI (50% of total DUs)
- 8 DUs for residents with a family income at or below 47% AMI (5% of total DUs)
- 8 DUs for residents with a family income at or below 37% AMI (5% of total DUs)
- 33 DUs for residents with a family income at or below 25% AMI (20% of total DUs)

These distributions are dependent on ongoing discussions with New York City Housing Preservation & Development (NYCHPD) and New York City Housing Development Corporation (NYCHDC) as the development process continues. However, the Applicant plans for all DUs to be affordable, which qualifies for both Option 1 and Deep Affordability Option as applied under MIH and outlined in Article I, Chapter 2, Section 23-154 (d) (3) (i-ii) of the MIH.

The proposed rezoning action would allow for new residential growth in an area currently zoned M1-2 but has an existing mixture of single family homes, occupied apartments, active commercial, and light manufacturing businesses, and vacant residential buildings and lots. Based on consultation from NYCDCP, five projected development sites (including the Applicant's Development Site) were identified, which together have a total lot area of 69,004 sf. Projected Development Site #1 consists of the Applicant's Development Site and has existing parking facilities with residential uses. Development Sites Numbers 2, 3, 4, and 5 are occupied by a mixture of residential uses, parking facilities, light manufacturing uses, transportation/utility facilities, and vacant lots.



Source: 2015 Pluto, NYCDCP

Applicant's Site

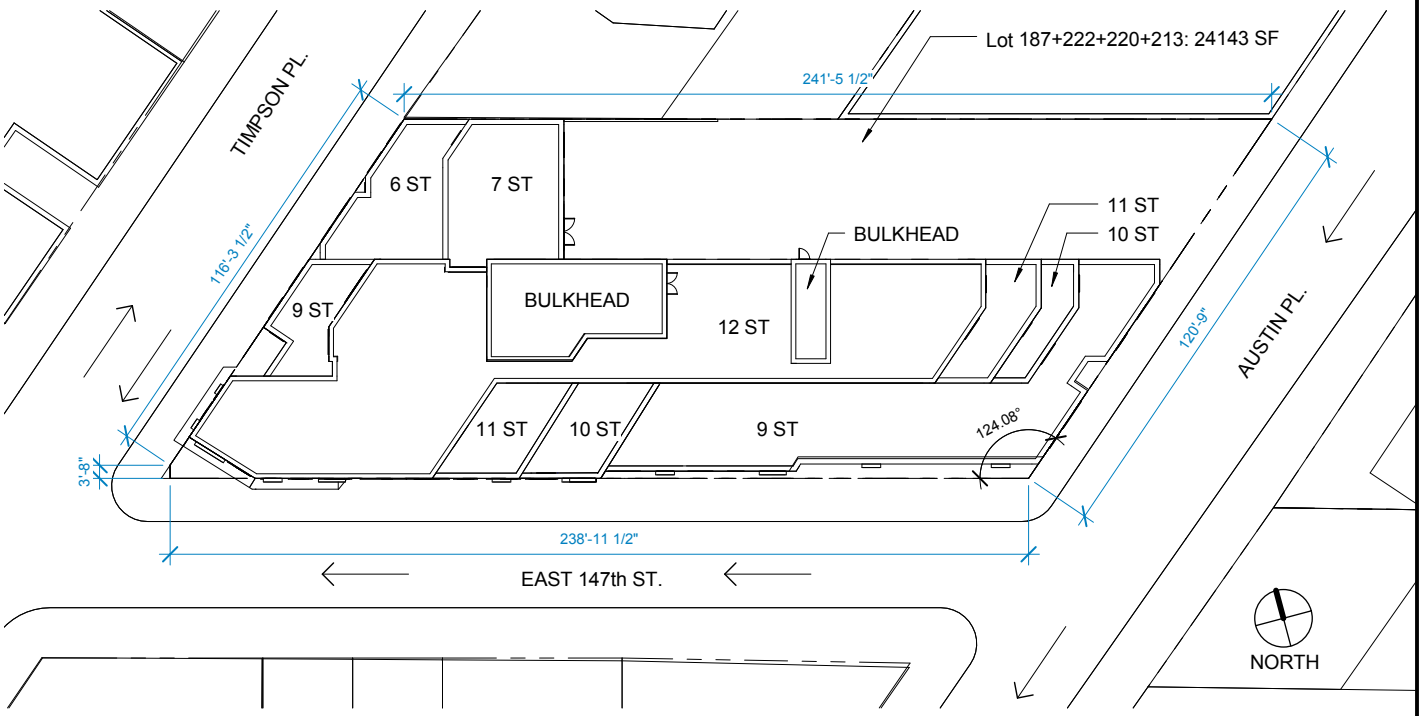
Rezoning Boundary

400-foot Study Area

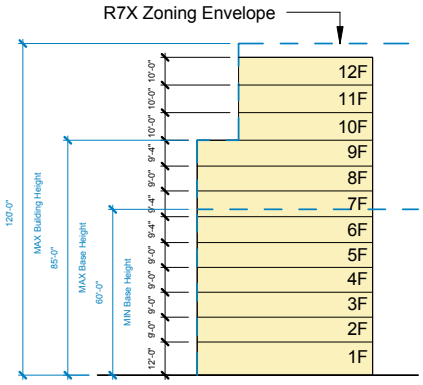
SITE LOCATION MAP

Figure A-1

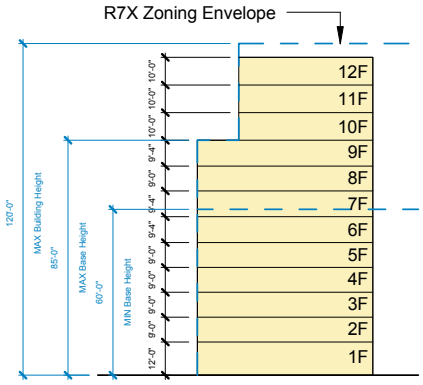
East 147th Street Rezoning EAS



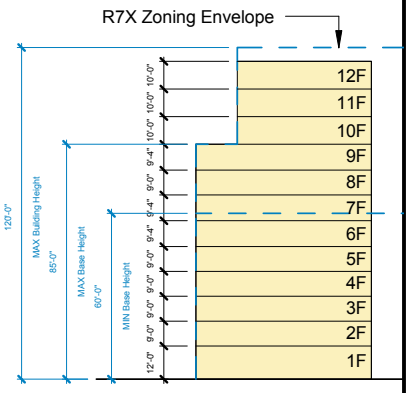
Building Section: Timpson Place



Building Section: East 147th Street



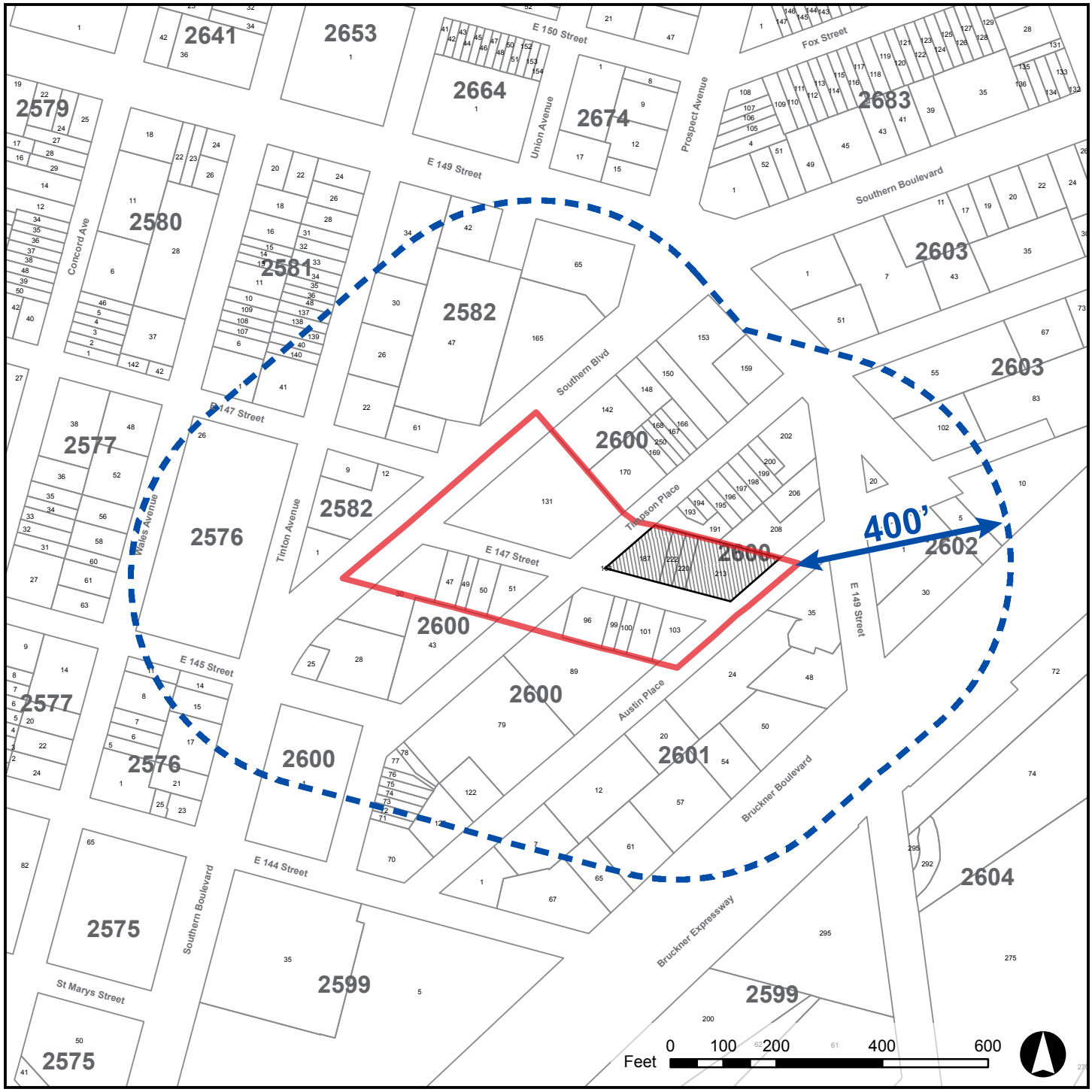
Building Section: Austin Place



Source: Magnusson Architecture and Planning

ILLUSTRATIVE SITE PLAN

Figure A-2



Source: 2015 Pluto, NYCDCP

Applicant's Site

Rezoning Boundary

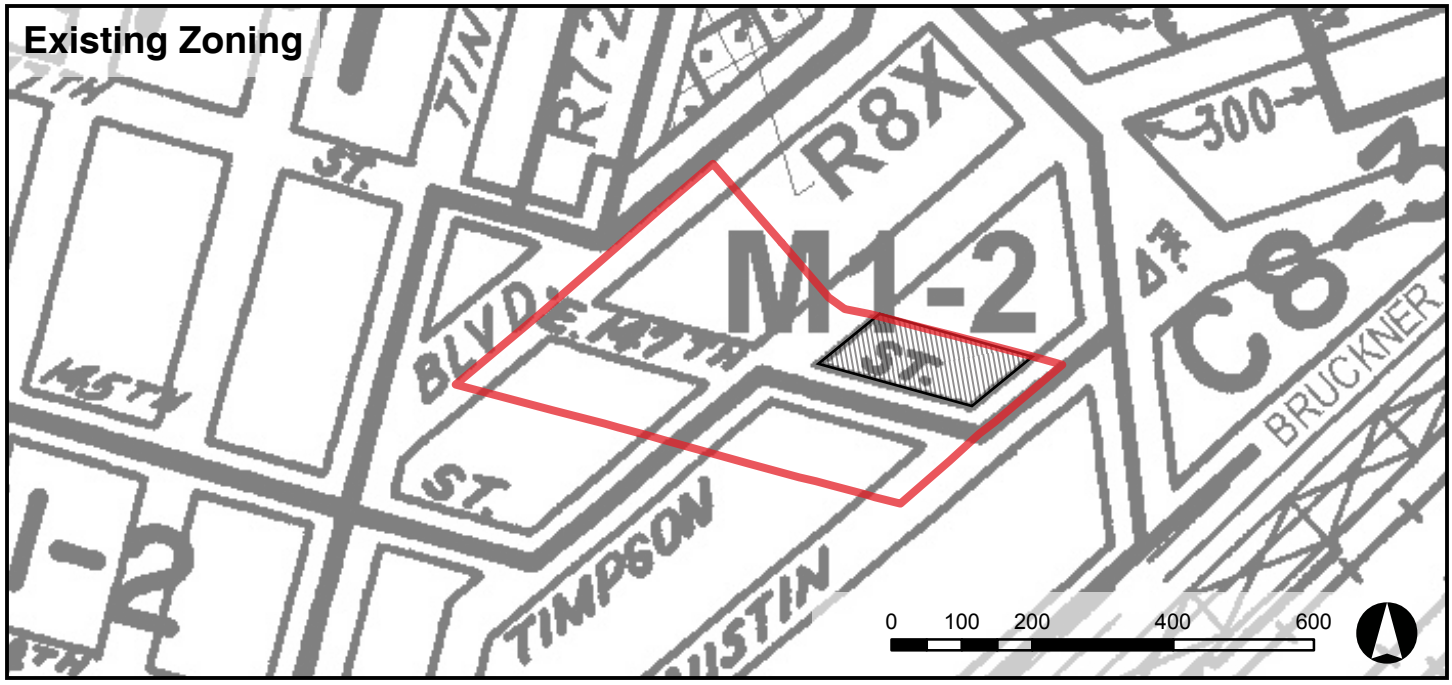
400-foot Study Area

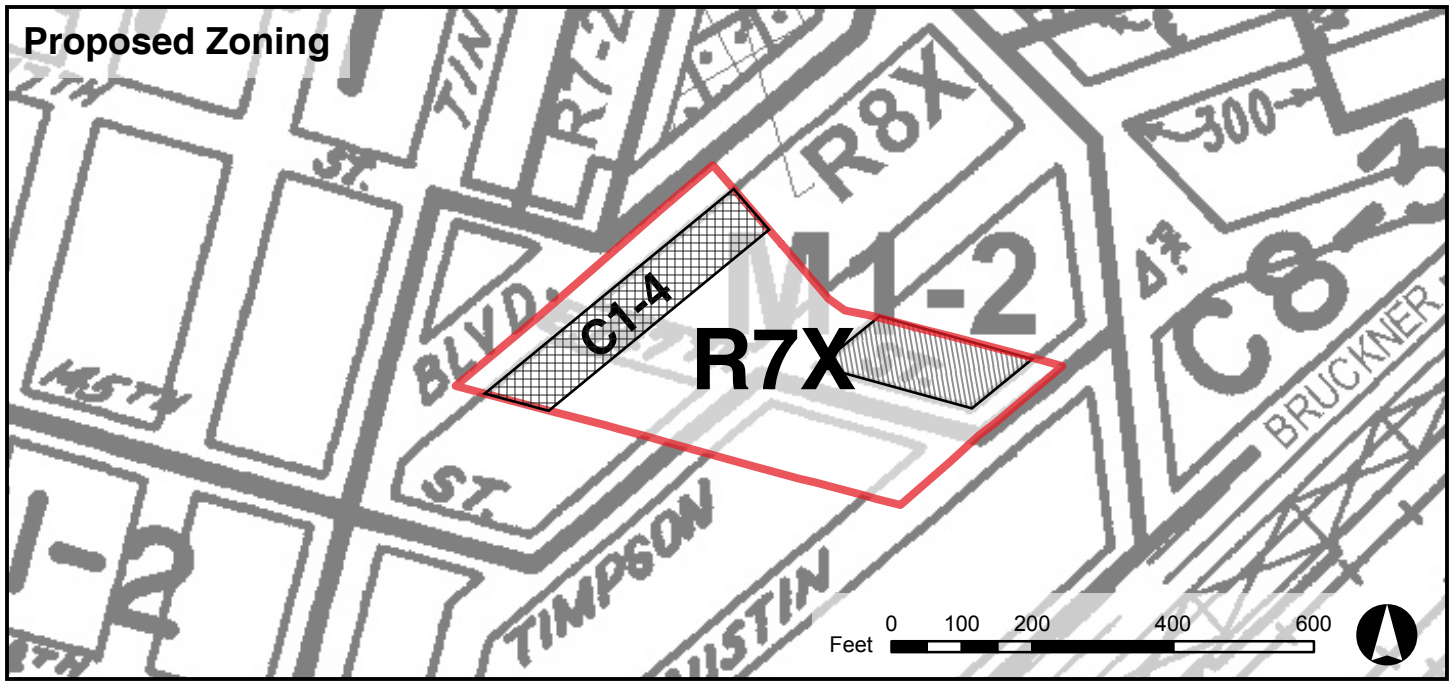
2600 Block Number

187, 222, 220, 213 Lot Number

TAX LOT MAP

Figure A-3





Source: 2015 Pluto, NYCDCP

Applicant's Site

Rezoning Boundary

400-foot Study Area

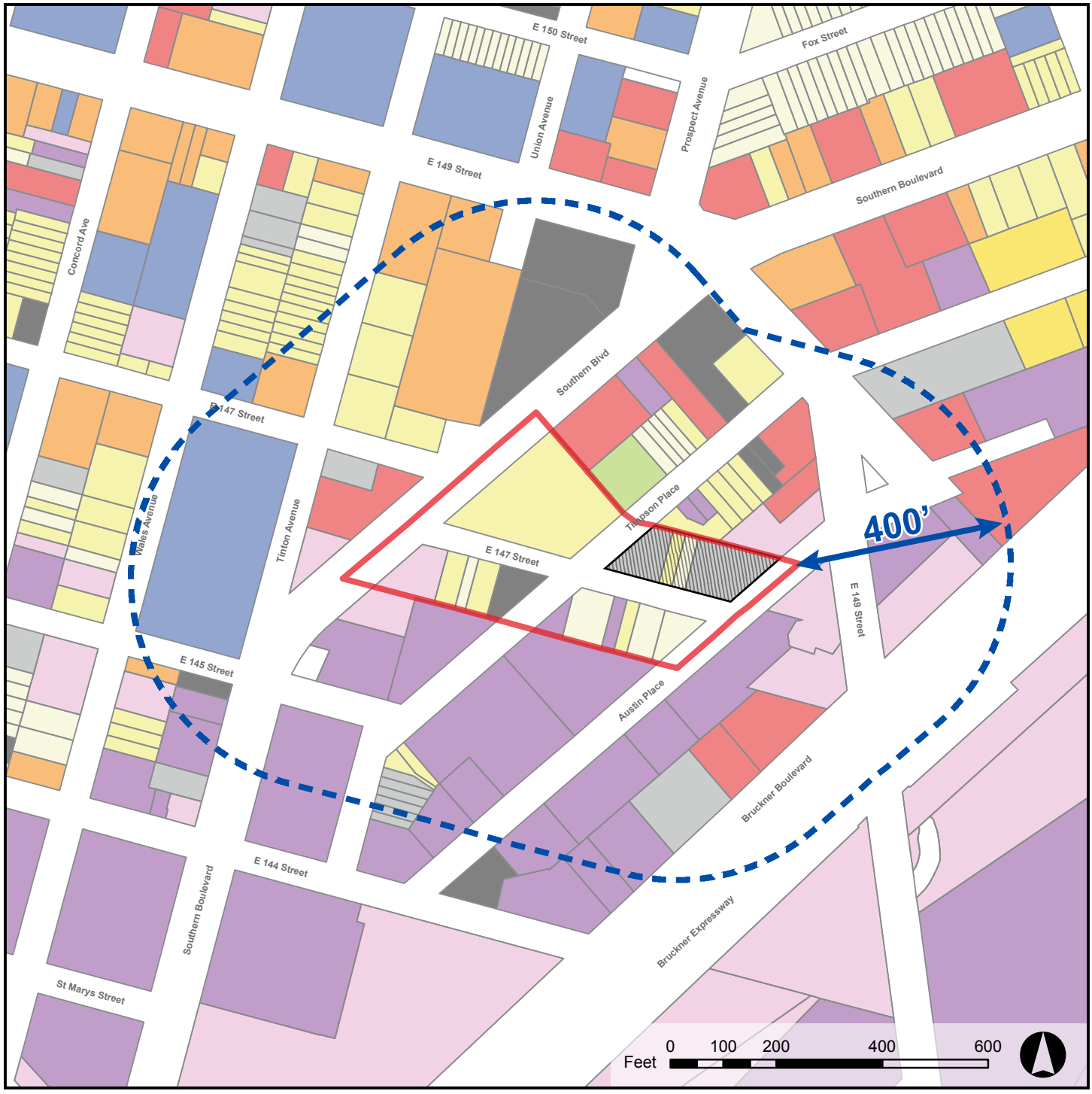
M Manufacturing District

R Residential District

C Commercial District

ZONING MAP

Figure A-4



Source: 2015 Pluto, NYCDCP

Applicant's Site

Rezoning Boundary

400-foot Study Area

One & Two Family Residence

Multi-Family Residence (Walkup)

Multi-Family Residence (Elevator)

Mixed Residential & Commercial

Commercial Use

Industrial / Manufacturing

Transportation / Utility

Public Facilities & Institutions

Open Space & Recreation

Parking

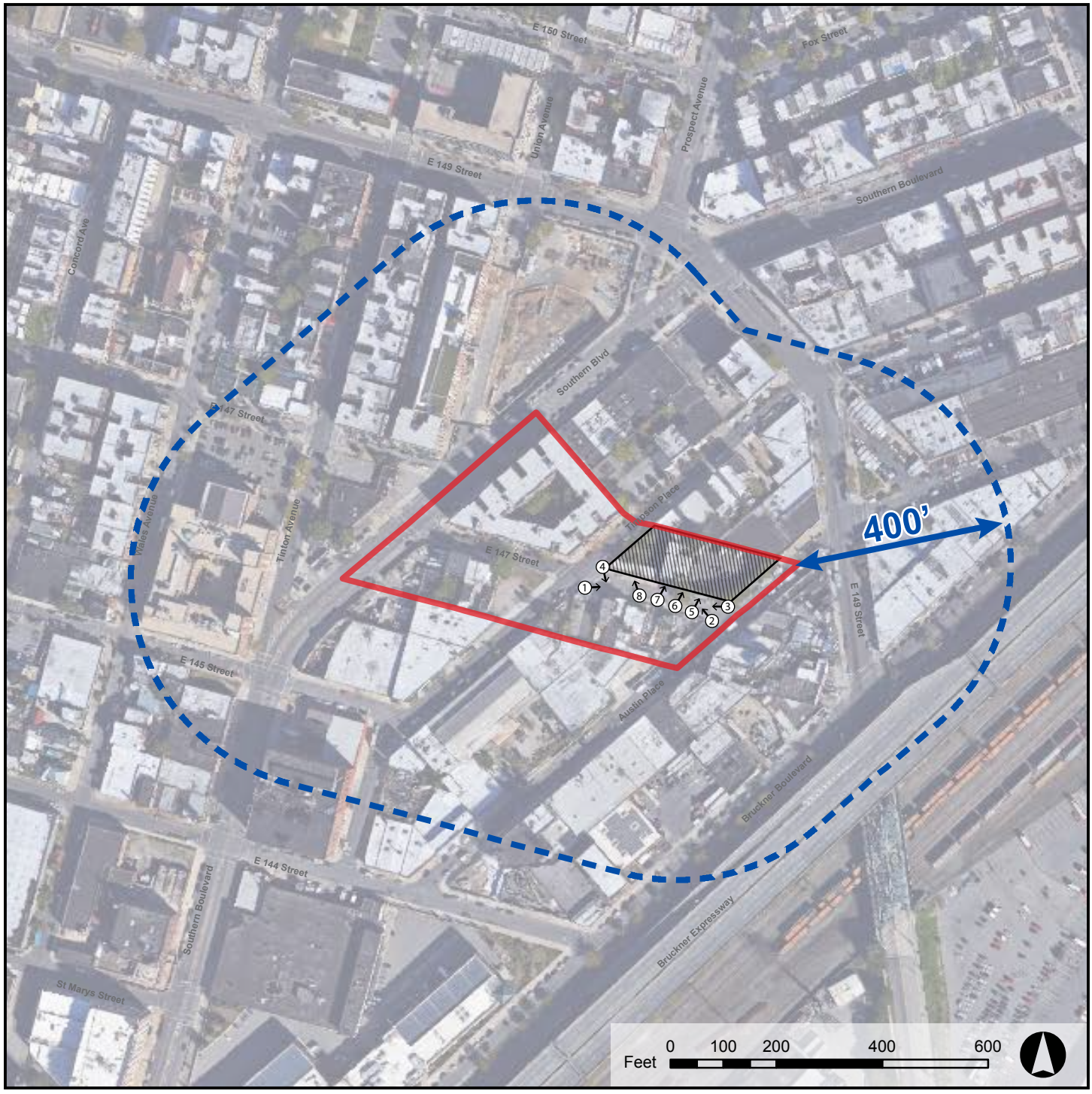
Vacant Land

LAND USE MAP

Figure A-5

II. PROJECT LOCATION

The trapezoidal Development Site is bounded by Timpson Place to the northwest, East 147th Street to the south, Austin Place to the southeast, and Lots 191 and 208 in Block 2600 to the north. The Project Area is more extensive, and is bounded by Southern Boulevard to the west and Austin Place to the southeast, and is bisected by Timpson Place and East 147th Street.



Source: Google Map Aerial

Applicant's Site

Rezoning Boundary

400-foot Study Area

Location & Photograph Number

AERIAL SITE LOCATION MAP

Figure A-6

PHOTOS A-1 THROUGH A-4

Photo A-1

Projected Development Site #1 (Client's Development Site) Block 2600 Lot 187; 869 East 147th Street



Photo A-2

Projected Development Site #1 (Client's Development Site) Block 2600 Lot 222; 875 East 147th Street



Photo A-3

Projected Development Site #1 (Client's Development Site) Block 2600 Lot 220; 879 East 147th Street



Photo A-4

Projected Development Site #1 (Client's Development Site) Block 2600 Lot 213; 879 East 147th Street



PHOTOS A-5 THROUGH A-8

Photo A-5

Projected Development Site #1 (Client's Development Site) Block 2600 Lot 187; 869 East 147th Street



Photo A-6

Projected Development Site #1 (Client's Development Site) Block 2600 Lot 222; 875 East 147th Street



Photo A-7

Projected Development Site #1 (Client's Development Site) Block 2600 Lot 220; 879 East 147th Street



Photo A-8

Projected Development Site #1 (Client's Development Site) Block 2600 Lot 213; 879 East 147th Street



III. DESCRIPTION OF THE PROPOSED DEVELOPMENT

The Applicant proposes to develop a residential building on Lots 187, 222, 220, and 213 within Block 2600, located in the Bronx Community District One. To facilitate the development project, the Applicant is utilizing the 4% Low Income Housing Tax Credits (LIHTC) Bond Cap, and is seeking subsidies from the New York City Housing Preservation & Development (NYCHPD) and the New York City Housing Development Corporation (NYCHDC) through the Extremely Low & Low-Income Affordability (ELLA) Program.

The combined square footage of the four lots on the trapezoidal shaped Development Site (Projected Development Site Number1) total approximately 24,143 sf. **(Figure A-1)**. The proposed development consists of three main vertical sections that creates a continuous street wall and rises incrementally in three level changes (1-6 floors; 6-9 floors; 9-12 floors) and peaks at the southwest corner of the Development Site. The proposed development would have a base height of 85 feet with floors 6-12 set back from the building's northern edge and floors 9-12 set back from the building's eastern edge.

The ground floor of the proposed development would consist of a lobby and residential amenities such as a community room and laundry facilities. Typical floor plans include a mix of DU sizes that range between studio units and three bedroom units. The proposed 12-story residential building will rise to a maximum height of 135 feet, and a total of 164,592 gsf of development and 25 spaces of underground parking. The Applicant proposes to construct 165 affordable DUs under the ELLA program with the following distribution:

- 16 studio units (10% of total DUs)
- 67 one bedroom units (40% of total DUs)
- 61 two bedroom units (37% of total DUs)
- 21 three bedroom units (13% of total DUs)[1]

The affordability breakdown is as follows:

- 33 DUs for residents with a family income at or below 90% AMI (20% of total DUs)
- 83 DUs for residents with a family income at or below 60% AMI (50% of total DUs)
- 8 DUs for residents with a family income at or below 47% AMI (5% of total DUs)
- 8 DUs for residents with a family income at or below 37% AMI (5% of total DUs)
- 33 DUs for residents with a family income at or below 25% AMI (20% of total DUs)

These distributions are dependent on discussions with NYCHPD/NYCHDC as the development process continues. However, the Applicant remains committed to providing 100% affordable DUs, which qualifies for both Option 1 and Deep Affordability Option as applied under MIH and outlined in Article I, Chapter 2, Section 23-154 (d) (3) (i-ii) of the MIH.

The basic R7X zoning designation would require that 83 parking spaces be provided on the Development Site, or 50% of all dwelling units. According to ZR Section 25-25, however, typical HPD subsidized buildings fall under paragraph (e), or "Gov't Assisted Housing," which requires 25% parking for R7X, or 41 spaces for the 165 proposed units. While the proposed R7X zoning designation would require the provision of 41 parking spaces on the Development Site, the adoption of ZQA by the New York City Council on March 22, 2016 would waive parking requirements for affordable housing developments and leave the provision of parking spaces at the discretion of the Applicant. The Applicant, however, will still provide 25 spaces of underground parking within the proposed development.

[1] Applicant is working with architect team to assess whether the number of 3 bedroom units can be increased to 15%

IV. ACTIONS NECESSARY TO FACILITATE THE PROPOSED DEVELOPMENT

The Development Site consists of lots 187, 222, 220, and 213 in Block 2600 within Bronx Community District One. The Development Site is currently zoned M1-2, which allows for a maximum FAR of 2.0 for manufacturing and commercial usage, and a maximum FAR of 4.8 for community facilities.

To facilitate the proposed development, the Applicant has requested the rezoning of a multi-lot portion of Block 2600 from M1-2 to R7X, M1-3 to R7X, and M1-2 to R7X/C1-4 with the boundary extents agreed upon and finalized with NYCDCP in addition to participation in the Inclusionary Housing Program **(Figure A-4: Zoning Map)**. A R7X zoning designation permits a maximum FAR of 5.0 for residential and community uses, and a maximum commercial FAR of 2.0 with a C1-4 commercial overlay (100 feet in depth measured from the nearest street), which is commonly mapped along streets that serve local retail needs.

Within the more extensive Project Area, the C1-4 commercial overlay is proposed to run along Southern Boulevard and extend 100 feet from the nearest street **(Figure A-4)**. Typical retail uses include grocery stores, restaurants, and beauty parlors. A zoning text amendment to include inclusionary housing for the Project Area would increase the maximum allowed FAR for residential buildings from 5.0 to 6.0.

The requested rezoning would allow for the development of medium-density residential buildings with 100% lot coverage at corner lots and 70% lot coverage at interior and through lots. The height and setback limitations allow for developments with a base minimum/maximum height of 105 feet, and a maximum overall building height of 145-foot. Above the maximum base height, any proposed developments must be set back at least 10 feet from the street wall when facing a wide street (75 feet or more in width) or 15 feet when facing a narrow street (less than 75 feet in width). The requested rezoning and text amendment would allow the Applicant to construct a 12-story, 135-foot tall, 164,592 gsf building with an FAR of 6.0 resulting in the development of a maximum of 165 affordable DUs. As more fully described in the Framework for Analysis, the proposed rezoning would permit the development of 366 additional residential DUs.

V. BUILD YEAR

It is anticipated that the proposed development would be completed and fully occupied by the end of 2018. The timing of development on the lots within the larger Project Area would depend on market conditions and other variables and cannot be precisely determined. Consequently, consistent with guidance in the *2014 CEQR Technical Manual*, a Build Year of 2025 is used in the assessment of effects of development in the larger Project Area, since it would capture a typical cycle of market conditions and generally represents the outer timeframe within which predictions of future development may usually be made without speculation.

VI. PURPOSE AND NEED FOR THE PROPOSED ACTION

The Project Area is located in the eastern part of the Mott Haven neighborhood of the Bronx and borders areas dominated by residential uses to the north and light manufacturing uses to the south. Within the Project Area, there are a mixture of single family homes, occupied apartments, active commercial and light manufacturing businesses, and vacant residential buildings and lots.

Recent development trends in the neighborhood surrounding the Project Area indicate a general shift away from manufacturing/industrial uses and towards residential and commercial/retail developments. According to the *State of Local Manufacturing Special Report* published by the New York City Economic Development Corporation (NYCEDC), there has been a decline in New York City's industrial sector, which includes

manufacturing, distribution and construction sectors, over the last 30 years. New York City's manufacturing sector experienced substantial job loss across nearly every sub-sector. The *State of Local Manufacturing Special Report* states that the total number of manufacturing jobs in New York has halved, decreasing from over 150,000 manufacturing employees in 2001 to just over 75,000 employees in 2012. This decline in manufacturing is not unique to New York City and has been observed throughout the U.S.

Consistent with the findings of the *State of Local Manufacturing Special Report*, the area in the vicinity of the Project Area has witnessed a steady transition away from manufacturing, and towards mixed-use residential and commercial use with large-scale affordable housing and multi-family housing developments, including the Crossroad Plaza Development on Lots 65, 165, 9 and 12 within Block 2582 just north of the Project Area **(Figure A-3)**. This new residential development appears to be directly correlated with an 11.4% increase in population within Bronx Community District One between the years 2000 and 2010 according to the *Bronx Community District 1 Profile* prepared by the New York City Department of City Planning (NYCDCP). This percentage increase translates to approximately 9,338 additional residents in Bronx Community District One and represents a demand for new residential construction in the area. The increase in population and development trends in the surrounding area towards residential uses indicates a need for the proposed rezoning.

In addition to addressing new residential needs in the surrounding area, the proposed development will consist of 165 affordable DUs under the ELLA program with the following distribution: 16 studio units, 67 one bedroom units, 61 two bedroom units, and 21 three bedroom units. The affordability breakdown is as follows: 46 DUs for formerly homeless households (28% of total DUs), 13 DUs for residents with a family income at or below 90% of the AMI (8% of total DUs), and 106 DUs for residents with a family income at or below 60% AMI (64% of total DUs). The provision of additional affordable housing units will support Mayor Bill de Blasio's *Housing New York: A Five Borough, Ten-Year Plan,* which is a comprehensive plan to build and preserve 200,000 affordable housing units over the next decade. The residential development proposed by the Applicant, in addition to the development that would be allowed under the Proposed Action in the more extensive Project Area will help provide much-needed affordable residential units in an area that has increasing population and demand for residential uses.

VII. FRAMEWORK FOR ANALYSIS

Existing Conditions

Description of the Proposed Project Area

The proposed Project Area is located in Bronx Community District One and is comprised of a multi-lot portion of Block 2600. A summary table of all identified projected and potential development sites within the Project Area can be found below **(Table A-1: Projected and Potential Development)**. Detailed information concerning the lot area, lot frontage, lot depth, address, zoning, land use, number of buildings, number of floors, gross floor area, number of residential units, and ownership of these lots is provided in **Table A-2.1 to A-5.2**.

Land uses in the Project Area are comprised primarily of a mix of industrial and residential uses. There are also one vacant lot on the corner of Timpson Place and East 147th Street. Land uses on East 147th Street between Southern Boulevard and Austin Place consist primarily of one and two family residences that range from two to three stories in height, open parking facilities, and vacant/abandoned lots and buildings. Land uses along Austin Place within the primary study area consist of one and two family residents and a vacant parcel. Land uses along Timpson Place in the primary study area between East 149th Street and East 145th Street include a large multi-family residential building and a parking facility. Land uses along Timpson Place

in the primary study south of East 147th Street include a vacant parcel, an industrial/manufacturing lot, and a one and two family residential building.

Table A-1: Projected and Potential Development Sites

Projected Development Site	Block	Lot	Area (sf)	Existing Use
#1	2600	187	6,863	Parking
	2600	222	2,500	Multi-Family Walk-Up Residential (Vacant)
	2600	220	2,500	1 and 2 Family Residential
	2600	213	12,280	Parking
#2	2600	p/o 30	16,549	Transportation/Utility
#3	2600	96	7,270	1 and 2 Family Residential*
#4	2600	99	2,500	Industrial/Manufacturing
	2600	100	2,500	Multi-Family Walk-Up Residential
	2600	101	5,000	1 and 2 Family Residential
	2600	103	5,300	1 and 2 Family Residential
#5	2600	51	5,742	Vacant

*At the time of analysis, Lot 96 was observed to be 1 and 2 family residential but became vacant towards end of certification. Change of land use does not affect this analysis

Potential Development Site	Block	Lot	Area (sf)	Existing Use
#1	2600	47	3,875	Multi-Family Walk-Up Residential
	2600	49	2,000	1 and 2 Family Residential
	2600	50	4,167	Multi-Family Walk-Up Residential

Table A-2.1: Projected Development Sites (Existing Conditions)

	EXISTING CONDITIONS																
Projected Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Address	Zoning	Land Use	# of Buildings	# of Floors	Height (ft)*	Gross FA (sf)	# of Res. Units	# of Units	Existing FAR	Parking	Owner
Projected Development Site #1	2600	187	6,863	116.27	100	869 E. 147 St	M1-2	Parking Facilities	1	1	15	1,830	0	9	0.27	16	H.O.P.E. LIVING, INC.
	2600	222	2,500	25	100	875 E. 147 St	M1-2	Multi-Family Walk-Up (Vacant)	1	2	25	4,595	3	3	1.84		H.O.P.E. LIVING, INC.
	2600	220	2,500	25	100	879 E. 147 St	M1-2	1 and 2 Family	1	2	25	2,250	1	1	0.9		H.O.P.E. LIVING, INC.
	2600	213	12,280	120.73	156.62	881 E. 147 St	M1-2	Parking Facilities	0	0	0	0	0	0	0	30	H.O.P.E. LIVING, INC.
Projected Development Site #2	2600	p/o 30	16,549	213.6	131.79	458 Southern Blvd	M1-2	Transportation/Utility	1	1	15	1,560	0	2	0.09	50	Southland Bronx LLC
Projected Development Site #3	2600	96	7,270	61.25	100	860 E. 147 St	M1-3	1 and 2 Family**	0	0	0	0	0	0	0		860 Investors LLC
Projected Development Site #4	2600	99	2,500	25	100	868 E. 147 St	M1-3	Industrial/Manufacturing	1	2	25	2,325	0	1	0.93		G S & S Mgmt. Corp.
	2600	100	2,500	25	100	870 E. 147 St	M1-3	Multi-Family Walk-Up	2	2	25	2,562	3	3	1.02		Khusbun Nahar
	2600	101	5,000	50	100	872 E. 147 St	M1-3	1 and 2 Family	2	3	35	2,106	2	2	0.42		Mohammed Ali Asgar
	2600	103	5,300	80.08	100	880 E. 147 St	M1-3	1 and 2 Family	1	2	25	1,560	1	1	0.29		Manuel A. Negron
Projected Development Site #5	2600	51	5,742	91.24	120.73	E. 147 St	M1-2	Vacant	0	0	0	0	0	0	0	19	Mel-Mar Realty Corp.
TOTAL			**69,004**									**18,788**	**10**	**22**	**6**	**115**	

*Red highlights represent Development Site owned by Applicant

*Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

**At the time of analysis, Lot 96 was observed to be 1 and 2 family residential but became vacant towards end of certification. Change of land use does not affect this analysis

Table A-2.2: Potential Development Sites (Existing Conditions)

	EXISTING CONDITIONS																
Potential Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Address	Zoning	Land Use	# of Buildings	# of Floors	Height (ft)*	Gross FA (sf)	# of Res. Units	# of Units	Existing FAR	Parking	Owner
Potential Development Site #1	2600	47	3,875	38.75	100	830 E. 147 St	M1-2	Multi-Family Walk-Up	1	3	35	4,839	6	6	0.93	0	New York Equity Fund
	2600	49	2,000	20	100	834 E. 147 St	M1-2	1 and 2 Family	1	3	35	2,052	2	2	1.02	0	Rivera Ramonluis
	2600	50	4,167	41.67	100	836 E. 147 St	M1-2	Multi-Family Walk-Up	2	3	35	2,052	3	3	0.42	0	Leighton Phillips

*Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

Table A-2.3: Other Sites in the Rezoning Area

	EXISTING CONDITIONS																
Other Site	2600	p/o 89	30,917	172.48	200	476 Timpson Pl	M1-3	Industrial/Manufacturing	3	1	15	20,209	0	3			
Other site	2600	186	5	4.46	2.5	Timpson Pl	M1-2	Vacant	0	0	0	0	0	0			
Other Site	2600	131	41,600	275.25	200	490 Southern Blvd	M1-2	Multi-Family Walk-Up	2	5	55	275,000	137	138			

*Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

Table A-3.1: Projected Development Sites (No Action Scenario)

	FUTURE NO ACTION SCENARIO																
Projected Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Address	Zoning	Land Use	# of Buildings	# of Floors	Height (ft)*	Gross FA (sf)	# of Res. Units	# of Units	Uses and Floo	FAR	Parking
Projected Development Site #1	2600	187	6,863	116.27	100	869 E. 147 St	M1-2	Parking Facilities	1	1	15	1,830	0	9		2	16
	2600	222	2,500	25	100	875 E. 147 St	M1-2	Multi-Family Walk-Up (Vacant)	1	2	25	4,595	3	3		2	0
	2600	220	2,500	25	100	879 E. 147 St	M1-2	1 and 2 Family	1	2	25	2,250	1	1		2	0
	2600	213	12,280	120.73	156.62	881 E. 147 St	M1-2	Parking Facilities	0	0	0	0	0	0		2	30
Projected Development Site #2	2600	p/o 30	16,549	213.6	131.79	458 Southern Blvd	M1-2	Commercial/Retail	1	2.5	32	11,700	0	0	Local retail and services / food stores < 2,000 sf	2	39
Projected Development Site #3	2600	96	7,270	61.25	100	860 E. 147 St	M1-3	1 and 2 Family**	2	2	25	1,620	1	1		5	0
Projected Development Site #4	2600	99	2,500	25	100	868 E. 147 St	M1-3	Industrial/Manufacturing	1	2	25	2,325	0	1		5	0
	2600	100	2,500	25	100	870 E. 147 St	M1-3	Multi-Family Walk-Up	2	2	25	2,562	3	3		5	0
	2600	101	5,000	50	100	872 E. 147 St	M1-3	1 and 2 Family	2	3	35	2,106	2	2		5	0
	2600	103	5,300	80.08	100	880 E. 147 St	M1-3	1 and 2 Family	1	2	25	1,560	1	1		5	0
Projected Development Site #5	2600	51	5,742	91.24	120.73	E. 147 St	M1-2	Vacant	0	0	0	0	0	0		2	19
TOTAL									**12**	**18.5**		**30,548**	**11**	**21**		**37**	**104**

*Red highlights represent Development Site owned by Applicant

*Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

**At the time of analysis, Lot 96 was observed to be 1 and 2 family residential but became vacant towards end of certification. Change of land use does not affect this analysis

Table A-3.1: Potential Development Sites (No Action Scenario)

	FUTURE NO ACTION SCENARIO																
Potential Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Address	Zoning	Land Use	# of Buildings	# of Floors	Height (ft)*	Gross FA (sf)	# of Res. Units	# of Units	Uses and Floo	FAR	Parking
Potential Development Site #1	2600	47	3,875	38.75	100	830 E. 147 St	M1-2	Multi-Family Walk-Up	1	3	35	4,839	6	6		2	0
	2600	49	2,000	20	100	834 E. 147 St	M1-2	1 and 2 Family	1	3	35	2,052	2	2		2	0
	2600	50	4,167	41.67	100	836 E. 147 St	M1-2	Multi-Family Walk-Up	2	3	35	2,052	3	3		2	0

*Heights are estimates based on averag *Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

Table A-4.1: Projected Development Sites (With Action Scenario)

	FUTURE WITH ACTION SCENARIO																	
Projected Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Address	Zoning	Land Use	# of Buildings	# of Floors	Height (ft)*	Gross FA (sf)	Market Rate Res. Units	Affordable Res. Units	Total Res. Units	Other Uses and Floor Area	FAR	Parking
Projected Development Site #1	**2600**	**187**	**6,863**	**116.27**	**100**	**869 E. 147 St**	**R7X**	**Multi-Family Elevator**	**1**	**12**	**125**	**164,592**	**0**	**165**	**165**		**6**	**25**
	2600	**222**	**2,500**	**25**	**100**	**875 E. 147 St**	**R7X**											
	2600	**220**	**2,500**	**25**	**100**	**879 E. 147 St**	**R7X**											
	2600	**213**	**12,280**	**120.73**	**156.62**	**881 E. 147 St**	**R7X**											
Projected Development Site #2	2600	p/o 30	16,549	213.6	131.79	458 Southern Blvd	R7X/C1-4	Mixed Residential & Commercial	1	7	73	50,820	31	11	42	Ground floor commercial (8,470 gsf)	6	16
Projected Development Site #3	2600	96	7,270	61.25	100	860 E. 147 St	R7X	Multi-Family Walkup	1	9	97	43,620	33	11	44		6	0
Projected Development Site #4	2600	99	2,500	25	100	868 E. 147 St	R7X	Multi-Family Walkup	1	8	85	91,800	69	23	92		6	0
	2600	100	2,500	25	100	870 E. 147 St	R7X											
	2600	101	5,000	50	100	872 E. 147 St	R7X											
	2600	103	5,300	80.08	100	880 E. 147 St	R7X											
Projected Development Site #5	2600	51	5,742	91.24	120.73	E. 147 St	R7X	Multi-Family Walkup	1	8	86	34,452	25	9	34		6	0
TOTAL									**5**	**44**		**385,284**	**158**	**219**	**377**			**41**

*Red highlights represent Development Site owned by Applicant

*Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

Table A-4.2: Potential Development Sites (With Action Scenario)

	FUTURE WITH ACTION SCENARIO																	
Potential Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Address	Zoning	Land Use	# of Buildings	# of Floors	Height (ft)*	Gross FA (sf)	Market Rate Res. Units	Affordable Res. Units	Total Res. Units	Other Uses and Floor Area	FAR	Parking
Potential Development Site #1	2600	47	3,875	38.75	100	830 E. 147 St	R7X/C1-4	Mixed Residential & Commercial	1	6	65	42,176	25	9	34	8,225 gsf Commercial/Retail	6	8
	2600	49	2,000	20	100	834 E. 147 St	R7X/C1-4											
	2600	50	4,167	41.67	100	836 E. 147 St	R7X											

*Heights are estimates based on averag *Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

Table A-5.1: Projected Development Sites (Increment)

	INCREMENT																	
Projected Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Address	Zoning	Land Use	# of Buildings	# of Floors	Height (ft)*	Gross FA (sf)	Market Rate Res. Units	Affordable Res. Units	Total Res. Units	Other Uses and Floor Area	FAR	Parking
Projected Development Site #1	**2600**	**187**	**6,863**	**116.27**	**100**	**869 E. 147 St**	**R7X**	**Multi-Family Elevator**	**N/A**	**N/A**	**N/A**	**155,917**	**-4**	**165**	**161**		**4**	**-21**
	2600	**222**	**2,500**	**25**	**100**	**875 E. 147 St**	**R7X**											
	2600	**220**	**2,500**	**25**	**100**	**879 E. 147 St**	**R7X**											
	2600	**213**	**12,280**	**120.73**	**156.62**	**881 E. 147 St**	**R7X**											
Projected Development Site #2	2600	p/o 30	16,549	213.6	131.79	458 Southern Blvd	R7X/C1-4	Mixed Residential & Commercial	N/A	N/A	N/A	39,120	31	11	42	Ground floor commercial (8,470 gsf)	4	-23
Projected Development Site #3	2600	96	7,270	61.25	100	860 E. 147 St	R7X	Multi-Family Walkup	N/A	N/A	N/A	42,000	32	11	43		1	0
Projected Development Site #4	2600	99	2,500	25	100	868 E. 147 St	R7X	Multi-Family Walkup	N/A	N/A	N/A	83,247	63	23	86		1	0
	2600	100	2,500	25	100	870 E. 147 St	R7X											
	2600	101	5,000	50	100	872 E. 147 St	R7X											
	2600	103	5,300	80.08	100	880 E. 147 St	R7X											
Projected Development Site #5	2600	51	5,742	91.24	120.73	E. 147 St	R7X	Multi-Family Walkup	N/A	N/A	N/A	34,452	25	9	34		4	-19
TOTAL												**354,736**	**147**	**219**	**366**			**-63**

*Red highlights represent Development Site owned by Applicant

*Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

Table A-5.2: Potential Development Sites (Increment)

	INCREMENT																	
Potential Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Address	Zoning	Land Use	# of Buildings	# of Floors	Height (ft)*	Gross FA (sf)	Market Rate Res. Units	Affordable Res. Units	Total Res. Units	Other Uses and Floor Area	FAR	Parking
Potential Development Site #1	2600	47	3,875	38.75	100	830 E. 147 St	R7X/C1-4	Multi-Family Walkup	-3	N/A	N/A	33,233	14	9	23	8,225 gsf Commercial/Retail	4	8
	2600	49	2,000	20	100	834 E. 147 St	R7X/C1-4											
	2600	50	4,167	41.67	100	836 E. 147 St	R7X											

*Heights are estimates based on averag *Heights are estimates based on average 10 ft per floor with additional 5 ft for utilities or provided from architect team

Description of the Proposed Development Site

The 24,143 sf proposed Development Site is comprised of Lots 187, 222, 220, and 213 in Block 2600. Lot 187 has a frontage of 116.27 feet along Timpson Place, and is currently occupied by a one-story building formerly used as a parking garage with a built FAR of 0.27 **(Photo A-8)**. The structure was constructed in 1935 and has nine driveways that face on East 147th Street **(Photo A-8)**. Lot 222 has a frontage of 25 feet on East 147th Street with an area of 2,500 sf, and currently occupied by a vacant two story multi-family walk-up residential building with a built FAR of 1.84 **(Photo A-7)**. Lot 220 also has as frontage of 25 feet on East 147th Street with an area of 2,500 sf, and is currently occupied by a two story single family house with a built FAR of 0.90 **(Photo A-6)**. Lot 213 has a frontage of 120.73 feet along Austin Place with an area of 12,280 sf. It currently occupied by an open parking lot with no existing structures and one street facing driveway on East 147th Street **(Photo A-15)**. Both Lots 187 and 213 are irregular in shape.

All four Lots proposed for development face East 147th Street between Timpson Place and Austin Place. The width of East 147th Street in that area ranges between approximately 23 and 25 feet and is defined as a "narrow street" as per the NYCDCP Zoning Glossary **(Photo A-1 to Photo A-4)**.

No Action Condition

Absent the proposed action, all projected development sites in the No Action condition would remain in their existing conditions with the exception of Projected Development Site #2 (Lot 30, Block 2600), which is anticipated to be redeveloped from its existing use as a transportation/utility use into an as-of-right two-story commercial/retail development with a maximum bulk of 11,700 gsf by the 2025 Build year as allowed under the current zoning designation of M1-2. The rationale for the Projected Development Site #2 exception is further elaborated below. The condition in the future without the action (the No Action condition) was defined on the basis of the identification of known development projects within the Project Area and assessment of the development on soft sites within the Project Area. Based on coordination with the Bronx Office of NYCDCP and review of recent construction permits at the New York City Department of Buildings (NYCDOB), there are no known ongoing or proposed development within the Project Area, other than the project proposed by the Applicant.

Given the current development trend in the neighborhood and the existing M1-2 and M1-3 zoning classification, the Applicant is unlikely to develop or change the use of the Development Site (Lots 187, 222, 220, and 213 in Block 2600) under the existing manufacturing zoning designation. The M1-2 and M1-3 zoning designation limits the Applicant to the development of either manufacturing uses, commercial/retail uses or community facilities since residential developments are not permitted as-of-right in M-1 districts. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and storage facilities. The bulk of the development for both manufacturing and commercial/retail uses would be limited to a FAR of 2.0. With the development trends of the neighborhood, the development of a new manufacturing facility is unlikely.

In coordination with NYCDCP, Projected Development Site #2 (Lot 30, Block 2600) is reasonably expected in the No Action condition to be developed into a two-story commercial/retail structure with a maximum bulk of 11,700 gsf. Commercial/retail use is expected to consist of general local retail or services in addition to food stores smaller than 2,000 sf. Approximately 39 total parking spaces would be required (pursuant to ZR 44-21). The site is currently under single ownership, cleared of debris, and has sufficient frontage along an existing commercial strip for commercial/retail developments to be economically viable. The owner of Projected Development Site #2 has developed other properties in the area for commercial/retail use within the immediate vicinity of the site. Field visit on March 9th, 2016, with DCP staff members and the Applicant confirmed the No Action condition for Projected Development Site #2.

Additional commercial/retail and community facility developments on the other projected development sites is unlikely due to their location away from the main roadways, relatively small lot areas, and close proximity to the Crossroad Plaza I and II construction at Lot 165 and 65 in Block 2582, which will include 36,800 sf of commercial space on-site. In addition, the lack of current and past development initiatives on both projected and potential development sites further suggests that no future developments will occur within the 10-year planning horizon.

Future No Action Development Projects outside the Project Area

Based on coordination with the Bronx Office of the NYCDCP, review of recent building permits by the NYCDOB, and coordination with NYCHPD, the only project within a ¼ mile of the Project Area that would be fully occupied and in operation by the 2025 Build year is the Crossroads Plaza development, which is an affordable housing complex currently being built out in three phases **(Figure A-3: Tax Lot Map)**. Crossroads Plaza I and II are under construction at Lot 165 and 65 in Block 2582, which will include a total of 302 dwelling units, 36,800 sf commercial space, and 113 parking spaces. Crossroads Plaza II will introduce 136 dwelling units, 18,497 sf of ground floor retail and 52 accessory parking spaces. Crossroads I will contain 166 dwelling units, 18,272 sf ground floor retail and 61 parking spaces. Crossroad Plaza III was the first phase of the development that was constructed and is now complete, with 126 dwelling units, community facility space, and 42 underground parking spaces.

With Action Condition

Recent development trends in the neighborhood indicates sufficient demand for residential developments due to increasing population within Bronx Community District One, and the decline of the manufacturing sector in New York City. Lot 165 and 65 in Block 2582 on the northern side of Southern Boulevard across from the Development Site is zoned as R8X and currently under construction as a 14 story, mixed-use, affordable housing projects (Crossroad Plaza I and II). Crossroads Plaza II will introduce 136 dwelling units, 18,497 sf of ground floor retail and 52 accessory parking spaces. Crossroads I will contain 166 dwelling units, 18,272 sf ground floor retail and 61 parking spaces. The construction of these large-scale multi-family residential buildings suggest similar development would occur with the proposed rezoning within the Project Area.

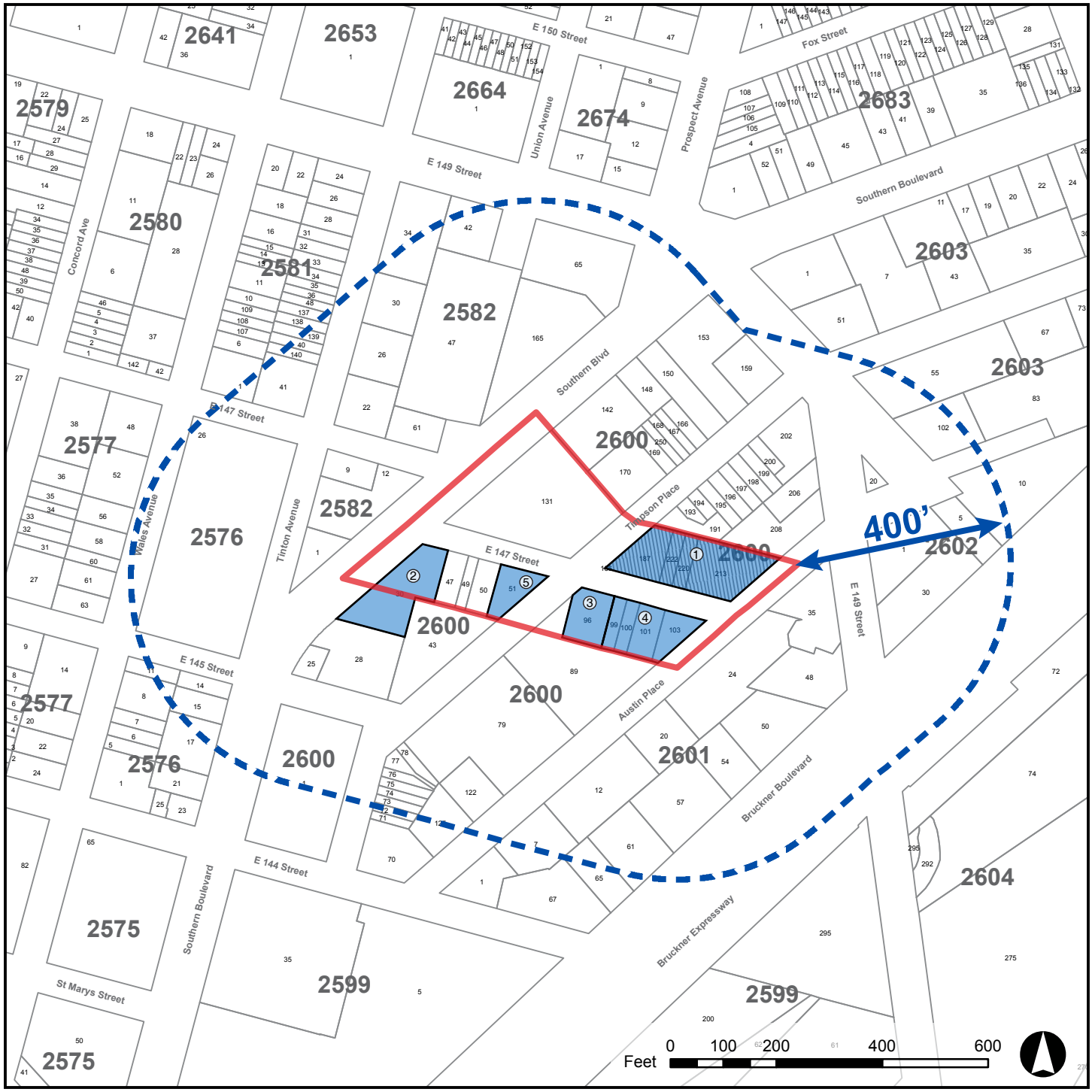
On the Development Site (Projected Development Site #1), the Applicant proposes to develop a 135 foot tall, 12-story, 164,592 gsf residential building with an FAR of 6.0 that would result in the development of 165 DUs with 25 underground accessory parking spaces.

On Projected Development Sites #2 – 5, it is anticipated that the proposed rezoning to R7X and R7X/C1-4, and the adoption of ZQA and MIH by the New York City Council on March 22, 2016 will create sufficient incentive for residential developments on these lots. The basic R7X zoning designation allows for 100% lot coverage for corner lots, 70% lot coverage for interior and through lots, a maximum base height of 95 feet, and a maximum overall building height of 135 feet (12-stories) with ground floor heights of 13 feet. When the Inclusionary Housing Program is applied, within the R7X zoning district, maximum base height is increased to 105 feet, and maximum overall building height is increased to 145 feet (14-stories) with ground floor heights of 13 feet. In addition, developers would receive a 20% FAR increase, raising the maximum FAR from 5.0 to 6.0.

The proposed C1-4 commercial overlay will be located along the eastern side of Southern Boulevard, extend 100 feet from the nearest street, and affect Lot 30, 47, 49, and 131 in Block 2600. Of these lots, 131 is not considered to be either a potential or projected development site due to an existing multi-family residential building with 137 DUs. Lot 47 and 49 are collectively grouped with Lot 50 in Block 2600 (Potential Development Site #1) and can potentially have 8,225 gsf of commercial/retail use on the first and/or second

floors. Lot 30 (Projected Site #2) can potentially and more likely to have 8,470 gsf of commercial/retail use on the first floor. Based on the additional projected commercial/retail gsf, and the assumption that future commercial/retail uses will constitute general retail or service uses in addition to food stores with less than 2,000 sf, 8 parking spaces will typically be required (1 per 1,000 sf). However, pursuant to Article III, Chapter 6, Section 36-232 of the NYC Zoning Text, for this use, parking requirements are not applied if the total projected parking spaces required is less than 40. As the total projected parking spaces required is less than 40, typical parking requirements shall not apply.

In the *With Action condition*, we anticipate a total increase of 377 additional residential DUs (376,814 gsf) from the five projected development sites, of which 219 are expected to be affordable DUs. In addition to residential developments, we also anticipate an additional 8,470 gsf of commercial/retail use, and 5,762 gsf decrease of existing manufacturing uses.



Source: 2015 Pluto, NYCDCP

Applicant's Site

Projected Development Sites

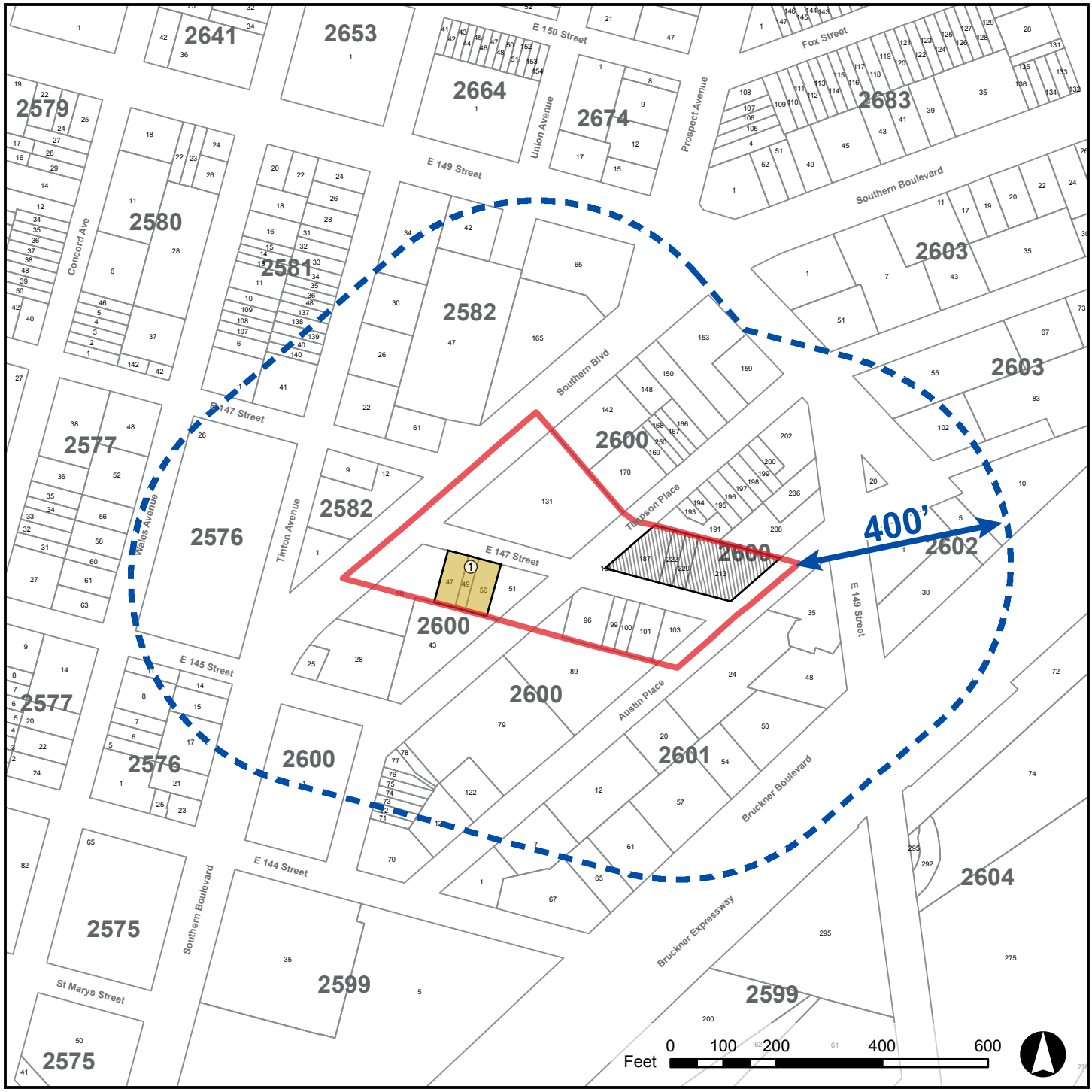
① Site Number

Rezoning Boundary

400-foot Study Area

PROJECTED DEVELOPMENT SITE MAP

Figure A-7



Source: 2015 Pluto, NYCDCP

Applicant's Site

Potential Development Sites

① Site Number

Rezoning Boundary

400-foot Study Area

POTENTIAL DEVELOPMENT SITE MAP

Figure A-8

VIII. CONCLUSION

According to the *2014 CEQR Technical* Manual, the framework for analysis in the EAS is established by identifying the incremental change that would occur in the *With Action condition* as measured against the *No Action condition*. For the purposes of this EAS, the framework for analysis will be based on the incremental increase of 366 DUs (376,814 gsf), of which 219 are expected to be affordable DUs.

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

Rezoning Boundary (Project Area)

	EXISTING CONDITION	NO ACTION CONDITION	WITH ACTION CONDITION	INCREMENT
LAND USE				
Residential	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures	Varies from single family to multi-family residential structures	Varies from single family to multi-family residential structures	Varies from single family to multi-family residential structures	All new developments assume 25/75 affordable housing split with ZQA and MIH adoption
No. of dwelling units	11	11	158	147
No. of low- to moderate-income units	0	0	219	219
Total residential dwelling units	11	11	377	366
Gross floor area (sq. ft.)	14,693	14,693	376,814	362,121
Commercial	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)		Additional commercial/retail in Lot 30 Block 2600	Additional commercial/retail in Lot 30 Block 2600	Additional commercial/retail in Lot 30 Block 2600
Gross floor area (sq. ft.)	0	11,700	8,470	-3,230
Manufacturing/Industrial	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	Light manufacturing	Light manufacturing	None	No more manufacturing
Gross floor area (sq. ft.)	2,325	2,325	0	-2,325
Open storage area (sq. ft.)	0	0	0	0
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," describe:	Sometimes used as informal parking	Sometimes used as informal parking	Assume full build out at maximum FAR allowed	No more vacant lands
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
PARKING				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces	0	0	0	
No. of accessory spaces	0	0	25	25
Lots	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces	0	0	0	0
No. of accessory spaces	115	104	16	-88
ZONING				
Zoning classification	M1-2, M1-3	M1-2, M1-3	R7X/C1-4	R7X/C1-4
Maximum amount of floor area that can be developed	2.0, 5.0	2.0, 5.0	6.0	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	M1-2, M1-3, C8-3, R7-1, R7-2, R8X	M1-2, M1-3, C8-3, R7-1, R7-2, R8X	M1-2, M1-3, C8-3, R7-1, R7-2, R7X, R8X	M1-2, M1-3, C8-3, R7-1, R7-2, R7X, R8X, C1-4

Attachment B: Land Use, Zoning and Public Policy

I. INTRODUCTION

As described in Section 210 of Chapter 4 of the *2014 CEQR Technical Manual*, the Land Use, Zoning and Public Policy assessment evaluates the uses and development trends in the area and considers whether a proposed project is compatible with those conditions or may affect them. Similarly, the assessment considers the project's compliance with, and effect on, the area's zoning and other applicable public policies.

The Applicant has requested the rezoning of a multi-lot portion of Block 2600 in Bronx Community District One from M1-2 and M1-3 to R7X and R7X/C1-4. The proposed action affects a lot area of approximately 115,953 sf[1] and is bound by Southern Boulevard to the west and Austin Place to the east, and is bisected by Timpson Place and East 147th Street (the "Project Area"). The proposed C1-4 commercial overlay will be located along the eastern side of Southern Boulevard, extend 100 feet from the nearest street, and affect Lot 30, 47, 49, and 131 in Block 2600. The Applicant also seeks a text amendment of ZR Appendix F to classify the Project Area as an MIH designated areas. The rezoning and text amendment are collectively the "Proposed Action."

As described in Attachment A, "Project Description", the Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of 5 projected development sites and 1 potential development site. The Proposed Action is anticipated to facilitate a net increase of 366 dwelling units (DUs), 219 of which are expected to be affordable in comparison to the No Action condition in the Project Area.

CEQR guidelines require that 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. CEQR also requires a detailed assessment of land use conditions if a detailed assessment is required in other technical areas. Since the proposed Action involves a rezoning which triggers detailed assessments in other technical areas, a detailed land use and zoning assessment has been conducted. The detailed assessment discusses existing and With- and No- Action and use, zoning and public policy issues in the 2025 Build year for a primary study area (coterminous with the Project Area), and a secondary 400-foot buffer study area surrounding the Project Area. As required by the *2014 CEQR Technical Manual*, the changes that would occur between the No Action and With Action conditions are disclosed.

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 *2014 CEQR Technical Manual*, are anticipated in the future with the Proposed Action in the primary and secondary study areas.

While changes in land use and zoning are expected, the land use changes in both the primary and secondary study area would be consistent with the current development trends of shifting away from manufacturing/industrial uses and towards residential and commercial/retail developments. The Proposed

[1] Calculated as the portion of tax lots within the Project Area only. Total area within boundary of Project Area is 186,269.4 sf.

Action would also be consistent with applicable public policies in both the primary and secondary study areas

III. METHODOLOGY

Existing land uses were identified through the New York City Zoning and Land Use (Zola) database and PLUTO™ 15v1 shapefiles, which were verified through site visits. New York City Zoning Maps and the Zoning Resolution of the City of New York were consulted to describe existing zoning districts in the study areas, and provided the basis for the zoning evaluation of the Future No Action and Future With-Action Conditions. Research was conducted to identify relevant public policy documents, recognized by the New York City Department of City Planning (NYCDCP) and other city agencies. Land use, zoning, and public policy are addressed and analyzed for two geographical areas for the Proposed Action: (1) Project Area (which includes the Development Site), also referred to as the primary study area, and (2) a secondary study area. For the purpose of this assessment, the secondary study area extends an approximate 400-foot radius from the boundary of the rezoning area and encompasses areas that have the potential to experience indirect impacts as a result of the Proposed Action. The secondary study area is bounded East 149th Street to the north, extends past East 145th Street to the south, Wales Avenue to the west, and Bruckner Expressway to the east. Both the primary and secondary study areas have been established in accordance with guidelines set forth in *2014 CEQR Technical Manual* and are depicted in **Figure B-1: Existing Land Uses**.

IV. PRELIMINARY ASSESSMENT

Land Use and Zoning

A preliminary assessment that includes a basic description of existing and future land uses, as well as basic zoning information is warranted for most projects. However, if a detailed assessment is required in the technical analyses of socioeconomic conditions, neighborhood character, traffic and transportation, air quality, noise, infrastructure, or hazardous materials, a detailed land use assessment is appropriate. Additionally, for some projects, such as generic or area-wide zoning map amendments, CEQR requires a more detailed land use and zoning information to sufficiently inform other technical reviews and determine whether changes in land use could affect conditions analyzed in those technical areas. As a detailed assessment for land use and zoning is required for the Proposed Action, the findings of the preliminary assessment have been incorporated into the detailed assessment (V. Detailed Assessment) below.

Public Policy

The *2014 CEQR Technical Manual* also warrants that some preliminary assessment of public policy accompanies a land use assessment as such policies may help determine whether or where land uses might chance as the result of the proposed project. 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.

Applicable public policies to the primary study area are the Port Morris Empire Zone, the Federal Empowerment Zone Bronx 1, and the FRESH program. The primary study area falls outside of New York City's coastal zone boundary and therefore would not be subject to the City's Waterfront Revitalization Program. The secondary study area falls within the Mott Haven East Urban Renewal Plan and the

Empowerment Zone Bronx 2. The secondary study also falls within the Port Morris Industrial Business Zone to the south and southeast while the Proposed Action is not a large publicly funded project, the City's sustainability/PlaNYC policies are considered. Neither study area is governed by a 197-a plan.

Primary and Secondary Study Areas

Port Morris Empire Zone

The Port Morris Empire Zone is mapped over Lots 187, 222, and 220 of the Applicant's Development Site as well as the southern region of the primary and secondary study area. The New York State Empire Zone Program encourages development in designated areas by offering a wide array of incentives in the form of employment, investment, real property, sales and wage tax credits, and utility discounts in 11 New York City business districts. New York State's Empire Zone (EZ) program provides a variety of tax incentives to businesses expanding and creating jobs in targeted areas (known as Empire Zones) throughout New York State. To receive Empire Zone benefits, businesses must be Empire Zone Certified.

The Proposed Action would introduce additional commercial and retail to the primary study area through the mapping of the C1-4 overlay along Southern Boulevard. These new businesses would potentially be able to take advantage of the EZ program benefits if they follow the requirements for being Empire Zone Certified. The Proposed Action would not be inconsistent with the goals of the EZ and therefore, no adverse impact is expected.

Federal Empowerment Zone Bronx 1 and 2

Federal Empowerment Zone Bronx 1 is mapped over the entire Development Site and primary study area, and is also mapped below East 149th Street in the secondary study area. Federal Empowerment Zone Bronx 2 is mapped in the north of East 149th Street in the secondary study area. These empowerment zones are part of the New York Empowerment Zone (NYEZ), which is one of nine empowerment zones (EZs) established by the Clinton Administration in 1994 to revitalize distressed communities by using public funds and tax incentives as catalysts for private investment. Program highlights are that new and existing businesses located in or expanding to the South Bronx can qualify for a variety of federal, state and city incentives, including direct loans and grants, tax exempt bond financing and other tax incentives. The Bronx Overall Economic Development Corporation (BOEDC), the administration of the Bronx Empowerment Zone, offers two loan programs for qualified Bronx Empowerment companies. Both programs offer loans at a very low interest rate and long terms in return for the borrowers commitment to hire Bronx Empowerment Zone residents.

The Proposed Action would introduce additional commercial and retail to the primary study area through the mapping of the C1-4 overlay along Southern Boulevard. It would introduce additional housing, some of which will be affordable, to the primary study area. Similar to the Empire Zone benefits, these new businesses would be able to take advantage of the Empowerment Zone program benefits if they if they hire Bronx Empowerment Zone residents. The additional commercial and retail gsf along with an increase in residents would not deter from the goals of the Empowerment Zone program. Therefore, no adverse impact is expected.

FRESH Program Zoning

The Food Retail Expansion to Support Health (FRESH) program promotes the establishment and retention of neighborhood grocery stores in underserved communities by providing zoning and financial incentives to eligible grocery store operators and developers. Both the primary and secondary study areas are located within a FRESH program area that provides both zoning and discretionary tax incentives. Zoning incentives include additional development rights, reduction in required parking, and larger stores in light manufacturing

districts. Financial incentives include real estate tax reductions, sales tax exemption, and mortgage recording tax deferral.

Stores that benefit from the FRESH program must also meet the following criteria:

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

The Proposed Action would not displace any FRESH grocery stores. As such, the Proposed Action would not be inconsistent with the goals of the FRESH program and therefore, no adverse impact is expected.

PlaNYC

PlaNYC is the City's long-term sustainability plan that apply to the City's land use, open space, brownfields, energy use and infrastructure, transportation systems, water quality and infrastructure, and air quality as well as make the City more resilient to projected climate change impacts. Originally adopted in 2007 and updated in 2011, the plan includes 132 initiatives and more than 400 specific milestones to be achieves in December 1, 3013. The *2014 CEQR Technical Manual* requires the evaluation of large publicly sponsored zonings to ensure the proposed action(s) align with the broad goals of PlaNYC.

The Propose Action is not a large public sponsored project, nor is it directly implementing a PlaNYC initiative. The Proposed Action is a rezoning that would bring additional housing, including affordable housing, as well as is located in close proximity to mass transit via the 6 Train along Southern Boulevard. The Proposed Action would be increasing new residential opportunities in an area that is already experiencing residential growth and is located near mass transit. Therefore, the Proposed Action is consistent with the overall strategy of PlaNYC's initiatives.

Port Morris Industrial Business Zone (IBZ)

The 2013 ratified boundary for the Port Morris Industrial Business Zone is mapped directly to the south and south east of the primary study area and encompasses two separate areas in the South Bronx. While it is within the secondary study area, no portion of the primary study area is designated as part of the Port Morris IBZ and therefore would not be subject to its requirements. IBZ's were created in 2005 in order to stabilize primarily industrial areas in the Bronx, Brooklyn, and Queens. The purpose of defining an IBZ's is to help foster high-performing business districts by creating competitive advantages over locating in areas outside of New York City. IBZ's provide tax credits for businesses relocating within them, and are also supported by zone-specific planning efforts, and direct business assistance from Industrial Providers of NYC Business Solutions Industrial & Transportation. There are 21 IBZ's and residential uses are currently not permitted within any area designated as an IBZ.

Mott Haven East Urban Renewal Plan

The northern corner of the secondary study area is located within the Mott Haven East urban renewal area. The Mott Haven East Plan is an offshoot of the South Bronx urban renewal area and was adopted in 1996, last revised in 1999, and expires in 2033. Lots in the plan area are designated for residential, commercial, community facility, recreational, and open space uses. Parts of the plan that were designated through the South Bronx plan expired in 2007 and 2010. The plan's objectives are to remove substandard structures

and other blighting influences and to redevelop the area in a comprehensive manner, principally with new housing, but also with appropriate community facilities, recreational facilities, retail shopping and parking.

Conclusion

In conclusion, the Proposed Action would be consistent with applicable public policy in both the primary and secondary study area. Consequently, no signification adverse related to public policy is anticipated and no detailed assessment warranted.

V. DETAILED ASSESSMENT

Existing Conditions - Land Use

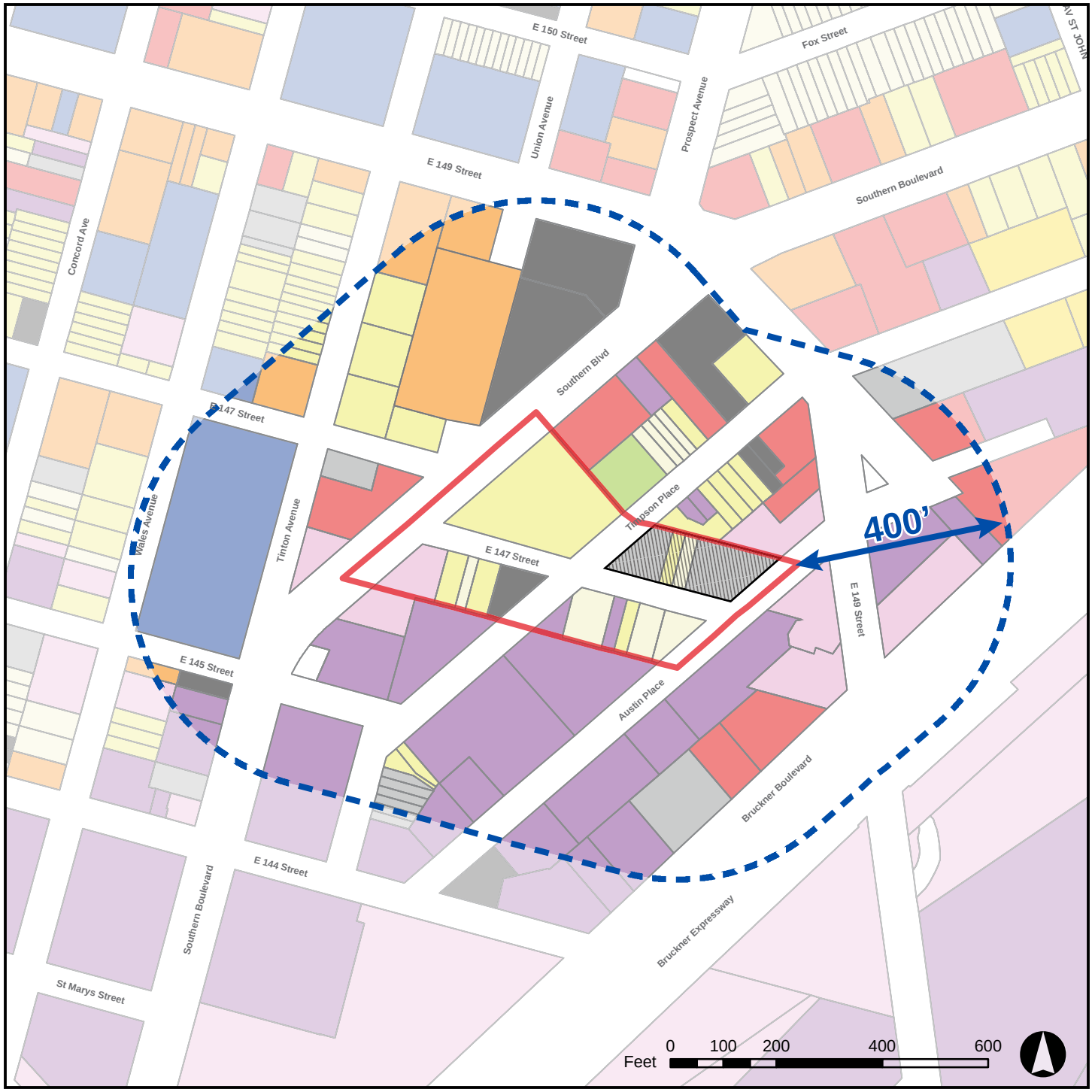
Project Area / Primary study area

The proposed Project Area (coterminous with the primary study area) is located in Bronx Community District One and is comprised of a multi-lot portion of Block 2600. The primary study area has a total of 17 tax lots (15 full and 2 partial) and approximate lot area of 115,953 sf. Land uses in the primary study area are comprised of a mix of industrial, residential, and institutional uses **(Figure B-1)**. As shown in **Table B-1: Summary of Existing Land uses in the Project Area**, approximately 67% of the primary study area is residential, with 47.5% of the total primary study area comprised of multi-family walk-ups. The second and third largest land uses are parking facilities, at 17%, and vacant land, which makes up around 5% of the total primary study area[2]. The uses along Southern Boulevard between East 149th Street and East 145th Street include a combination of multi-family walkup residential buildings and transportation/utility facilities. Land uses on East 147th Street between Southern Boulevard and Austin Place consist primarily of one and two family residences that range from two to three stories in height, open parking facilities, and vacant/abandoned lots and buildings. Land uses along Austin Place within the primary study area consist of one and two family residents and a vacant parcel. Land uses along Timpson Place in the primary study area between East 149th Street and East 145th Street include a large multi-family residential building and a parking facility. Land uses along Timpson Place in the primary study south of East 147th Street include a vacant parcel, an industrial/manufacturing lot, and a one and two family residential building. The land use of each lot in the primary study area is described in **Table B-2: Existing Land Uses in the Project Area by Lot**.

Table B-1: Summary of Existing Land Uses in the Project Area[3]

Land Use	Number of Lots	% of Total Lots	Area (sf)		% of Total Area
One- and Two Family Residential		5	29.41%	21,810	18.81%
Multi-Family Walk-up		5	29.41%	55,024	47.45%
Industrial/Manufacturing		2	11.76%	4,771	4.11%
Transportation/Utilities		1	5.88%	8,471	7.31%
Parking Facilities		2	11.76%	20,019	17.27%
Vacant Land		2	11.76%	5,858	5.05%
Total		**17**	**100.00%**	**115,953**	**100.00%**

[2] At time of analysis, Lot 96 was observed to be 1 and 2 family residential, but became vacant toward end of certification. Change of land use does not affect the analysis in any substantive manner.
[3] PLUTO™ 15v1, *New York City Department of City Planning*, http://www1.nyc.gov/site/planning/data-maps/open-data.page



Source: 2015 Pluto, NYCDCP

Applicant's Site

Development Site

400-foot Study Area

One & Two Family Residence

Multi-Family Residence (Walkup)

Multi-Family Residence (Elevator)

Mixed Residential & Commercial

Commercial Use

Industrial / Manufacturing

Transportation / Utility

Public Facilities & Institutions

Open Space & Recreation

Parking

Vacant Land

EXISTING LAND USES

Figure B-1

Table B-2: Existing Land Uses in the Project Area by Lot[4]

Block	Lot	Lot Area (sf)	Land Use
2600	30 (partial)	8,471	Transportation/Utility
2600	47	4,094	Multi-family walk-up
2600	49	2,009	1 and 2 family
2600	50	4,347	Multi-family walk-up
2600	51	5,853	Vacant Land
2600	89 (partial)	2,310	Industrial/Manufacturing
2600	96[5]	7,615	1 and 2 family
2600	99	2,461	Industrial/Manufacturing
2600	100	2,522	Multi-family walk-up
2600	101	4,981	1 and 2 family
2600	103	4,588	1 and 2 family
2600	131	41,536	Multi-family walk-up
2600	186	5	Vacant Land
2600	187	7,252	Parking Facilities
2600	213	12,767	Parking Facilities
2600	220	2,617	1 and 2 family
2600	222	2,524	Multi-family walk-up

Secondary Study Area

The secondary study extends an approximate 400-foot radius from the boundary of the rezoning area and includes the primary study area. It is bounded approximately by East 149th Street to the north, East 144th Street to the south, Wales Avenue to the west, and Bruckner Expressway to the east. It encompasses a total of 98 lots (74 full and 24 partial) with a total lot area of 921,174 sf. Land uses in the secondary study area are comprised of a mix of industrial, residential, commercial, transportation/utilities, and institutional uses **(Figure B-2: Existing Land Uses in Project Area)**. **Table B-3: Summary of Existing Land Uses in the Secondary Study Area** describes the distribution of land uses within the secondary study area. Approximately 28.5% of the secondary study area is industrial/manufacturing. The second and third largest land uses are multi-family walk-ups and commercial/office buildings, at 14% and 11%, respectively. Southern Boulevard and East 149th Street are major thoroughfares bordering the Project Area. Bruckner Boulevard and the elevated Bruckner Expressway are located southeast of the Project Area. The 6 train has a local stop at East 149th Street and Southern Boulevard and BX 17 which operates along East 149th Street and Prospect Avenue.

The uses south of East 147th Street between Southern Boulevard and Bruckner Boulevard. outside of the primary study area is primarily industrial and manufacturing, with a few commercial/office buildings and a parking facility mapped along Bruckner Boulevard. There is also a small patch of additional parking facilities and one- and two- family buildings on Timpson Place between East 145th Street and East 144th Street To the west of Southern Boulevard is a mix of multi-family walkup buildings, mixed use commercial/residential, and the DOE owned Samuel Gompers Bronx Vocational High School. There is also a lot along Union Avenue that is under construction. East 149th Street is characterized by several land uses. North of East

[4] Zoning and Land Use (Zola), *New York City Department of City Planning*, http://maps.nyc.gov/doitt/nycitymap/template?applicationName=ZOLA
[5] At time of analysis, Lot 96 was observed to be 1 and 2 family residential, but became vacant toward end of certification. Change of land use does not affect the analysis in any substantive manner.

149th Street is primarily commercial/office and mixed use buildings. There are also several lots with industrial/manufacturing and transportation/utilities on the east end, between Austin Place and Bruckner Boulevard. South of East 149th Street is a mix of vacant lots, residential buildings, and commercial/office spaces. The Martin Luther King Triangle, a cobblestone triangle furnished with benches and planted with low shrubs and bushes, is a public space that is bounded by Austin Place and East 149th Street. It was designated as a public space by the City in 1892 and transferred to the Department of Parks in 1906.

Table B-3: Summary of Existing Land Uses in the Secondary Study Area

Land Use	Number of Lots	% of Total Lots	Area (sf)	% of Total Area
One- and Two Family Residential	9	9.18%	29,437	3.20%
Multi-Family Walk-up	24	24.49%	126,279	13.71%
Commercial/Office	9	9.18%	100,228	10.88%
Mixed Residential and Commercial	5	5.10%	54,065	5.87%
Industrial/Manufacturing	21	21.43%	262,438	28.49%
Transportation/Utilities	7	7.14%	81,334	8.83%
Public Facilities/ Institutions	2	2.04%	86,485	9.39%
Open Space	1	1.02%	11,271	1.22%
Parking Facilities	10	10.20%	58,449	6.35%
Vacant Land	7	7.14%	55,660	6.04%
All others or No Data	3	3.06%	55,530	6.03%
Total	**98**	**100.00%**	**921,174**	**100.00%**

Existing Conditions - Zoning

Primary Study Area

Zoning districts found in the primary study area are manufacturing zoning districts M1-2 and M1-3, while the surrounding secondary study area includes additional commercial and residential zoning districts (**Figure B-2: Existing Zoning** and **Table B-4: Existing Zoning, Primary Study Area**). There are 17 tax lots within the primary study area.

Table B-4: Existing Zoning, Primary Study Area[6]

Use	Total # of Lots	Number of Lots
M1-2	11 (10 full, 1 partial)	Block 2600, Lot 30 (partial), 47, 49, 50, 51, 131, 186, 187, 213, 220, 222
M1-3	6 (5 full, 1 partial)	Block 2600, Lot 89 (partial), 96, 99, 100, 101, 103

[6] Zoning and Land Use (Zola), *New York City Department of City Planning*, http://maps.nyc.gov/doitt/nycitymap/template?applicationName=ZOLA

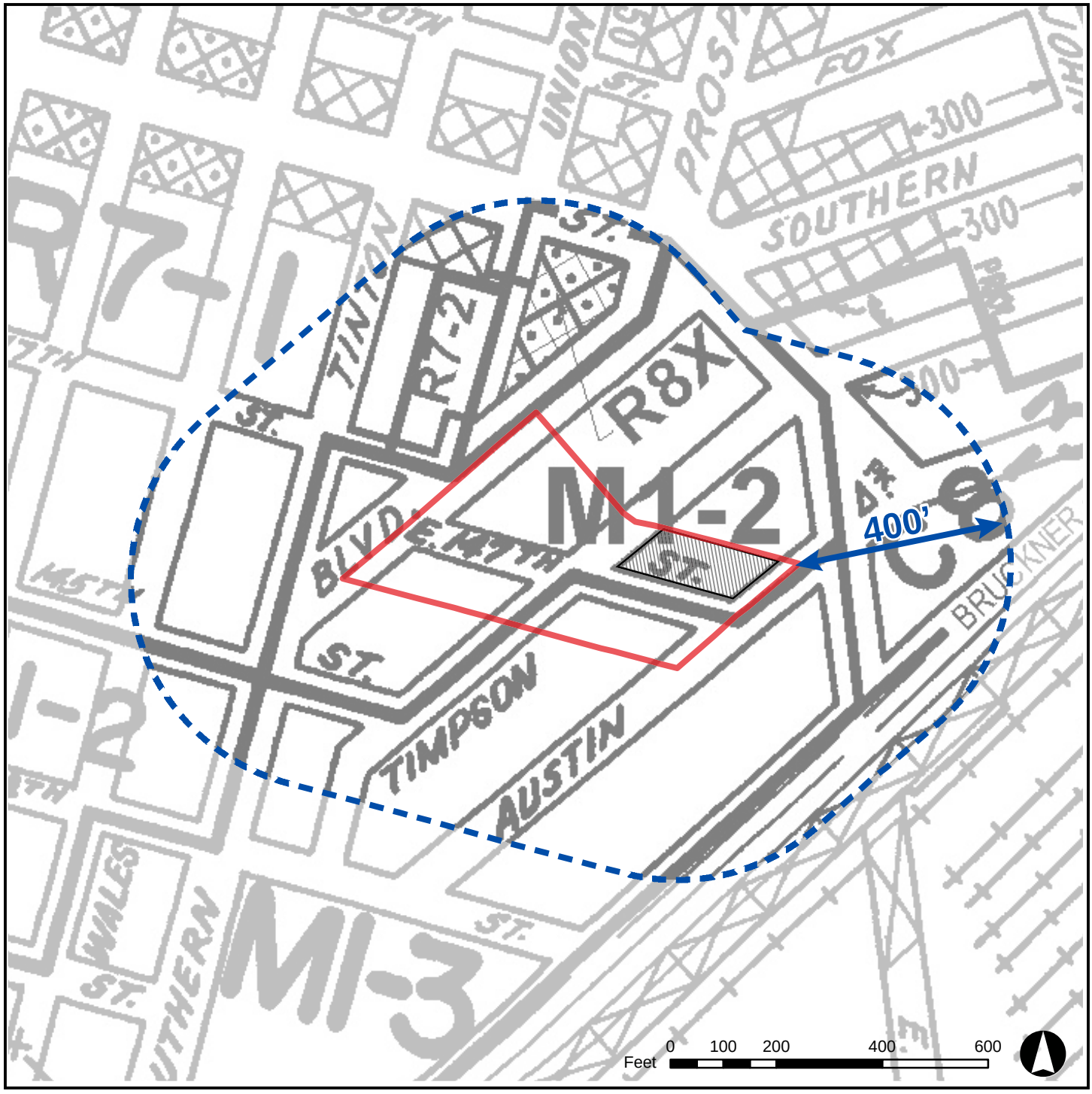
M1-2

Most of the primary study area is mapped with a M1-2 zoning district, with the exception of six lots (89 – partial, 96, 99, 100, 101, and 103), located on East 147th Street between Timpson Place and Austin Place. M1-2 districts are manufacturing districts and the designation is limited to development of manufacturing uses, commercial/retail uses or community facilities. Residential developments are not permitted as-of-right. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and storage facilities.

The maximum floor area ratios in M1-2 districts is 2.0 and building height and setbacks are controlled by a sky exposure plane. The initial setback distance for buildings in M1-2 districts is 20 feet on narrow streets and 15 feet on wide streets. Buildings cannot penetrate the sky exposure plan, which begins 60 feet above the street line and has a slope of 2.7 on narrow streets and 5.6 on wide streets. Parking is required in M1-2 districts and the requirement is based on the type of use and size of an establishment. Except along district boundaries, no side yards are required. Rear yards at least 20 feet deep are usually required, except within 100 feet of a corner.

M1-3

Six lots (89 – partial, 96, 99, 100, 101, and 103), located on East 147th Street between Timpson Place and Austin Place, are mapped with a M1-3 zoning district. Very similar to M1-2 districts, the M1-3 designation is limited to development of manufacturing uses, commercial/retail uses or community facilities. Residential developments are not permitted as-of-right. The maximum floor area ratios in M1-3 districts is 5.0 and building height and setbacks are controlled by a sky exposure plane. The initial setback distance for buildings in M1-3 districts is 20 feet on narrow streets and 15 feet on wide streets. Buildings cannot penetrate the sky exposure plan, which begins 85 feet above the street line and has a slope of 2.7 on narrow streets and 5.6 on wide streets. Parking is required in M1-2 districts and the requirement is based on the type of use and size of an establishment. Except along district boundaries, no side yards are required. Rear yards at least 20 feet deep are usually required, except within 100 feet of a corner.



Source: 2015 Pluto, NYCDCP

Applicant's Site

Rezoning Boundary

400-foot Study Area

M Manufacturing District

R Residential District

C Commercial District

EXISTING ZONING

Figure B-2

Secondary Study Area

Zoning districts found in the secondary study area include manufacturing zoning districts M1-2 and M1-3, residential districts R7-1, R7-2, and R8X; and commercial district C8-3. There are also C1-2 and C2-4 commercial overlays mapped along certain portions of the R7-1 and R8X zoning districts **(Figure B-2: Existing Zoning)**.

Table B-5: Existing Zoning, Secondary Study Area[7]

Zoning	Total # of Lots	Number of Lots
M1-2	45 (41 full, 4 partial)	Block 2576, Lot 8 (partial), 11 (partial), 14 , 15 (partial), 17 (partial); Block 2600, Lot 25, 28, 30, 43, 47, 49, 50, 51, 131, 142, 148, 150, 153, 159, 166, 167, 168, 169, 170, 186, 187, 191, 193, 194, 195, 196, 197, 198, 199, 200, 202, 206, 208, 213, 220, 222, 250
M1-3	28 (22 full, 6 partial)	Block 2600, Lot 1 (partial), 72 (partial), 73, 74, 75, 76, 77, 78, 79, 89, 96, 99, 100, 101, 103, 122, 125 (partial); Block 2601, Lot 7 (partial), 12, 20, 24, 35, 48, 50, 54, 57, 61 (partial), 65 (partial)
R7-1	12 (3 full, 9 partial)	Block 2576, Lot 26 (partial); Block 2581, Lot 1 (partial), 40 (partial), 41 (partial), 48 (partial), 137 (partial), 138 (partial), 139 (partial), 140 (all partial); Block 2582, Lot 22, 26, 30
R7-1/ C1-4	2 (all partial)	Block 2582, Lot 34, 42 (all partial)
R7-2	1	Block 2582, Lot 61
R8X/C2-4	2	Block 2582, Lot 65 and 165
C8-3	6 (3 full, 3 partial)	Block 2602, Lot 1, 5, 30; Block 2603, Lot 10 (partial), 55 (partial), 102 (partial)
Not Given	2	Block 2582, Lot 47; Block 2602, Lot 20

M1-2

45 lots (41 full, 4 partial), are mapped with M1-2 zoning designation and located mainly in the primary study area but are also present in block 2582 below East 147th Street as well as Block 2576 below East 145th Street. M1-2 districts are manufacturing districts and the designation is limited to development of manufacturing uses, commercial/retail uses or community facilities. Residential developments are not permitted as-of-right. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and storage facilities. The maximum floor area ratios in M1-2 districts is 2.0 and building height and setbacks are controlled by a sky exposure plane. The initial setback distance for buildings in M1-2 districts is 20 feet on narrow streets and 15 feet on wide streets. Buildings cannot penetrate the sky exposure plan, which begins 60 feet above the street line and has a slope of 2.7 on narrow streets and 5.6 on wide streets. Parking is required in M1-2 districts and the requirement is based on the type of use and size of an establishment. Except along district boundaries, no side yards are required. Rear yards at least 20 feet deep are usually required, except within 100 feet of a corner.

M1-3

28 lots (22 full, 6 partial), are mapped with M1-3 designation and are located primarily in the southeast section of the secondary study area. M1-3 districts are manufacturing districts and the designation is limited to development of manufacturing uses, commercial/retail uses or community facilities. Residential developments are not permitted as-of-right. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and storage facilities. The maximum floor area ratios in M1-3 districts is

[7] Zoning and Land Use (Zola), *New York City Department of City Planning*, http://maps.nyc.gov/doitt/nycitymap/template?applicationName=ZOLA

5.0 and building height and setbacks are controlled by a sky exposure plane. The initial setback distance for buildings in M1-3 districts is 20 feet on narrow streets and 15 feet on wide streets. Buildings cannot penetrate the sky exposure plan, which begins 85 feet above the street line and has a slope of 2.7 on narrow streets and 5.6 on wide streets. Parking is required in M1-3 districts and the requirement is based on the type of use and size of an establishment. Except along district boundaries, no side yards are required. Rear yards at least 20 feet deep are usually required, except within 100 feet of a corner.

R7-1

12 lots (3 full, 9 partial) are mapped with an R7-1 zoning designation and are primarily located west of Southern Boulevard. R7-1 districts are medium-density apartment house districts that encourage lower apartment buildings on smaller zoning lots, and on larger lots, taller buildings with less lot coverage. R7-1 districts governed by height factor regulations have maximum floor area ratios that range between 0.87 and 3.3 and minimum open space ratios (OSR) that range between 15.5 and 25.5. R7-1 districts governed by Quality Housing Regulations have a maximum FAR of 3.44 and a maximum lot coverage of 80% for corner lots and 65% for interior lots. Building height and setbacks are controlled by a sky exposure plane. The initial setback distance for buildings in R7-1 districts is 20 feet on narrow streets and 15 feet on wide streets. Buildings cannot penetrate the sky exposure plan, which begins 60 feet above the street line and has a slope of 2.7 on narrow streets and 5.6 on wide streets. Off-street parking is required for 60% of the dwelling units, and can be waived if five or fewer spaces are required.

R7-2

R7-2 districts are medium-density apartment house districts that encourage lower apartment buildings on smaller zoning lots, and on larger lots, taller buildings with less lot coverage. R7-2 districts governed by height factor regulations have maximum floor area ratios that range between 0.87 and 3.3 and minimum open space ratios (OSR) that range between 15.5 and 25.5. R7-1 districts governed by Quality Housing Regulations have a maximum FAR of 3.44 and a maximum lot coverage of 80% for corner lots and 65% for interior lots. Building height and setbacks are controlled by a sky exposure plane. The initial setback distance for buildings in R7-1 districts is 20 feet on narrow streets and 15 feet on wide streets. Buildings cannot penetrate the sky exposure plan, which begins 60 feet above the street line and has a slope of 2.7 on narrow streets and 5.6 on wide streets. Off-street parking is required for 50% of the dwelling units, and can be waived if 15 or fewer spaces are required.

R8X

Two lots are zoned R8X in the secondary study area. R8X contextual districts are governed by Quality Housing bulk regulations. The floor area ratio (FAR) in R8X districts is 6.02. Above a base height of 60 to 85 feet, the building must set back to a depth of 10 feet on a wide street and 15 feet on a narrow street before rising to a maximum building height of 150 feet. The street wall on a wide street must extend along the entire width of the zoning lot and at least 70% of the street wall must be within eight feet of the street line. Buildings must have interior amenities for residents pursuant to the Quality Housing Program. Off-street parking is not allowed in front of a building. Parking is required for 40% of dwelling units, and it can be waived if 15 or fewer spaces are required or if the zoning lot is 10,000 square feet or less.

C1-4

There is a C1-4 overlay mapped along much of East 149th St to the west of Southern Boulevard. C1-4 districts are commercial overlays mapped within residence districts along streets that serve local retail needs. Typical retail uses include neighborhood grocery stores and restaurants. Residential bulk in overlay districts are governed by the residence district within which the overlay is mapped. Unless otherwise

indicated on the zoning maps, the depth of overlay districts is 100 feet for C1-4 districts and the maximum commercial FAR is 1.0 when mapped within R1-R5 districts and 2.0 when mapped within R6-R10 districts.

C2-4

There is a C2-4 overlay mapped over Lots 65 and 165 on Block 2582. C1-4 districts are commercial overlays mapped within residence districts along streets that serve local retail needs. Typical retail uses include neighborhood grocery stores, restaurants and beauty parlors. Residential bulk in overlay districts are governed by the residence district within which the overlay is mapped. Unless otherwise indicated on the zoning maps, the depth of overlay districts is 100 feet for C2-4 districts and the maximum commercial FAR is 1.0 when mapped within R1-R5 districts and 2.0 when mapped within R6-R10 districts.

C8-3

Six lots (3 full, 3 partial), located north of East 149th Street, are mapped with a C8-3 zoning designation. C8-3 districts provide for automotive and other heavy commercial services that often require large amounts of land. Typical uses are automobile showrooms and repair shops, warehouses, gas stations and car washes - although all commercial uses (except large, open amusements) as well as certain community facilities are permitted. Housing is not permitted and performance standards are imposed for certain semi-industrial uses (Use Group 11A and 16). The maximum commercial FAR in C8-3 districts is 2.0, and buildings cannot penetrate the sky exposure plane, which has an initial setback of 20 feet on narrow streets and 15 feet on wide streets, begins 60’ above the street line, and has a slope of 2.7 on narrow streets and 5.6 on wide streets. Automotive uses in C8-3 districts require substantial parking.

Future without Proposed Action (No Action condition)

Primary Study Area

Absent the proposed actions, all projected development sites in the No Action Scenario would remain in its existing conditions with the exception of Projected Development Site #2 (Lot 30, Block 2600), which is anticipated to be redeveloped from its existing use of transportation/utility use into an as-of-right two-story commercial/retail development with a maximum bulk of 11,700 gsf by the 2025 Build year as allowed under the current zoning designation of M1-2. Rationale for the Projected Development Site #2 exception is further elaborated below. The condition in the future without the action (the No Action condition) was defined on the basis of the identification of known development projects within the Project Area and assessment of the development on soft sites within the Project Area. Based on coordination with the Bronx Office of NYCDCP and review of recent construction permits at the New York City Department of Buildings (NYCDOB), there are no known ongoing or proposed development within the Project Area, other than the project proposed by the Applicant.

Given the current development trend in the neighborhood and the existing M1-2 and M1-3 zoning classification, the Applicant is unlikely to develop or change the use of the Development Site (Lots 187, 222, 220, and 213 in Block 2600) under the existing manufacturing zoning designation. The M1-2 and M1-3 zoning designation limits the Applicant to developing either manufacturing uses, commercial/retail uses or community facilities since residential developments are not permitted as-of-right. M1 districts typically include light industrial uses, such as woodworking shops, repair shops, and storage facilities. The bulk of the development for both manufacturing and commercial/retail uses would be limited to a FAR of 2.0. With the development trends of the neighborhood, the development of a new manufacturing facility is unlikely. However, as defined in Attachment A, “Project Description,” Projected Development Site #2 (Lot 30, Block 2600) is expected in the No Action condition to be developed into a two-story commercial/retail structure with a maximum bulk of 11,700 gsf. Commercial/retail use is expected to consist of general local retail or

services in addition to food stores smaller than 2,000 sf. Approximately 39 total parking spaces would be required (pursuant to ZR 44-21). The lack of current and past development considerations on both projected and potential development sites further suggests that no additional future developments will occur within the 10-year planning horizon.

The No Action condition is anticipated to result in an addition of 11,700 gsf of commercial/retail to the primary study area.

Secondary Study Area

The only known ongoing or proposed development within the secondary study area is The Crossroad Plaza development, which is an affordable housing complex currently being built out in three phases. Crossroads Plaza I and II are under construction at Lot 165 and 65 in Block 2582, which will include a total of 302 dwelling units, 36,800 sf commercial space, and 113 parking spaces. Crossroads Plaza II will introduce 136 dwelling units, 18,497 sf of ground floor retail and 52 accessory parking spaces. Crossroads I will contain 166 dwelling units, 18,272 sf ground floor retail and 61 parking spaces. Crossroad Plaza III was the first phase of the development that was constructed and is now complete, with 126 dwelling units, community facility space, and 42 underground parking spaces.

Absent the Proposed Action, the No Action condition for land use would remain in its existing conditions plus the Crossroad Plaza III construction. There are also no concurrent plans by any city agency for area-wide zoning changes in the secondary study area. Therefore, in the No Action condition, it is assumed that the zoning would not change from the existing conditions.

The secondary study area has also witnessed a steady transition away from manufacturing, and towards mixed-use residential and commercial use with large-scale affordable housing and multi-family housing developments (Crossroad Plaza) in Lots 65, 165, 9 and 12 within Block 2582 just north of the primary study area. These new residential developments appear to be directly correlated with an 11.4% increase in population within Bronx Community Board 1 from 2000 to 2010 according to the Bronx Community District 1 Profile created by NYCDCP. The percentage increase translates to approximately 9,338 additional residents in the District and represents a demand for residential construction in the area. The increase in population and development trends in the surrounding area towards residential uses indicates a need for the proposed rezoning.

Future with Proposed Action (With Action condition) - Land Use

In the future with the Proposed Action, a multi-lot portion of Block 2600 in Bronx Community District One would be rezoned from M1-2 and M1-3 to R7X and R7X/C1-4. Recent development trends in the neighborhood indicates sufficient demand for residential developments due to increasing population within Bronx Community Board 1, and the decline of the manufacturing sector in New York City. It is expected that the primary study area be redeveloped with more multi-family residential and retail uses. In addition, the recent adoption of ZQA and MIH would create sufficient incentive for residential developments on the five identified Projected Development Sites. The proposed zoning changes would also expand opportunities for mixed-use development in the proposed commercial overlay areas that would provide additional ground floor retail uses.

Primary Study Area

It is anticipated that the Proposed Action would result in development within the primary study that is similar to recent development trends in the neighborhood. The Proposed Action would affect approximately 17 tax lots covering approximately 115,953 sf. On the Development Site (Development Site #1), the Applicant

proposes to develop a 135 foot tall, 12-story, 164,592 gsf residential building with an FAR of 6.0 that would result in the development of 165 DUs. On Projected Development Sites #2 – 5, it is anticipated that the proposed rezoning to R7X and R7X/C1-4, and the adoption of ZQA and MIH will create sufficient incentive for residential developments on these lots. The proposed C1-4 commercial overlay will be located along the eastern side of Southern Boulevard, extend 100 feet from the nearest street, and is expected to bring additional ground floor retail to the primary study area.

The primary study area is expected to have by the 2025 Build Year a net increase of 366 additional residential DUs (362,121 gsf), of which 219 are expected to be affordable DUs.

Table B-6: Summary of With Action Land Uses in the Project Area[8]

Land Use	Number of Lots	% of Total Lots	Area (sf)	% of Total Area
Multi-Family Walk-up	14	82.35%	105,167	90.70%
Mixed Residential & Commercial	1	5.88%	8,471	7.31%
Industrial/Manufacturing	1	5.88%	2,310	1.99%
Vacant Land	1	5.88%	5	0.00%
Total	**17**	**100.00%**	**115,953**	**100.00%**

Table B-7: With Action Land Uses in the Project Area by Lot

Block	Lot	Lot Area (sf)	Land Use
2600	30 (partial)	8,471	Mixed Residential & Commercial
2600	47	4,094	Multi-family walk-up
2600	49	2,009	Multi-family walk-up
2600	50	4,347	Multi-family walk-up
2600	51	5,853	Multi-family walk-up
2600	89 (partial)	2,310	Industrial/Manufacturing
2600	96	7,615	Multi-family walk-up
2600	99	2,461	Multi-family walk-up
2600	100	2,522	Multi-family walk-up
2600	101	4,981	Multi-family walk-up
2600	103	4,588	Multi-family walk-up
2600	131	41,536	Multi-family walk-up
2600	186	5	Vacant Land
2600	187	7,252	Multi-family walk-up
2600	213	12,767	Multi-family walk-up
2600	220	2,617	Multi-family walk-up
2600	222	2,524	Multi-family walk-up

Secondary Study Area

The Proposed Action is not expected to generate any significant adverse land use changes in the secondary study area. Currently, Lot 165 and 65 in Block 2582 on the northern side of Southern Boulevard across

[8] PLUTO™ 15v1, *New York City Department of City Planning*, http://www1.nyc.gov/site/planning/data-maps/open-data.page

from the Development Site is zoned as R8X and currently under construction as a 14 story, mixed-use, affordable housing project (Crossroad Plaza III). The new 225,000 sf residential building will fill about half the lot and have 163 DUs, 17,000 sf of commercial space, and 42 underground parking spaces. Lot 9 and 12 in Block 2582 on the northern side of Southern Boulevard and to the west of the Development Site is zoned M1-2 and is under construction as a multi-family residential building. The mix of uses that would evolve in the primary study area because of the Proposed Action would be compatible with the existing pattern of development in the surrounding area. The Proposed Action would not alter zoning designations within the 400-foot secondary study area. Moreover, future development in the secondary study area would be under existing zoning and would therefore be compatible with surrounding land use patterns. Therefore, the Proposed Action would not have a direct impact on land uses

Future with Proposed Action (With Action condition) – Zoning

Primary Study Area

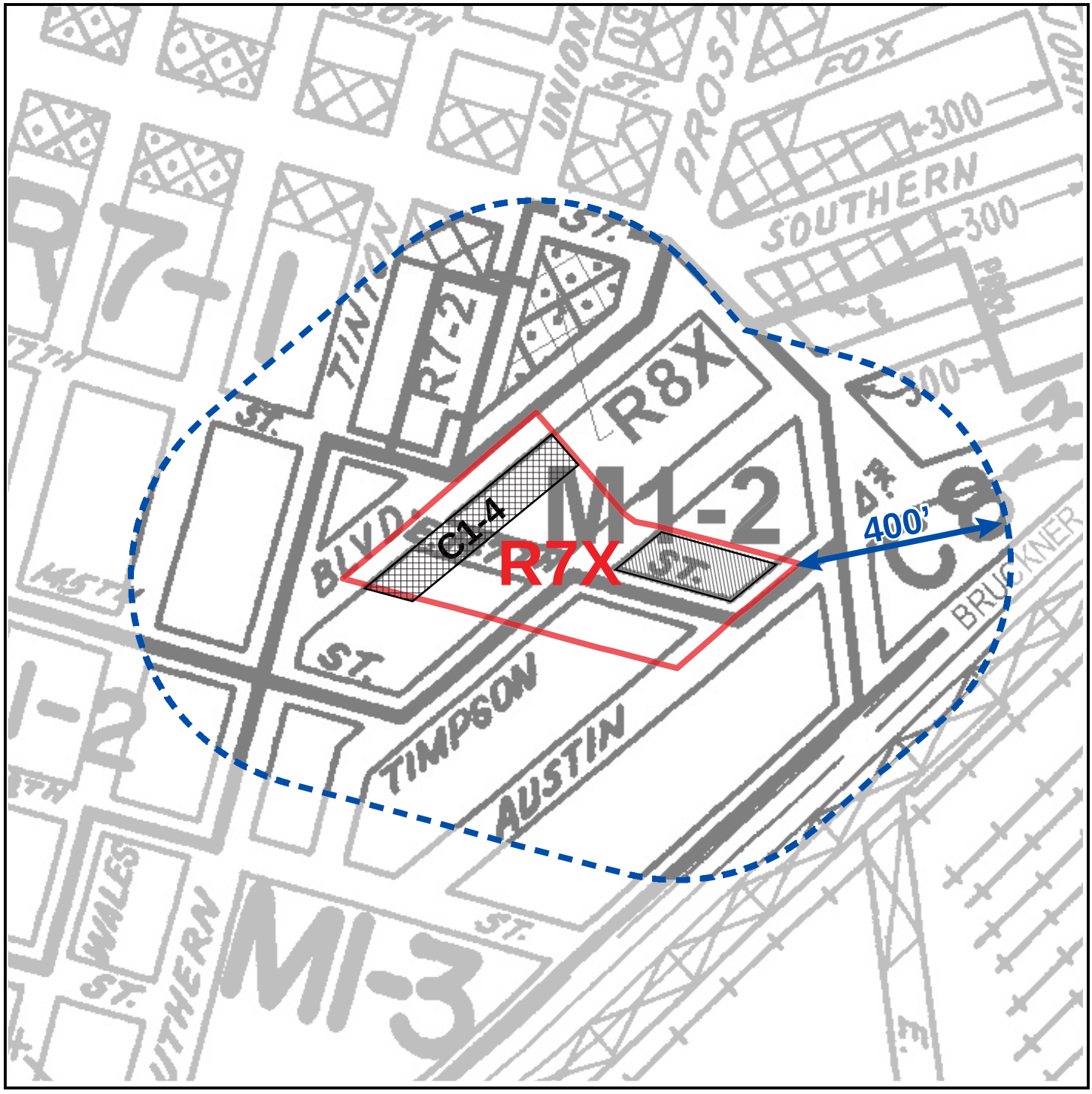
In the future with the Proposed Action, the existing zoning in the primary study area (rezoning area) would change from M1-2 and M1-3 to R7X and R7X/C1-4 (**Figure B-3: Proposed Zoning** and **Table B-8: With Action Zoning, Primary Study Area**).

R7X

R7X districts are governed by contextual Quality Housing bulk regulations. With the adoption of ZQA and MIH, the basic R7X zoning designation allows for 100% lot coverage for corner lots, 70% lot coverage for interior and through lots, a maximum base height of 95 feet, and a maximum overall building height of 125 feet (12-stories) with ground floor heights of 13 feet. When the Inclusionary Housing Program is applied, within the R7X zoning district, maximum base height is increased to 105 feet, and maximum overall building height is increased to 145 feet (14-stories) with ground floor heights of 15 feet. In addition, developers would receive a 20% FAR increase, raising the maximum FAR from 5.0 to 6.0.

C1-4

As a result of the Proposed Action, a C1-4 overlay would be mapped along much of East 149th St to the west of Southern Boulevard. C1-4 districts are commercial overlays mapped within residence districts along streets that serve local retail needs. Typical retail uses include neighborhood grocery stores, restaurants and beauty parlors. Residential bulk in overlay districts are governed by the residence district within which the overlay is mapped. Unless otherwise indicated on the zoning maps, the depth of overlay districts is 100 feet for C1-4 districts and the maximum commercial FAR is 1.0 when mapped within R1-R5 districts and 2.0 when mapped within R6-R10 districts.



Source: 2015 Pluto, NYCDCP

Applicant's Site

Rezoning Boundary

400-foot Study Area

M Manufacturing District

R Residential District

C Commercial District

PROPOSED ZONING

Figure B-3

East 147th Street Rezoning EAS

Table B-8: With Action Zoning, Primary Study Area

Use	Total # of Lots	Number of Lots
R7X	14 (13 full, 1partial)	Block 2600, Lot 50, 51, 89 (partial), 96, 99, 100, 101, 103, 131, 186, 187, 191, 213, 220, 222
R7X/ C1-4	3 (2 full, 1 partial)	Block 2600, Lot 30 (partial), 47, 49

Secondary Study Area

The Proposed Action would not alter any zoning designations within the 400-feet secondary study area. The current mix of manufacturing, commercial, and residential districts are expected to remain, as described above in "Existing Conditions." The Proposed Action would include the mapping of zoning districts that are compatible with those in the surrounding area. The proposed zoning action would result in land uses that would be similar in use and scale of existing and proposed land use, and would thereby not affect the relationship between the primary and secondary study areas. Therefore, the Proposed Action would not result in any significant adverse impacts to zoning policy in the secondary study area.

VI. CONCLUSION

No significant land use, zoning, or public policy impacts are anticipated as a result of the Proposed Action. While changes in land use and zoning are expected, the land use changes in both the primary and secondary study area would be consistent with the current development trends of shifting away from manufacturing/industrial uses and towards residential and commercial/retail developments. Additionally, no land uses that are not found in the secondary study area would be introduced into the primary study area. The proposed zoning changes would introduce a residential district into an area that already has existing and proposed residential developments. It would also introduce commercial/retail overlay along the eastern side of Southern Boulevard, which would extend the local retail uses that already exist along East 149th Street. The proposed zoning changes therefore would be consistent with the zoning designations existing in the secondary study area. The Proposed Action would also be consistent with applicable public policies in both the primary and secondary study areas

As such, the Proposed Action would result in changes that would be compatible and supportive of existing land uses trends, zoning, and public policy and therefore, there would be no adverse public policy impacts.

Attachment C: Socioeconomics

I. INTRODUCTION

This attachment assesses the potential impact of the Proposed Action on socioeconomics in the vicinity of the Project Area. Per Chapter 5, Section 200 of the *2014 CEQR Technical Manual,* the socioeconomics assessment describes the resulting conditions from the Proposed Actions and evaluates whether the conditions would result in significant adverse impacts based on the following triggers.

- The project would directly displace residential population to the extent that the socioeconomic character of the neighborhood would be substantially altered.
- The project would directly displace more than 100 employees
- The project would directly displace a business that is unusually important.
- The project would result in substantial new development that is markedly different from existing uses, development, and activities within the neighborhood
- The project would add to, or create, a retail concentration that may draw a substantial amount of sales from existing businesses within the study area to the extent that certain categories of business close and vacancies increase, thus resulting in a potential for disinvestment on local retail streets.
- If the project is expected to affect conditions within a specific industry.

As described in Attachment A, "Project Description", the Project Area is located in the eastern part of the Mott Haven neighborhood and borders between areas dominated by residential uses in the north and light manufacturing uses to the south. Within the Project Area, there are a mixture of single-family homes, occupied apartments, active commercial and light manufacturing businesses, and vacant residential buildings and lots. Recent development trends in the neighborhood surrounding the Project Area indicate a general shift away from manufacturing/industrial uses and towards residential and commercial/retail developments.

The Proposed Action is consistent with these trends and looks to rezone a multi-lot portion of Block 2600 in the Bronx from its existing zoning designation of M1-2 and M1-3 to R7X and R7X/C1-4. The proposed R7X zoning designation would permit a maximum FAR of 5.0 for residential and community uses, and a maximum commercial FAR of 2.0 with a C1-4 commercial overlay. A zoning text amendment to map Inclusionary Housing for the Project Area would increase the maximum allowed FAR for residential buildings from 5.0 to 6.0.

The Proposed Action would facilitate the development of a new residential building by the Applicant on Lots 187, 222, 220, and 213 of Bronx Block 2600. As further described in the Project Description, the Applicant's proposed 12-story residential building would rise to a maximum height of 135 feet, and a have a total of 164,592 sf of development. The Applicant proposes to construct 165 affordable DUs under the ELLA program[1] (Extremely Low and Low Income Affordability program) with the following distribution: 16 studio units, 67 one bedroom units, 61 two bedroom units, and 21 three bedroom units. The affordability breakdown is as follows:

[1] NYC Housing Preservation and Development's ELLA program combines tax-exempt bonds with a "4%" Federal Low Income Housing Tax Credits and other subsidies to increase housing affordability to the New York residents whose earnings are less than 60% AMI

- 33 DUs for residents with a family income at or below 90% AMI (20% of total DUs)
- 83 DUs for residents with a family income at or below 60% AMI (50% of total DUs)
- 8 DUs for residents with a family income at or below 47% AMI (5% of total DUs)
- 8 DUs for residents with a family income at or below 37% AMI (5% of total DUs)
- 33 DUs for residents with a family income at or below 25% AMI (20% of total DUs)

These distributions are dependent on discussions with NYCHPD/NYCHDC as the development process continues. The target demographics for the proposed development are consistent with the existing demographic profile and do not trigger direct displacement. In addition, commercial activity is limited with no signs of active light industrial or commercial activity on Projected Development Site #4 on Block 2600, Lot 99. In addition, as described in Attachment A, "Project Description", the Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of 5 projected development sites and one potential development site. The Proposed Action would result in a net increase of 366 dwelling units of which 219 are expected to be affordable DUs, compared to the future No Action condition.



Photo of: Block 2600 Lot 99

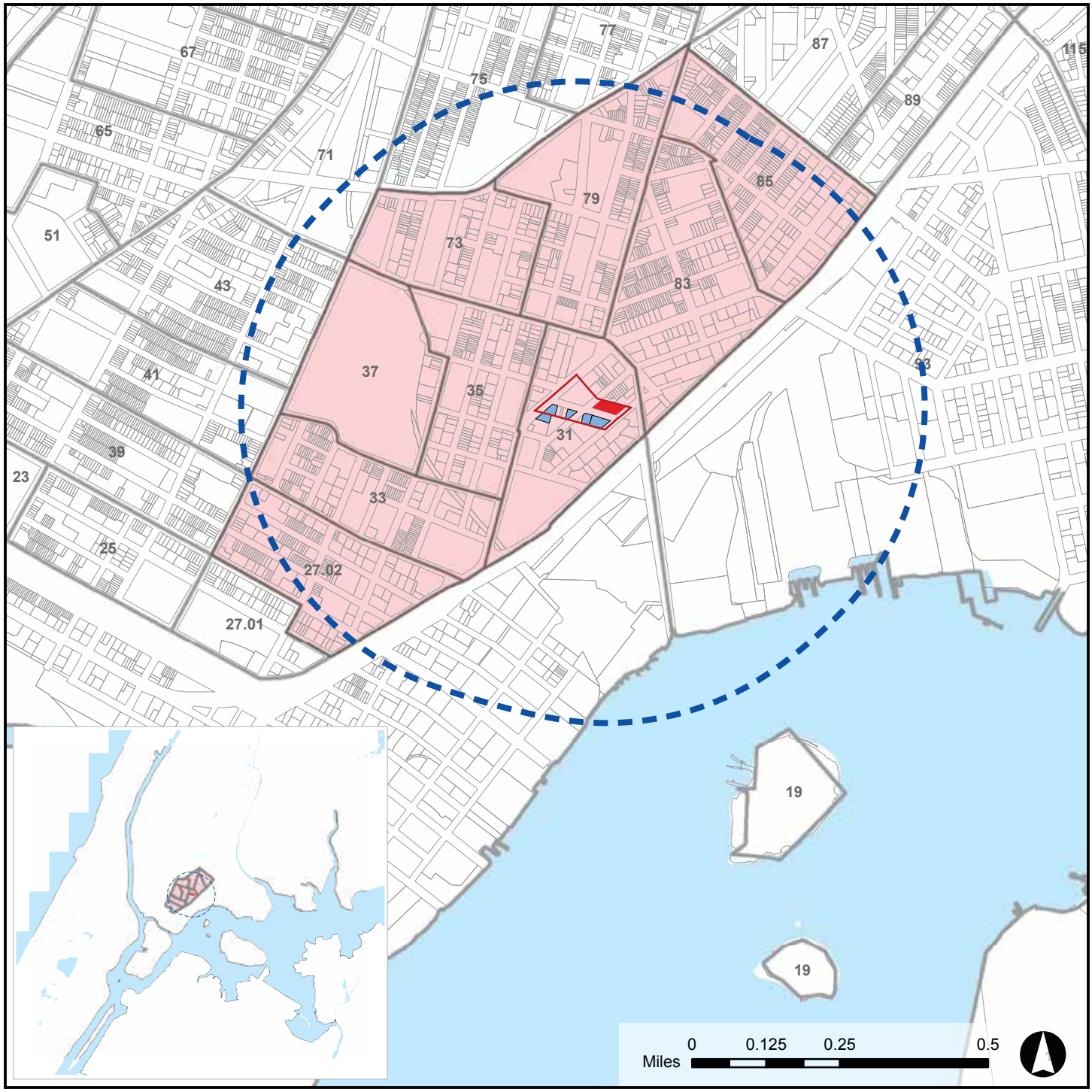
As evaluated through the CEQR Environmental Statement form, the Proposed Action would generate a net increase of 200 or more residential units – a threshold at which does trigger a preliminary analysis of indirect residential displacement.

II. PRINCIPAL CONCLUSIONS

Direct residential displacement would result from the Proposed Action; however it would amount to less than 500 residents which according to the *2014 CEQR Technical Manual* would therefore not typically be expected to alter the socioeconomic character of the neighborhood. In addition, the number of residential units is expected to grow from the current 11 residential units to a potential scenario of 366 units resulting in a limited impact to residents in the Project Area. Business displacement is also not expected from the Proposed Action. Lot 99 on Block 2600 is currently zoned for industrial/manufacturing but have no visible business activity. The remaining lots are either vacant or maintain residential uses. Indirect residential and business displacement is also not expected. The potential increase in residential population is less than the 5% *CEQR Technical Manual* defined threshold. There will also not be a significant impact on property values and rent.

III. METHODOLOGY

In order to evaluate the potential for indirect residential displacement from the Proposed Action, the socioeconomic trends must be understood and a study area defined. A 0.5 mile study area was selected as Chapter 4, Section 322.1 of the *2014 CEQR Technical Manual* defines "near" as a half-mile boundary around the Proposed Action. The study area was further adjusted to include all census tracts with at least 50 percent of their area within the ½-mile boundary, as recommended in the *2014 CEQR Technical Manual.* U.S. Census data was gathered to observe the population and housing trends in the area. Additional information was gathered from apartment listings and research on affordable housing blocks within the study area. Total population and surrounding housing rental rates were evaluated to determine whether the Proposed Action would introduce a trend or accelerate changing socioeconomic conditions that would potentially displace vulnerable populations and alter the socioeconomic character of the neighborhood. 2010 Census Tracts within the 0.5 mile study area are: 27.02, 31, 33, 35, 37, 73, 79, 83 and 85 **(Figure C-1: Socioeconomic Study Area)**.



Source: 2015 Pluto, NYCDCP

Applicant's Site

Rezoning Boundary

Projected Development Site

Study Area

Census Tracts within Study Area

Census Tracts

SOCIOECONOMIC STUDY AREA

Figure C-1

East 147th Street Rezoning EAS

IV. PRELIMINARY ASSESSMENT

Indirect Residential Displacement

As presented below, the *2014 CEQR Technical Manual*, Section 322 defines the steps necessary to assess Indirect Residential Displacement.

- Step 1: Determine if the proposed project would add new population with higher average incomes compared to the average incomes of the existing populations and any new population expected to reside in the study area without the project.
- Step 2: Determine if the 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.
- Step 3: Consider whether the study area has already experienced a readily observable trend toward increasing rents and the likely effect of the action on such trends.

Step 1: Rise in Higher Average Incomes

Trends since 2010 reveal that household median incomes in the study area have remained constant between 2010 and 2014. According to the 2010 – 2014 American Community Survey (ACS), the 2010 median income averaged across each census tract within the study area was $21,774, compared to $22,138 in 2014. Also according to the U.S. 2010 Census, the average household size for this area was 3.04.

Property Values and Rent

In order to understand rental rates in the study area, a search for property listings for rent was conducted within the study area. The average rent per square foot is $2.05 after removing the lowest and highest rental rates as identified in the **Table C-1: Properties for Rent,** below.

Table C-1: Properties for Rent[2]

Address	Price ($)	Square Feet (sf)	$ / sf	Beds
480 Concord Ave #4H	2,400			3
481 Concord Ave #4E	1,950	800	2.44	2
E149 St	1,600			3
774 E 149th St	1,900	900	2.11	
Undisclosed Address	1,950			3
636 Wales Ave #12	1,175			1
	1,400			1
686 Union Ave	2,000			3
680 E 140th St Apt 5E	1,175			1
Cypress Ave	1,350			1
Trinity Ave	1,400	475	2.95	1
Trinity Ave	1,925	700	2.75	3
594 Union Ave	1,695			3
595 Union Ave	1,700			3
Union Ave	1,300			1
890 E 156th St # 1	2,000	2,200	0.91	2
961 E 156th St 2F	1,600			2
775 Beck St	1,950	3,324	0.59	7

The average rental rate within the study area is consistent with NYC Department of Housing Preservation and Development (HPD) guidelines for initial rents for households at 90% AMI[3]. According to the ELLA Term Sheet released by HPD, the 2014 maximum initial rents for properties under the ELLA program, are calculated as follows:

Table C-2: 2014 Maximum Initial Rents for Tenants with Incomes Up To 90% AMI[4]

Unit Size	Square Feet (sf)	30% AMI	40% AMI	50% AMI	60% AMI	80% AMI	90% AMI
0 BR	500	$347	$494	$641	$788	$958	$1,085
1 BR	650	$375	$532	$690	$847	$1,208	$1,367
2 BR	800	$458	$647	$836	$1,025	$1,458	$1,649
3 BR	1000	$527	$745	$963	$1,182	$1,683	$1,902

[2]http://www.trulia.com/for_rent/Bronx,NY/16_zm/40.80658718448835,40.81745201875022,-73.91772592765807,-73.89822090370177_xy/map_v
[3] *ELLA Term Sheet*, NYC Department of Housing Preservation and Development (HPD), Office of Development, Division of New Construction Finance, Updated November 13, 2014
[4] *ELLA Term Sheet*, NYC Department of Housing Preservation and Development (HPD), Office of Development, Division of New Construction Finance, Updated November 13, 2014

Based on **Table C-2: 2014 Maximum Initial Rents for Tenants with Incomes Up To 90% AMI,** the average rent associated with 90% AMI across all unit sizes is $2.06 per square feet, consistent with what is being offered through market rate listings presented in **Table C-1**.

The population characteristics of the study area shows a range of median income from as low as $9,327 from Census Tract 37 to $39,962 in Census Tract 31 well below the HUD defined AMI for a family of four at 50% below AMI[5]. Therefore the addition of new residential units that attract residents at 90% AMI would likely attract higher levels of income households and potentially increase rental rates.

The Proposed Action is expected to result in an incremental increase of 147 market rate residential units and 219 affordable residential units. Assuming that the market rate and affordable residential units would target rents for households with more than 40% Area Median Income (AMI), currently calculated at $31,080 for a family of three[6] it is expected that the Proposed Action would draw a population that would increase the Study Area's household median incomes.

However, the rise in households with higher average incomes isn't likely to result in displacement in the study area for several reasons. The potential volume of new residential units should also be considered. As described above, the incremental increase in units is expected to be 366 units, 147 of which would be market rate. The number of housing units reported through the 2014 ACS was 12,642. One hundred and forty seven (147) market rate units represents a 1.2% increase in housing stock which is unlikely to cause an overall increase in rental rates and property values. In addition, within the study area there are a significant number of housing projects which offer a range of affordable housing, as identified through an online data search through the Furman Center for Real Estate and Public Policy at New York University. An analysis of subsidized housing revealed that there are approximately 1,805 subsidized housing units within the study area which accounts for 14% of the total number of housing units **(Table C-3: Affordable Housing Identified Within the Study Area)**. Although this stock of affordable housing is used by a range of households within the AMI band, it illustrates the significant investment in affordable housing within the study area which should maintain the rental rate trends identified in the area and offset any change in rents caused by the incremental addition of market rate housing generated by the Proposed Action.

[5] *2015 FMR Derived Area Median Income,* NYC Department of Housing Preservation and Development (HPD), Office of Development, Division of New Construction Finance, 2015
[6] "Income Limits and Maximum Rents" (2015), retrieved from NYC HPD online, http://www1.nyc.gov/site/hpd/developers/inclusionary-housing.page

Table C-3: Affordable Housing Identified Within Study Area[7]

	Project Name	Unit (Q)	Address
1	Crossroads Plaza	125	535 Union Ave, Mott Haven, BX
3	Willis Ave Apt	32	288 WILLIS AVENUE, 292 WILLIS AVENUE, 495 COURTLANDT AVENUE, 512 JACKSON AVENUE, 580 COURTLANDT AVENUE
4	Granite Terrace Apt	77	520 CONCORD AVENUE
5	Bella Vista, LP	84	231 JACKSON AVENUE, 363 EAST 150 STREET, 370 ST ANNS AVENUE, 442 WALES AVENUE, 531 EAST 148 STREET, 671 EAST 137 STREET, 674 EAST 138 STREET
6	Jasmine Court	115	757 EAST 138 STREET
7	Thessalonica Court Apt	191	334 ST ANNS AVENUE
8	Mins Plaza Housing	360	441 ST ANNS AVENUE
9	Mirma Court	90	560 EAGLE AVENUE, 568 EAGLE AVENUE, 572 EAGLE AVENUE, 580 EAGLE AVENUE, 601 EAST 149 STREET
10	600 Trinity Ave	49	600 TRINITY AVENUE
11	Dr. A. Novello Senior Housing	74	607 CONCORD AVENUE
12	Wales Cluster	51	753 EAST 151 STREET; 627 WALES AVENUE
13	Concord Ave Apts	83	600 CONCORD AVENUE
14	Union Ave Cluster	22	799 EAST 150 STREET
15	Maria Isabel Housing	99	785 EAST 149 STREET
16	Caudwell	84	643 CAULDWELL AVENUE, 647 CAULDWELL AVENUE
17	Caudwell Apts	76	802 MELROSE AVENUE
18	Felisa Rincon De Gautier Houses	109	629 PROSPECT AVENUE
19	Aurea Develp.	84	575 SOUTH SOUTHERN BOULEVARD, 582 UNION AVENUE

Step 2: Increase in Population

Between 2010 and 2014, the study area experienced a 5% growth in population. According to the 2010 – 2014 ACS the population in the study area in 2010 was 34,575 with 12,339 housing units. In 2014 the ACS reported a population of 36,157 and 12,642 housing units. The Proposed Action could result in an incremental increase of a total of 366 housing units. Applying the 2.85[8] persons per dwelling unit factor, projections for an increase in population equate to 1,043 persons. This represents a total incremental increase in population of 2.9%. The 2.9% population increase is below the 5% threshold for the likelihood of indirect residential displacement. Therefore no additional analysis is required.

Step 3: Trend toward Increasing Rents

No additional analysis required after Step 2.

Indirect Business Displacement

Indirect business displacement is analyzed by determining whether the Proposed Action may introduce trends that would make it more difficult for nearby existing businesses that provide products or services essential to the local economy. In most cases, the issue for indirect displacement of businesses is that an

[7] http://datasearch.furmancenter.org/
[8] Assumes 2.85 persons per DU for residential units in the Bronx (2010 - 2014 Census)

action would markedly increase property values and rents throughout the study area, making it difficult for some categories of businesses to remain in the area. A proposed action introduce such a trend by causing a marked increase in rends and property values in the area. The *2014 CEQR Technical Manual* provides a detailed description in Section 322.2. In this case, the types of business were analyzed in the study area to see if they would continue to appeal to the future With Action population, and therefore, not be displaced.

The main types of businesses existing in the study area are local retail establishments such as grocery stores, small delis and restaurants, laundry facilities, and salons that are located primarily along Southern Boulevard and East 149th Street. These businesses cater to the local residential population, which as described above in the discussion of indirect residential displacement, has a wide range of household median incomes from $9,327 from Census Tract 37 to $39,962 in Census Tract 31.

The Proposed Action is expected to result in an incremental increase of 147 market rate residential units and 219 affordable residential units. As discussed in Attachment B, "Land Use, Zoning, and Public Policy," the development generated by the Proposed Action would be consistent with the existing mix of uses in the study are and would not represent new uses the would substantially alter existing economic patterns. As discussed above in the discussion of indirect residential displacement, the new housing introduced is not expected to alter residential market conditions. Although the new housing units would increase the retail expenditure potential of the study area, this consumer spending would not constitute a new economic activity, given that the study area already contains a significant residential population and street-level retail is already present on the major thoroughfares in the study area.

As such, the Proposed Action would not result in significant adverse impacts due to indirect businesses displacement, and further analysis is not warranted.

VI. CONCLUSION

The Proposed Action is expected to provide additional opportunities for residential development and counterbalance any direct displacement of residents. In addition it is not anticipated that any businesses will be directly displaced.

Furthermore, an examination of indirect displacement of residents and business also found that the potential increase in population and rental rates does not cross the threshold where a significant effect on real estate market conditions would be expected. A detailed assessment of socioeconomic impacts is not warranted based on the results of the preliminary analysis. Therefore, no further analysis is warranted.

Attachment D: Community Facilities and Services

I. INTRODUCTION

According to Chapter 6 of the *2014 CEQR Technical Manual,* a community facilities assessment should be conducted if a project would directly or indirectly affect existing facilities, including publicly supported day care, libraries, and public schools. A project can affect facility services when it physically displaces or alters a community facility, or it causes a change in population that may affect the services delivered by a community facility, as might happen if a facility is already over-utilized, or if a project is large enough to create a demand that could not be met by the existing facility.

As described in Attachment A, "Project Description", the Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of 5 projected development sites in the Project Area. The Proposed Action is anticipated to facilitate a net increase of 366 dwelling units, of which 219 are expected to be affordable DUs. It would not eliminate, displace, or alter public or publicly-funded community facilities.

II. PRINCIPAL CONCLUSIONS

Based on a preliminary screening of the Proposed Action, a detailed analysis of high schools, libraries, health care facilities, and fire and police protection services was not warranted. The Proposed Action would not have a direct impact or any significant adverse indirect impacts on these community facilities and services.

However, a detailed analysis was warranted for elementary and intermediate schools as well as publicly funded child care and Head Start centers as the number of eligible children generated by the Proposed Action exceeded the preliminary screening thresholds outlined in the *2014 CEQR Technical Manual.*

The results of the detailed analysis indicated that the Proposed Action would not exceed the *2014 CEQR Technical Manual* impact threshold for public elementary and intermediate school utilization for the sub-district 2 study area. The Proposed Action would have no significant impact on the enrollment, capacity, or utilization of elementary and intermediate public schools in sub-district 2 of CSD 7. Therefore there would be no significant adverse impacts on elementary and intermediate schools in the sub-district study area.

The effect of the Proposed Action on publicly supported child care and Head Start centers would not exceed the *2014 CEQR Technical Manual* impact thresholds for utilization of such facilities. The Proposed Action would have no significant adverse impact on the publicly supported child care and Head Start centers.

III. METHODOLOGY

Data for the community facilities analysis was gathered from the latest databases provided the New York City Department of City Planning. The analysis was conducted in accordance with the *2014 CEQR Technical Manual* guidelines. Consistent with the policy of the NYCDCP, for projects with a Build Year beyond 2021, the 2021 projections were used as a proxy under an agreement with the School Construction Authority (SCA). Hence, while the Build year for the Proposed Action is identified as 2025, the year 2021 was used as a proxy in the community facilities assessment projections.

The purpose of the preliminary screening is to determine whether a community facilities assessment is required. As recommended by the *2014 CEQR Technical Manual*, a community facilities assessment is warranted if a project has the potential to result in either direct or indirect effects on community facilities. In accordance with the CEQR guidelines, a preliminary screening was conducted to identify the potential for impact on public schools, publicly supported child care centers and Head Start programs, libraries, police/fire services and health care facilities. Based on application of the community facility and services thresholds for the Bronx provided in Table 6-1 of the CEQR guidelines, it was determined that, since the Proposed Action would incrementally add approximately 366 dwelling units, 219 of which would be affordable, to the Project Area, a detailed analysis is warranted for elementary and Intermediate schools, as well as publicly supported child care centers and Head Start Programs.

IV. PRELIMINARY ASSESSMENT

Public Schools

Direct Effects

The Proposed Action would not physically alter or directly displace any public schools, and, consequently, would not result in a direct impact on existing public schools.

Indirect Effects

The 2014 CEQR Technical Manual defines the threshold for a detailed analysis to be the addition of 50 students for elementary and intermediate schools. The threshold for high school students is defined as an addition of 150 students. Based on student generation rates for public elementary, intermediate and high schools for the Bronx included in the CEQR guidelines, the net increase of 366 residential units that would be generated by the Proposed Action would result in 143 elementary school students, 59 intermediate school students, and 70 high school students **(See Table D-1: Public School Threshold Calculations)**. Consistent with the CEQR guidelines, this projected number of students warrants a detailed analysis of the potential impact of the Proposed Action on elementary and intermediate schools. The number of high school students generated is below the threshold of 150 students identified in the CEQR guidelines, and, consequently a detailed analysis of the potential impact of the Proposed Action on public high schools is not warranted.

Table D-1: Public School Threshold Calculations

	Net Increase in Dwelling Units from Proposed Action	Multiplier (Students/Unit in the Bronx)	Additional Students from Proposed Action	Threshold for detailed analysis (Bronx)
Elementary/Intermediate School Students	366	0.39	143	50
	366	0.16	59	50
High School Students	366	0.19	70	150

Group Child Care and Head Start Centers

Direct Effects

The Proposed Action would not physically alter or directly displace any group child care or Head Start Center, and, consequently, there would be no direct effects to existing child care centers or Head Start centers.

Indirect Effects

The *2014 CEQR Technical Manual* threshold for determining whether a detailed analysis of the potential impact of a proposed action on group child care and Head Start Centers is an addition of 20 or more eligible children under age 6 based on the number of low or low/moderate income residential units. Based on the 219 affordable residential units that would be generated by the Proposed Action and the generation rates for the Bronx in the CEQR guidelines, it is estimated that 31 eligible children will be generated by the Proposed Action **(See Table D-2: Child Care and Head Start Centers Threshold Calculations)**. This number of students warrants a detailed analysis of the potential of the Proposed Action on publicly supported child care centers and Head Start programs.

Table D-2: Child Care and Head Start Centers Threshold Calculations

	New Units from Proposed Action	Multiplier (Children Under the Age of Six/Unit For the Bronx)	Additional Children Eligible for Publicly Funded Child Care + Head Start from Proposed Action	Threshold for Detailed Analysis (Bronx)
Group Child Care and Head Start	219 (affordable units)	0.139	**31**	**20**

Libraries

Direct Effects

The Proposed Action would not physically alter or directly displace any libraries, and, consequently, there would be no direct effects to existing libraries.

Indirect Effects

Based on guidance in the *2014 CEQR Technical Manual*, a proposed project in Bronx that generates a 5 percent increase in the average number of residential units served per library branch (682 residential units in the Bronx) may cause significant adverse impacts on library services and warrants a detailed analysis. The Proposed Action is expected to result in a net increase of 266 residential units, which is below the 682 threshold for the Bronx. Consequently, a detailed analysis of the potential impact of the Proposed Action on libraries is not warranted.

Police/ Fire Services

Direct Effects

The Proposed Action would not physically alter or directly displace any police or fire service facilities, and consequently, would not result in any direct impacts on existing police or fire facilities or services.

Indirect Effects

The *2014 CEQR Technical Manua*l recommends that a detailed analysis of impacts of a proposed action on police and fires service is warranted in cases where the proposed action would create a sizeable new neighborhood where none existed before. Since the Proposed Action would be located in an existing neighborhood and would not represent a sizeable new neighborhood where none existed before, a detailed analysis of the potential impact of the Proposed Action on police and fire services is not warranted.

Health Care Facilities

Direct Effects

The Proposed Action would not physically alter or directly displace any health care facilities, and, consequently, the Proposed Action would not result in any direct impacts on existing health care facilities.

Indirect Effects

The *2014 CEQR Technical Manua*l indicates that a detailed analysis of the potential impact of a proposed action on health care facilities is warranted if the proposed action would create a sizeable new neighborhood where none existed before. Since the Proposed Action would be located in an existing neighborhood and would not represent a sizeable new neighborhood where none existed before, a detailed analysis of the potential impact of the Proposed Action on health care is not warranted.

V. DETAILED ASSESSMENT – Public Schools

Existing Conditions

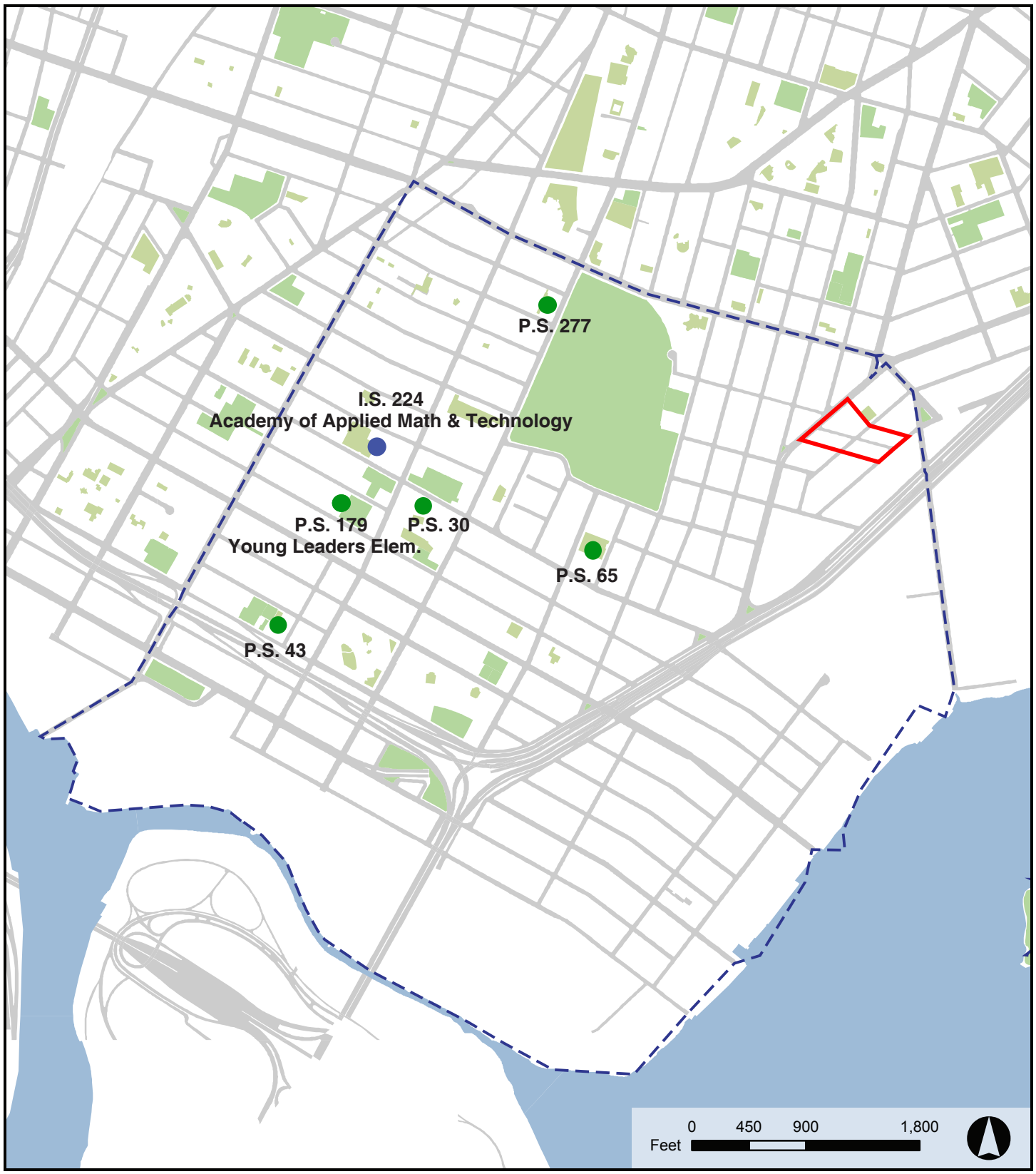
Study Area

According to the *2014 CEQR Technical Manual*, the study area for the analysis of elementary and intermediate school should be the school district's "sub-district" in which the project is located. The Project Area is located entirely within Community School District 7 (CSD 7), sub-district 2 **(Figure D-1: Public Elementary and Intermediate Schools)**. CSD 7's sub-district 2 is the southernmost sub-district in the Bronx. It is bounded by the East River to the east, the Harlem River to the south, Willis Avenue to the west, and East 149th Street to the north. Sub-district 2 contains five elementary school buildings that house six elementary school organizations and one intermediate school building that houses two intermediate school organizations.

The *2014 CEQR Technical Manual* also requires that the detailed assessment identify, for informational purposes, the "zoned" elementary and intermediate schools that would serve students generated by the proposed project. Based on consultation with the Department of City Planning, Bronx CSD 7, which would serve the Project Area, is an elementary and intermediate school "Choice District," which means that there are no zoned elementary or intermediate schools in the district. In a "Choice District," kindergarten students and elementary and intermediate school students new to the area can apply to all schools in the district. However, CSD 7 has also implemented a preference system within the "Choice" program so that children residing in the northern portion of the school district are given preference for enrollment in schools in the norther portion, and children residing in the southern portion of the school district are given preference for enrollment in the southern portion of the school district." Per the *2014 CEQR Technical Manual*, the school analysis methodology continues to be the conducted at the sub-district level.

Schools within Study Area

Table D-3: Public Elementary and Intermediate School Enrollment, Capacity, and Utilization for Existing Conditions, Sub-district 2 Study Area shows the name, location, current enrollment, target capacity, number of available seats, utilization rate, and grades served by each school in sub-district 2. Data summarized in **Table D-3** was collected from the School Construction Authority's (SCA) Enrollment, Capacity and Utilization Report, 2014-2015.



Source: NYC DOE's "Enrollment, Capacity and Utilization Report 2014-2015" SCA website

Project Area

CSD 7
Sub-District 2

Public
Elementary Schools

Public
Intermediate Schools

PUBLIC ELEMENTARY AND INTERMEDIATE SCHOOLS

Figure D-1

Table D-3: Public Elementary and Intermediate School Enrollment, Capacity, and Utilization for Existing Conditions, Sub-District 2 Study Area[1]

Org. ID	School Name	Address	Grades	Enrollment	Target Capacity	Available Seats	Utilization
Elementary Schools							
X179	P.S. 179	468 E 140 St.	PK-5	397	433	36	92%
X277	P.S. 277	519 St. Anns Ave	PK-5	468	756	288	62%
X030	P.S. 30 Wilton	510 E 141 St.	PK-5	624	538	-86	116%
X043	P.S. 43 Jonas Bronck	165 Brown Pl.	PK-5	525	531	6	99%
X065	P.S. 65 Mother Hale Academy	677 E 141 St.	PK-5	423	402	-21	105%
X369	Young Leaders Elementary School	468 E 140 St.	PK-5	270	283	13	95%
			Study Area Total	2,707	2,943	236	92%
Intermediate Schools							
X244	I.S 244	345 Brook Ave	06,07,08	362	426	64	85%
X343	Academy of Applied Math and Technology	345 Brook Ave	06,07,08	306	524	218	58%
			Study Area Total	668	950	282	71%

Future without Proposed Action

Enrollment Changes

In order to determine the projected public elementary and intermediate school enrollments in the study area for the 2025 No Action scenario, ten-year enrollment projections for the period 2012-2021 released in January 2013 were obtained from the SCA. These are the most recent projections available from the SCA and, consistent with NYCDCP policy, were used as a proxy for the 2025 Build year considered for other impact categories in the EAS. According to those projections, the school district would have enrollments of 10,344 elementary school level students and 4,923 intermediate level school students in the 2020-2021 school year. The projected enrollments in sub-district 2 (3,014 elementary school students and 752 intermediate level school students) were calculated using the SCA-approved percentages for the sub-district's share of the total school district enrollment **(Table D-4: SCA Enrollment Projections Apportioned to Sub-District 2, 2021 Build Year)**.

Table D-4: SCA Enrollment Projections Apportioned to Sub-District 2, 2021[2] Build Year[3]

	Elementary	Intermediate
2020-2021 Projected CSD 7 Enrollment	10,344	4,923
Percentage Provided for sub-district 2	29.13%	15.26%
2020-2021 Projected Enrollment for sub-district 2	3,014	752

[1] NYC DOE's "Enrollment, Capacity and Utilization Report 2014-2015" SCA website
[2] 2021 is used as a proxy Build year for 2025, as consistent with NYCDCP policy
[3] The Grier Partnership, "Enrollment Projections 2012 to 2021, New York City Public Schools," Prepared for The New York City Construction Authority, January 2013

No Action Developments

The SCA has identified that the No Build Housing for CSD 7, sub-district 2 would generate 26 public elementary school students and 50 public intermediate school students. Additionally, the Crossroads I and II project currently under construction (the only known No Action project within the Study Area) would result in an additional 302 residential dwelling units, all of which would be affordable, which would in turn generate 118 public elementary school students and 49 intermediate school students. The total enrollment from No Action developments would be an additional 144 public elementary school students and 99 public intermediate school students. There is no anticipated increase in capacity from No Action Developments **(Table D-5: No Action Developments Sub-District 2, 2021 Build Year)**.

Table D-5: No Action Developments
Sub-District 2, 2021[4] Build Year

	Elementary		Intermediate	
	Enrollment	Capacity	Enrollment	Capacity
SCA No Build Housing Enrollment Apportioned to Sub-district Housing Generated Pipeline # of Students	26	0	50	0
Crossroads I and II No Action Development	118	0	49	0
Total No Action Development Enrollment and Capacity	144	0	99	0

Summary

As shown in **Table D-6: School Enrollment, Capacity, and Utilization for 2021 No Action Conditions Sub-District 2 Study Area**, it is projected that by the 2021 Build Year, elementary student enrollment in sub-district 2 will increase from 2,707 students to 3,158. The capacity of schools in the study area is anticipated to stay the same. The sub-district will have a utilization of 107.31% and a shortfall of 215 seats. Intermediate student enrollment will increase from 668 to 851 in sub-district 2. School capacity in the study area is anticipated to remain the same. The sub-district will have a utilization rate of 89.58% and space for 99 additional students **(Table D-6: School Enrollment, Capacity, and Utilization for 2021 No Action Conditions Sub-District 2)**.

Table D-6: School Enrollment, Capacity, and Utilization for
2021[5] No Action Conditions Sub-District 2[6]

	Projected Enrollment 2021	No Action Students	Total No Action Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
CSD 7, Sub-District 2	*3,014*	*144*	*3,158*	*2,943*	*-215*	*107.31%*
Intermediate Schools						
CSD 7, Sub-District 2	*752*	*99*	*851*	*950*	*99*	*89.58%*

[4] 2021 is used as a proxy Build year for 2025, as consistent with NYCDCP policy
[5] 2021 is used as a proxy Build year for 2025, as consistent with NYCDCP policy
[6] NYC DOE's "Enrollment, Capacity and Utilization Report 2014-2015" SCA website

Future with Proposed Action

Project Generated Enrollment

The Proposed Action is anticipated to create a net increase of 366 residential units which would generate 143 public elementary school students and 59 intermediate school students, calculated using the multipliers of 0.39 elementary school students per household and 0.16 intermediate students per household provided for the Bronx in Table 6-1a of the *2014 CEQR Technical Manual.*

In the With Action condition by the 2021 Build year, it is anticipated that the total number of public elementary school students in the Project Area would be 3,301 students. The capacity of schools in the study area is not anticipated to change. The sub-district will have a utilization rate of 112.16% and a shortfall of 358 seats.

In the With Action condition by the 2021 Build year, it is anticipated that the total number of public intermediate school students in the Project Area would be 910 students. The capacity of schools in the study area is not anticipated to change. The sub-district will have a utilization rate of 95.79% and an availability of 40 seats **(Table D-7: School Enrollment, Capacity, and Utilization for 2021 With Action Conditions, Sub-District 2)**.

Table D-7: School Enrollment, Capacity, and Utilization for 2021[7] With Action Conditions, Sub-District 2

	Projected No Action Enrollment	Students Generated by the Proposed Project	Total With Action Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
CSD 7, Sub-District 2	*3,158*	*143*	*3,301*	*2,943*	*-358*	*112.16%*
Intermediate Schools						
CSD 7, Sub-District 2	*851*	*59*	*910*	*950*	*40*	*95.79%*

VI. DETAILED ASSESSMENT – Child Care Centers

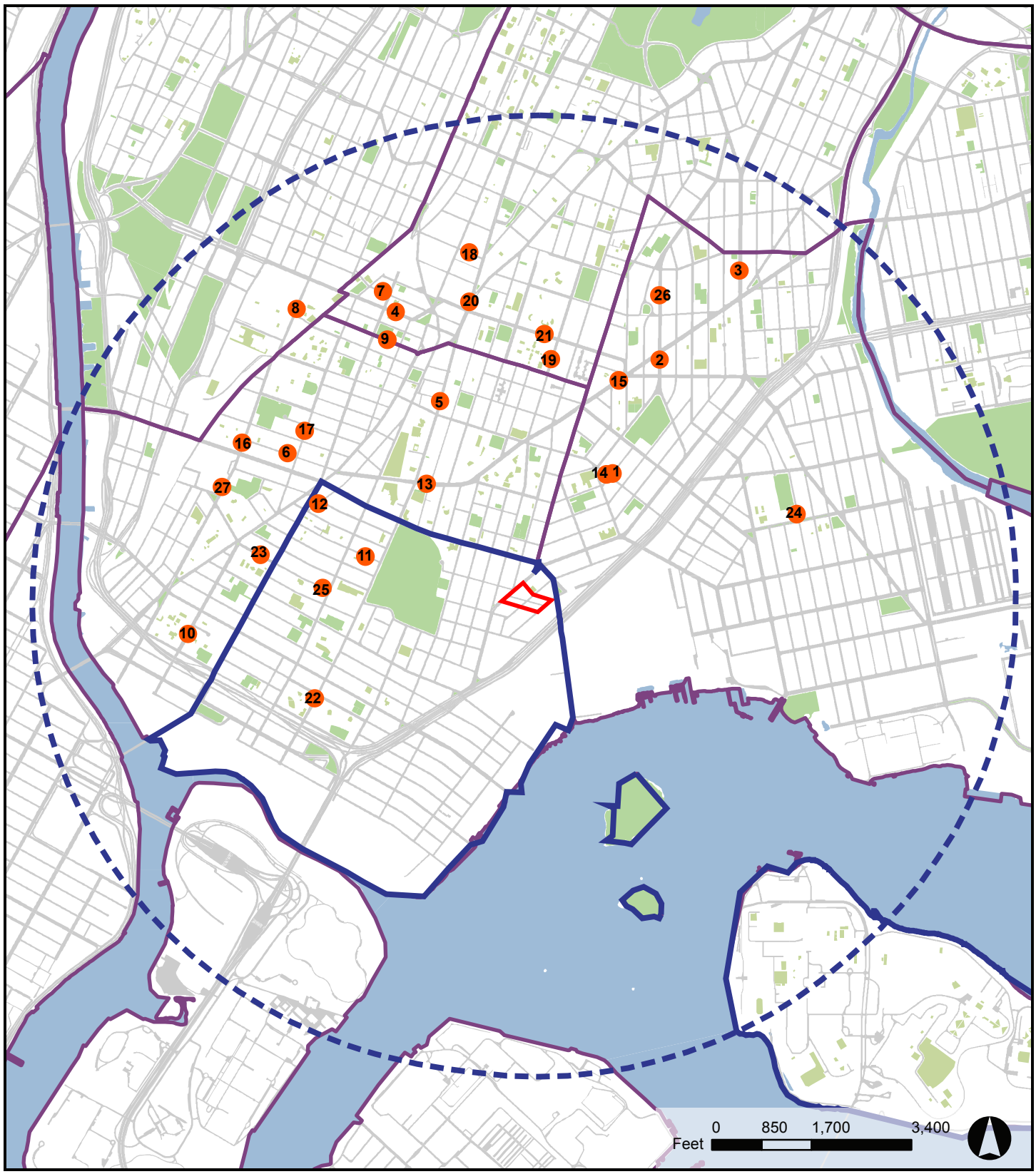
Existing Conditions

Study Area

According to the *2014 CEQR Technical Manual*, the study area for the analysis of publicly funded group child care and Head Start Centers should be approximately an area of 1.5 miles of the boundaries of the Project Area. The 1.5 mile buffer around Project Area touches 7 community districts (CD) including Bronx CD 1, 2, 3, 4, and 9; Manhattan CD 11; and Queens CD 1 **(See Figure D-2: Child Care and Head Start Centers within 1.5 miles of Project Area)**.

Within this study area, there are 27 publicly funded group day care and Head Start centers. These facilities have a total capacity of 1,987 slots **(Table D-8: Child Care and Head Start Centers within 1.5 miles of Project Area)**.

[7] 2021 is used as a proxy Build year for 2025, as consistent with NYCDCP policy



Source: Administration for Children's Services, June 2015 (via NYCDCP)

Project Area

1.5 mile Study Area

CSD 7 Sub-district 2

Community School Districts

Child Care/ Head Start Locations

CHILD CARE AND HEAD START CENTERS

Figure D-2

Table D-8: Child Care and Head Start Centers within 1.5 miles of Project Area[8]

Map Key	Program Name	Program Address	Budget Capacity	Enrollment	Available Slots	% Capacity
1	Homes for the Homeless	730 Kelly Street	20	19	1	95.00%
2	Brightside Academy, Inc.	960 Intervale Road	30	28	2	93.33%
3	Brightside Academy, Inc.	1093 Southern Boulevard	43	36	7	83.72%
4	1322 Fulton Avenue Day Care Center, Inc.	421 East 161st Street	154	148	6	96.10%
5	Brightside Academy, Inc.	800 Saint Ann's Avenue	28	28	0	100.00%
6	Brightside Academy, Inc.	331 East 150th Street	20	17	3	85.00%
7	Highbridge Advisory Council Family Services, Inc.	383 East 162nd Street	70	64	6	91.43%
8	Highbridge Advisory Council Family Services, Inc.	800 Concourse Village East	84	82	2	97.62%
9	The Salvation Army	425 East 159th Street	39	33	6	84.62%
10	East Side House Settlement	200 Alexander Avenue	55	54	1	98.18%
11	Episcopal Social Services of New York	528 East 146th Street	62	59	3	95.16%
12	Episcopal Social Services of New York	500 Bergen Avenue	25	24	1	96.00%
13	Philip H. Michaels Child Care Center, Inc.	590 Westchester Avenue	55	53	2	96.36%
14	Trabajamos Community Head Start, Inc.	940 East 156th Street	26	25	1	96.15%
15	Lutheran Social Services of NY	888 Westchester Avenue	137	129	8	94.16%
16	Episcopal Social Services of New York	565 Morris Avenue	139	0	139	0.00%
17	Philip H. Michaels Child Care Center, Inc.	629 Courtlandt Avenue	210	210	0	100.00%
18	Sharon Baptist Board of Directors, Inc.	507-509 East 165th Street	119	116	3	97.48%
19	Southeast Bronx Neighborhood Centers, Inc.	901 Tinton Avenue	54	53	1	98.15%
20	Southeast Bronx Neighborhood Centers, Inc.	3261 3rd Avenue	91	86	5	94.51%
21	Southeast Bronx Neighborhood Centers, Inc.	749 East 163rd Street	90	88	2	97.78%
22	East Side House Settlement	201 Saint Ann's Avenue	25	25	0	100.00%
23	East Side House Settlement	375 East 143rd Street	74	74	0	100.00%
24	La Peninsula Community Organization, Inc.	711 Manida Street	123	123	0	100.00%
25	South Bronx Head Start Inc.	490 East 143rd Street	53	53	0	100.00%
26	La Peninsula Community Organization Inc.	1054 Intervale Avenue	106	98	8	92.45%
27	East Side House Settlement	414 Morris Avenue	55	55	0	100.00%
Total, Child Care and Head Start			1,987	1,780	207	89.58%

[8] Administration for Children's Services, June 2015

Future without Proposed Action

Enrollment Changes

The only known development that would affect No Action capacity is the Crossroads Plaza III development at 539 Union Avenue. As stated in the Crossroads Plaza EAS[9], the Crossroads Plaza III building would generate an additional capacity of 115 seats from a new day care center. While the building has been constructed and is already occupied, the day care center has not yet been opened. Thus the additional capacity from the day care center is included in the No Action condition but the enrollment is not. The Crossroads Plaza I and II buildings are still under construction, and would generate additional enrollment of 42 child care and Head Start eligible children from the 302 affordable residential units (**Table D-9: Child Care and Head Start Program 2021 No Action Condition**).

Table D-9: Child Care and Head Start Program 2021[10] No Action Condition

Existing Capacity	1,987
Capacity Generated by No Action Projects	115
2021 No Action Capacity	**2,102**
Enrollment	1,780
No Action Project Generated Enrollment	42
2021 No Action Enrollment	**1,822**
Available Slots	280
2021 No Action Utilization	**86.68%**

Future with Proposed Action

The Proposed Action is anticipated to generate a net increase of 366 residential units, 219 of which would be affordable. This would generate approximately 31 students eligible for child care or head start programs, based on the multipliers of 0.16 elementary school students per household and 0.139 eligible children per household provided for the Bronx in Table 6-1a of the *2014 CEQR Technical Manual*. In the With Action condition by the 2021 Build year, it is anticipated that the total number of eligible children for child care and head start in the Project Area would be 1,831 students. The capacity of publicly funded child care and head start centers in the study area is not expected to increase from the No Action condition. The sub-district will have a utilization rate of 87% and a capacity for 271 seats **(Table D-10: Child Care and Head Start Program 2021 With Action Condition)**.

Table D-10: Child Care and Head Start Program 2021[11] With Action Condition

No Action Capacity	2,102
Capacity Generated by Action	0
2021 With Action Capacity	**2,102**
No Action Enrollment	1,855
Enrollment Generated by Action	31
2021 With Action Enrollment	**1,853**
Available Slots	249
2021 With Action Utilization	**88.15%**

[9] Crossroads Plaza EAS (CEQR No. 09HPD028X)
[10] 2021 is used as a proxy Build year for 2025, as consistent with NYCDCP policy
[11] 2021 is used as a proxy Build year for 2025, as consistent with NYCDCP policy

VII. CONCLUSION

Consistent with the policy of the NYCDCP, for projects with a Build Year beyond 2021, the 2021 projections were used as a proxy under an agreement with the School Construction Authority (SCA). Hence, while the Build year for the Proposed Action is identified as 2025, the year 2021 was used as a proxy in the community facilities assessment projections.

Elementary and Intermediate Schools

According to the *2014 CEQR Technical Manual*, a significant adverse impact may result, warranting consideration of mitigation, if the proposed action would result in both of the following:

- A collective utilization rate of the elementary or intermediate schools that is equal to or greater than 100 percent in the With Action condition; and
- An increase of five percent or more in the collective utilization rate between the No Action and With Action conditions.

In the With Action condition by the 2025 Build year, it is anticipated that the total number of public elementary school students in the Project Area would be 3,301 students. There has been no identified changes in the capacity of schools in the study area as of this time. The sub-district will have a utilization rate of 112.16% and a shortfall of 358 seats. The sub-district's collective elementary school utilization rate would increase 4.86% over the future No Action condition, from 107.31% to 112.16%, and the shortfall of seats would increase from 215 to 358. The Proposed Action would not increase the sub-district's elementary school utilization rate by greater than 5 percent, therefore no significant adverse impact on elementary schools is anticipated.

In the With Action condition by the 2025 Build year, it is anticipated that the total number of public intermediate school students in the Project Area would be 910 students. The capacity of schools in the study area is not anticipated to change. The sub-district will have a utilization rate of 95.79% and an availability of 40 seats. The sub-district's collectively intermediate school utilization rate would increase 6.21% over the future No Action condition, from 89.58% to 95.79%, and the availability of seats would be reduced from 99 to 40. Because the Proposed Action would not result in a collective utilization rate of intermediate schools that is equal or greater than 100 percent, a significant adverse impact on intermediate schools in sub-district 2 is not anticipated.

Group Child Care and Head Start Centers

According to the *2014 CEQR Technical Manual*, a significant adverse impact may result, warranting consideration of mitigation, if the proposed action would result in both of the following:

- A collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent in the With Action Scenario; and
- An increase of five percent or more in the collective utilization rate of the child care/Head Start cents in the study area between the No Action and With Action Scenarios.

In the With Action condition by the 2025 Build year, it is anticipated that the total number of eligible children for child care and Head Start in the Project Area would be 1,853 students. The capacity of publicly funded child care and Head Start centers in the study area is expected to increase from the No Action condition by 115 seats from the new day care facility in the Crossroads III development project. The sub-district will have a utilization rate of 88.15% and a capacity for 249 seats. Because the Proposed Action would not result in a collective utilization rate of group child care/Head Start centers that is equal or greater than 100 percent, a significant adverse impact on child care and Head Start Centers in the 1.5 mile study area is not anticipated.

Attachment E: Open Space

I. INTRODUCTION

This chapter assesses the potential impact of the Proposed Action on open space resources. Open space is defined in the *2014 CEQR Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, or sport or serves to protect or enhance the natural environment. The *2014 CEQR Technical Manual* guidelines indicate that open space analysis should be conducted if an action would result in a direct effect, such as the physical loss or alteration of public open space, or an indirect effect, such as when a substantial new population could place added demanded on an area's open spaces.

The Applicant has requested the rezoning of a multi-lot portion of Block 2600 in Bronx Community District One from M1-2 and M1-3 to R7X and R7X/C1-4. The rezoning affects a lot area of approximately 115,948 sf[1] and are bound by Southern Boulevard to the west and Austin Place to the east, and is bisected by Timpson Place and East 147th Street (the "Project Area"). The proposed C1-4 commercial overlay will be located along the eastern side of Southern Boulevard, extend 100 feet from the nearest street, and affect Lot 30, 47, 49, and 131 in Block 2600. The Applicant also seeks a text amendment of ZR Appendix F to classify the Project Area as an MIH designated area. The rezoning and text amendment are collectively the "Proposed Action."

As described in Attachment A, "Project Description", the Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of 5 projected development sites in the Project Area. The Proposed Action would facilitate the development of 366 dwelling units (DUs), as compared to the No Action condition; this is expected to introduce an additional 1,043 residents to the Project Area by the Build Year of 2025.

II. PRINCIPAL CONCLUSIONS

According to Chapter 7 of the *2014 CEQR Technical Manual*, a proposed action may result in a significant impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that would have a significant adverse effect on existing users; or (b) it would reduce the open space ratio (OSR) and consequently result in the overburdening of existing facilities or further exacerbating a deficiency in open space. The Proposed Action would not result in the physical loss of existing public open space resources, and would not result in any adverse shadow, air, noise, or other environmental impacts that would affect the usefulness of any study area public open space. However, as the Proposed Action are expected to introduce an additional 1,043 residents in the future With Action condition, compared to the No Action condition, a preliminary open space analysis for the residential (½-mile) study area was conducted, pursuant to the *2014 CEQR Technical manual*.[2]

As shown in **Table E-6: Open Space Ratios Summary**, the residential study area's (½-mile) total OSR in the future with the Proposed Action would be 1.18 acres per 1,000 residents, which represents a reduction of approximately 2.48% from No Action conditions. The active OSR in the residential study area would decrease from 0.53 acres per 1,000 residents to 0.52 acres per 1,000 residents in the future with the Proposed Action, a 1.89% decrease. The passive OSR for residents would decrease from 0.68 acres per 1,000 residents to 0.66 acres per 1,000 residents, a 2.94% decrease.

[1] Calculated as the portion of tax lots within the Project Area only. Total area within boundary of Project Area is 186,264 sf.
[2] Assumes 2.85 persons per DU for residential units in the Bronx (2010 - 2014 Census).

As the decrease in total OSR would not exceed the five percent impact threshold and the residential study area would continue to be neither well-served nor underserved by open space in the With Action condition, the Proposed Action would not result in a significant adverse indirect impact on total, active, and passive open space in the residential study area.

III. METHODOLOGY

The analysis of open space resources has been conducted in accordance with the guidelines established in Chapter 7 of the *2014 CEQR Technical Manual*. As described in those guidelines, the adequacy of open space in the open space study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as OSR. 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 Action, and to determine whether the Proposed Action would result in a significant impact on open space resources.

Direct Effects

According to Chapter 7 of the *2014 CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open 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 results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. The Proposed Action would not displace any public open space, nor change the use of or access to any public open space since there are no public open space resources within the Project Area, and since the Proposed Action would not modify access to any public open space resource in the vicinity of the Project Area, the closest of which is the Martin Luther King Triangle. Separate assessments of the potential impact of the Proposed Action on shadows, air quality and noise are provided in Attachments F, O, and Q. As described in these attachments, the results of these assessments indicate that the Proposed Action would not result in any significant adverse impacts on shadows, air quality or noise at any location in the vicinity of the Project Area, including existing public open space resources.

Indirect Effects

As described in Chapter 7 of the *2014 CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add enough population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. An open space analysis is generally conducted if a proposed project would generate more than 200 residents or 500 employees. However, the need for an analysis varies in certain areas of the city that have been identified as either underserved, well-served or neither underserved nor well-served by open space.[3] If a project is located in an underserved area, the threshold for an open space analysis is 50 residents or 125 workers. If a project is located in a well-served area, the threshold for an open space analysis is 350 residents or 750 workers. If a project is not located within an underserved or well-served area, an open space analysis should be conducted if the project would generate more than 200 residents or 500 employees. Maps in the Open Space Appendix of the *2014 CEQR Technical Manual* identify the proposed Project Area as neither underserved nor well-served by open space.

[3] The *CEQR Technical Manual* defines underserved areas as areas of high population density in the City that are generally the greatest distance from parkland, where the amount of open space per 1,000 residents is currently less than 2.5 acres. Well-served areas are defined as having an open space ratio above 2.5 accounting for existing parks that contain developed recreational resources; or are located within 0.25 mile (approximately a 10-minute walk) from developed and publicly accessible portions of regional parks.

As discussed in Attachment A, "Project Description", the Proposed Action would introduce up to 366 incremental residential DUs, which would introduce an estimated 1,043 residents to the open space study area, compared to the No Action condition. As such, an open space assessment for residential populations generated by the Proposed Action is warranted.

Study Areas

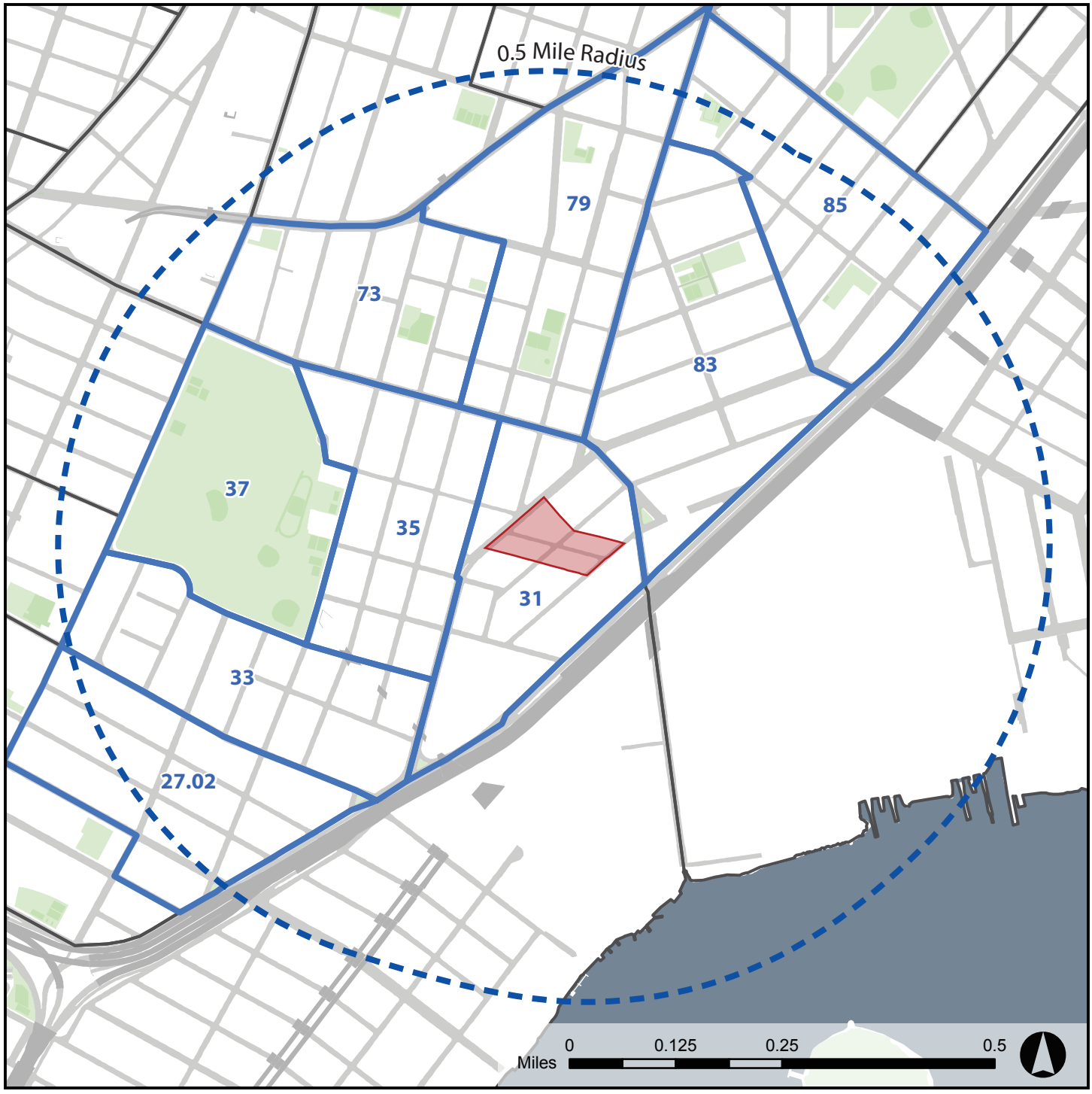
The first step in assessing potential open space impacts is to establish the appropriate study areas for the new population(s) to be added as a result of the Proposed Action. According to Chapter 7 of the *2014 CEQR Technical Manual* methodologies, the open space study areas are based on the distance a person is assumed to walk to reach a neighborhood open space, which differs by user. Workers typically use passive open spaces within a short walking distance of their workplaces. Residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active open spaces. While they may also visit certain regional parks (like Central Park), such open spaces were not included in the study area's quantitative analysis but are described qualitatively. Workers are assumed to walk up to about ¼-mile distance to reach neighborhood open spaces, and residents are assumed to walk up to about ½-mile distance.

A residential study area based on a ½-mile distance from the Project Area was evaluated in this analysis. The residential study area was adjusted to include all census tracts with at least 50 percent of their area within the ½-mile boundary, as recommended in Chapter 7 of the *2014 CEQR Technical Manual*. In this way, the study area allows analysis of both the open spaces in the area, as well as the population data **(Figure E-1: Open Space Study Area Census Tracts)**

Analysis Framework

Chapter 7 of the *2014 CEQR Technical Manual* 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 change in total population relative to total open space in the study area was examined to determine whether the elimination of open space and/or increase in user population would significantly reduce the amount of available open space for the area's population.



Source: NYCDCP, NYCDPR, U.S. Census

Census Tracts

Existing Open Space

Rezoning Boundary

0.50 Mile Radius Study Area

STUDY AREA OPEN SPACE CENSUS TRACTS

Figure E-1

East 147th Street Rezoning EAS

Impact Assessment

Impacts are based in part on how a project would change the open space ratios in the study area. According to Chapter 7 of the *2014 CEQR Technical Manual*, if a proposed project would result in a decrease in open space ratios compared with those in the future without the project, the decrease is generally considered to be a substantial change, warranting a detailed analysis, if it would approach or exceed 5 percent. However, if a study area exhibits a low open space ratio (e.g. below 1.5 acres per 1,000 residents or 0.15 acres of passive space per 1,000 non-residential users), indicating a shortfall of open space, smaller decreases in that ratio as a result of the action may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *2014 CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with guidelines included in the *2014 CEQR Technical Manual.* It is recognized that the open space ratios of the *2014 CEQR Technical Manua*l guidelines, described above, are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space.

IV. PRELIMINARY ASSESSMENT

According to the *2014 CEQR Technical Manual*, an initial quantitative open space assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. This initial assessment calculates an open space ratio by relating the existing residential 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 action. If there is a decrease in the open space ratio that would approach or exceed 5 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 included in the *2014 CEQR Technical Manual*, a preliminary open space assessment was conducted.

Existing Conditions

Study Area Population

Residential (½-Mile) Study Area

As shown in **Table E-1: Study Area Residential and Non-Residential Populations**, based on data retrieved from OnTheMap, a web-based mapping and reporting application published from the US Census Bureau that shows where workers are employed and where they live, the existing worker population for the larger residential open space study area is estimated at approximately 2,593 workers. As also shown in **Table E-1**, 2010 Census data indicate that the study area has a residential population of approximately 35,729 persons.

As shown in **Table E-1**, the total population (residents plus workers) within the residential study area is estimated to be 38,322. Again, although this analysis conservatively assumes that the residents and employees are separate populations, it is possible that some of the residents live near their workplace or

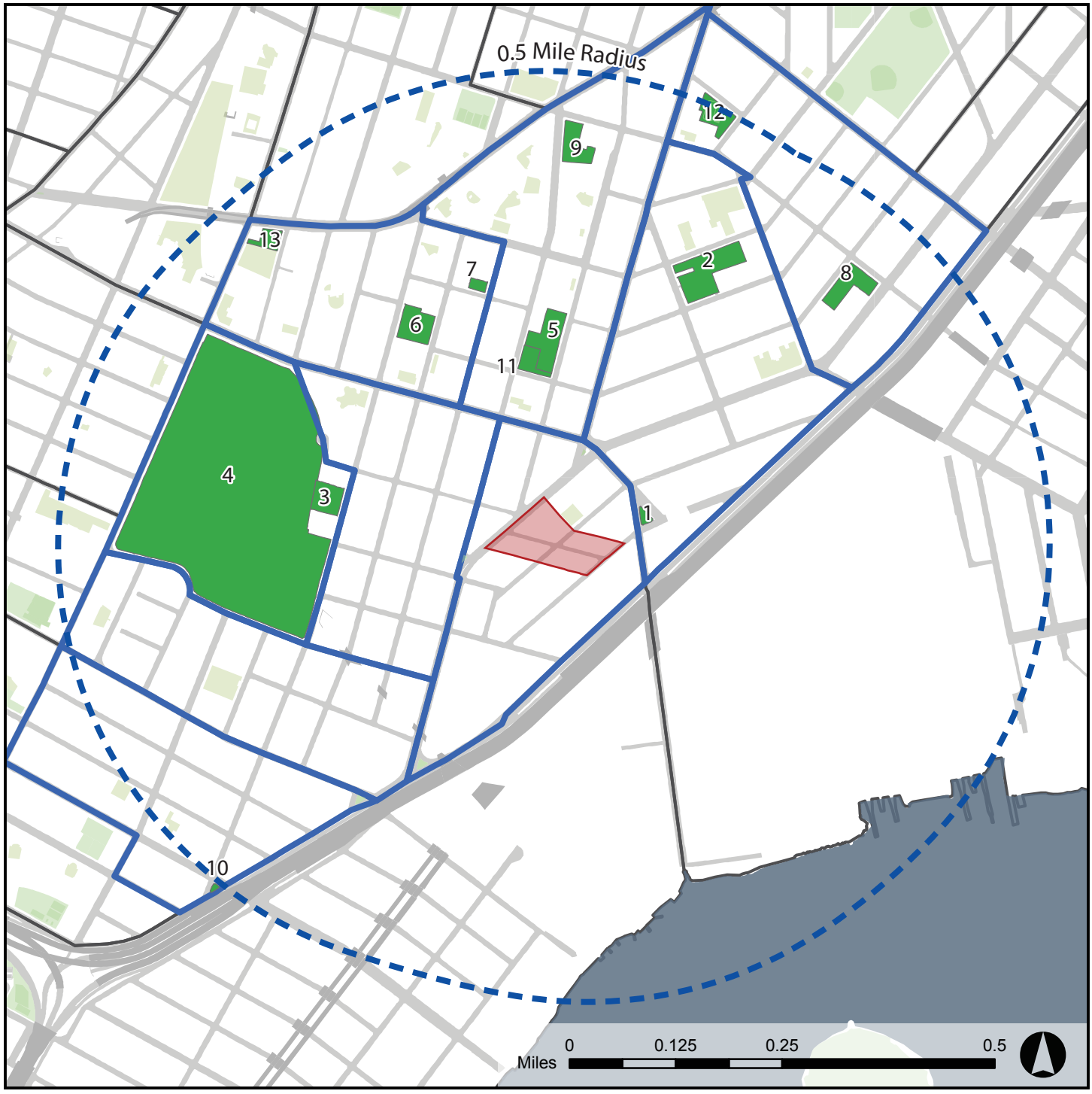
work from home. As a result, there is likely to be some double-counting of the daily user population in which residential and non-residential populations overlap, resulting in a more conservative analysis.

Table E-1: Study Area Residential and Non-Residential Populations

Census Tract	Residential Population	Non-Residential (Worker) Population	Total Population
½-Mile Residential Study Area			
27.02	4,475	454	4,929
31	1,597	345	1,942
33	3,413	237	3,650
35	3,761	302	4,063
37	245	18	263
73	3,893	154	4,047
79	6,733	212	6,945
83	6,155	507	6,662
85	5,457	364	5,821
½-Mile Study Area Totals	***35,729***	***2,593***	***38,322***

Inventory of Publicly-Accessible Open Space

According to the *2014 CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. According to the *2014 CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Data from NYCMAP, hosted and maintained by the NYC Department of Information Technology and Telecommunications (DoITT), and GIS data from the NYC Department of Parks and Recreation (NYCDPR) was used to determine the number, availability, and condition of publicly accessible open space resources in the non-residential and residential study areas.



Source: NYCDCP, NYCDPR, U.S. Census

Census Tracts

Study Area Open Space

1 Open Space Label No.

Rezoning Boundary

0.50 Mile Radius Study Area

STUDY AREA OPEN SPACE RESOURCES

Figure E-2

East 147th Street Rezoning EAS

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, lawns and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways and picnicking areas. However, some passive spaces can be used for both passive and active recreation; such as a green lawn or riverfront walkway, which can also be used for ball playing, jogging or rollerblading.

All of the publicly accessible open space and recreational resources within the defined study area are shown in **Figure E-2: Study Area Open Space Resources** and listed in **Table E-2: Open Space Resources within ½-Mile Open Space Study Areas.**

Residential (½-Mile) Study Area

The residential study area includes 17 publicly accessible open space resources **(Table E-2** and **Figure E-2)**. As shown in **Table E-2**, the residential study area contains a total of approximately 43.36 acres of publicly accessible open space. Of this total, approximately 24.40 acres (56%) are primarily passive space and approximately 18.96 acres (44%) are active space **(Table E-2).**

Table E-2: Open Space Resources within ½-Mile Open Space Study Area

Label No.	Name	Owner / Agency	Acreage	Passive	Active	%Passive	%Active
½-Mile Residential Study Area							
1	Martin Luther King Triangle	DPR	0.16	0.16	0.00	100%	0%
2	Playground 52 LII	DPR/DOE	1.80	0.40	1.40	22%	78%
3	I-Am-Park	DPR/DOE	0.71	0.61	0.10	86%	14%
4	St. Mary's Park	DPR	35.30	21.20	14.10	60%	40%
5	Fountain Of Youth Playground	DPR	1.38	0.38	1.00	28%	72%
6	Pontiac Playground	DPR	0.91	0.03	0.88	3%	97%
7	Isla Verde Garden	DPR	0.16	0.16	0.00	100%	0%
8	Fox Playground	DPR	0.91	0.58	0.33	62%	38%
9	Abigail Playground	DPR	0.53	0.03	0.50	6%	94%
10	Gouverneur Morris Triangle	DPR	0.04	0.04	0.00	100%	0%
11	El Flamboyan Garden	DPR	0.43	0.43	0.00	100%	0%
12	P.S. 130	DPR	0.65	0.00	0.65	0%	100%
13	Granja Farm	DPR	0.38	0.38	0.00	100%	0%
½-Mile Study Area Totals			***43.36***	***24.40***	***18.96***		

Assessment of Open Space Adequacy

Residential (½-Mile) Study Area

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

With a total of 43.36 acres of open space, of which approximately 24.40 acres are for passive use and approximately 18.96 acres are for active use, and a total residential population of 35,729, the residential study area has an overall open space ratio of 1.21 acres per 1,000 residents **(Table E-3: Adequacy of Open Space Resources Existing Conditions)**. This is substantially less than the City's planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents. The study area's residential passive open space ratio is 0.68 acres per 1,000 residents, which is above the *2014 CEQR Technical Manual* guideline of 0.50 acres of passive open space per 1,000 residents. The study area's residential active open space ratio is 0.68 acres per 1,000 residents, which falls below the 2.00 acres of active open space per 1,000 resident guideline as specified in the *2014 CEQR Technical Manual*. As such, there is an existing shortfall of active open space in the residential study area.

When the employees who work within the residential study area are added to the population, the passive open space ratio decreases slightly. Workers typically use passive open space during the workday, so the passive open space ratio is the relevant ratio for consideration. With a combined worker and residential population of 38,322, the combined passive open space ratio in the residential study area is 0.64 acres per 1,000 users, which remains above the recommended weighted average guideline ratio of 0.48 acres per 1,000 residents and workers.

Table E-3: Adequacy of Open Space Resources: Existing Conditions

	Population	Open Space Acreage			Open Space Ratio per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residential (1/2-Mile) Study Area										
Residents	35,729	43.36	24.40	18.96	1.21	0.68	0.53	2.50	0.50	2.00
Combined Workers & Residents	38,322				N/A	0.64	N/A	N/A	0.48[1]	N/A

Notes:
[1] Based on target open space ratios established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers.

Future without Proposed Action (No Action Condition)

As described in Attachment A, "Project Description", absent the Proposed Action, all projected development sites in the No Action scenario would remain in its existing conditions with the exception of Projected Development Site #2 (Lot 30, Block 2600), which is anticipated to be redeveloped from its existing use of transportation/utility use into an as-of-right two-story commercial/retail development with a maximum bulk of 11,700 gsf by the 2025 Build year as allowed under the current zoning designation of M1-2. This development would generate no additional residents and approximately 12 additional workers, calculated at 1 employee per 1,000 sf for local retail and services, and food stores less than 2,000 sf. However, since the incremental increase in number of employees within the study area is small, the total OSR are not expected to change from existing condition **(Table E-4: Adequacy of Open Space Resources, No Action Condition)**.

Table E-4: Adequacy of Open Space Resources: No Action Condition

	Population	Open Space Acreage			Open Space Ratio per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residential (1/2-Mile) Study Area										
Residents	35,729	43.36	24.40	18.96	1.21	0.68	0.53	2.50	0.50	2.00
Combined Workers & Residents	38,334				N/A	0.64	N/A	N/A	0.48[1]	N/A

Notes:
[1] Based on target open space ratios established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers.

Future with Proposed Action (With Action Condition)

The Proposed Action would not result in the physical loss of existing public open space resources, and would not result in any adverse shadow, air, noise, or other environmental impacts that would affect the usefulness of any study area public open space. As the Proposed Action is expected to introduce 1,043 residents under the RWCDS, compared to the No Action condition, the preliminary assessment results are shown in **Table E-5: Adequacy of Open Space Resources With Action Condition** and **Table E-6: Open Space Ratios Summary.**

The residential study area's (½-mile) total OSR in the future with the Proposed Action would be 1.18 acres per 1,000 residents, which represents a reduction of approximately 2.48% from No Action conditions **(Table E-5, E-6)**. The active OSR in the residential study area would decrease from 0.53 acres per 1,000 residents to 0.52 acres per 1,000 residents in the future with the Proposed Action, a 1.89% decrease **(Table E-5, E-6)**. The passive OSR for residents would decrease from 0.68 acres per 1,000 residents to 0.66 acres per 1,000 residents, a 2.94% decrease **(Table E-5, E-6)**.

Table E-5: Adequacy of Open Space Resources: With Action Condition

	Population	Open Space Acreage			Open Space Ratio per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Residential (1/2-Mile) Study Area										
Residents	36,772	43.36	24.40	18.96	1.18	0.66	0.52	2.50	0.50	2.00
Combined Workers & Residents	39,373				N/A	0.62	N/A	N/A	0.48[1]	N/A

Notes:
[1] Based on target open space ratios established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers.

Table E-6: Open Space Ratios Summary

	CEQR Technical Manual Open Space Guideline	Open space Ratios per 1,000			Percent Change (Future No Action to Future With Action)
		Existing	No Action	With Action	
Residential (½-Mile) Study Area					
Total - Residents	2.50	1.21	1.21	1.18	-2.48%
Passive - Residents	0.50	0.68	0.68	0.66	-2.94%
Active - Residents	2.00	0.53	0.53	0.52	-1.89%

VI. CONCLUSION

As the total OSR decreases would not exceed the five percent impact threshold and the residential study area would continue to be neither well-served nor underserved by open space in the future with the Proposed Action, the Proposed Action would not result in a significant adverse impact on total, active, and passive open space in the residential study area.

Attachment F: Shadows

I. INTRODUCTION

This attachment assesses the potential impact of shadows created by the Proposed Action on nearby sunlight sensitive resources. Section 200 of Chapter 8 of the *2014 CEQR Technical Manual* states that a shadow assessment is necessary for projects that would either result in new structures (or additions to existing structures) of 50 feet or more, or be located adjacent to, or across the street from, a sunlight-sensitive resource. Sunlight-sensitive resources are those that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Examples include public open spaces, architectural resources, and natural resources.

The Applicant has requested the rezoning of a multi-lot portion of Block 2600 in Bronx Community District One (the "Project Area") from M1-2 to R7X, M1-3 to R7X, and M1-2 to R7X/C1-4. The Applicant also seeks a text amendment of ZR Appendix F to classify the Project Area as an MIH designated area. The rezoning and text amendment are collectively the "Proposed Action." The Proposed Action affects a lot area of approximately 115,948 sf[1] and is bound by Southern Boulevard to the west and Austin Place to the east, and is bisected by Timpson Place and East 147th Street. The proposed C1-4 commercial overlay would be located along the eastern side of Southern Boulevard, extend 100 feet from the nearest street, and affect Lot 30, 47, 49, and 131 in Block 2600. The Proposed Action would allow the Applicant to construct a 12-story, 135-foot tall, 164,592 gsf residential building on Lots 187, 222, 220, and 213 of Block 2600 in Bronx Community District One (the "Development Site") with an FAR of 6.0 and providing 165 affordable DUs. The Proposed Action is anticipated to also result in development on four additional projected development sites in the Project Area.

The Reasonable Worst Case Development Scenario (RWCDS) assumes that by 2018, an as-of-right (under the new zoning) 6.0 FAR building with 164,592 gross square feet of residential space (165 dwelling units) would be constructed on the Projected Development Site #1 (the Applicant's Development Site). The building envelope maximized the permissible floor area and height under the new zoning. The Build year is 2025 for the four other projected development sites (FAR is also 6.0 for all of these sites). The ianticipated development on the additional four projected development sites would be 220,692 gross square feet, 8,470 of which would be commercial and the rest which would be residential, providing a total of 212 dwelling units.

II. PRINCIPAL CONCLUSIONS

A preliminary assessment was performed to determine whether the Proposed Action would result in new shadows long enough to reach sunlight-sensitive resources. Two of the three resources would be subject to varying amounts of Proposed Action-generated incremental shadows. These impacts (while adverse) would be minimal rather than significant due to their limited extent (often not covering the entire area of the resources) and duration (early- to mid-mornings and late afternoons and evenings), as presented in a detailed assessment.

III. METHODOLOGY

[1] Calculated as the portion of tax lots within the Project Area only. Total area within boundary of Project Area is 186,264.4 sf.

Data for the analysis was acquired via GIS analyses and 3D modeling of the Project Area under various conditions and times, and calculating sunlight/shadow parameters customized to the location. The Project Area as well as the vicinity around it (including rights of way) within Bronx Community District One were studied, with emphasis on sunlight sensitive resources such Greenstreets facilities. These processes were done so as to provide insight on if the Proposed Action adversely impacts sunlight-sensitive resources.

Figure F-1: 3D Model of Future No-Action Condition and **Figure F-2: 3D Model of Future With-Action Condition** depict the three-dimensional model for the Project Area.

IV. SCREENING ASSESSMENT

Base Map and Sunlight-Sensitive Resources of Concern

As indicated in Section 310 of Chapter 8 the *2014 CEQR Technical Manual*, a base map was developed that identified the Project Area in relationship to sunlight-sensitive resources of concern **(Figure F-3: Shadow Base Map)**. As shown on **Figure F-1: Shadow Base Map**, sunlight-sensitive resources of concern in the vicinity of the Site are limited to (1) NYC Department of Parks & Recreation's Martin Luther King Triangle [an approximately 0.16 acre triangular park bounded by West 149th Street & Austin Place], (2) another small triangular landscaped Greenstreets Program facility approximately 0.01 acres [bounded by East 149th Street, Southern Boulevard and Prospect Avenue], and (3) and another approximately 0.02 acre triangular Greenstreet facility [bounded by Southern Boulevard and Tinton Avenue adjacent to Mott Haven Community High School]. There are no significant architectural resources with sunlight-sensitive features in the vicinity of the Site.

Tier 1 Screening Assessment

As required in Section 312 of Chapter 8 of the *2014 CEQR Technical Manual*, a Tier 1 screening assessment was completed that identified the longest shadow that could be cast either (and a combination of) on the client development site and projected development sites (i.e., a shadow 4.3 times the height of the structure under any possible allowed configuration which would occur on December 21st, at the winter solstice **(Figure F-4: Longest Potential Shadow)**. As shown on **Figure F-4**, the buildings' maximum heights (such as 135 feet [including the rooftop bulkhead] at the Applicant's Development Site) would cast their longest shadows out to a radius of 580.5 feet or 314 feet, depending on the location. This area would encompass all three sunlight-sensitive resources, including all of their trees and landscaped grounds.

Tier 2 Screening Assessment

Since sunlight-sensitive resources would lie within the longest shadow study area, as described in Section 313 of Chapter 8 of the *2014 CEQR Technical Manual*, a Tier 2 screening assessment was performed. In New York City, no shadow can be cast within an area between -108 and +108 degrees from true north of a site. **Figure F-5: Area That Cannot Be Shaded by the Proposed Project**, indicates the area (to the south of the Proposed Action) that could not be shaded by projected development sites. As indicated in **Figure F-5**, the Proposed Action could still potentially cast a shadow on all three sunlight-sensitive resources. As a consequence, a Tier 3 screening assessment was completed.

Tier 3 Screening Assessment

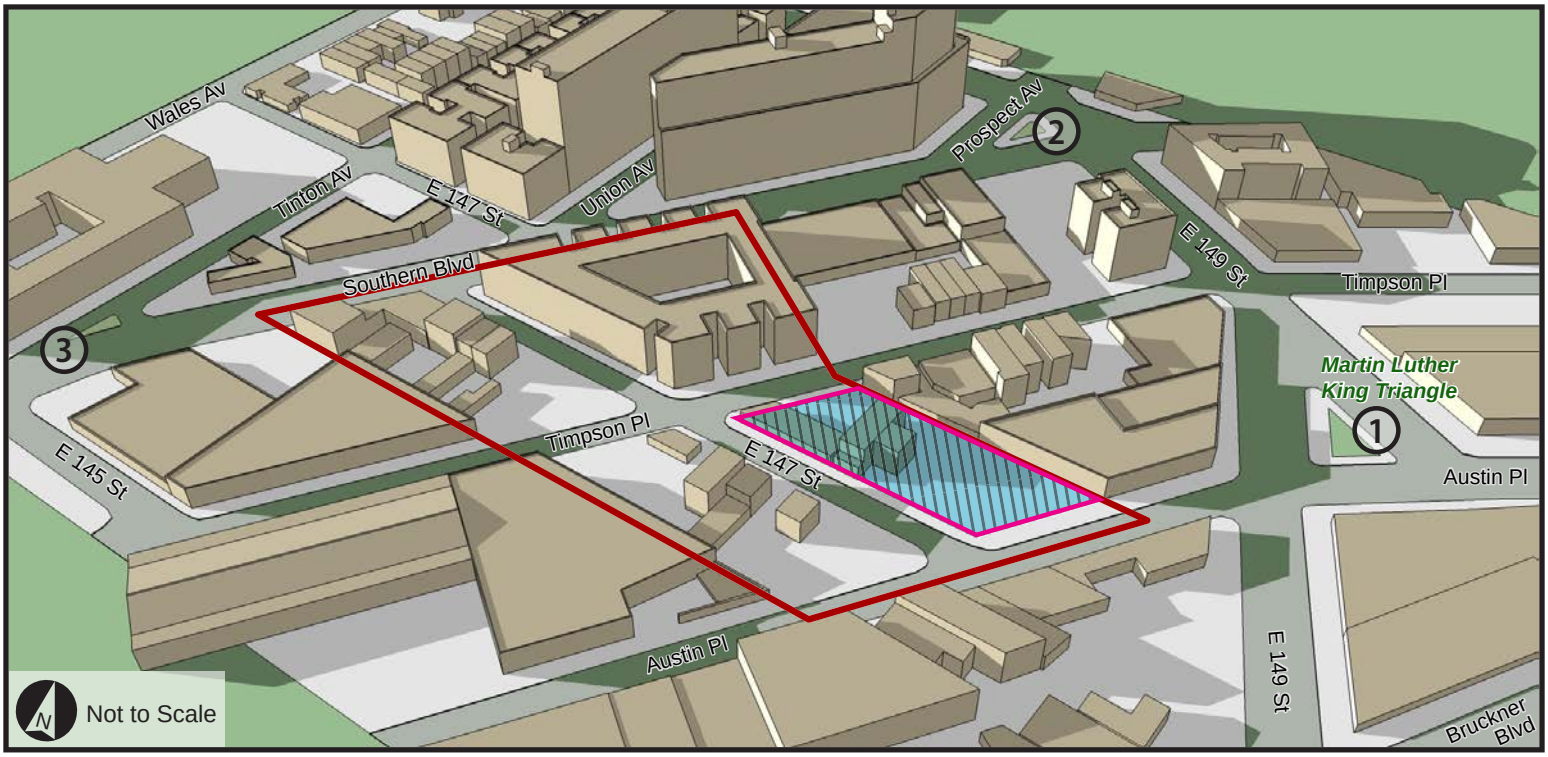
As indicated in Section 314 of Chapter 8 of the *2014 CEQR Technical Manual*, the Tier 3 screening assessment determines whether the shadows cast by the proposed building(s) would reach sunlight-sensitive resources.

Four days of the year and specific times of the day were selected for analysis: December 21st, March 21st, May 6th, and June 21st. These days represent the winter solstice, the vernal equinox, a midpoint between the vernal equinox and summer solstice, and the summer solstice, respectively. March 21st, May 6th and June 21st also provide different points in the growing season for vegetation. Analysis of all four of these days provides a full range of the possible extent of shadows from the proposed buildings.

The timeframe window of analysis considers shadows which occur 90 minutes following sunrise and 90 minutes preceding sunset. **Table F-1: Analysis Summary**, lists the duration of the analyses days' timeframes. As required by the *2014 CEQR Technical Manual*, daylight savings time is not used to determine the timeframes for analysis; *all times are listed in Eastern Standard Time*.

Figures F-6 through **F-9** show the Tier 3 Screening Assessment for the representative days of December 21st, March 21st, May 6th, and June 21st. For December 21st **(Figure F-6: Tier 3 Screening Assessment for the December 21st Analysis Day)**, there is potential for shading on Martin Luther King Triangle at the end of the analysis day (labeled resource "1" on the figure), but no impact on the two Greenstreets facilities (labeled "2" and "3"). For March 21st **(Figure F-7: Tier 3 Screening Assessment for the March 21st Analysis Day)**, there is impact on Martin Luther King Triangle and a minute amount on the Greenstreet labeled "3", but no impact on the Greenstreet labeled "2." For May 6th **(Figure F-8: Tier 3 Screening Assessment for the May 6th Analysis Day)**, there is only impact on Greenstreet "3". Lastly, for June 21st **(Figure F-9: Tier 3 Screening Assessment for the June 21st Analysis Day)** there is also only impact on Greenstreet "3".

Since the Tier 3 screening assessment indicated the Proposed Action could potentially cast shadows on either one or two (of 3 total) sunlight-sensitive resources for any of the four selected days of the year, a detailed shadow analysis was considered to determine the significance of these effects on all four days.



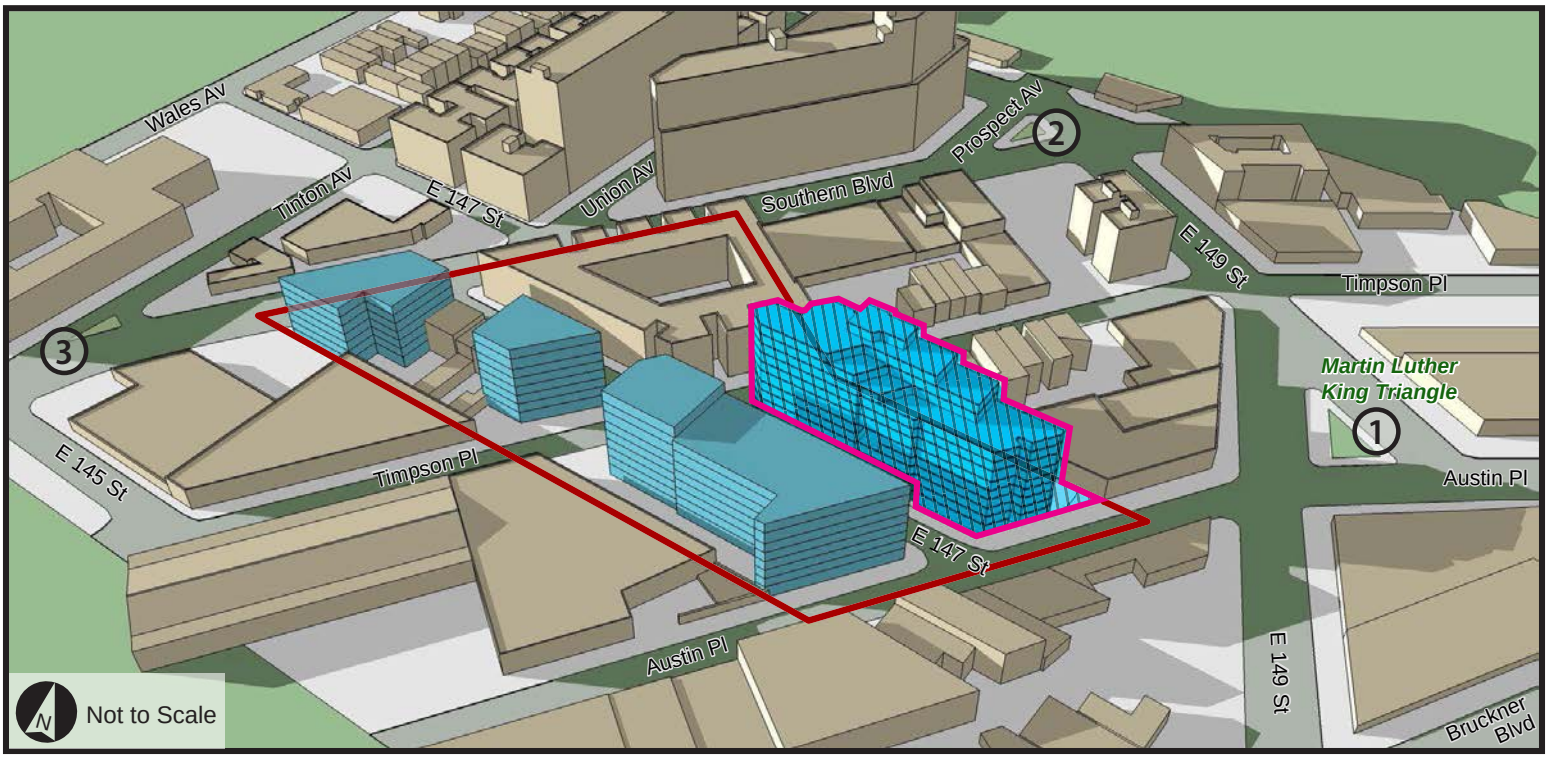
Applicant's Development Site

Rezoning Area

1 Sunlight-Sensitive Resources

3D MODEL OF FUTURE NO-ACTION CONDITION

Figure F-1



Projected Development Buildings

Applicant's Development Building

Rezoning Area

1 Sunlight-Sensitive Resources

3D MODEL OF FUTURE WITH-ACTION CONDITION

Figure F-2

V. DETAILED ASSESSMENT

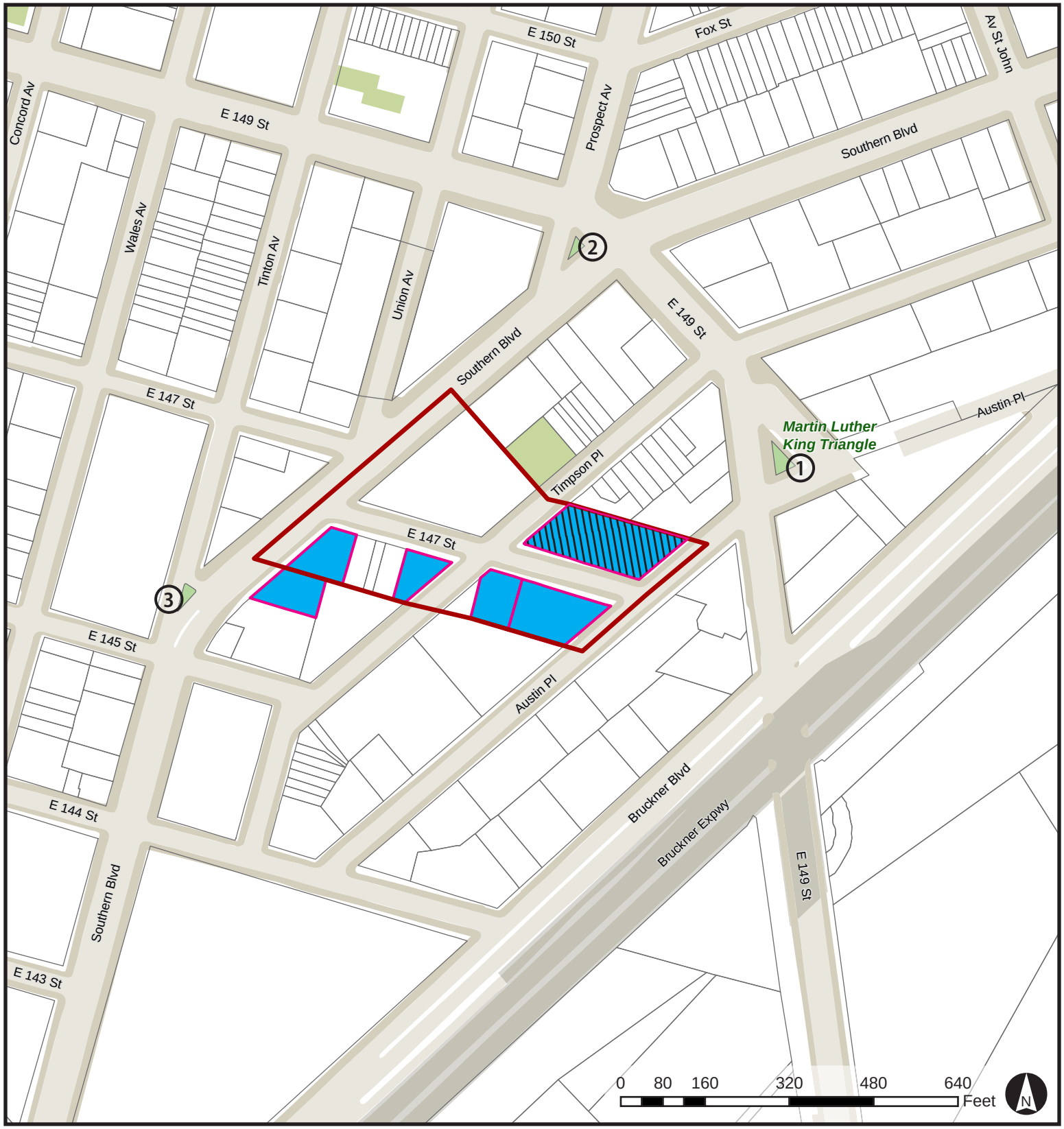
Detailed Shadow Analysis

Using a three-dimensional model of the Project Area, upon taking a closer look after the Tier 3 screening assessment, on the December 21st analysis day no Proposed Action-generated incremental shadows would reach Martin Luther King Triangle. This is because the Applicant's Proposed Development on Projected Development Site #1 is shorter (at its eastern end) and less deep (the building does not take up the full lot depth) in bulk than the full extent of the Projected Development Site #1, as seen in Tier 3. **Figure F-10** shows the possible incremental shadow on December 21st during the last minute of the study period – 3:02pm – of which there is none (since no shadow enters the Triangle until after the study period ends).

On the March 21st analysis day at 4:16 pm, Proposed Action-generated incremental shadows are just about to enter Martin Luther King Triangle (see **Figure F-11**). By 4:27 pm, the shadow enters on the southwest corner of the Triangle (see **Figure F-12**). By the time the study period on March 21st ends – at 4:39 pm – the incremental shadows is still cast over the far southern portion of the Triangle (see **Figure F-13**).

On the May 6th analysis day, Proposed Action-generated incremental shadows cover approximately the northern three-quarters of Greenstreet facility "3" during the start of the study time – 6:19 am (see **Figure F-14**). By 6:28 am, the shadow covers the northern one-third of the Greenstreet (see **Figure F-15**). By 6:38 am the shadow is no longer cast on the Greenstreet (see **Figure F-16**).

On the June 21st analysis day, Proposed Action-generated incremental shadows cover the entirety of Greenstreet facility "3" during the start of the study time – 5:55 am (see **Figure F-17**). By 6:19 am, the shadow covers approximately the eastern half of the Greenstreet (see **Figure F-18**), and by 6:39 am the shadow no longer is in the Greenstreet (see **Figure F-19**).



Projected Development Sites

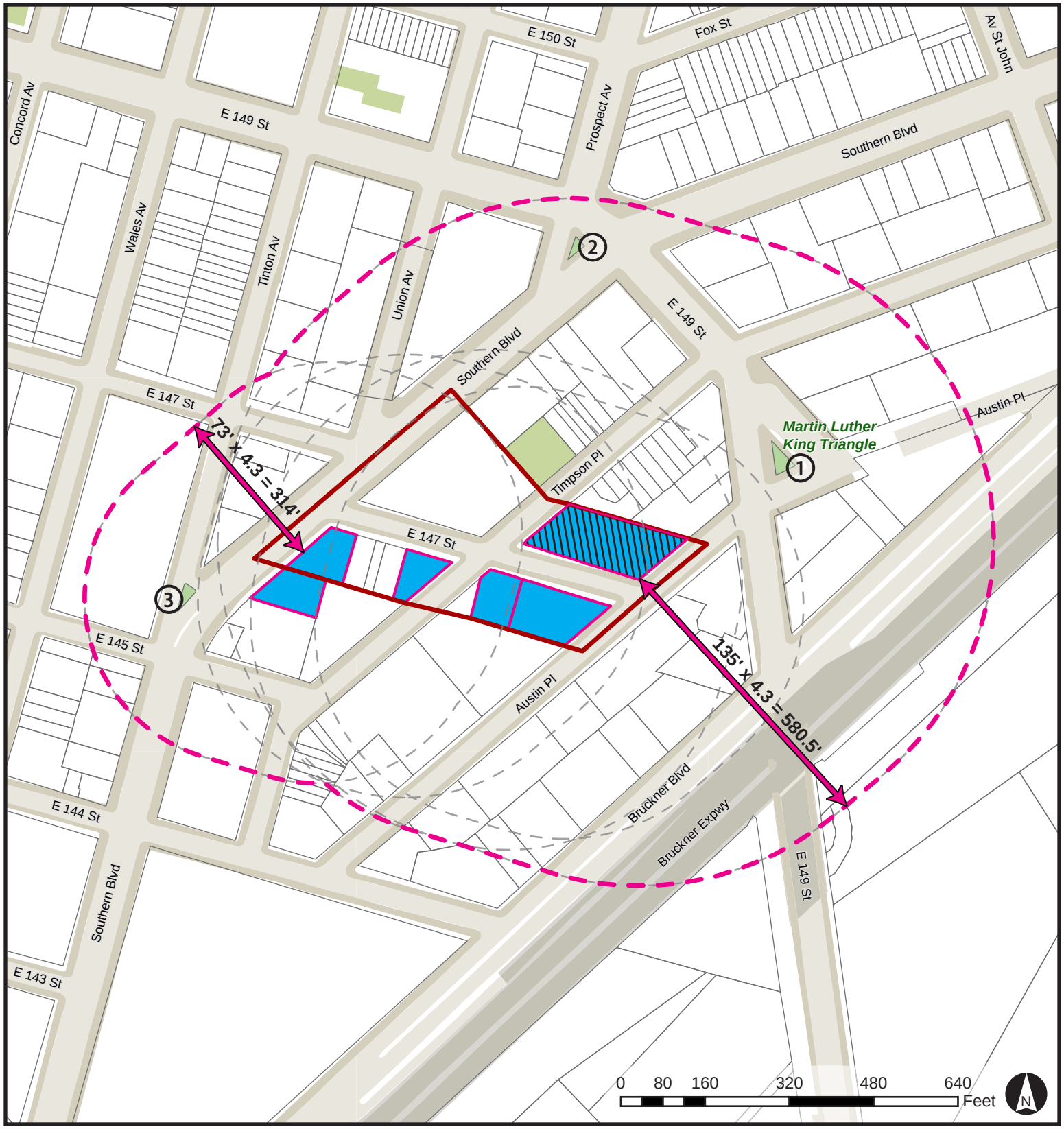
Applicant's Development Site

Rezoning Area

(1) Sunlight-Sensitive Resources

SHADOW BASE MAP

Figure F-3



Projected Development Sites

Applicant's Development Site

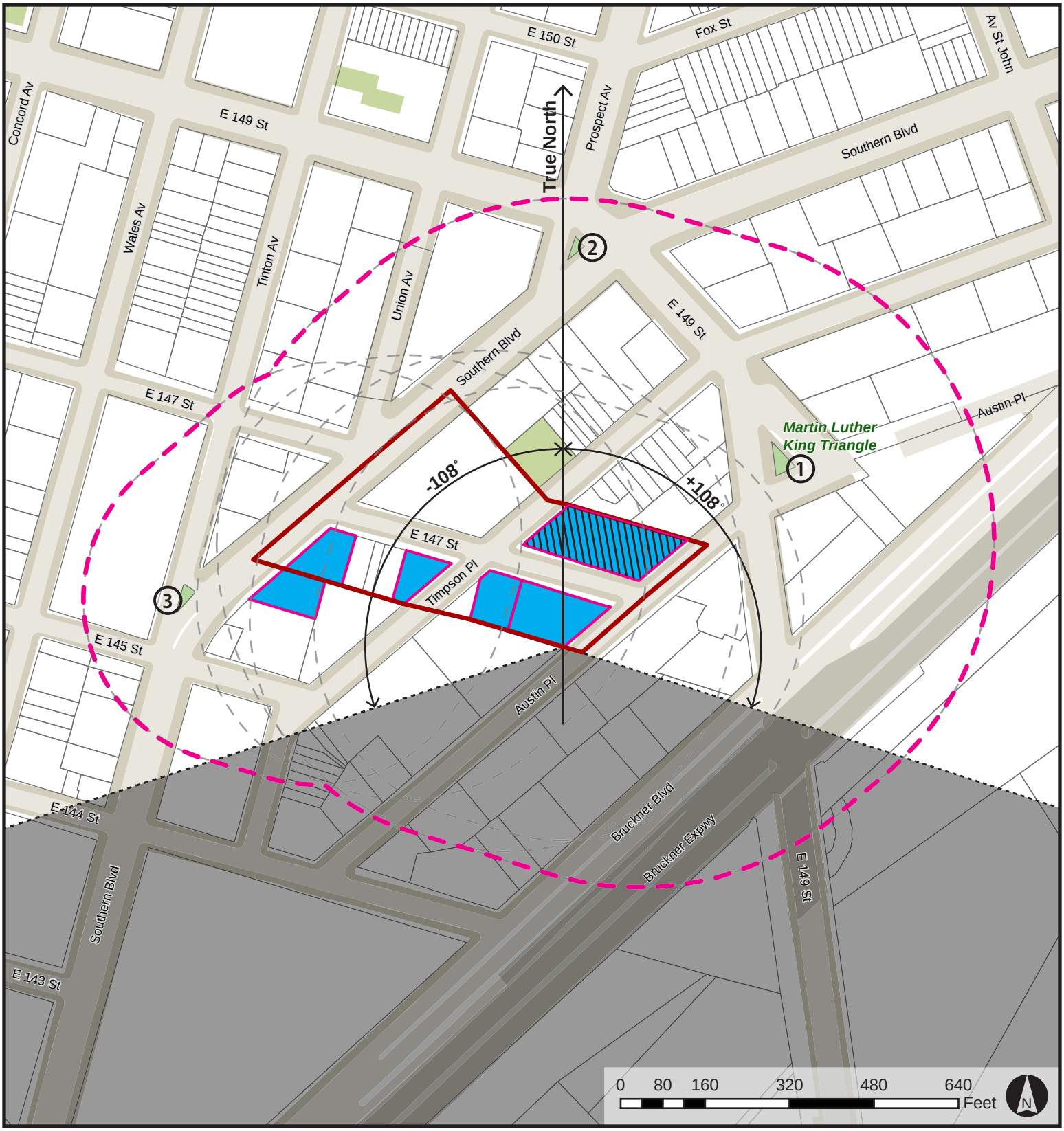
Rezoning Area

Sunlight-Sensitive Resources

Longest Shadow Study Area Boundary

LONGEST POTENTIAL SHADOW

Figure F-4



Projected Development Sites

Applicant's Development Site

Rezoning Area

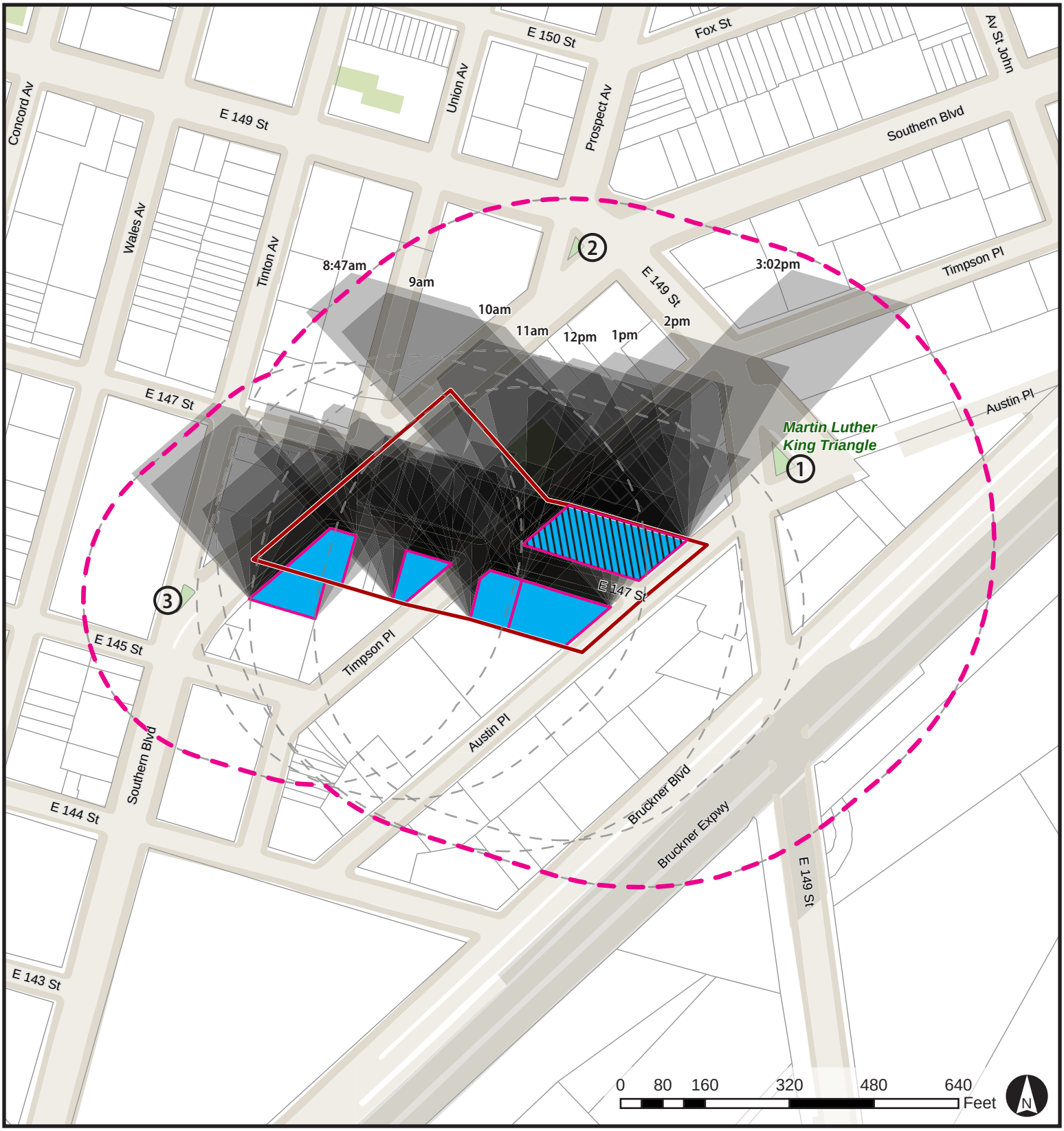
1 Sunlight-Sensitive Resources

Longest Shadow Study Area Boundary

Area That Cannot Be Shaded by the Proposed Building

AREA THAT CANNOT BE SHADED BY THE PROPOSED PROJECT

Figure F-5



Projected Development Sites

Applicant's Development Site

Rezoning Area

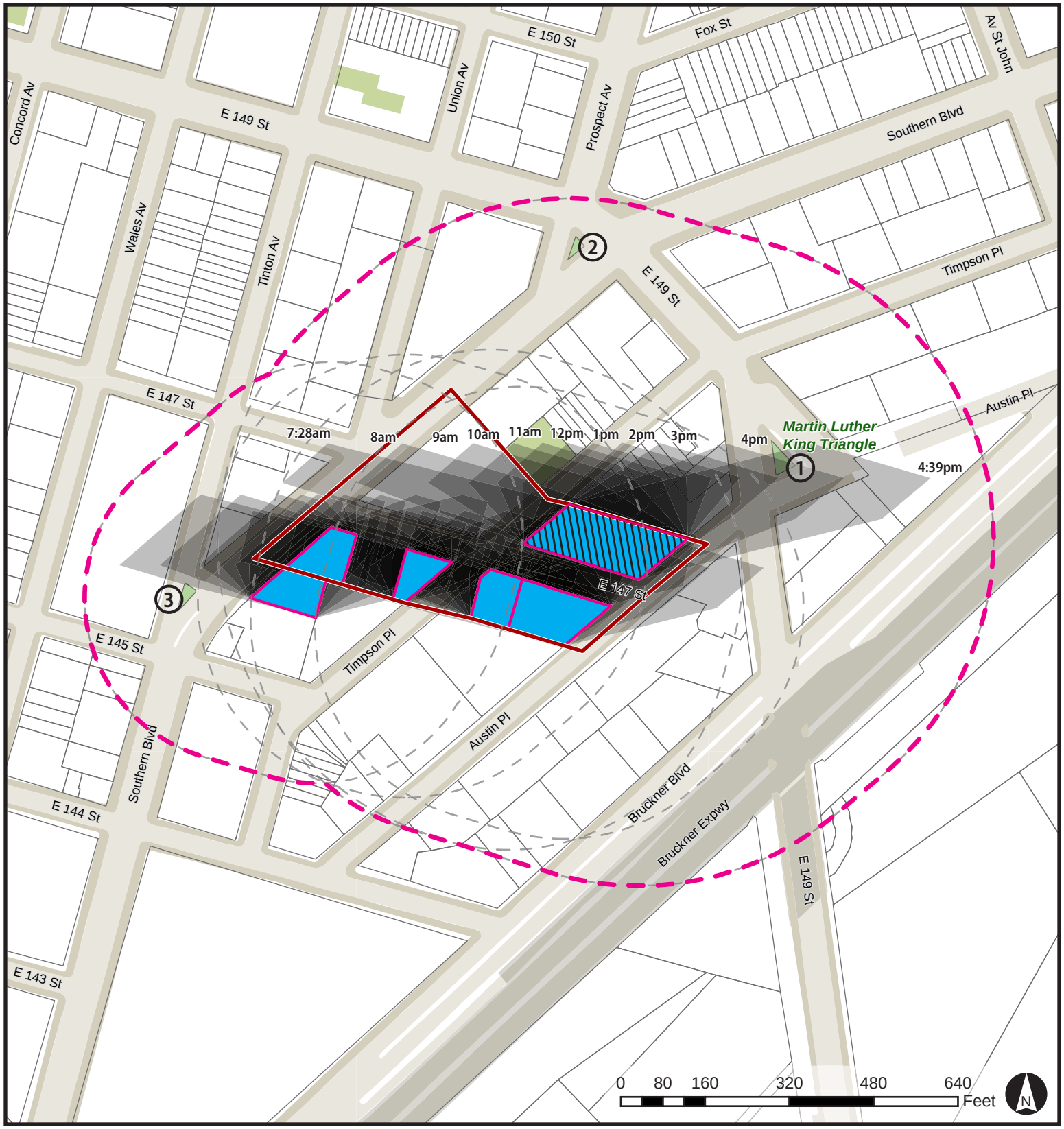
Longest Shadow Study Area Boundary

(1) Sunlight-Sensitive Resources

TIER 3 SCREENING ASSESSMENT FOR THE DECEMBER 21ST ANALYSIS DAY

Figure F-6

E 147th Street Rezoning EAS



Projected Development Sites

Applicant's Development Site

Rezoning Area

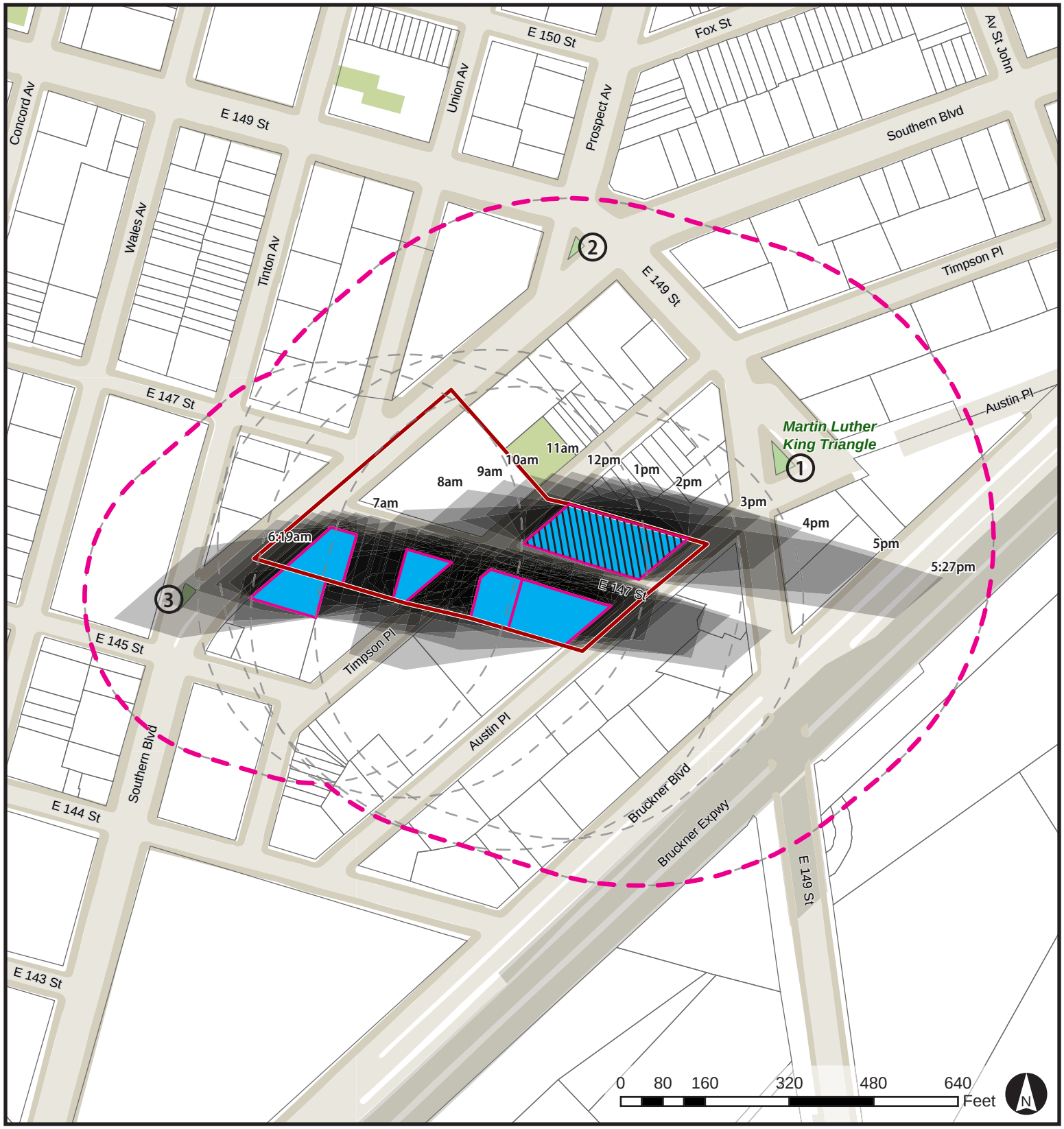
Longest Shadow Study Area Boundary

(1) Sunlight-Sensitive Resources

TIER 3 SCREENING ASSESSMENT FOR THE MARCH 21ST ANALYSIS DAY

Figure F-7

E 147th Street Rezoning EAS



Projected Development Sites

Applicant's Development Site

Rezoning Area

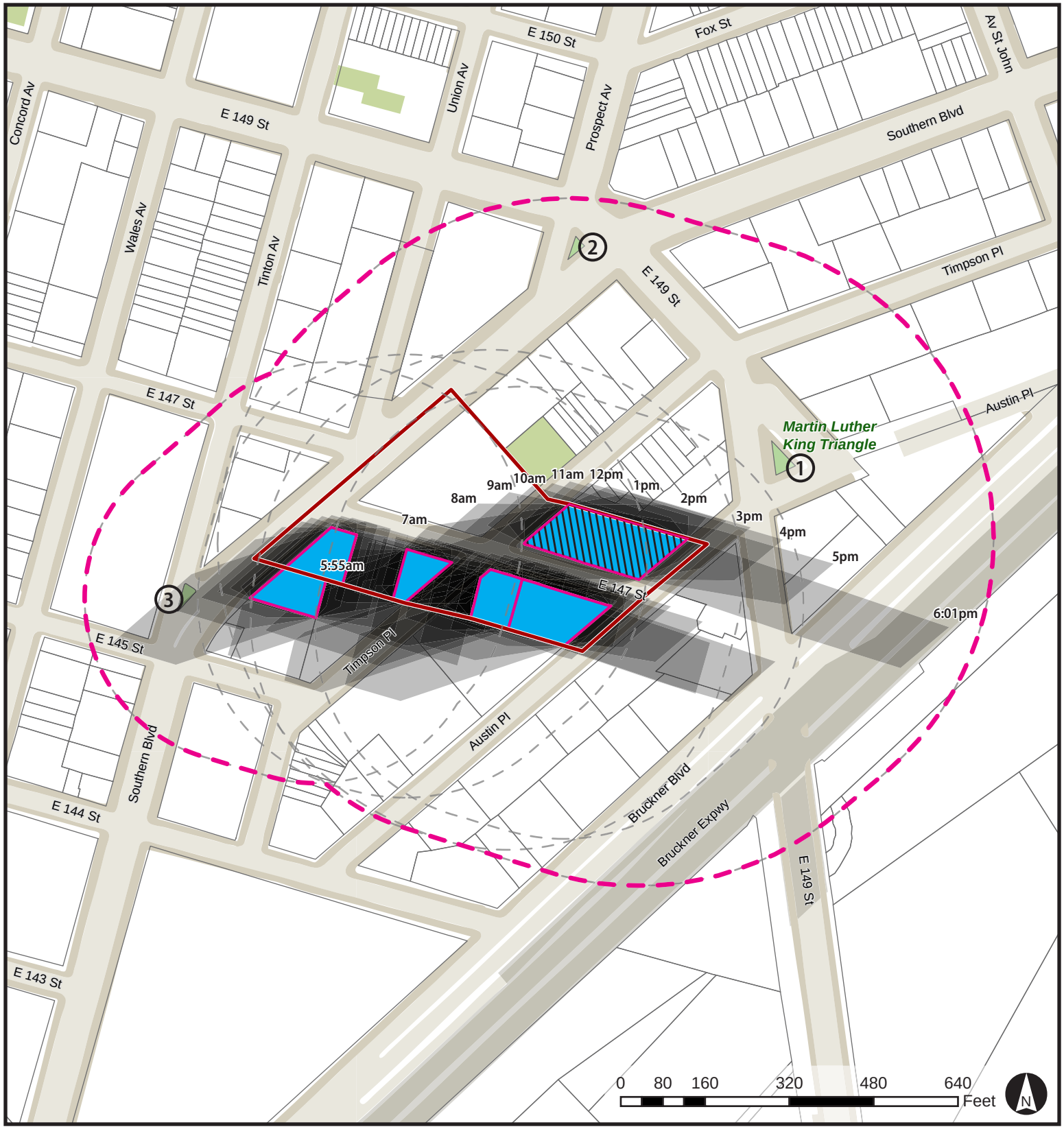
Longest Shadow Study Area Boundary

(1) Sunlight-Sensitive Resources

TIER 3 SCREENING ASSESSMENT FOR THE MAY 6TH ANALYSIS DAY

Figure F-8

E 147th Street Rezoning EAS



Projected Development Sites

Applicant's Development Site

Rezoning Area

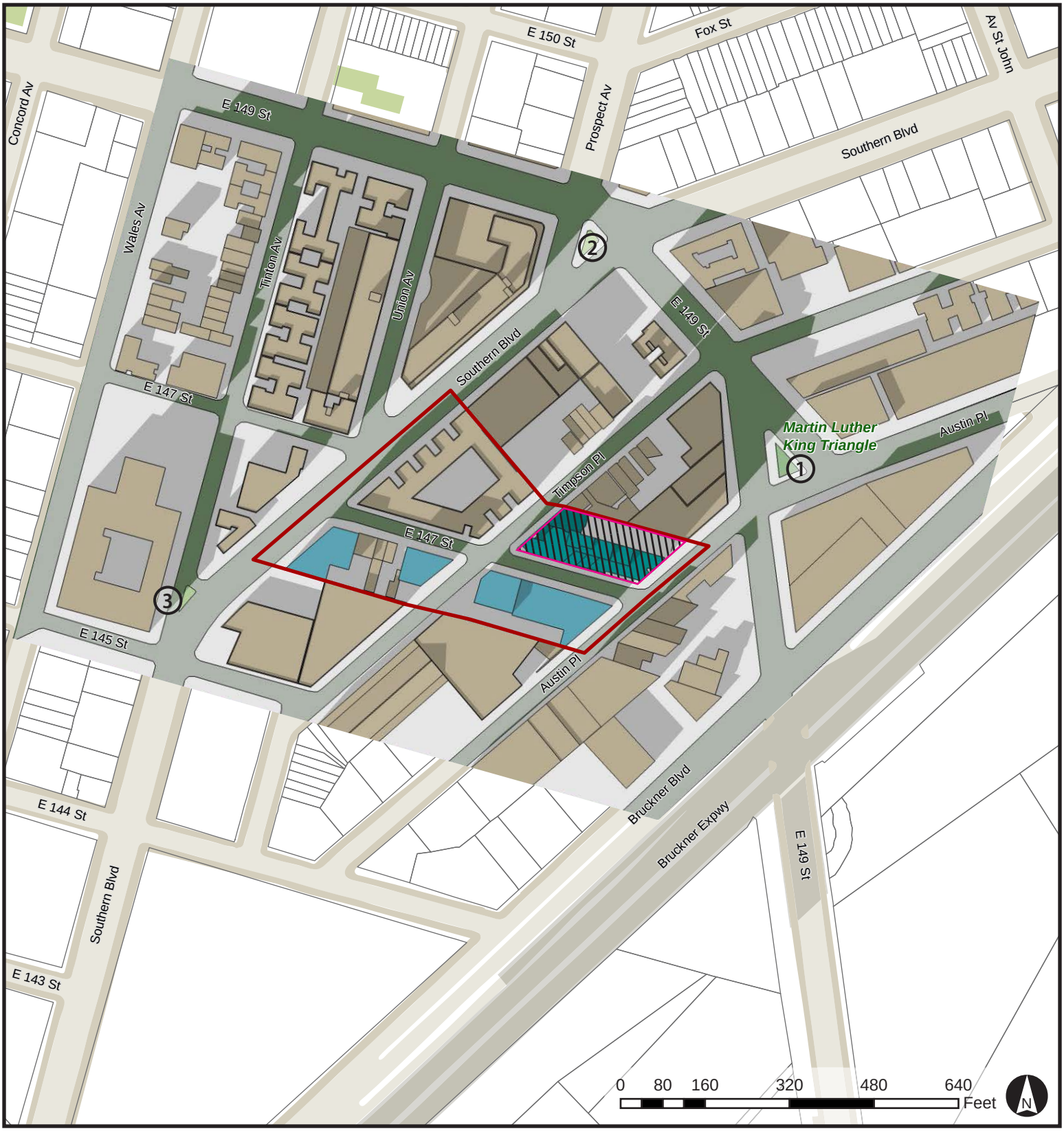
Longest Shadow Study Area Boundary

(1) Sunlight-Sensitive Resources

TIER 3 SCREENING ASSESSMENT FOR THE JUNE 21ST ANALYSIS DAY

Figure F-9

E 147th Street Rezoning EAS



Projected Development Sites

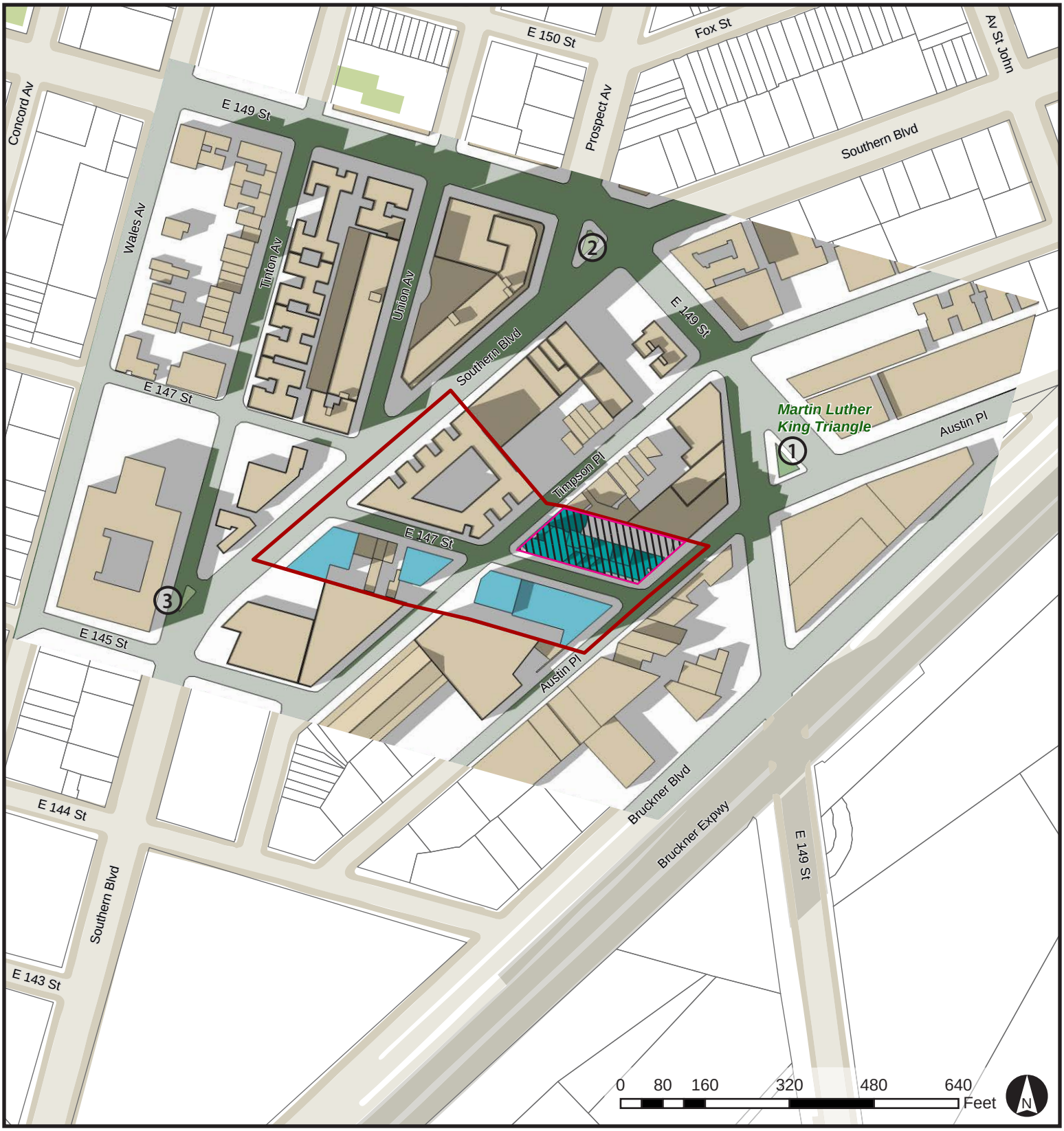
Applicant's Development Site

Rezoning Area

(1) Sunlight-Sensitive Resources

INCREMENTAL SHADOW, DECEMBER 21ST – 3:02 P.M.

Figure F-10



Projected Development Sites

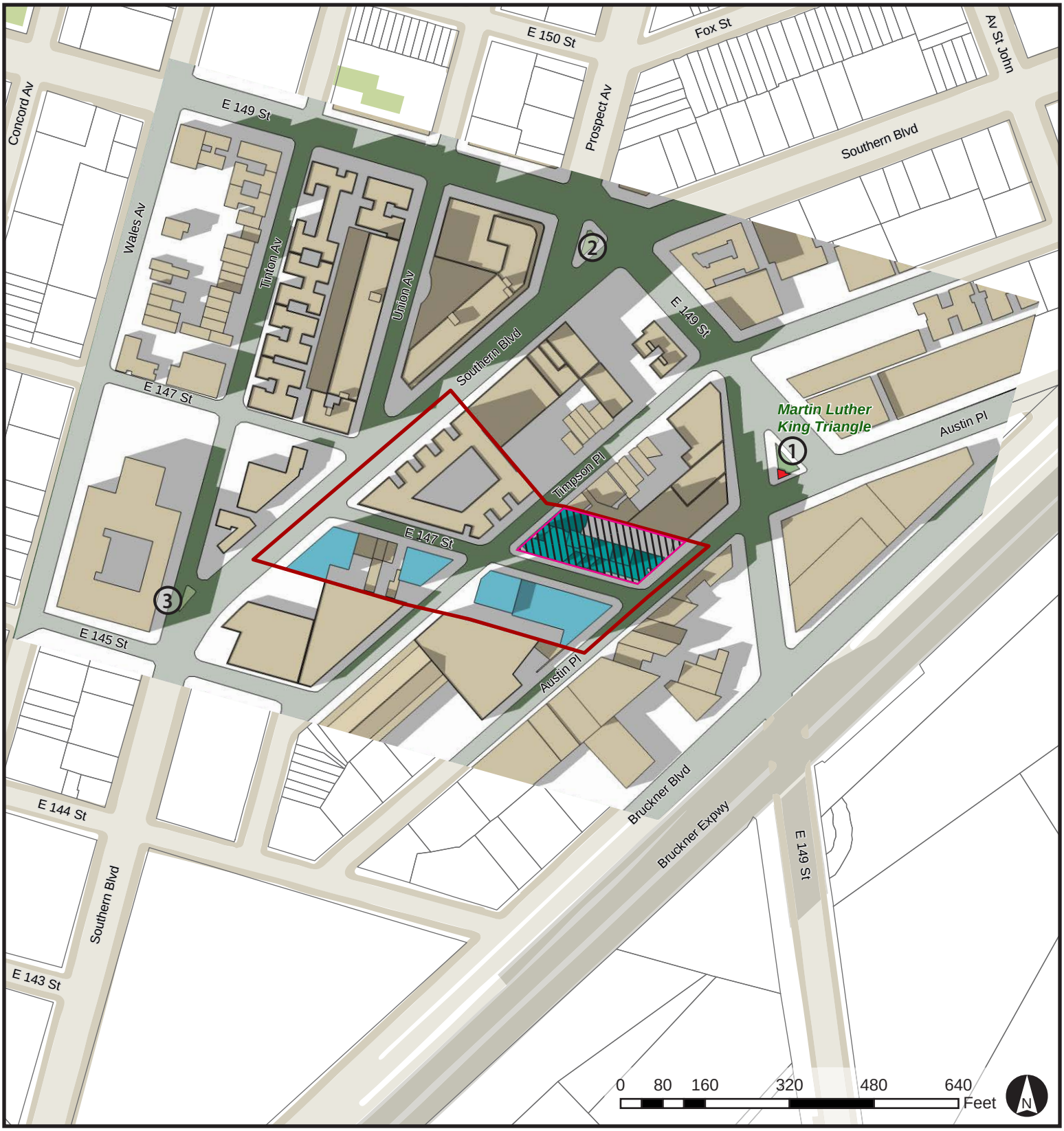
Applicant's Development Site

Rezoning Area

(1) Sunlight-Sensitive Resources

INCREMENTAL SHADOW, MARCH 21ST – 4:16 P.M.

Figure F-11



Projected Development Sites

Applicant's Development Site

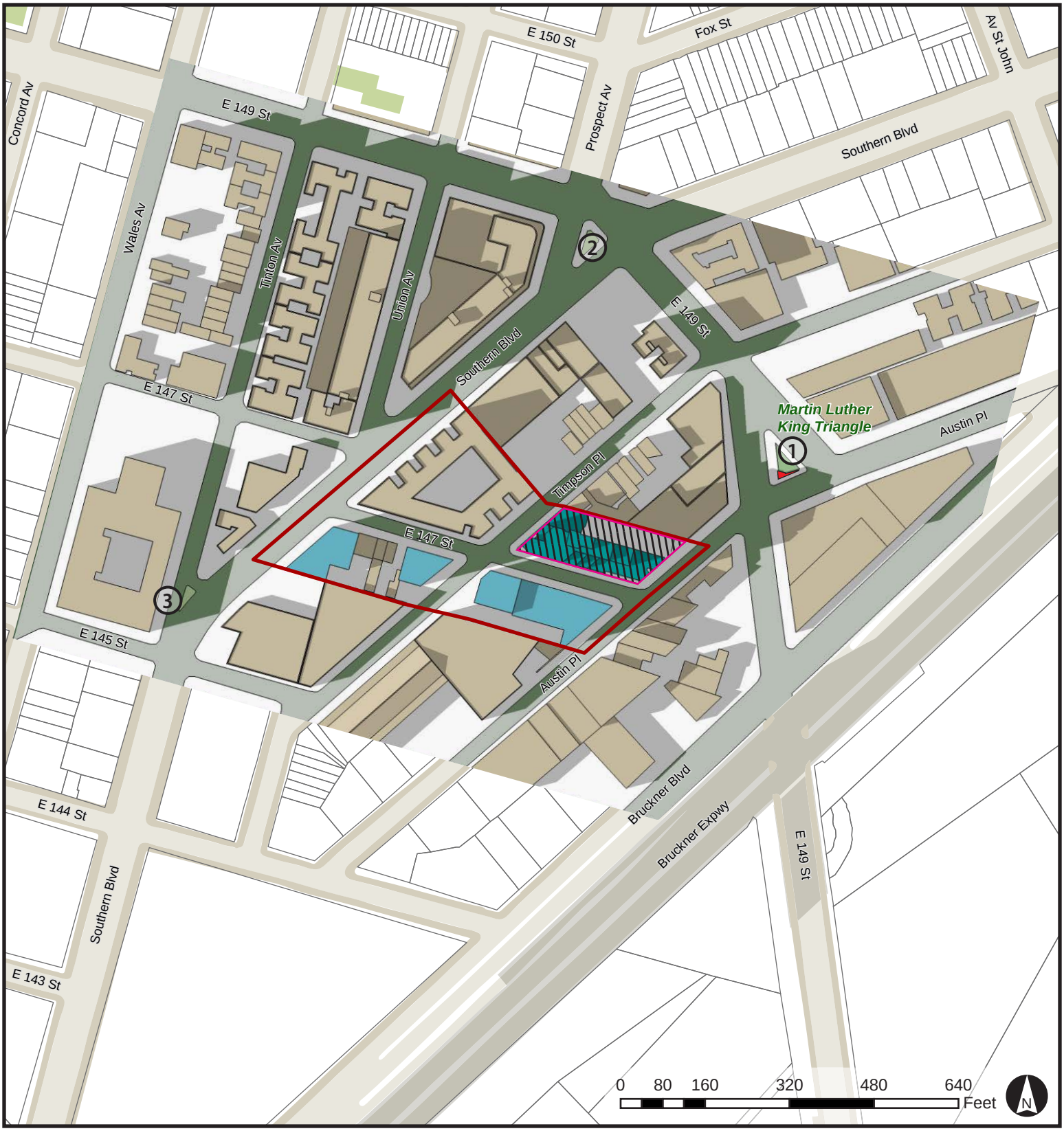
Rezoning Area

1 Sunlight-Sensitive Resources

Incremental Shadow on Sunlight-Sensitive Resource

INCREMENTAL SHADOW, MARCH 21ST – 4:27 P.M.

Figure F-12



Projected Development Sites

Applicant's Development Site

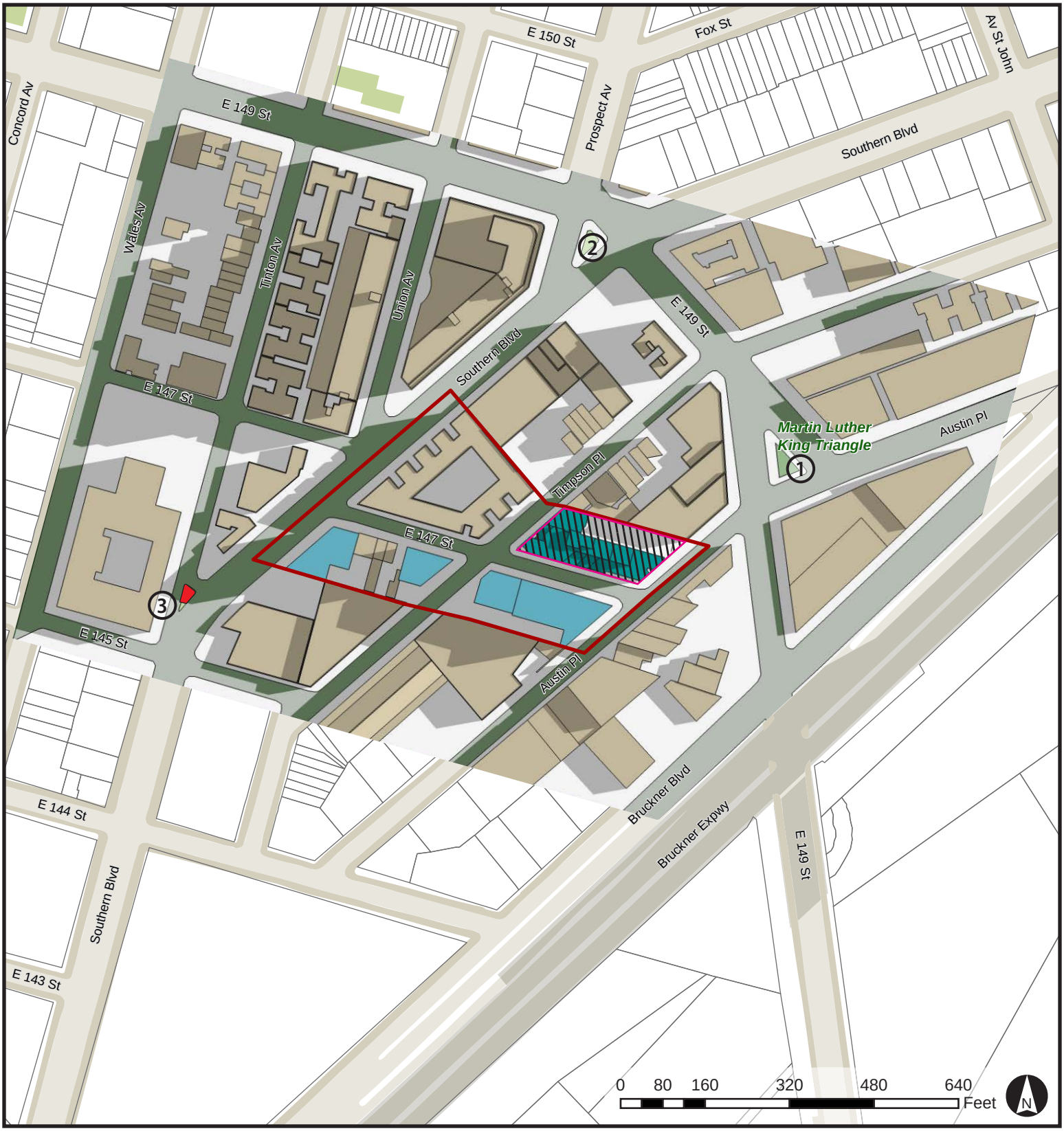
Rezoning Area

1 Sunlight-Sensitive Resources

Incremental Shadow on Sunlight-Sensitive Resource

INCREMENTAL SHADOW, MARCH 21ST – 4:39 P.M.

Figure F-13



Projected Development Sites

Applicant's Development Site

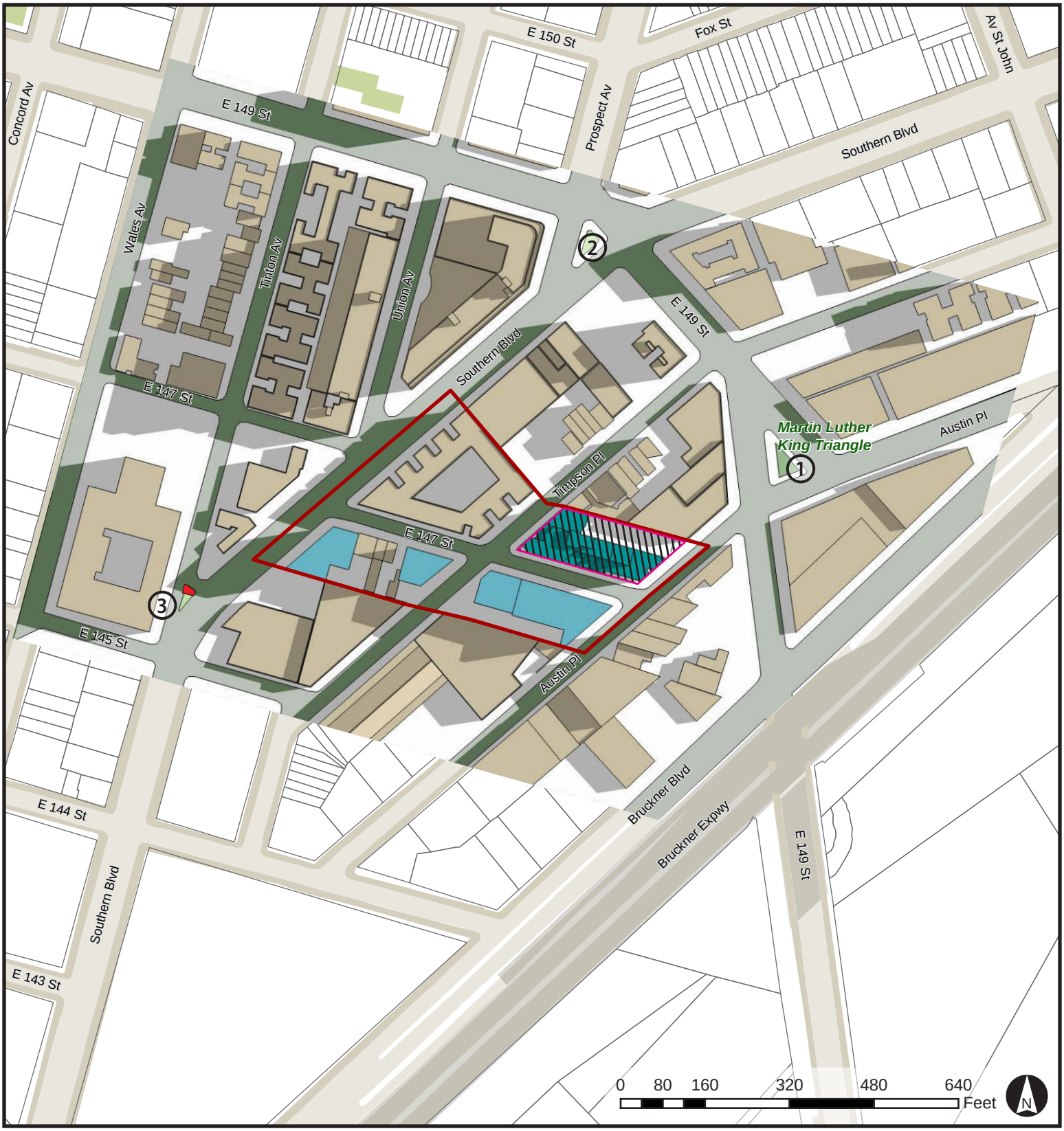
Rezoning Area

1 Sunlight-Sensitive Resources

Incremental Shadow on Sunlight-Sensitive Resource

INCREMENTAL SHADOW, MAY 6TH – 6:19 A.M.

Figure F-14



Projected Development Sites

Applicant's Development Site

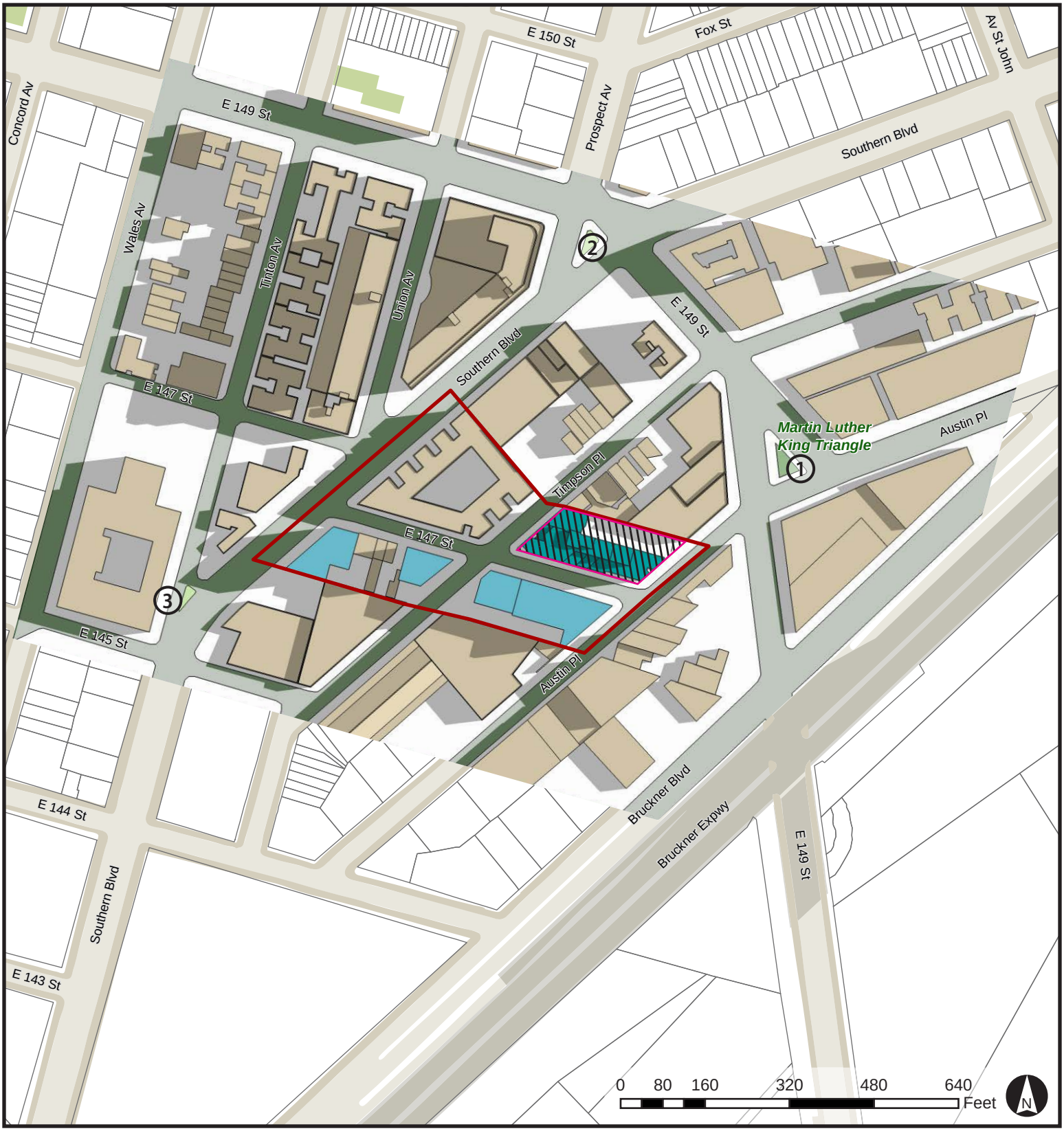
Rezoning Area

Sunlight-Sensitive Resources

Incremental Shadow on Sunlight-Sensitive Resource

INCREMENTAL SHADOW, MAY 6TH – 6:28 A.M.

Figure F-15



Projected Development Sites

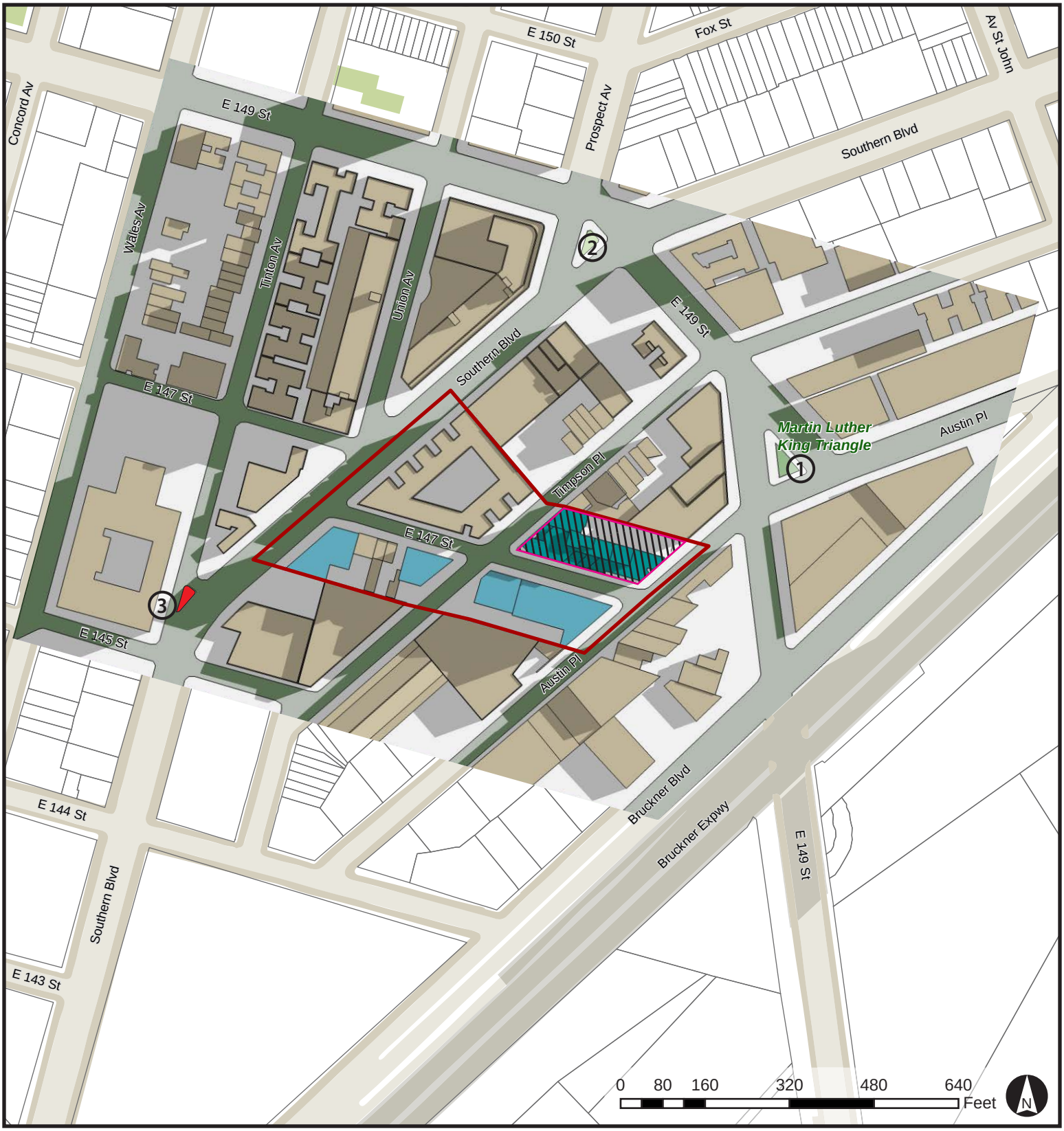
Applicant's Development Site

Rezoning Area

(1) Sunlight-Sensitive Resources

INCREMENTAL SHADOW, MAY 6TH – 6:38 A.M.

Figure F-16



Projected Development Sites

Applicant's Development Site

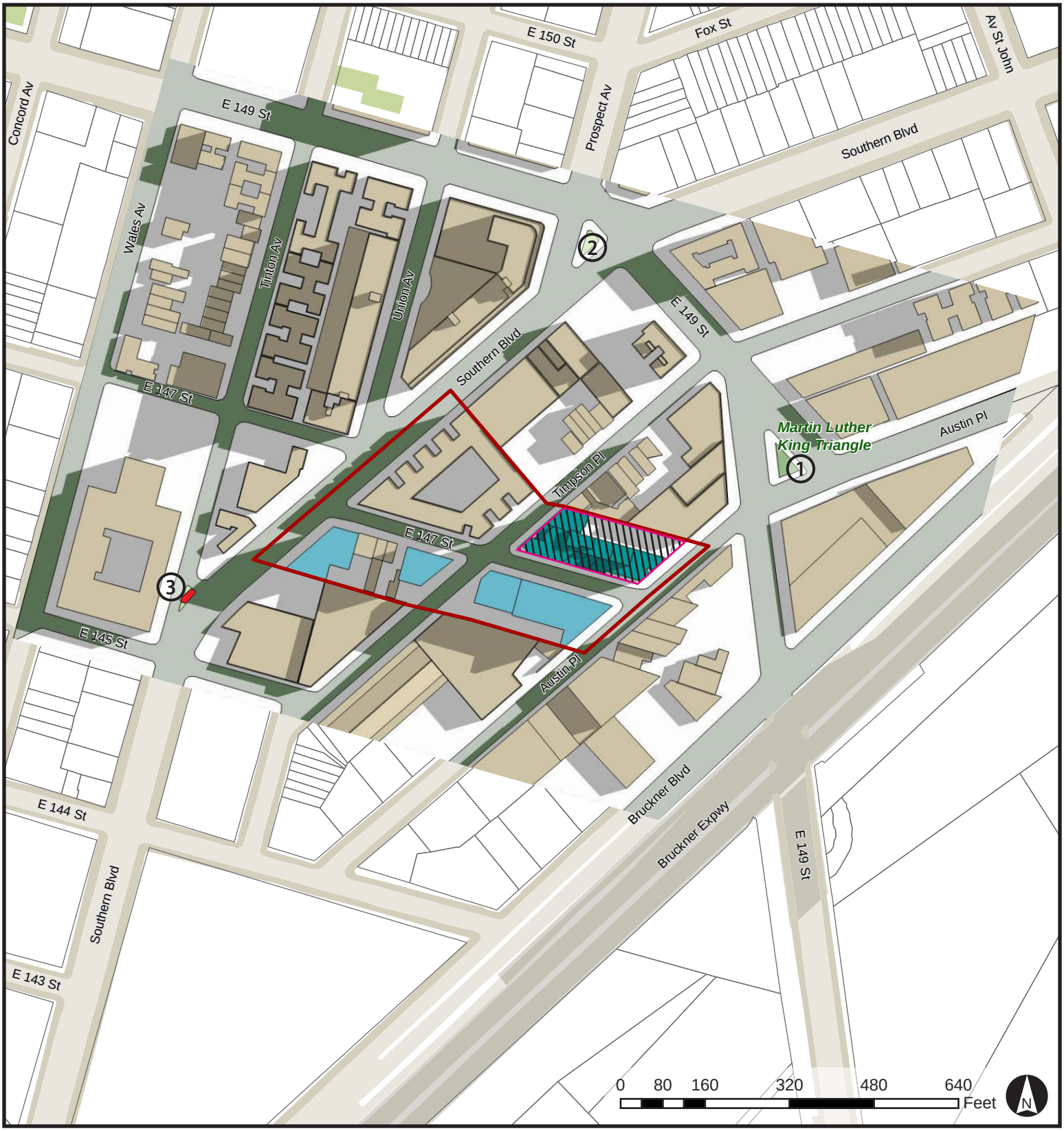
Rezoning Area

1 Sunlight-Sensitive Resources

Incremental Shadow on Sunlight-Sensitive Resource

INCREMENTAL SHADOW, JUNE 21ST – 5:55 A.M.

Figure F-17



Projected Development Sites

Applicant's Development Site

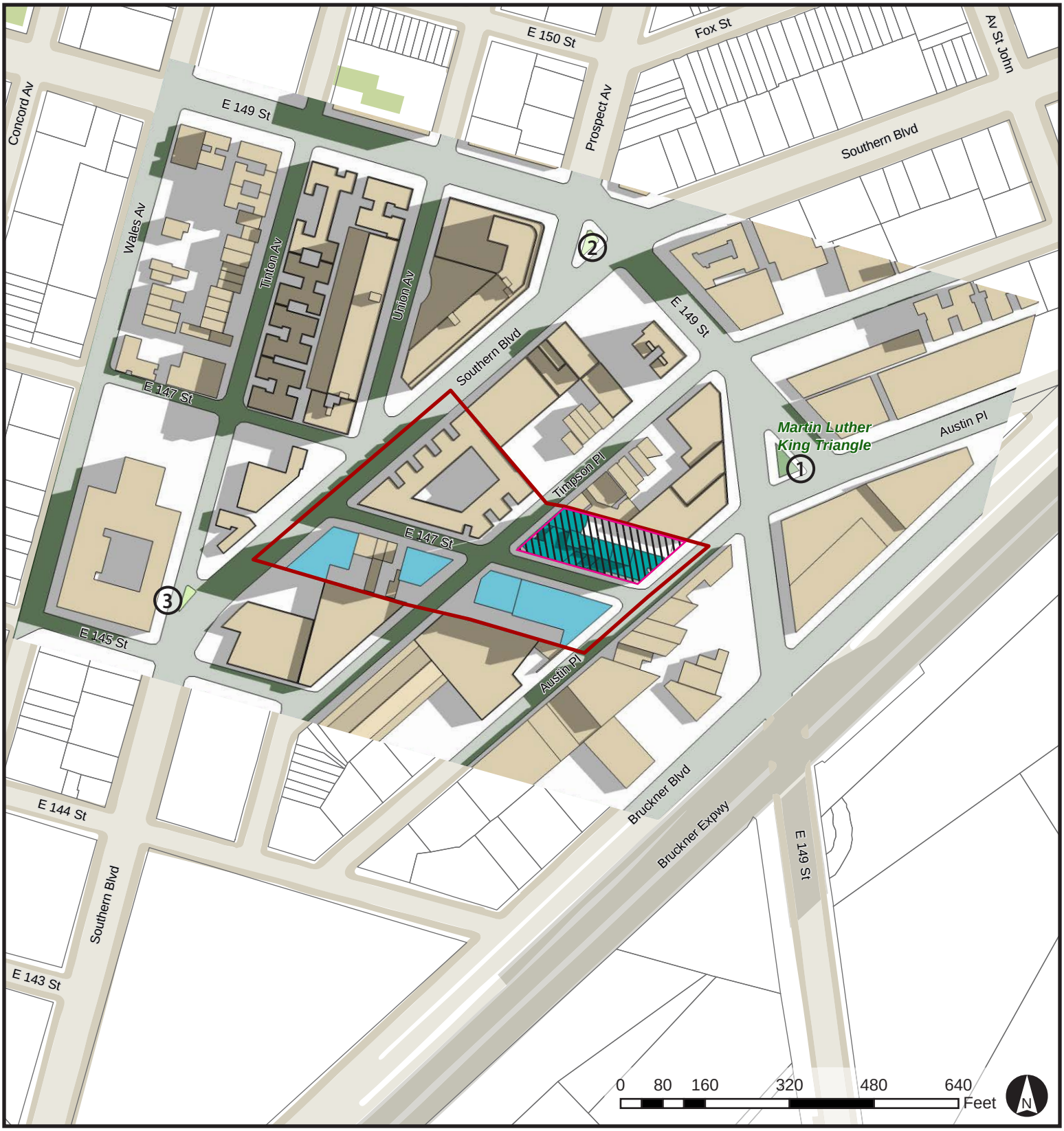
Rezoning Area

1 Sunlight-Sensitive Resources

Incremental Shadow on Sunlight-Sensitive Resource

INCREMENTAL SHADOW, JUNE 21ST – 6:19 A.M.

Figure F-18



Projected Development Sites

Applicant's Development Site

Rezoning Area

(1) Sunlight-Sensitive Resources

INCREMENTAL SHADOW, JUNE 21ST – 6:39 A.M.

Figure F-19

Table F-1: Analysis Summary, summarizes possible Proposed Action-generated incremental shadows.

Table F-1: Analysis Summary

Analysis Day Timeframe Window	December 21 8:47am – 3:02pm	March 21 7:28am – 4:39pm	May 6 6:19am – 5:27pm	June 21 5:55am – 6:01pm
① Shadow Enter-Exit Times	–	4:17 pm – 4:39 pm	–	–
① Incremental Shadow Duration	–	22 min	–	–
② Shadow Enter-Exit Times	–	–	–	–
② Incremental Shadow Duration	–	–	–	–
③ Shadow Enter-Exit Times	–	–	6:19 am – 6:37 am	5:55 am – 6:39 am
③ Incremental Shadow Duration	–	–	18 min	44 min
Note: Daylight savings time not used				

VI. CONCLUSION

The building envelope assumed under the maximum permissible floor area ratio (6.0 FAR) and height (135 feet [including the rooftop bulkhead] at the Applicant's Development Site, and other heights elsewhere) in the Project Area would have minimal impacts related to shadows on identified sunlight-sensitive resources. Furthermore, analyses days of concern for vegetation are during the growing season, not during cold-weather months (represented by December 21st).

The Tier 3 screening assessment showed that Proposed Action-generated incremental shadows would potentially reach sunlight-sensitive resources on December 21st, March 21st, May 6th, and June 21st analyses days. However, the detailed shadow analysis rules out December 21st. The shadows will reach Martin Luther King Triangle (resource labeled "1") only during (around the end of) the March 21st analysis day.

The detailed shadow analysis also projects Proposed Action-generated incremental shadows (though not from the applicant's development building) onto the Greenstreet facility labeled "3" during the beginning of the May 6th and June 21st analysis days.

The detailed shadow analysis projects no adverse impact on the Greenstreet facility labeled "2". The Proposed Action would not result in adverse impact on any sunlight-sensitive architectural resource since there are none nearby.

Project-generated shadows would not affect the utilization, enjoyment, or viewership of the sunlight-sensitive resources. Since the three sunlight sensitive resources consist of small planted areas within paved sidewalk and do not include any benches or other recreation amenities, the primary consideration of this assessment is ensuring that vegetation would receive adequate sunlight. All three resources would continue to receive direct sunlight throughout the growing season except during the brief time periods listed in the summary above and would continue to receive more than the four to six hours of sunlight per day generally considered as a minimum requirement for vegetation. Therefore, the Proposed Action would not result in a significant adverse impact on any nearby sunlight-sensitive resources in the Project Area.

Attachment G: Historic and Cultural Resources

I. INTRODUCTION

This attachment assesses the potential effect of the Proposed Action on historic and cultural resources, including both architectural and archaeological resources. The *2014 CEQR Technical Manual* identifies architectural resources as historically important buildings, structures, objects, sites, and districts. Archaeological resources are physical remains, usually subsurface, of the prehistoric, Native American, and historic periods. The CEQR guidelines state that, as a general rule, archaeological resources do not include 20th and 21st Century artifacts. According to the CEQR guidelines, impacts on historic and cultural resources are considered on those sites and the surrounding area to be directly affected by a proposed action. As discussed in Attachment A, "Project Description," the rezoning boundary would contain five projected development sites (including the Applicant-owned Site), on which new developments are expected to occur as a result of the Proposed Action.

II. PRINCIPAL CONCLUSIONS

Architectural Resources

Based on consultation with the New York City Landmarks Preservation Commission (LPC), it was determined that there are no designated or potential architectural resources within or in close proximity of the Project Site **(Figure G-1: LPC Environmental Review Response)**. LPC was originally given a scope of 30 lots that could be part of the rezoning area, which ultimately became reduced to 17 lots, and concluded that the Proposed Action would not result in potential significant adverse impacts to architectural resources.

Archaeological Resources

Based on consultation with LPC, it was determined that the Proposed Action would not result in any significant adverse impacts to archaeological resources **(Figure G-1)**. LPC was originally given a scope of 30 lots that could be part of the rezoning area, which ultimately became reduced to 17 lots. LPC reviewed and identified projected and potential development sites that could experience new/additional in-ground disturbance as a result of the Proposed Action, and concluded that none of the lots comprising those sites have any archaeological significance. As such, the Proposed Action are not expected to result in any significant adverse impacts to archaeological resources.

III. METHODOLOGY

For the purposes of CEQR, the following are always considered historic and cultural resources: designated New York City landmarks; properties calendared for consideration as landmarks by LPC; properties listed on the State/National Registers of Historic Places or contained within a district listed on or formally determined to be eligible for State/National Registers of Historic Places listing; properties recommended by the New York State Board for listing on the State/National Registers of Historic Places; National Historic Landmarks; and properties not identified by one of the programs listed above, but that meet their eligibility requirements.

Architectural Resources

According to the *2014 CEQR Technical Manual*, regardless of whether any known historic resources are located near the site of the project, architectural resources should be surveyed and assessed if a proposed project would result in any of the following:

- New construction, demolition, or significant physical alteration to any building, structure, or object;
- A change in scale, visual prominence, or visual context of any building, structure, object, or landscape feature;
- Construction, including, but not limited to, excavating vibration, subsidence, dewatering, and the possibility of falling objects;
- Additions to, or significant removal, grading, or replanting of, significant historic landscape features;
- Screening or elimination of publicly accessible views; or
- Introduction of significant new shadows or significant lengthening of the duration of existing shadows on a historic landscape or on a historic structure if the features that make the structure significant depend on sunlight.

Archaeological Resources

According to the *2014 CEQR Technical Manual*, regardless of whether any known historic resources are located near the site of the project, archaeological resources should be assessed for projects that would result in any in-ground disturbance to an area not previously excavated, including new excavation that is deeper and/or wider than previous excavation on the same site. Examples of projects that typically require assessment are:

- Above-ground construction resulting in-ground disturbance, including construction of temporary roads and access facilities, grading, or landscaping.
- Below-ground construction, such as installation of utilities or excavation, including that for footings or piles.

IV. PRELIMINARY ASSESSMENT

Architectural Resources

The Proposed Action would result in demolition and construction activities and the development of new residential and mixed-use buildings that would be of a larger scale than those that currently exist within the project site. LPC was consulted in February 2016 and determined that there are no significant historic landscape features within the project area, no culturally or historically significant publicly accessible view corridors, and no historic landscapes or structures with features that depend on sunlight **(Figure G-1)**.

The *2014 CEQR Technical Manual* recommends a study area directly related to the anticipated extent of the project's potential impacts and large enough to permit examination of the relationships between the proposed project and the existing historic resources; typically this is defined by the radius of 400 feet from the borders of the project area. LPC was consulted to identify any architectural resources within the study area. Coordination with LPC staff included photo documentation of the project site along with a detailed description. No designated architectural resources or resources potentially eligible for designation by LPC were identified. Therefore, in accordance with CEQR guidelines, no further analysis of architectural resources is required.

Archaeological Resources

The Proposed Action would result in in-ground disturbance to areas that have not been previously excavated or new excavation that is deeper and/or wider than previous excavation on the same site. LPC was consulted in February 2016, and concluded that none of the identified projected and potential development sites that could experience new/additional in-ground disturbance as a result of the Proposed Action have any archaeological significance **(Figure G-1)**. Therefore, in accordance with CEQR guidelines, no further analysis of architectural resources is required.

Figure G-1 | LPC Environmental Review Response

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 / 77DCP286X
Project: E. 147 ST. REZONING
Date received: 2/16/2016

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 458 Southern Boulevard, BBL: 2026000030
2) ADDRESS: East 147 Street, BBL: 2026000051
3) ADDRESS: 860 East 147 Street, BBL: 2026000096
4) ADDRESS: 868 East 147 Street, BBL: 2026000099
5) ADDRESS: 870 East 147 Street, BBL: 2026000100
6) ADDRESS: 872 East 147 Street, BBL: 2026000101
7) ADDRESS: 880 East 147 Street, BBL: 2026000103
8) ADDRESS: 869 East 147 Street, BBL: 2026000187
9) ADDRESS: 875 East 147 Street, BBL: 2026000222
10) ADDRESS: 879 East 147 Street, BBL: 2026000220
11) ADDRESS: 881 East 147 Street, BBL: 2026000213
12) ADDRESS: 516 Timpson Place, BBL: 2026000191
13) ADDRESS: 518 Timpson Place, BBL: 2026000193
14) ADDRESS: 520 Timpson Place, BBL: 2026000194
15) ADDRESS: 515 Timpson Place, BBL: 2026000170
16) ADDRESS: 830 East 147 Street, BBL: 2026000047
17) ADDRESS: 834 East 147 Street, BBL: 2026000049
18) ADDRESS: 836 East 147 Street, BBL: 2026000050
19) ADDRESS: 521 Timpson Place, BBL: 2026000169
20) ADDRESS: 523 Timpson Place, BBL: 2026000250
21) ADDRESS: 525 Timpson Place, BBL: 2026000168
22) ADDRESS: 527 Timpson Place, BBL: 2026000167
23) ADDRESS: 529 Timpson Place, BBL: 2026000166
24) ADDRESS: 524 Southern Boulevard, BBL: 2026000150
25) ADDRESS: 522 Timpson Place, BBL: 2026000195
26) ADDRESS: 524 Timpson Place, BBL: 2026000196
27) ADDRESS: 528 Timpson Place, BBL: 2026000197
28) ADDRESS: 530 Timpson Place, BBL: 2026000198
29) ADDRESS: 536 Timpson Place, BBL: 2026000200
30) ADDRESS: 532 Timpson Place, BBL: 2026000199

Gina Santucci 2/18/2016

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 31216_FSO_DNP_02172016.doc

Attachment H: Urban Design and Visual Resources

I. INTRODUCTION

This attachment assesses the potential impact of the Proposed Action on urban design and visual resources. Urban design is the composite of elements that may affect a pedestrian's experience of public space. These elements include streets, buildings, visual resources, open space, natural features, and wind. As described in Chapter 10 of the *2014 CEQR Technical Manual*, the urban design and visual resources assessment evaluates whether the proposed project may have effects on one or more elements of pedestrian experience.

The Applicant has requested the rezoning of a multi-lot portion of Block 2600 in Bronx Community District One (the "Project Area") from M1-2 and M1-3 to R7X and R7X/C1-4. The Applicant also seeks a text amendment of ZR Appendix F to classify the Project Area as an MIH designated area. The rezoning and text amendment are collectively the "Proposed Action." The Proposed Action affects a lot area of approximately 115,953 sf[1] and is bound by Southern Boulevard to the west and Austin Place to the east, and is bisected by Timpson Place and East 147th Street. The proposed C1-4 commercial overlay would be located along the eastern side of Southern Boulevard, extend 100 feet from the nearest street, and affect Lot 30, 47, 49, and 131 in Block 2600. The Proposed Action would allow the Applicant to construct a 12-story, 135-foot tall, 164,592 gsf residential building on the Lot's 187, 222, 220, and 213 of Block 2600 in Bronx Community District One (the "Development Site") with an FAR of 6.0 and providing 165 affordable dwelling units (DUs).

As described in Attachment A, "Project Description", the Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of five projected development sites and one potential development site. The Proposed Action would result in a net increase of 366 dwelling units, of which 219 are expected to be affordable DUs, compared to the future No Action condition.

II. PRINCIPAL CONCLUSIONS

Based on the guidance in the *2014 CEQR Technical Manual*, the Proposed Action would not result in significant adverse impacts on urban design and visual resources. The Proposed Action would rezone the Project Area from M1-2 and M1-3 to R7X and designate a C1-4 commercial overlay 100 feet along the eastern side of Southern Boulevard. The proposed zoning changes would provide incentive in the Project Area for more residential and commercial developments on lots previously used for manufacturing uses. These changes would be in line with the existing development in the surrounding area.

Based on the results of the preliminary urban design and visual resources analysis, it was determined that the Proposed Action could result in new development, the height and bulk of which would be visually in accordance with the built forms and building types that would exist in the surrounding area by the 2025 Build year. The Proposed Action would allow for the development of 6- to 12-story buildings on the five projected developments that would have a maximum height of 145 feet with an FAR of 6.0. The height and density of existing and No Action projects in the secondary area in the vicinity of the Project Area would be similar in height, bulk and density as the development that would occur in the Project Area as a result of the Proposed Action. Additionally, the anticipated commercial development that would occur along the

[1] Calculated as the portion of tax lots within the Project Area only. Total area within boundary of Project Area is 186,269.4 sf.

eastern side of Southern Boulevard in the Project Area as a result of the Proposed Action would provide an extension of the ground floor retail that already exist along East 149th Street.

In addition, the Proposed Action would not result in any changes to block form or street arrangement and orientation, nor would it have a significant adverse impact on visual resources due to the lack of significant visual resources in the Project Area or secondary study area.

Consequently, the Proposed Action would not result in a change to the built environment's arrangement, appearance, or functionality in a way that would negatively affect a pedestrian's experience of the area. The scale and use of surrounding buildings that make up the context of the Project Area are similar to those that would occur as a result of the Proposed Action. Therefore, based on these findings, the Proposed Action is not expected to result in any significant adverse impacts to urban design in the study area.

III. METHODOLOGY

As defined in the *2014 CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. The following elements play an important role in that experience:

1. **Streets.** For many neighborhoods, streets are the primary component of public space. The arrangement and orientation of streets define the location and flow of activity in an area, set street views, and create the blocks on which buildings and open spaces are organized. The apportionment of street space between cars, bicycles, transit, and sidewalks and the careful design of street furniture, grade, materials used, and permanent fixtures, including plantings, street lights, fire hydrants, curb cuts, or newsstands are critical to making a successful streetscape.
2. **Buildings.** Buildings support streets. A building's street walls for the most common backdrop in the city for public space. A building's size, shape, setbacks, lot coverage, and placement on the zoning lot and block; the orientation of active uses; and pedestrian and vehicular entrances all play major roles in the vitality of the streetscape. The public realm also extends to building facades and rooftops, offering more opportunity to enrich the visual character of an area.
3. **Visual Resources.** A visual resource is the connection from the public realm to significant natural or built features including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources.
4. **Open Space.** For the purpose of urban design, open space includes public and private areas such as parks, yards, cemeteries, parking lots, and privately owned public spaces.
5. **Natural Features.** Natural features include vegetation and geologic, topographic, and aquatic features. Rock outcroppings, steep slopes or varied ground elevation, beaches, or wetlands may help define the overall visual character of an area.
6. **Wind.** Channelized wind pressure from between tall buildings and downwashed wind pressure from parallel tall buildings may cause winds that affect pedestrian comfort and safety.

An urban design and visual resources assessment is necessary in when a project may have effects on one or more of the defined elements that contribute to the pedestrian experience. According the *2014 CEQR Technical Manual*, a preliminary assessment for urban design is appropriate when there is the potential for a pedestrian to observe, from the street, a physical alteration beyond that allowed by existing zoning, including the following:

1. Projects that permit the modification of yard, height, and setback requirements;
2. Projects that result in increase in built floor area beyond what would be allowed 'as-of-right' or in the future without the proposed project.

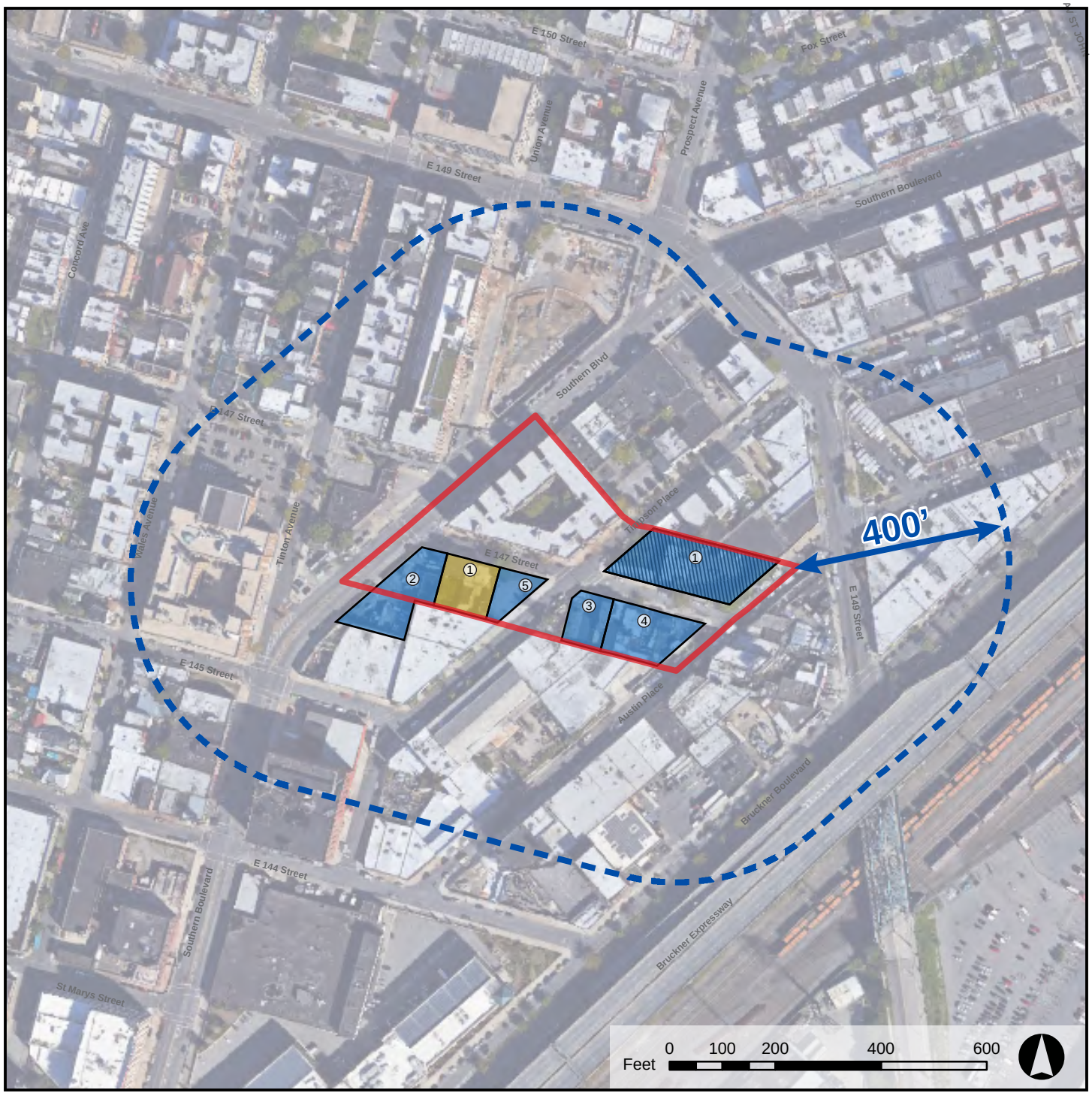
As described in Attachment A, "Project Description", the Proposed Action involves the rezoning of a multi-lot portion of Block 2600 in Bronx Community District One (the "Project Area") from M1-2 and M1-3 to R7X and R7X/C1-4. As such, a preliminary urban design assessment has been conducted. The preliminary assessment discusses existing and With- and No- Action urban design and visual resources by the 2025 Build year for the Project Area, as well as a secondary 400-foot buffer study area surrounding the Project Area. As required by the *2014 CEQR Technical Manual*, the changes that would occur between the No Action and With Action conditions are disclosed.

Per criteria of Section 230 of the *2014 CEQR Technical Manual*, the construction of projects involving multiple, tall buildings at or in close proximity to waterfront sites may result in exacerbation of wind conditions due to 'channelization' or 'downwash' that may affect pedestrian comfort and safety. The Proposed Action does not affect a location that is along the waterfront. The Project Area is located over 2,000 feet west of the East River, the nearest waterfront resource. In addition, Proposed Action would result in projected and potential developments that are small scale (6 to 12 stories) in relation to the surrounding area context and the orientation and distance from one another would follow that of existing development. The Proposed Action would result in buildings of different envelope massing and various height and bulk configurations. As such, a wind analysis is not warranted for the Proposed Action.

Study Area

Consistent with guidance in the *2014 CEQR Technical Manual*, the urban design and visual resources assessment was addressed and analyzed for two geographical areas for the Proposed Action: (1) the Project Area (which includes the Development Site) and (2) a secondary, 400-foot study area from the boundaries of the Project Area, which encompasses areas that have the potential to experience indirect impacts as a result of the Proposed Action. The secondary study area is bounded East 149th Street and Southern Boulevard to the north, East 144th Street to the south, Wales Avenue to the west, and Bruckner Expressway to the east. Both the primary and secondary study areas have been established in accordance with guidelines set forth in *2014 CEQR Technical Manual* and are shown in **Figure H-1: Urban Design and Visual Resources Study Areas**.

The following analysis was prepared on the basis of field observations and photographic inventory of both the Project Area and secondary study area, as well as the application of a 3-D model that incorporates the forms of the buildings that could be constructed in the Project Area with the Proposed Action. Data for existing zoning calculations, including floor area, building heights, and lot coverage information was gathered from the New York City Zoning and Land Use (ZoLa) database.



Source: 2015 Pluto, NYCDCP

Applicant's Site

Rezoning Boundary

400-foot Study Area

Projected Development Sites

Potential Development Site

① Site Number

URBAN DESIGN AND VISUAL RESOURCES STUDY AREAS

Figure H-1

IV. PRELIMINARY ASSESSMENT

Existing Conditions

Project Area

The Project Area is located in Bronx Community District One and is comprised of a multi-lot portion of Block 2600. The Project Area has an approximate lot area of 115,953 sf and is bound by East 149th Street to the north, East 145th Street to the south, Austin Place to the east, and Southern Boulevard to the west, and is bisected by Timpson Place and East 147th Street. As described in Attachment B, "Land Use, Zoning and Public Policy," the Project Area is mainly characterized by industrial and residential land uses. 11 of the 17 tax lots in the Project Area are zoned M1-2, with the remaining 6 lots zoned as M1-3. The Development Site is located in the eastern section of the Project Area, bound by Timpson Place to the west and East 147th Street, and is currently zoned M1-2.

There are no significant visual resources or natural features located in the Project Area as defined by the *2014 CEQR Technical Manual*. The Project Area does not have any significant visual resources that connect the public realm to significant natural or built features. Additionally, there are no rock out-croppings, steep slopes or varied ground elevation, beaches or wetlands in the Project Area.

Streets

The Project Area encompasses four separate sections of multi-part Block 2600 defined by four streets that break the block into its various parts. Southern Boulevard and Austin Place form the western and eastern edges of the Project Area and run parallel to Bruckner Boulevard and Bruckner Expressway. The generally regular north-south street grid to the west of the Project Site is disrupted within the Project Area where the streets angle in order to run parallel to Bruckner Boulevard and Bruckner Expressway. The Project Area is bisected by East 147th Street running west to east and Timpson Place north to south.

Southern Boulevard is a two-way north-south roadway that operates with one to two travel lanes in each direction and curbside parking on both sides of the street. Timpson Place is a local two-way north-south roadway that operates with one travel lane in each direction and curbside parking on both sides of the street. East 147th Street is a local one-way westbound east-west roadway that operates with one travel lane and curbside parking on both sides of the street. Austin Place is a local one-way north-south roadway with two travel lanes and curbside parking on both sides of the street.

The streetscape elements within the Project Area are limited primarily to sidewalks lined with trees without tree guards. Other streetscape elements are standard streets signs, cobra head lampposts, bus stop signs, and fire hydrants. The Project Area is generally devoid of street furniture. Many of the streets within the Project Area are lined with parallel-parked cars. Sidewalks along the more residential areas along East 147th and Timpson are generally narrower, while along Southern Boulevard widen out to around 20 feet. The sidewalk along the southern side of East 147th between Southern Boulevard and Timpson Place is the narrowest in the Project Area, spanning a width of approximately 11.2 feet.

Buildings

As described in Attachment B, "Land Use, Zoning and Public Policy," the Project Area is mainly characterized by industrial and residential land uses, with much of the built area composed two- and three story multi-family walk-ups. There is also one multi-family walkup bounded by Southern Boulevard, East 147th Street, and Timpson Place. There are two lots with industrial uses; one of which currently has a two-story building with garage and the other which is being utilized as a parking lot and a one-story building with three garages. There is one vacant lot on the corner of East 147t and Timpson Place. Building heights

range from one- to 5-stories **(Figure H-2: Existing Building Heights)**, and the FAR ranges from 0 – 6.61 **(Figure H-3: Existing Density)**.

Projected Development Site #1

Projected Development Site #1 is comprised of Lots 187, 222, 220, and 213 in Block 2600 and is zoned M1-2. It is the Applicant's Development Site and has an approximate total lot area of 24,143 sf. Lot 187 has a frontage of 116.27 feet along Timpson Place, and is currently occupied by a one-story building formerly used as a parking garage with a built FAR of 0.27 **(Photo H-1)**. The structure was constructed in 1935 and has nine driveways that face on East 147th Street. Lot 222 has a frontage of 25 feet on East 147th Street with an area of 2,500 sf, and currently occupied by a vacant two story multi-family walk-up residential building with a built FAR of 1.84 **(Photo H-2)**. Lot 220 also has as frontage of 25 feet on East 147th Street with an area of 2,500 sf, and is currently occupied by a two story single family house with a built FAR of 0.90 (**Photo H-3**). Lot 213 has a frontage of 120.73 feet along Austin Place with an area of 12,280 sf. It currently occupied by an open parking lot with no existing structures and one street facing driveway on East 147th Street **(Photo H-4)**. Both Lots 187 and 213 are irregular in shape.

Projected Development Site #2

Projected Development Site #2 is comprised of Lot 30 in Block 2600 and has a total lot area of 16,549 sf. Lot 30 has a frontage of 213.6 feet along Southern Boulevard and a built FAR of 0.09 **(Photo H-5)**. It is zoned M1-2 and is currently being utilized primarily for parking and transportation/utility purposes. There is a small one-story building on premises with a gross square feet (gsf) of 1,560 of built area. The site has a fence that surrounds the entire perimeter.

Projected Development Site #3

Projected Development Site #3 is comprised of Lot 96 in Block 2600 and has a total lot area of 7,270 sf and a lot frontage of 61.25 feet along East 147th Street **(Photo H-6)**. It is zoned M1-3 and is currently occupied by two buildings, one of which is a two-story brick single family home and the second which is one-story garage located on the corner of the lot[2]. The total built area is 1,665 gsf and has a FAR of 0.22.

Projected Development Site #4

Projected Development Site #4 is comprised of Lots 99, 100, 101, and 103 in Block 2600 and is zoned M1-3. Lot 99 has a total area of 2,500 sf and a frontage of 25 feet along East 147th Street **(Photo H-7)**. It is currently occupied by a two story industrial/manufacturing building and has 2,325 gsf of built area and a FAR of 0.93. Lot 100 has a total area of 2,500 sf and a frontage of 25 feet along East 147th Street **(Photo H-8)**. It is currently occupied by two buildings and has 2,562 gsf of built area and a FAR of 1.02. Both are brick 2-story multi-family buildings with a total of 3 residential units. Lot 101 has a total area of 5,000 sf and a frontage of 50 feet on East 147th Street **(Photo H-9)**. It is currently occupied by two building with a 2,106 gsf of built area and a FAR of 0.42. Both buildings are one and two family residences. Lot 103 has a total area of 5,300 sf and a frontage of 80.08 feet along East 147th Street **(Photo H-10)**. It is currently occupied by a two-story residential building and has a total built area of 1,560 gsf and an existing FAR of 0.29.

Projected Development Site #5

Projected Development Site #5 is comprised of Lot 51 in Block 2600 and is zoned M1-2 **(Photo H-11)**. It is currently vacant and has a total lot area of 5,742 sf with 91.24 feet frontage along East 147th Street The site is fenced and currently is being utilized for parking, with approximately 19 spaces.

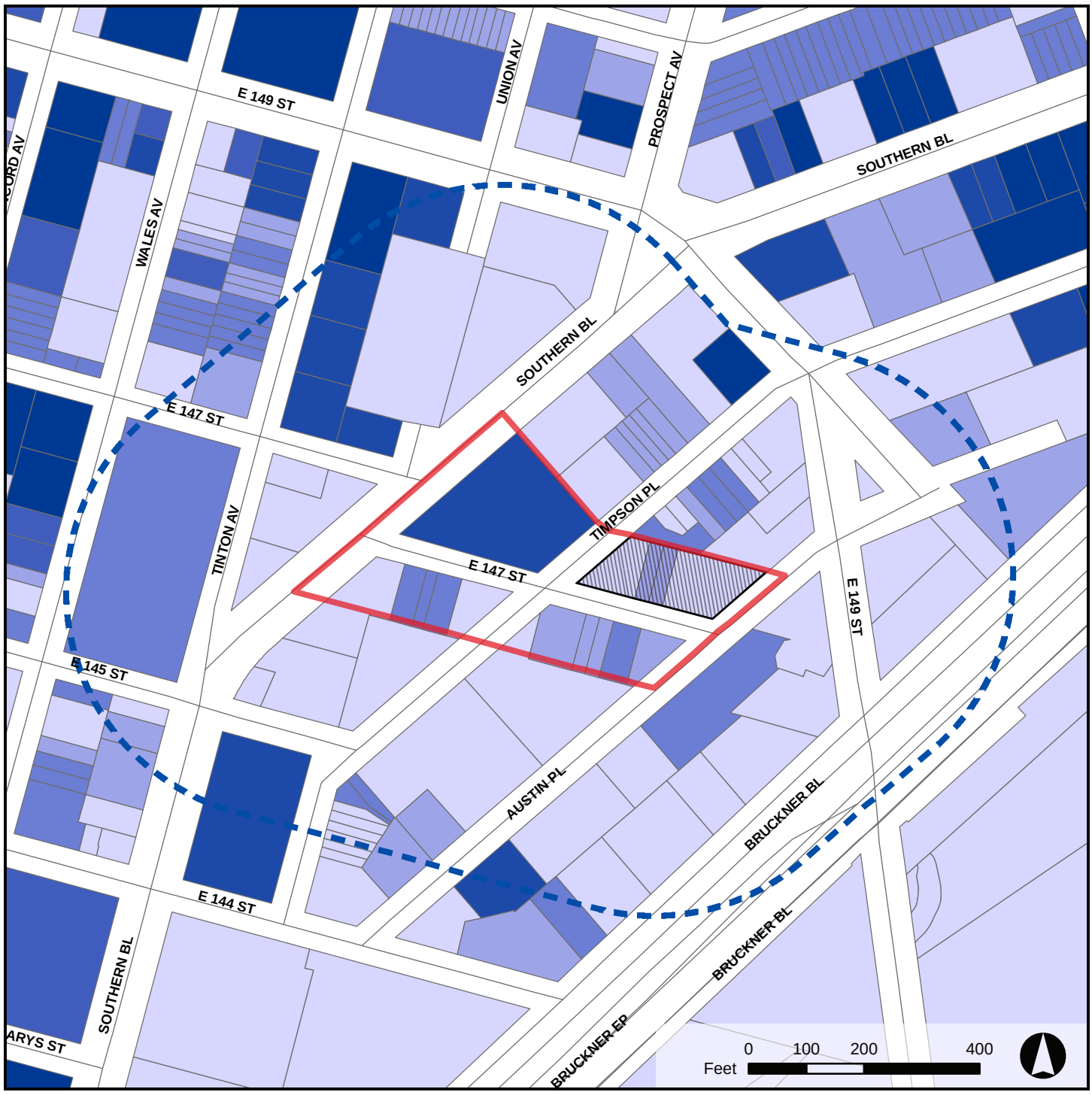
[2] At time of analysis, Lot 96 was observed to be 1 and 2 family residential, but became vacant toward end of certification. Change of land use does not affect the analysis in any substantive manner.

Potential Development Site #1

Potential Development Site #1 is comprised of Lots 47, 49, and 50 in Block 2600 and is zoned M1-2. Lot 47 has an area of 3,875 sf and 38.75 feet of frontage along East 147th Street **(Photo H-12)**. It is currently occupied by a three-story multi-family walk-up building with 4,839 gsf of built area and an FAR 0.93. Lot 49 has an area of 2,000 sf and 20 feet of frontage along East 147th Street **(Photo H-13)**. It is currently occupied by a three-story family home with a built area of 2,052 gsf and an FAR of 1.02. Lot 50 has an area of 4,167 sf and 41.67 feet of frontage along East 147th Street **(Photo H-14)**. It is currently occupied by two multi-family walk-up buildings, each three stories. It has a total built area of 2,502 gsf and an FAR of 0.42.

Other Sites (Block 2600, Lot 89, 186 and 131)

Lot 89 of Block 2600 has a total area of 30,917 sf and 172.48 feet frontage along Timpson Place and is zoned M1-3 **(Photo H-15).** It is currently occupied by an industrial building. The total built area is 20,209 gsf and has an FAR of 0.65. Lot 186 of Block 2600 occupies a small corner along East 147th Street and Timpson Place and has a total area of 5 sf **(Photo H-16)**. It is currently vacant and zoned M1-2. Lot 131 of Block 2600 has a total area of 41,600 sf and 275.25 feet frontage along Southern Boulevard and is zoned M1-2 **(Photo H-17)**. It is currently occupied by two large 5-story multi-family walk-up buildings, providing 137 residential units. The total built area is 275,000 gsf and has an FAR of 6.61.



Source: Pluto 2015

Applicant's Site

Rezoning Boundary

Secondary Study Area

0 -1 Floors

2 Floors

3 Floors

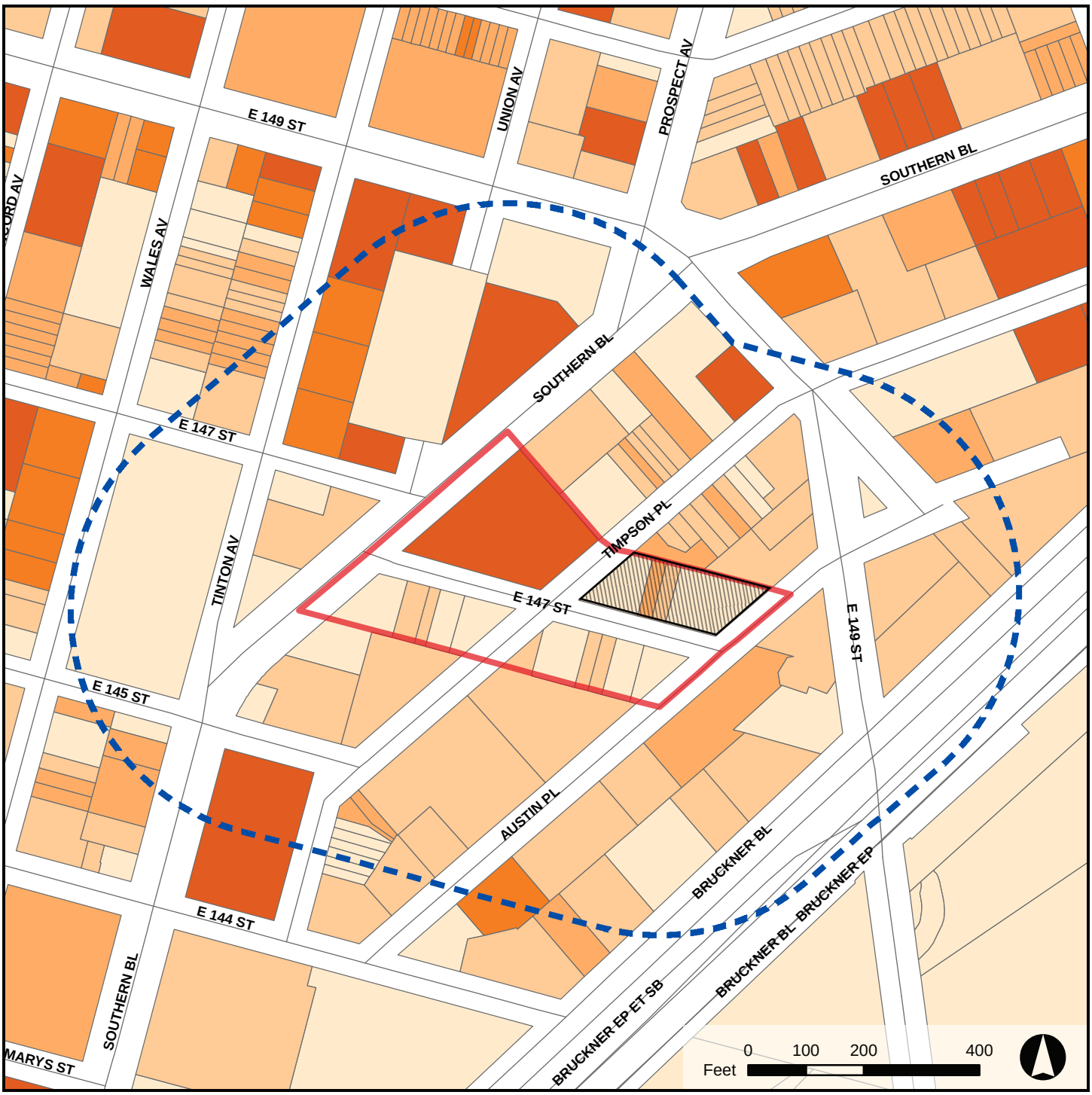
4 Floors

5 Floors

6 - 6+ Floors

EXISTING BUILDING HEIGHTS (NUMBER OF FLOORS)

Figure H-2



Source: Pluto 2015, Built FAR

Applicant's Site

Rezoning Boundary

Secondary Study Area

0 - 0.55 FAR

0.56 - 1.38 FAR

1.39 - 2.54 FAR

2.55 - 3.99 FAR

4.0 - 11.66 FAR

EXISTING DENSITY (BUILT FAR)

Figure H-3

PHOTOS H-1 THROUGH H-4

Photo H-1

Projected Development Site #1 (Applicant's Development Site) Block 2600 Lot 187; 869 East 147th Street

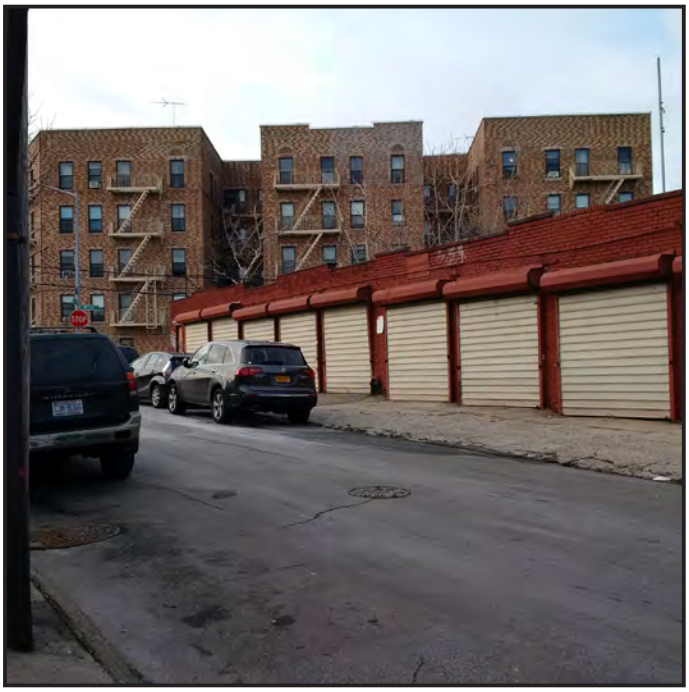


Photo H-2

Projected Development Site #1 (Applicant's Development Site) Block 2600 Lot 222; 875 East 147th Street



Photo H-3

Projected Development Site #1 (Applicant's Development Site) Block 2600 Lot 220; 879 East 147th Street



Photo H-4

Projected Development Site #1 (Applicant's Development Site) Block 2600 Lot 213; 879 East 147th Street



PHOTOS H-5 THROUGH H-8

Photo H-5

Projected Development Site #2
Block 2600 Lot 30; 458 Southern Boulevard



Photo H-6

Projected Development Site #3
Block 2600 Lot 96; 860 East 147th Street



Photo H-7

Projected Development Site #4
Block 2600 Lot 99; 868 East 147th Street



Photo H-8

Projected Development Site #4
Block 2600 Lot 100; 870 East 147th Street



PHOTOS H-9 THROUGH H-12

Photo H-9

Projected Development Site #4
Block 2600 Lot 101; 872 East 147th Street

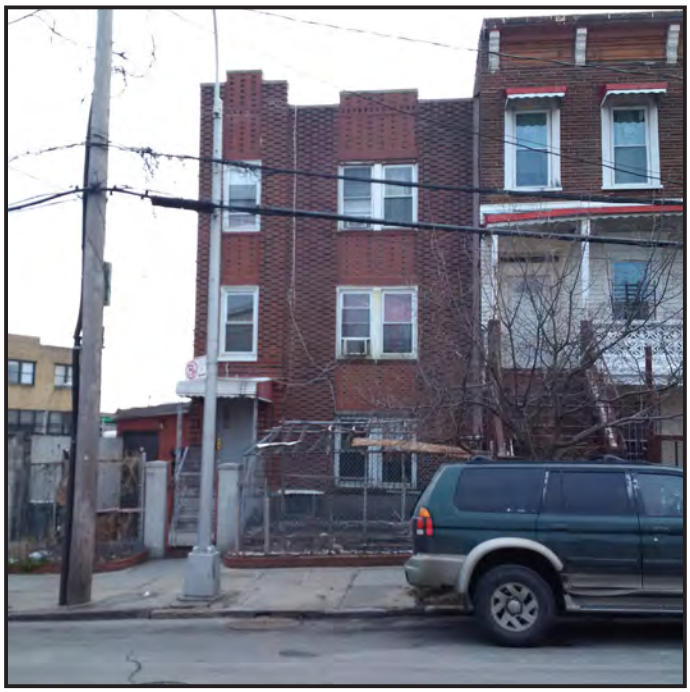


Photo H-10

Projected Development Site #4
Block 2600 Lot 103; 880 East 147th Street



Photo H-11

Projected Development Site #5
Block 2600 Lot 51; East 147th Street



Photo H-12

Potential Development Site #1
Block 2600 Lot 47; 830 East 147th Street



PHOTOS H-13 THROUGH H-14

Photo H-13

Potential Development Site #1
Block 2600 Lot 49; 834 East 147th Street

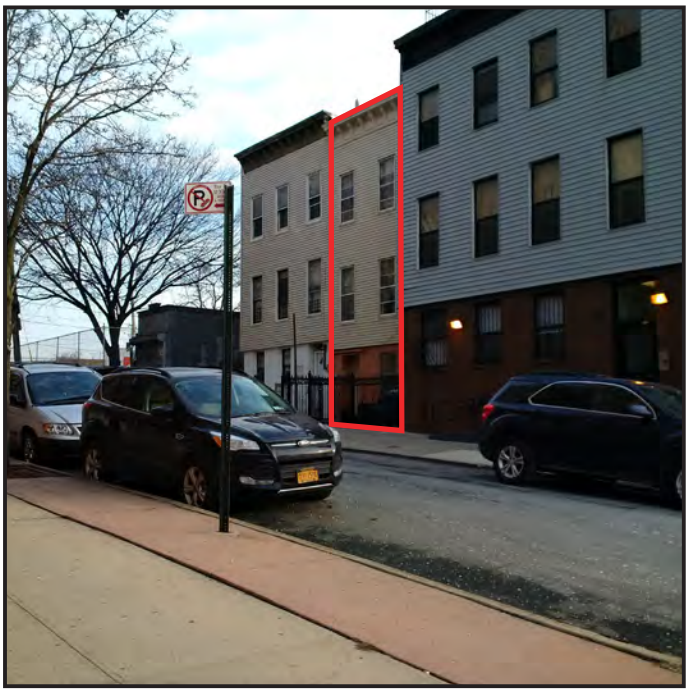


Photo H-14

Potential Development Site #1
Block 2600 Lot 50; 836 E. 147th Street



PHOTOS H-15 THROUGH H-17

Photo H-15

Other Site
Block 2600 Lot 89



Photo H-16

Other Site
Block 2600 Lot 186



Photo H-17

Other Site
Block 2600 Lot 131



Table H-1: Project Area Existing Building Massing

Projected Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Zoning	Land Use	# of Buildings	# of Floors	Gross FA (sf)	# of Res. Units	# of Units	Existing FAR	Parking
Projected Development Site #1 (Client's Development Site)	2600	187	6,863	116.27	100	M1-2	Parking Facilities	1	1	1,830	0	9	0.27	16
	2600	222	2,500	25	100	M1-2	Multi-Family Walk-Up (Vacant)	1	2	4,595	3	3	1.84	0
	2600	220	2,500	25	100	M1-2	1 and 2 Family	1	2	2,250	1	1	0.9	0
	2600	213	12,280	120.73	156.62	M1-2	Parking Facilities	0	0	0	0	0	0	30
Projected Development Site #3	2600	96[3]	7,270	61.25	100	M1-3	1 and 2 Family	2	2	1,620	1	1	0.22	0
Projected Development Site #4	2600	99	2,500	25	100	M1-3	Industrial/Manufacturing	1	2	2,325	0	1	0.93	0
	2600	100	2,500	25	100	M1-3	Multi-Family Walk-Up	2	2	2,562	3	3	1.02	0
	2600	101	5,000	50	100	M1-3	1 and 2 Family	2	3	2,106	2	2	0.42	0
	2600	103	5,300	80.08	100	M1-3	1 and 2 Family	1	2	1,560	1	1	0.29	0
Projected Development Site #2	2600	p/o 30	16,549	213.6	131.79	M1-2	Transportation/Utility	1	1	1,560	0	2	0.09	50
Projected Development Site #5	2600	51	5,742	91.24	120.73	M1-2	Vacant	0	0	0	0	0	0	19
Potential Development Site #1	2600	47	3,875	38.75	100	M1-2	Multi-Family Walk-Up	1	3	4,839	6	6	0.93	0
	2600	49	2,000	20	100	M1-2	1 and 2 Family	1	3	2,052	2	2	1.02	0
	2600	50	4,167	41.67	100	M1-2	Multi-Family Walk-Up	2	3	2,052	3	3	0.42	0
Other Site	2600	p/o 89	30,917	172.48	200	M1-3	Industrial/Manufacturing	3	1	20,209	0	3	0.65	0
Other Site	2600	186	5	4.86	2.5	M1-2	Vacant	0	0	0	0	0	0	0
Other Site	2600	131	41,600	275.25	200	M1-2	Multi-Family Walk-Up	2	5	275,000	137	138	6.61	0

[3] At time of analysis, Lot 96 was observed to be 1 and 2 family residential, but became vacant toward end of certification. Change of land use does not affect the analysis in any substantive manner.

Open Space

There is no identified publicly available open space resource in the Project Area.

Secondary Study Area

The secondary study extends an approximate 400-foot radius from the boundary of the Project Area and includes the primary study area. It is bounded approximately by East 149th Street and Southern Boulevard to the north, East 144th Street to the south, Wales Avenue to the west, and Bruckner Expressway to the east. As described in Attachment B, "Land Use, Zoning and Public Policy," it encompasses a total of 98 tax lots (74 full and 24 partial) with a total area of 921,174 sf. Neighborhoods within the secondary study area include Mott Haven to the west, and Port Morris to the east. The secondary study area is characterized by a diverse mix of land uses including industrial, residential, commercial, transportation/utilities, and institutional. There are also a number of zoning districts within the secondary study area, the most prominent of which is M1-2 and M1-3. Other zoning districts include R7-1, R7-2, R7-1/C1-4, R8X/C2-4, and C8-4.

There are no significant visual resources or natural features located in the secondary study area as defined by the *2014 CEQR Technical Manual*. The study area does not have any significant visual resources that connect the public realm to significant natural or built features. Additionally, there are no rock out-croppings, steep slopes or varied ground elevation, beaches or wetlands within the secondary study area.

Streets

The streets in the secondary study area include a diverse range of roadway types and include both major throughways and local roads. The street grid is generally regular to the west of the secondary study area, but becomes disrupted where Southern Boulevard meets East 145th Street to run parallel to the Bruckner Expressway, which runs to the east. The result is regular rectangular blocks broken up by more irregular and angled segments north of East 144th Street and east of Southern Boulevard.

As described in Attachment J, "Transportation," Southern Boulevard is a two-way north-south roadway that operates with one to two travel lanes in each direction and curbside parking on both sides of the street. At the intersection with East 149th Street, left-turn bays are provided. The NYCT/MTA Bx19 bus route provides service on this roadway north of East 149th Street. Vehicular access to the Project Area would be provided along Southern Boulevard. East 149th Street is a major two-way east-west roadway that operates with two travel lanes in each direction and curbside parking on both sides of the street. The NYCT/MTA Bx17 and Bx19 bus routes provide service on this roadway. Bruckner Boulevard is major north-south roadway that operates with five travel lanes in the southbound direction and four travel lanes in the northbound direction. Bruckner Boulevard is a service road underneath the Bruckner Expressway west of the Sheridan Expressway and extends past the expressway's terminus ending at the Third Avenue Bridge.

The streetscape elements within the secondary area are much more diverse than in the Project Area. In additional to sidewalks lined with trees, there are triangular Greenstreets Program spaces. Other streetscape elements are standard streets signs, cobra head lampposts, bus stop signs, and fire hydrants. The secondary study area is generally devoid of street furniture and much of the streets are lined with parallel-parked cars.

Buildings

The area south of East 147th Street between Southern Boulevard and Bruckner Boulevard outside of the Project Area is characterized primarily by industrial and manufacturing buildings, with a few commercial/office buildings and a parking facility mapped along Bruckner Boulevard. These buildings are generally between one and three stories, with garage doors fronting streets. There are however two five-

story brick manufacturing/industrial buildings bound by East 145th Street to the north, Timpson Place to the east, East 144th Street to the south, and Southern Boulevard to the west. The generally manufacturing-heavy area is broken up by a small patch of additional parking facilities and one- and two- family buildings on Timpson Place between East 145th Street and East 144th Street.

To the west of Southern Boulevard is a mix of multi-family walkup buildings, mixed use commercial/residential, and the DOE owned Samuel Gompers Bronx Vocational High School. The residential buildings are generally taller than those found in the Project Area, with buildings between four- and six- stories. The Samuel Gompers High School is a large brick structure with three floors and 41,400 sf of built area.

East 149th Street is characterized by several land uses, with significantly more commercial and retail than the rest of the secondary study area. North of East 149th Street and west of Southern Boulevard are one-story local retail including food establishments and services. To the east of Southern Boulevard, one-story retail buildings are broken up by four- and five-story mixed use buildings with residential above local retail. There is also a larger commercial/office building on the corner of East 149th Street and Southern Boulevard. There are also several lots with industrial/manufacturing and transportation/utilities on the east end, between Austin Place and Bruckner Boulevard South of East 149th Street is a mix of vacant lots, residential buildings, and commercial/office spaces.

Open Space

There are three publicly accessible open space resources within the secondary study area. The first is the Martin Luther King Triangle, an approximately 0.16 acre cobblestone triangle furnished with benches and planted with low shrubs and bushes, which is a public space that is bounded by Austin Place and East 149th Street. It was designated as a public space by the City in 1892 and transferred to the Department of Parks in 1906. The second is also another smaller triangular landscaped Greenstreets Program facility approximately 0.01 acres bounded by East 149th Street, Southern Boulevard and Prospect Avenue. The third open space is a small triangular Greenstreets area approximately 0.02 acres bounded by Southern Boulevard and Tinton Avenue, adjacent to the Mott Haven Community High School.

Future without Proposed Action

Project Area

Absent the proposed actions, all projected development sites in the No Action condition would remain in its existing conditions with the exception of Projected Development Site #2 (Lot 30, Block 2600), which is anticipated to be redeveloped from its existing use of transportation/utility use into an as-of-right two-story commercial/retail development with a maximum bulk of 11,700 gsf by the 2025 Build year as allowed under the current zoning designation of M1-2.

Projected Development Site #2

In coordination with NYCDCP, Projected Development Site #2 (Lot 30, Block 2600) is reasonably expected in the No-Action condition to be developed into a two-story commercial/retail structure with a maximum bulk of 11,700 gsf. Commercial/retail use is expected to consist of general local retail or services in addition to food stores smaller than 2,000 sf. Approximately 39 total parking spaces would be required (pursuant to ZR 44-21). The site is currently under single ownership, cleared of debris, and has sufficient frontage along an existing commercial strip for commercial/retail developments to be economically viable. The owner of Projected Development Site #2 has also developed other properties in the area for commercial/retail use within the immediate vicinity of the site.

The No Action condition was defined on the basis of the identification of known development projects within the Project Area and assessment of the development on soft sites within the Project Area. Based on coordination with the Bronx Office of NYCDCP, there are no known ongoing or proposed development within the Project Area, other than the project proposed by the Applicant. There are also no concurrent plans by any city agency for area-wide zoning changes in the Project Area. Therefore, in the No Action condition, there would be no change in conditions the Project Area with relation to urban design and visual resources.

Secondary Study Area

Based on coordination with the Bronx Office of the NYCDCP, review of recent building permits by the NYCDOB, and coordination with NYCHPD, the only project within a ¼ mile of the Project Area that would be fully occupied and in operation by the 2025 analysis year is the Crossroad Plaza development located at Block 2582 on Lots 47, 65, and 165, which is an affordable housing complex currently being built out in three phases. The Crossroads Plaza development, at its completion, will total three new buildings ranging between 75 feet (eight stories) and 150 feet (fifteen stories) in height, and will include a landscaped plaza located between the two taller buildings on Lots 65 and 165 and the shorter building on Lot 47 **(Figure H-4: Crossroads Plaza Site Plan)**[4].

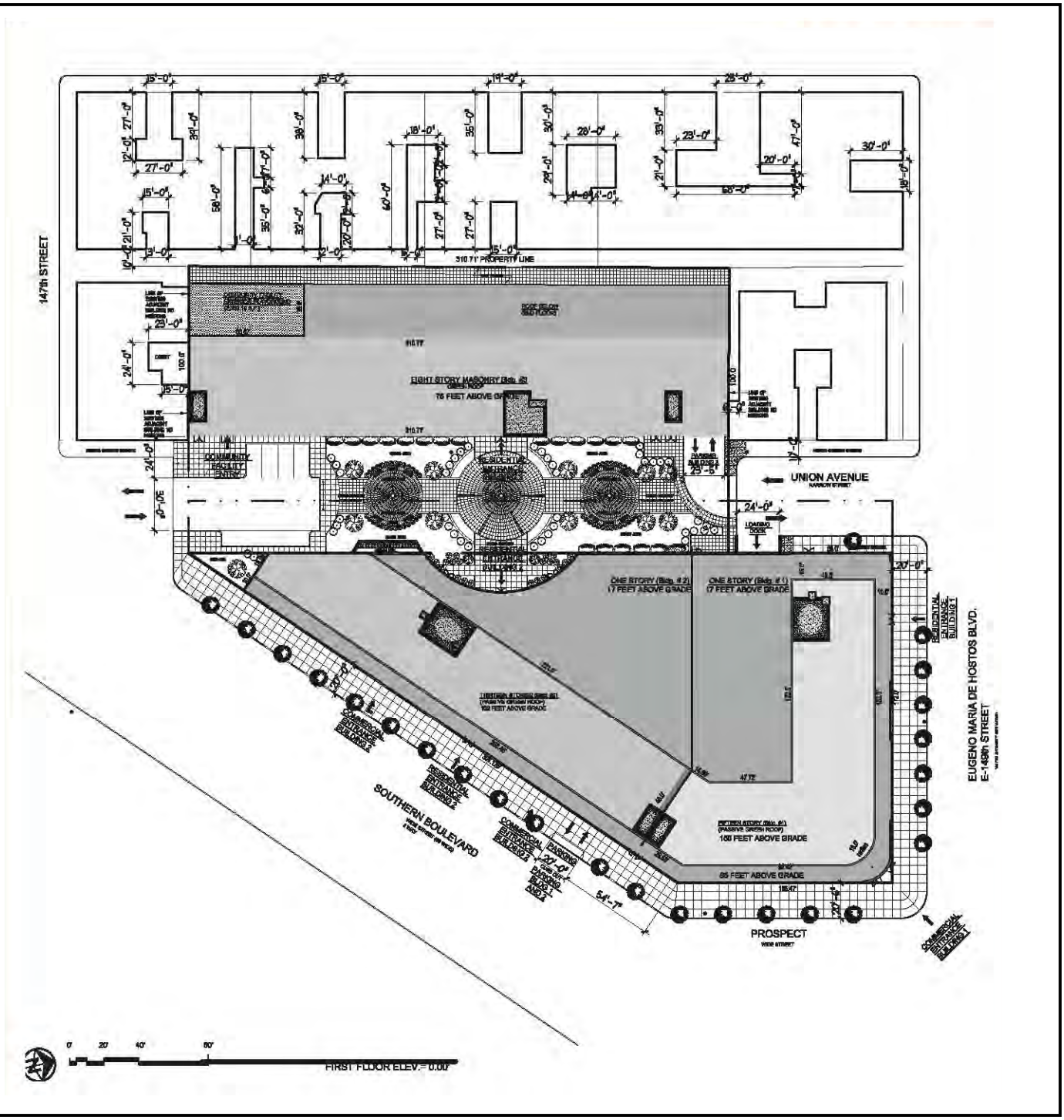
Crossroads Plaza I and II are both under construction on Lots 165 and 65 in Block 2582, which will include a total of 302 dwelling units, 36,800 sf commercial space, and 113 parking spaces **(Figure H-5: Crossroads Plaza I and II Rendering)**. The two buildings would be attached and nearly indistinguishable as separate buildings, except that Crossroads Plaza I would be taller than Crossroads II. The commercial ground floors of the two buildings would encompass the entire footprint of both buildings. Crossroads II, located on Union Avenue (Block 2582, Lot 165), will introduce 136 dwelling units, 18,497 sf of ground floor retail and 52 accessory parking spaces. It is anticipated to have 15 stories and rise to a maximum height of 131 feet. Crossroads I, located at 848 East 149th Street (Block 2582, Lot 65), will contain 166 dwelling units, 18,272 sf ground floor retail and 61 parking spaces. It is anticipated to have 13 stories and rise to a maximum height 150 feet.

Crossroad Plaza III, located at 535 Union Avenue (Block 2582, Lot 47) was the first phase of the development that was constructed and is now complete, with 126 dwelling units, community facility space, and 42 underground parking spaces **(Figure H-6: Crossroads Plaza III Rendering)**. The shortest of the three buildings, it has a total of eight stories and rises to a maximum height of 75 feet. The building extends along the entire width of the lot, abutting the side walls of two five- and six-story existing residential buildings that flank the lot.

Additionally, the development would de-map what is currently Union Avenue, a north south local roadway, in order to construct a landscaped plaza that would provide landscaping, seating areas, and walkways to the main entrances of the proposed residential buildings and daycare center, connecting the three phases of development.

Absent the Proposed Action, the No Action condition would remain in its existing conditions plus the Crossroads Plaza I and II construction.

[4] Project description, site plan, and renderings are taken from the Crossroads Plaza EAS (CEQR No: 09HPD028X)



Source: Crossroads Plaza EAS (CEQR No: 09HPD028X)

CROSSROADS PLAZA SITE PLAN

Figure H-4



Source: Crossroads Plaza EAS (CEQR No: 09HPD028X)

CROSSROADS PLAZA I AND II RENDERING

Figure H-5



Source: Crossroads Plaza EAS (CEQR No: 09HPD028X)

CROSSROADS PLAZA III RENDERING

Figure H-6

Future with Proposed Action

As described in Attachment A, "Project Description," the Proposed Action includes the rezoning of the Project Area from M1-2 or M1-3 to R7X and R7X/C1-4 and a zoning text amendment of ZR Appendix F to classify the Project Area as an MIH designated areas. The proposed C1-4 commercial overlay would be located along the eastern side of Southern Boulevard, extend 100 feet from the nearest street, and affect Lot 30, 47, 49, and 131 in Block 2600 **(Figure H-7: Project Area With Action)**. The Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of 5 projected development sites and one potential development site by the 2025 Build year. The potential development site identified in the RWCDS memo is not expected to be developed by the 2025 Build year. The Proposed Action is expected to facilitate by the 2025 Build year a net increase of 366 dwelling units (354,736 gsf) of which 219 are expected to be affordable DUs, over the future No Action condition. In addition to residential developments, it is also anticipated that approximately that there would be a decrease of 5,762 gsf of existing manufacturing uses and a decrease of 3,230 sf of local retail.

Any development of projected developments as a result of the Proposed Action would affect the area's urban design, specifically the building bulk, programming and streetscape experience. This section describes the effects of the Proposed Action on the urban design and visual resource conditions in the area by the 2025 Build year, and evaluates the potential for the Proposed Action to result in significant adverse impacts.

Project Area

The Proposed Action would rezone all the lots in the Project Area from M1-2 or M1-3 to R7X. It would also introduce a C1-4 commercial overlay along the eastern side of Southern Boulevard. As described in Attachment B, "Land Use, Zoning and Public Policy," it is anticipated that the Proposed Action would result in development within the primary study that is similar to recent development trends in the neighborhood. Recent development trends in the neighborhood indicates sufficient demand for residential developments due to increasing population within Bronx Community Board One, and the decline of the manufacturing sector in New York City. It is expected that the Project Area be redeveloped with more multi-family residential and retail uses. In addition, the adoption of ZQA and MIH would create sufficient incentive for residential developments on the five identified Projected Development Sites. The proposed zoning changes would also expand opportunities for mixed-use development in the proposed commercial overlay areas that would provide additional ground floor retail uses.

There are no visual and natural resources in the Project Area, and therefore, there would be no effect as a result of the Proposed Action.

Streets and Streetscape

The Proposed Action is not expected to alter the arrangement or orientation of streets within the Project Area. The streetscape elements within the Project Area are limited primarily to sidewalks lined with trees without tree guards. Streetscape elements in the Project Area with the Proposed Action are anticipated to be similar to those that currently exist in the Project Area and include sidewalks line with trees and other plantings.

Buildings

The Reasonable Worst-Case Development Scenario (RWCDS) identified for the Proposed Action anticipates a total of 5 projected development sites by the 2025 Build year. The potential development site identified in the RWCDS memo are not expected to developed by the 2025 Build year and would remain the existing conditions. The With Action conditions for each of the five projected developments site are discussed in detail below **(Table H-2: With Action Building Massing)**. Because of lot size and zoning

regulations, the maximum allowable height of 145' under R7X with ZQA and MIH applied would not be feasible on all of the projected development sites. As such, the anticipated development under the With Action condition does not maximize this building height on projected development sites; however, the maximum envelope with a height of 145' is shown for reference in all figures.

Projected Development Site #1

Projected Development Site #1 in the With Action condition would be developed with the Applicant's Proposed Development. Lots 187, 222, 220, and 213 would be rezoned from M1-2 to R7X, which would increase the maximum FAR from 2.0 to 6.0. The Applicant proposes to develop a 135 (125' + 10' bulkhead) foot tall, 12-story, 164,592 gsf residential building with an FAR of 6.0 covering all four lots **(Figure H-8: Projected Development Site #1 With Action Site Plan).** The resulting development would be trapezoidal in shape and provide 165 DUs and 25 underground onsite parking spaces.

The ground floor of the proposed development will consist of a lobby and residential amenities such as a community room and laundry facilities. Typical floor plans include a mix of DU sizes that range between studio units and three bedroom units. The Applicant proposes to construct 165 affordable DUs under the ELLA program with the following distribution:

- 16 studio units (10% of total DUs)
- 66 one bedroom units (40% of total DUs)
- 61 two bedroom units (37% of total DUs)
- 21 three bedroom units (13% of total DUs)[5]

The proposed development would have a base height of 95' (9 stories) and a maximum height of 135' (including a 10' bulkhead) **(Figure H-9: Projected Development Site #1 With Action Rendering, View #1 and Figure H-10: Projected Development Site #1 With Action Rendering, View #2)**. Along Timpson Place, floors 1 through 5 comprise the entire building footprint, with floors 6 through 12 rising along the building footprint wrapping from Timpson Place through most of the East 147th Street frontage. The building lowers incrementally in three tiers from 12 stories to 9 along East 147th Street towards Austin Place. At the rear of the building along Austin Place, there is a setback of approximately 40', which would allow for a ramp to access the underground parking **(Figures H-11 through H-14).**

Projected Development Site #2

In the With Action condition, Projected Development Site #2 (Lot 30, Block 2600) would be rezoned with an R7X designation, as well as have a C1-4 commercial overlay mapped which would extend 100 feet from Southern Boulevard. The new zoning and the adoption of ZQA and MIH is expected to provide incentive for the current site to be redeveloped from a transportation and utility use to residential. It is expected to be developed into an 6-story mixed-use residential and commercial development that would rise to a maximum building height of 70 feet, although the R7X zoning designation with ZQA and MIH would allow a maximum height of 145 feet. The development is expected to have a rear yard setback. Based on the new zoning, it is expected to have a total built area of 50,820 gsf and FAR of 6.0, which would provide 42 residential units, 11 of which would be affordable, and 8,470 gsf of ground floor commercial. It is also anticipated that there would also be 16 parking spaces provided.

Projected Development Site #3

Projected Development Site #3 (Lot 96, Block 2600) in the With Action condition is also expected to be developed as a multi-family walkup building with an FAR of 6.0 under the new R7X zoning designation. The resulting development is anticipated to be 9 stories, rising to a maximum height of 97 feet, although the

[5] Applicant is working with architect team to assess whether the number of 3 bedroom units can be increased to 15%

R7X zoning designation with ZQA and MIH would allow a maximum height of 145 feet. It is anticipated to have a total built area of 43,620 gsf. The development is expected to have a rear yard setback. The With Action zoning and mapped Inclusionary Housing would allow 44 units of residential, 11 of which would be affordable. Parking requirements are waived and therefore, not anticipated to be provided.

Projected Development Site #4

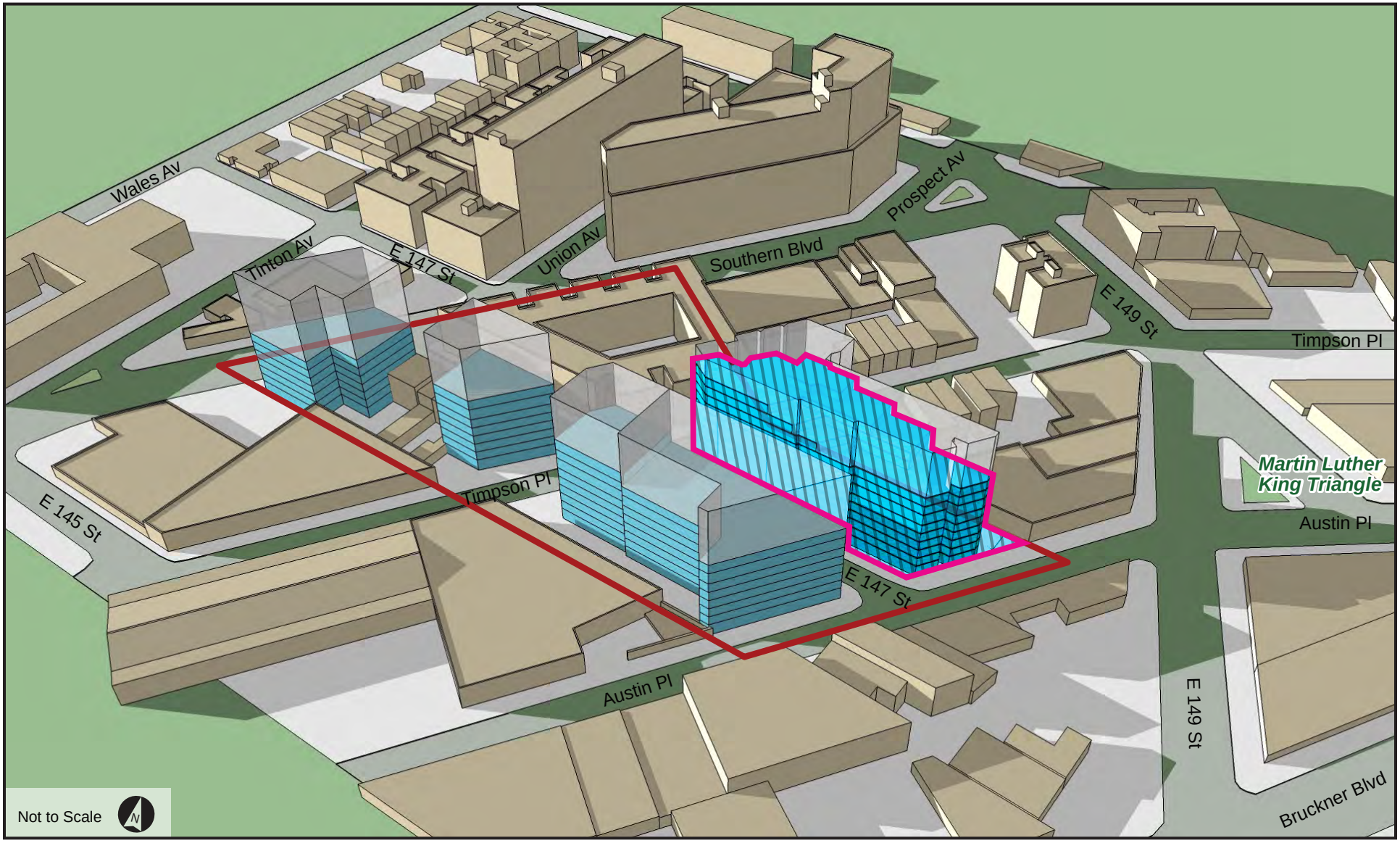
Projected Development Site #4 (Lots 99, 100, 101, and 103, Block 2600) in the With Action condition is also expected to be developed as a multi-family walkup building with an FAR of 6.0 under the new R7X zoning designation. The resulting development is anticipated to be 8-stories, rising to a maximum height of 85 feet, although the R7X zoning designation with ZQA and MIH would allow a maximum height of 145 feet. It is anticipated to have a total built area of 91, 800 gsf. The development is expected to have a rear yard setback. The With Action zoning and mapped Inclusionary Housing would allow 92 units of residential, 23 of which would be affordable. Again, parking requirements are waived and therefore, not anticipated to be provided.

Projected Development Site #5

Based on the new R7X zoning designation, Projected Development Site #5 (Lot 51, Block 2600) in the With Action condition is expected to be developed by the Build year of 2025 as a 8-story multi-family walkup building with a maximum height of 86 feet, although the R7X zoning designation with ZQA and MIH would allow a maximum height of 145 feet. The development would have approximately 34,452 gsf of built area and an FAR of 6.0. The development is expected to have a rear yard setback as well as be setback from the street wall along Timpson Place. The With Action zoning and mapped Inclusionary Housing would allow 34 units of residential, 9 of which would be affordable. Parking requirements are waived and therefore, not anticipated to be provided.

Open Space

There is no identified open space in the Project Area.



Projected Development Buildings

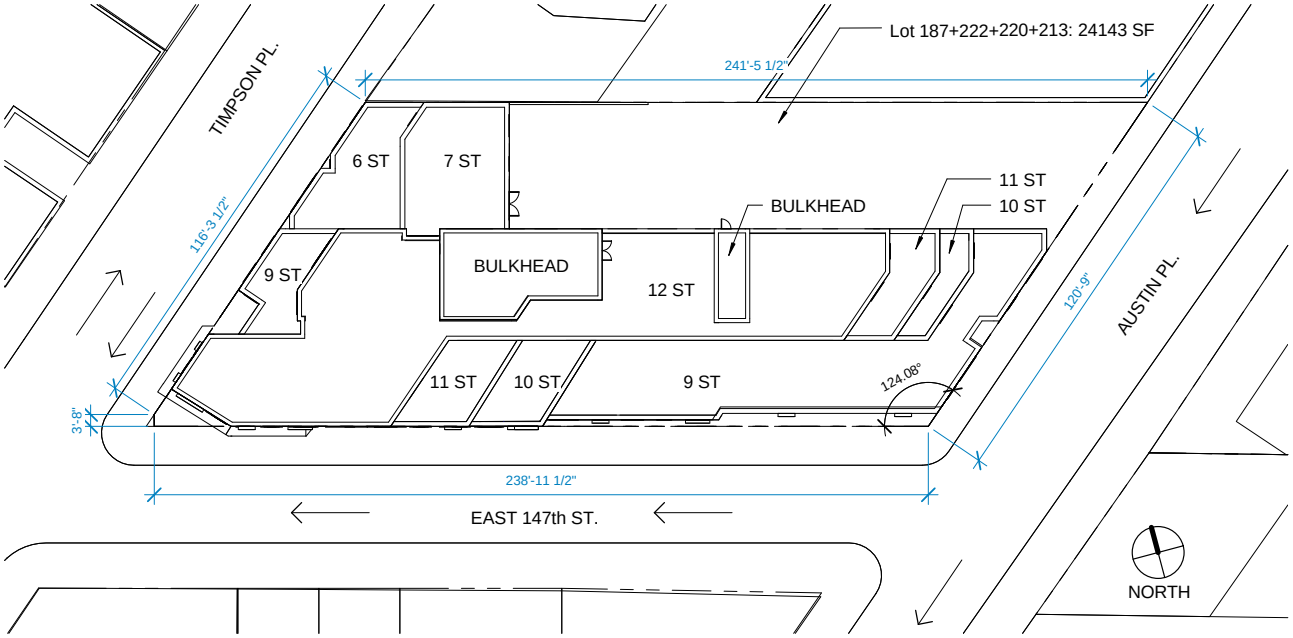
Applicant's Development Building

Maximum Allowable Building Envelope

Rezoning Area

PROJECT AREA FUTURE WITH ACTION CONDITION

Figure H-7



SITE INFORMATION

Block 2600

Lot 187	6,863.03 SF
Lot 222	2,500.00 SF
Lot 220	2,500.00 SF
Lot 213	12,632.50 SF
Total SF:	24,142.53 SF

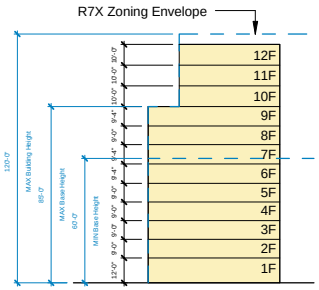
R7X ZONING RAGULATION

FAR	6.0
Base Height	85ft MAX
Building Height	125ft MAX
Max Floor Area	144,855.18 SF

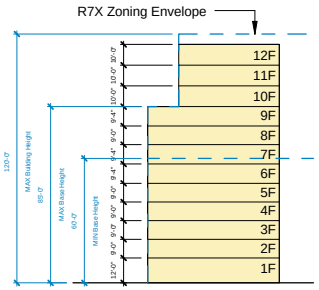
PROPOSED BUILDING

1 FL	15,685 GSF
2 FL	15,685 GSF
3-6 FL	16,136 GSF
7 FL	15,180 GSF
8-9 FL	13,882 GSF
10 FL	10,084 GSF
11 FL	9,128 GSF
12 FL	7,977 GSF
Total GSF	172,159 GSF
Zoning SF	143,594 SF

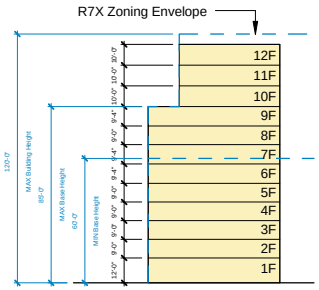
Building Section: Timpson Place



Building Section: East 147th Street



Building Section: Austin Place



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E 147TH ST REZONING
BRONX

RADSON DEVELOPMENT

SITE PLAN
02/24/16
03

PROJECTED DEVELOPMENT SITE #1 WITH ACTION SITE PLAN

Figure H-8



PROJECTED DEVELOPMENT SITE #1
WITH ACTION RENDERING
VIEW #1

Figure H-9



PROJECTED DEVELOPMENT SITE #1
WITH ACTION RENDERING
VIEW #2

Figure H-10

Rendering View West of E. 147th St from Austin Place
Future No Action Condition | Figure H-5



Rendering View West of E. 147th St from Austin Place
Future With Action Condition | Figure H-6



Rendering View East of E. 147th St from Timpson Place
Future No Action Condition | Figure H-7



Rendering View East of E. 147th St from Timpson Place
Future With Action Condition | Figure H-8

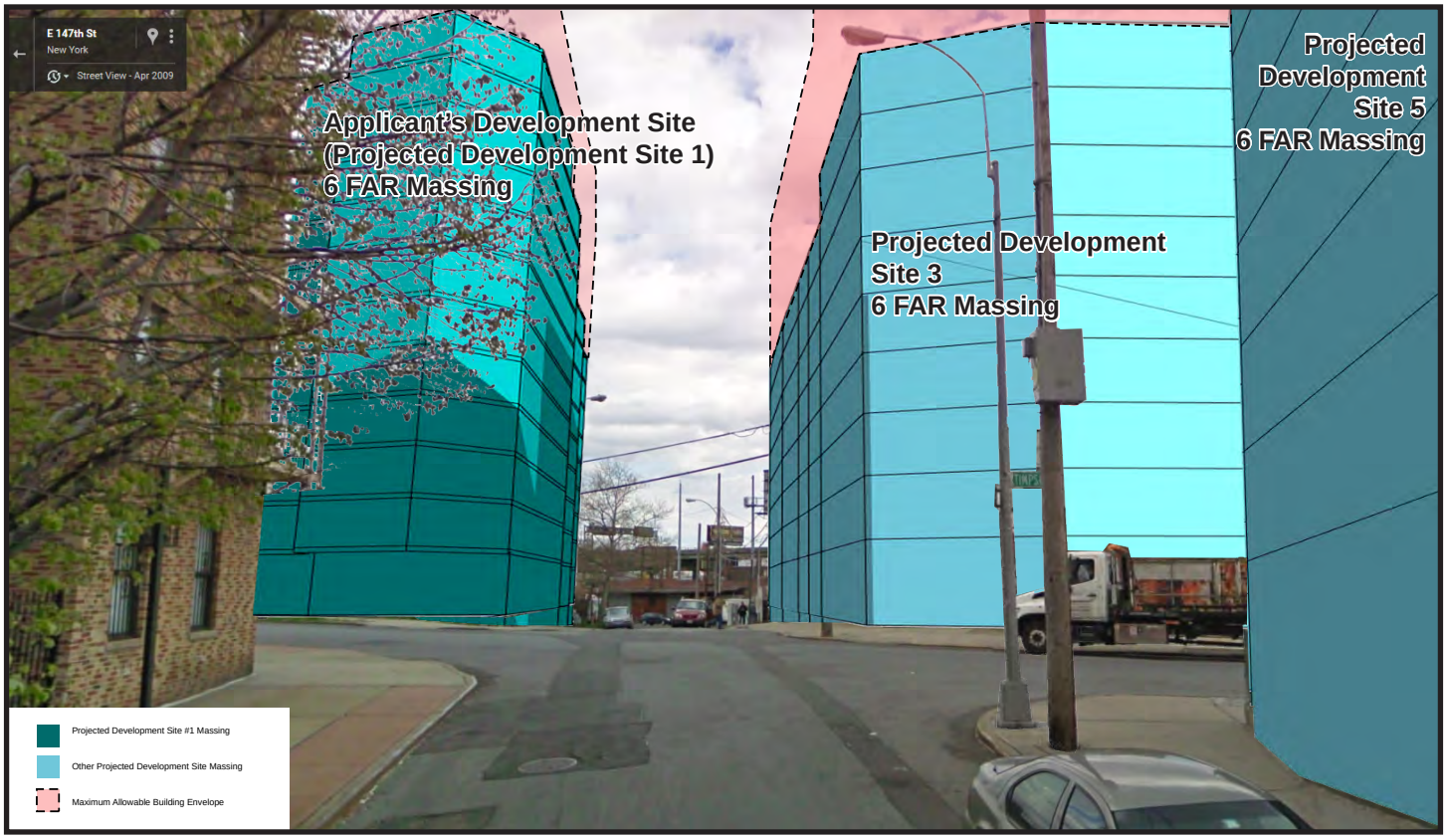


Table H-2: Project Area With Action Building Massing

Projected Development Sites	Block	Lot	Lot Area (sf)	Lot Frontage (ft)	Lot Depth (ft)	Zoning	Land Use	# of Buildings	# of Floors	Gross FA (sf)	Market Rate Res. Units	Affordable Res. Units	Total Res. Units	Other Uses and Floor Area	Proposed FAR	Parking
Projected Development Site #1 (Client's Development Site)	2600	187	6,863	116.27	100	R7X	Multi-Family Elevator	1	12	164,592	0	165	165		6	25
	2600	222	2,500	25	100	R7X										
	2600	220	2,500	25	100	R7X										
	2600	213	12,280	120.73	156.62	R7X										
Projected Development Site #3	2600	96	7,270	61.25	100	R7X	Multi-Family Walkup	1	9	43,620	33	11	44		6	0
Projected Development Site #4	2600	99	2,500	25	100	R7X	Multi-Family Walkup	1	6	91,800	69	23	92		6	0
	2600	100	2,500	25	100	R7X										
	2600	101	5,000	50	100	R7X										
	2600	103	5,300	80.08	100	R7X										
Projected Development Site #2	2600	p/o 30	16,549	213.6	131.79	R7X/ C1-4	Mixed Residential & Commercial	1	6	50,820	31	11	42	Ground floor commercial (8,470 gsf)	6	16
Projected Development Site #5	2600	51	5,742	91.24	120.73	R7X	Multi-Family Walkup	1	6	34,452	25	9	34		6	0
Potential Development Site #1	2600	47	3,875	38.75	100	R7X/ C1-4	Mixed Residential & Commercial	1	6	42,176	25	9	34	8,225 gsf Commercial/Retail	6	8
	2600	49	2,000	20	100	R7X/ C1-4										
	2600	50	4,167	41.67	100	R7X										
Other Site	2600	p/o 89	30,917	172.48	200	M1-3	Industrial /Manufacturing	3	1	20,209	0		0		0.65	0
Other Site	2600	186	5	4.86	2.5	M1-2	Vacant	0	0	0	0	0	0	0	0	0
Other Site	2600	131	41,600	275.25	200	M1-2	Multi-Family Walk-Up	2	5	275,000	137		137		6.61	0

Secondary Study Area

The Proposed Action is not expected to alter any urban design or visual resource elements within the 400-feet secondary study area. As Described in Attachment B, "Land Use, Zoning and Public Policy," the mix of uses that would result in the Project Area as a result of the Proposed Action would be compatible with the existing pattern of development in the surrounding area. The land use changes that would occur in the Project Area as a result of the Proposed Action would be consistent with the current development trends of shifting away from manufacturing/industrial uses and towards residential and commercial/retail developments. Furthermore, future development in the secondary study area would be under existing zoning and would therefore be compatible with surrounding land use patterns. As such, the Proposed Action would have no direct impact upon urban design and visual resources in the secondary study area.

VI. CONCLUSION

Based on the guidelines set forth in the *2014 CEQR Technical Manual*, the Proposed Action would not result in significant adverse impacts on urban design and visual resources. The Proposed Action would rezone the Project Area from M1-2 and M1-3 to R7X and designate a C1-4 commercial overlay 100 feet along the eastern side of Southern Boulevard. The proposed zoning changes would result in a shift from manufacturing uses in the Project Area towards more residential and commercial developments. These changes would be consistent with the existing development in the surrounding area.

Based on the results of the preliminary urban design and visual resources analysis, the Proposed Action is anticipated to result in new development that is similar to the built forms and building types that currently exist in the surrounding area. The development that would occur as a result of the Proposed Action would generally exhibit the same built characteristics as the existing development in the surrounding study area, which is more diverse in use and bulk. The Proposed Action would introduce five projected developments that are between six and twelve stories, with a maximum allowable FAR of 6.0, that would either be residential or mixed-use residential and commercial. These heights and densities would be greater than that currently allowed by the M1-2 and M1-3 zoning.

However, the bulk of the new developments would follow the pattern of the bulk of existing large scale development within and surrounding the Project Area. The Project Area, while zoned for manufacturing, already has a number of one- and two-family residential buildings and walk-ups. In addition, there is an existing five story 55 feet tall 275,000 gsf multi-family residential building within the rezoning area.. Additionally, as shown in the preliminary analysis, the urban design of the secondary study area currently contains a mix of taller, higher density buildings that have built forms similar to the projected developments that would be in occupied in the Project Area by the 2025 Build year. These include the Crossroads Plaza development, which is anticipated to be completed and fully occupied by the 2025 Build year. The Crossroad Plaza development will have building heights that are similar or taller than the proposed development that would result with the Proposed Action in the Project Area. Crossroads Plaza I will rise to a maximum height of 150 feet, Crossroads Plaza II will rise to a maximum height of 131 feet, and Crossroads Plaza III (which is already constructed) currently rises to a maximum height of 80 feet. The With Action development in the Project Area would be similar in scale and use to the Crossroad Plaza development. Additionally, the anticipated commercial development that would occur along the eastern side of Southern Boulevard would provide support for existing ground floor retail that exists already along East 149th Street as well as the additional retail that would be provided in the Crossroads Plaza I and II developments.

The Proposed Action would not result in any changes to block form or street arrangement and orientation, nor would it have a significant adverse impact on visual resources due to the lack of significant visual

resources in the Project Area or secondary study area. Consequently, the Proposed Action would not result in a change to the built environment's arrangement, appearance, or functionality in a way that would negatively affect a pedestrian's experience of the area. The scale and use of surrounding buildings that make up the context of the Project Area are similar to those that would occur in the Project Area as a result of the Proposed Action. Therefore, the Proposed Action would not result in any significant adverse impacts to urban design or visual resources in the study area.

Attachment I: Hazardous Materials

I. INTRODUCTION

This section assesses whether the Proposed Action would have the potential to increase the exposure of people or the environment to hazardous materials, and if so, whether this increased exposure would result in potentially significant public health or environmental impacts. According to the *2014 CEQR Technical Manual*, a hazardous materials assessment may be necessary when the site of a proposed project or the Proposed Action could lead to increased exposure of people or the environment to hazardous materials. Hazardous materials are substances that pose a threat to human health or the environment and can include heavy metals, volatile organic compounds (VOCS), semi-volatile organic compounds (SVOCS), methane, polychlorinated biphenyls (PCBS), pesticides, dioxins, and hazardous wastes.

The potential for significant impacts related to hazardous materials can occur when: a) elevated levels of hazardous materials exist at a site and the project would increase pathways to human or environmental exposure; b) the project would introduce new activities or processes using hazardous materials and the risk of human or environmental exposure is increased; or c) the project would introduce a population to potential human or environmental exposure from off-site sources. As described in Chapter 12, Section 200 of the *2014 CEQR Technical Manual*, a hazardous materials assessment is warranted for a rezoning allowing commercial or residential uses in an area currently or previously zoned for manufacturing uses. The Applicant has requested that the Project Area be rezoned from a manufacturing district, M1-2 and M1-3, to an R7X residential district with a C1-4 commercial overlay along the eastern side of Southern Boulevard. The Applicant has also requested a text amendment of ZR Appendix F to classify the Project Area as an MIH designated areas. The rezoning from manufacturing to residential and mixed-use warrants a hazardous materials assessment as indicated in the *2014 CEQR Technical Manual*.

As described in Attachment A, "Project Description", the Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of five Projected Development Sites and one Potential Development Site within the Project Area. The Proposed Action would result in the net increase of 366 dwelling units (DUs), 219 of which are expected to be affordable DUs and a net decrease of 3,230 gsf local retail and 2,325 gsf manufacturing use in the Project Area compared to the future without the Proposed Action. In addition, there would be a net increase in 25 accessory enclosed parking spaces and a net decrease in 88 unenclosed parking spaces.

II. PRINCIPAL CONCLUSIONS

As detailed in the Methodology Section of this attachment, a Phase I Environmental Site Assessment (ESA) was completed for the Development Site (Projected Development Site Number 1), and preliminary screening assessments (PSA) were completed for Projected Development Sites Numbers 2 through 5 and the one Potential Development Site.

These assessments indicated that there was the potential for the presence of hazardous material contamination all of the Projected and Potential Development Sites. As a result, the proposed zoning map actions include (E) designations for all privately held Projected and Potential Development Sites. By placing (E) designations on these privately held sites, there would be no impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures outlined in the (E) designation would reduce or avoid the potential for significant adverse hazardous materials impacts resulting from construction in the Project Area that would be allowed by the Proposed Action.

III. METHODOLOGY

As detailed below, a Phase I Environmental Site Assessment (ESA) was completed for the Applicant's Development Site (Projected Development Site Number 1), and preliminary screening assessments (PSA) were completed Projected Development Sites Numbers 2 through 5 and the one Potential Development Site to determine the potential for the presence of hazardous material contamination on the Projected and Potential Development Sites, and whether an (E) designation should be placed on one or more the Projected and Potential Development Sites. This process included review of historical documentation to determine past or current uses of a site that may have affected or be affecting a projected or potential development site or an adjacent site.

Phase I ESA – Projected Development Site 1

In February of 2016, a Phase I ESA was prepared by Brinkerhoff Environmental Services, Inc. (Brinkerhoff) for the properties that comprise Projected Development Site Number 1, located at 869, 875, 879, and 881 East 147th Street in the Borough of Bronx, New York. The properties are also defined as Block 2600, Lots 187, 222, 220, and 213. The Full Phase I ESA is attached in Appendix H2. The scope of the Phase I ESA is in general conformance with the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (AAI), 40 Code of Federal Regulations (CFR) Part 312, and the American Society for Testing and Materials (ASTM) E 1527-13 Standard Practice for Environmental Site Assessment Process Scope of Work. The purpose of the assessment was to review the general environmental condition of the land and structures that comprise the property. Specifically, the assessment sought to identify recognized environmental conditions (REC's), controlled recognized environmental conditions (CRECs), and historical recognized environmental conditions (HRECs), as defined by ASTM E 1527-13, on or near the site and records of those areas that may adversely impact the subject property owner or operator under existing federal, state, and local environmental laws, and to recommend further actions necessary to confirm, quantify, or abate those conditions. The scope of the Phase I ESA included:

- A physical inspection of the property on February 15, 2016, by Brinkerhoff to locate and identify: obvious signs of chemical spills; visual and documented evidence of chemical storage tanks; improper use, storage and disposal of hazardous materials; and, polychlorinated biphenyl (PCB)-containing electrical equipment.
- A review of federal and state standard environmental record sources using minimum search distances from the property, as defined by ASTM E 1527-13, to identify nearby sites with known environmental impairments or operations registered to handle hazardous substances and wastes.
- A review of reasonable ascertainable standard historical sources that might include aerial photographs, fire insurance maps, property tax files, recorded land title records, United States Geological Survey (USGS) 7.5 Minute Topographic Maps, local streets directories, building department records, zoning/land use records, or other historical sources.

Preliminary Screening Assessments

In February of 2016, Preliminary Screening Assessments (PSA) were completed for Projected Development Sites Numbers 2 through 5 and the one Potential Development Site. The scope of the PSA's was in general conformance with Section 24-04 of Chapter 24 of Title 15 of the RCNY Preliminary Screening Assessment. The purpose of the PSA's was to review past and present land use practices, site operations, and conditions to determine whether an (E) designation should be placed on the subject property in connection with the approval of the proposed Zoning Amendment or Zoning Action. As per Section 24-04 of Chapter 24 of Title 15 of the RCNY, the preliminary screening process for determining if an (E) designation should be placed on a specific site includes reviewing historical documentation for past or current uses that may have affected or are affecting a site. Appendix A of the Hazardous Materials Appendix

(Chapter 24 of Title 15 of the RCNY) provides a list of types of facilities, activities, or conditions which would lead to a site receiving an (E) designation.

An (E) designated site is an area designated on a zoning map within which no change of use or development requiring a New York City Department of Buildings permit may be issued without approval of the New York City Office of Environmental Remediation (OER). Redevelopment of these sites requires OER review to ensure protection of human health and the environment from any known or suspected hazardous materials associated with the site. Regardless of the type of planned redevelopment, a hazardous materials (E) designation may be placed on a site based on past use. The OER oversees the (E) designation Environmental Review Program. For properties where existing buildings will be converted with no intrusive soil work, the owner will need to contact the OER and provide them with the development plans. OER will issue a Notice of No Objection, which will enable the New York City Department of Buildings to issue the conversion permit. The (E) designation for the site remains and must be satisfied if any future redevelopment involves excavation and/or soil disturbance.

The scope of the Preliminary Screening Assessments included:

- A limited exterior site reconnaissance of each property was performed on February 15, 2016, by Brinkerhoff to locate and identify: obvious signs of chemical spills; visual evidence of chemical storage tanks; improper use, storage and disposal of hazardous materials; and, polychlorinated biphenyl (PCB)-containing electrical equipment;
- A review of federal and state standard environmental record sources, maintained by the United States Environmental Protection Agency (USEPA), New York State Department of Environmental Conservation (NYSDEC), and New York City Department of Environmental Conservation (NYSDEC), and New York City Department of Environmental Protection (NYCDEP), respectively, was performed. The review identified if the storage, handling, emissions, and/or spill cleanup of hazardous or toxic materials has been performed on the subject property; and
- A review of historical land use was evaluated from reasonable available Sanborn® Fire Insurance Maps to identify evidence of historical activities with the potential to have impacted the subject property.

Limitations

While the process used to complete the Phase I ESA for Projected Development Site Number 1 was in general accordance with the United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (AAI), 40 Code of Federal Regulations (CFR) Part 312, and the American Society for Testing and Materials (ASTM) E 1527-13 Standard Practice for Environmental Site Assessment Process Scope of Work, and the process used to complete the PSAs for Projected Development Sites Numbers 2 through 5 and the one Potential Development Site were in general accordance with Section 24-04 of Chapter 24 of Title 15 of the Rules of RCNY Preliminary Screening Assessment, the scopes of these assessments were limited to determining whether (E) designations should be placed on these development sites. A final determination of the potential presence of on-site hazardous materials must be determined through completion of the process prescribed by OER for those properties for which an (E) Designation has been placed on a property.

Any data gaps in the assessments are disclosed in the summaries below, and are also described in detail within the full Phase I ESA and PSAs, which are attached in Appendix I2.

IV. EXISTING CONDITIONS

Projected Development Sites

Projected Development Site #1

Block 2600, Lots 187, 222, 220, and 213

Projected Development Site 1 is located along East 147th Street between Timpson Place and Austin Place and consists of approximately 24,142 square feet. Currently the property is developed with two (2) parking lots, two (2) two-story residential buildings, and nine (9) garages. 881 East 147th Street consists of a parking lot. A two-story residential building with a basement and a backyard are located at both 879 and 875 East 147th Street, and 869 East 147th Street consists of nine (9) garages with asphalt pavement in the remaining portion of the lot.

Adjoining Properties

A multi-family residential building and a Truflow Plumbing and heating LLC warehouse are located to the north of Projected Development Site 1. Austin Place and a manufacturing structure are located to the east of the Projected Development Site. East 147th Street, several multi-family residential buildings, a parking lot, and a vacant property undergoing construction are located to the south of the subject property. Timpson Place and a multi-family residential building are located to the west of the Projected Development Site.

Assessment

Brinkerhoff performed a Phase I ESA of Projected Development Site 1 in general conformance with the scope and limitations of AAI and the ASTM E 1527-13 Standard Practice for ESAs: Phase I ESA Process Scope of Work. The Phase I ESA revealed the following REC's:

1. A review of historical data indicates that the property was developed with several structures (including the current 879 East 147th Street building) since at least 1891. Although the 879 East 147th Street building is currently heated via natural gas, no supporting documentation regarding the prior heating sources of the former structures was identified or provided to Brinkerhoff; therefore, the potential exists for USTs to be present at the site.
2. A review of historical data revealed that the property formerly operated as a Hardware Manufacturing Facility and as a Contractors Yard. The handling, storage, and/or disposal of materials and substances used during the former site operations are unknown. Although no known or reported discharges associated with the former site operations were identified, the potential exists for hazardous compounds to be present in the subsurface soil and groundwater.
3. Urban historic fill was identified beneath the asphalt pavement at 881 East 147th Street and in the basement of the 875 East 147th Street during site reconnaissance. Urban historic fill is commonly found throughout the NYC Metropolitan Area and can contain contaminants such as heavy metals and semi-volatile organic compounds.
4. Based upon the available data acquired, Brinkerhoff finds that the subject property is unlikely to be impacted by vapor migration from on-site sources, as no significant release of hazardous substances or petroleum products have been documented to date. However, the potential for vapor migration does exist from unknown or unclassified sources on site, upgradient, or sidegradient of the property.

No controlled recognized environmental conditions (CRECs) were identified at the subject property. No historical recognized environmental conditions (HRECs) were identified at the subject property.

Based on the results of the Phase I ESA, a Phase II Environmental Site Investigation was recommended to investigate the aforementioned RECs associated with the subject property.

Limitations

The following are Data Gaps disclosed in the Phase I ESA:

- At the time of report preparation, information had not been received from the NYSDEC or NYCDEP regarding the property or adjacent properties.
- During the site reconnaissance, limited visibility was encountered throughout the 875 and 879 East 147th Street residential buildings due to the lack of lighting, and limited ability to observe floor spaces was encountered due to tiled floors, carpeted floors, furniture, and the storage of large amounts of trash, household items, and construction materials.
- During the site reconnaissance, access was not granted to the roofs of the two (2) residential buildings or the nine (9) garages.
- During the site reconnaissance, access was not granted to the insides of the nine (9) garages located at 869 East 147th Street and to the backyard of the 879 East 147th Street building.
- During the site reconnaissance, access was not granted to one (1) bedroom on the second floor of the 875 East 147th Street building due to the presence of a fire the day before the site visit and the unknown structural integrity of the room.

Projected Development Site #2

Block 2600, Lot 30

The site is currently a parking lot for Citi Connect LLC c/o Time Warner Cable vehicles. Cable equipment, cones, and unknown machinery were identified within the interior portions of the property. The components of the former gasoline station were also identified across the lot, consisting of the former dispenser island concrete pad and a steel plate. The ground surface across the site consisted of broken and cracked asphalt pavement. Additionally, four (4) bay doors were observed on the eastern boundary of the site.

Assessment

Brinkerhoff performed a PSA of the property located at 458 Southern Boulevard, Block 2600, Lot 30, in the Borough of Bronx, New York City, Bronx County, New York. The PSA revealed the following:

A review of historical data revealed that the property was identified in several EDR databases: NY LTANKS, RCRA NonGen/NLR, FINDS, NY UST, NY HIST UST, and HIST AUTO STAT. The potential exists for the soil, groundwater, and soil vapor to be contaminated due to the former site operations. Based on a review of the Sanborn® Fire Insurance Maps, the property was developed with several structures from at least 1908 to the present day. The heating sources of the former structures are unknown; therefore, the potential exists for USTs to be present at the property. Additionally, components of the former gasoline station were identified across the lot during the site reconnaissance. The components consisted of the former dispenser island concrete pad and a steel plate. An additional environmental investigation is recommended.

Additionally, the potential exists that urban historic fill is present beneath the property. Urban historic fill is commonly found throughout the New York City Metropolitan Area and is typically contaminated with heavy metals and semi-volatile compounds.

Limitations

The following are Data Gaps disclosed in the PSA:

- At the time of report preparation, information had not been received from the NYSDEC or the NYCDEP regarding the property.
- At the time of the limited exterior site reconnaissance, the property was enclosed by a fence. Observations of the interior portions of the subject property were only made from the fence gate

entrance and holes within the fence mesh. Additionally, parked cars and equipment storage limited the ability to observe evidence of environmental impacts within the property.

Full limitations and exceptions are detailed in Section 1.3 in the PSA, attached in Appendix I2 of this EAS.

Projected Development Site #3

Block 2600, Lot 96

The property currently consists of vacant land. A construction fence was observed along the perimeter of the site, and remnants of the former structure and urban historic fill were identified across the site. A construction placard was observed on the fence; it stated that the owner is 860 Investment LLC and the general contractor is Sunny Builders NY Corp. The anticipated completion date for construction is winter 2016.

Assessment

Brinkerhoff performed a PSA of the property located 860 East 147th Street, Block 2600, Lot 96, in the Borough of Bronx, New York City, Bronx County. The assessment was performed in general conformance with the scope and limitations of Section 24-04 of Chapter 24 of Title 15 of the RCNY for Preliminary Screening Assessments. The PSA revealed the following:

During the limited exterior site reconnaissance, urban historic fill was observed across the site. Urban historic fill is commonly found throughout the New York City Metropolitan Area and is typically contaminated with heavy metals and semi-volatile organic compounds. Additionally, based on a review of the Sanborn® Fire Insurance Maps, the property was developed with several structures from at least 1891 to at least 2007. The heating sources of the former structures are unknown. No supporting documentation regarding the heating sources of the former structures was identified or reviewed by Brinkerhoff; therefore, the potential exists for underground storage tanks (USTs) to be present at the property. An additional environmental investigation is recommended.

Limitations

The following are Data Gaps disclosed in the PSA:

- At the time of report preparation, information had not been received from the NYSDEC or the NYSDEP regarding the property.
- During the limited exterior site reconnaissance, a construction fence was observed along the perimeter of the property, limiting the ability to observe the interior portions of the site.

Full limitations and exceptions are detailed in Section 1.3 in the PSA, attached in Appendix I2 of this EAS.

Projected Development Site #4

Block 2600, Lot 99, 100, 101, and 103

The property consists of an active parking lot and a two-story residential building located at 880 East 147th Street, a three-story residential building with a driveway located at 872 East 147th Street, a three-story residential building located at 870 East 147th Street, and one (1) two-story industrial/manufacturing building located at 868 East 147th Street. The active parking lot contained several parked vehicles and storage garages. A brick wall and a gated entrance enclosed the parking lot. Electrical meters were observed in front of the 880 East 147th Street residence, and natural gas meters were observed in front of the 872 East 147th Street residence. A gas pipe was observed in front of the 868 East 147th Street structure, and the first floor of the building contains a garage.

Assessment

Brinkerhoff performed a PSA of the property located at 868, 870, 872, and 880, Block 2600, Lots 99, 100, 101, and 103, in the Borough of Bronx, New York City, Bronx County, New York. The PSA revealed the following:

A review of the Sanborn® Fire Insurance Maps indicates that the property was developed with several structures from at least 1891 to the present day. A structure identified as Scrap Metals was present on the property from at least 1951 to at least 1968. The handling, storage, and/or disposal of materials and substances used during the former site operations are unknown. Additionally, the 872 and 868 East 147th Street structures currently utilize natural gas as a heating source; however, the current heating source of the 880 and 870 East 147th Street residences and the prior heating source of the former on-site structures are unknown. No supporting documentation regarding the current heating source of the 880 and 870 East 147th Street residences or the heating sources of the former structures was identified or reviewed by Brinkerhoff; therefore, the potential exists for underground storage tanks (USTs) to be present at the property. An additional environmental investigation is recommended.

Additionally, the potential exists that urban historic fill is present beneath the property. Urban historic fill is commonly found throughout the New York City Metropolitan Area and is typically contaminated with heavy metals and semi-volatile compounds. There is also potential that Asbestos-Containing Materials (ACM) and/or Lead-Based Paint (LBP) may be present. ACM and LBP surveys should be conducted prior to the renovation or demolition of the structures, if proposed.

Limitations

The following are Data Gaps disclosed in the PSA:

- At the time of report preparation, information had not been received from the NYSDEC or the NYCDEP regarding the property.
- During the limited exterior site reconnaissance, parked cars, garages, and stored materials within the property limited the ability to observe evidence of environmental impacts.

Full limitations and exceptions are detailed in Section 1.3 in the PSA, attached in Appendix I2 of this EAS.

Projected Development Site #5

Block 2600, Lot 51

The property is currently a parking lot for Mechanical Heating Supply, Inc., located across Timpson Place. The parking lot consists of gravel, and several parked cars were observed. No structures are present on the property.

Assessment

Brinkerhoff performed a PSA of the property located at East 147th Street, Block 2600, Lot 51, in the Borough of Bronx, New York City, Bronx County, New York. The PSA revealed the following:

A review of the Sanborn® Fire Insurance Maps indicates that the property was developed with several structures from at least 1891 to at least 1935. The heating sources of the former structures are unknown. No supporting documentation regarding the heating sources of the former structures was identified or reviewed by Brinkerhoff; therefore, the potential exists for underground storage tanks (USTs) to be present at the property. An additional environmental investigation is recommended.

Additionally, the potential exists that urban historic fill is present beneath the property. Urban historic fill is commonly found throughout the New York City Metropolitan Area and is typically contaminated with heavy metals and semi-volatile compounds.

Limitations

The following are Data Gaps disclosed in the PSA:

- At the time of report preparation, information had not been received from the NYCDEP or the NYSDEC regarding the property.
- During the limited exterior site reconnaissance, parked cars limited the ability to observe evidence of environmental impacts.

Full limitations and exceptions are detailed in Section 1.3 in the PSA, attached in Appendix I2 of this EAS.

Potential Development Site

Potential Development Site #1

Block 2600, Lot 47, 49 and 50

The property is currently developed with three (3) 3-story buildings and two (2) one-story garages. There is a driveway between the front garage and the 836 East 147th Street residence. Trash bags and trash cans were observed in front of each of the three (3) 3-story buildings.

Assessment

Brinkerhoff performed a PSA of the properties located at 830, 834, and 836 East 147th Street in the Borough of Bronx, New York City, Bronx County, New York. The PSA revealed the following:

A review of the Sanborn® Fire Insurance Maps indicates that the property was developed with several structures from at least 1891 to present day. The current and former heating sources of the structures are unknown. No supporting documentation regarding the current and prior heating sources of the structures was identified or reviewed by Brinkerhoff; therefore, the potential exists for underground storage tanks (USTs) to be present at the property. An additional environmental investigation is recommended.

Additionally, the potential exists that urban historic fill is present beneath the property. Urban historic fill is commonly found throughout the New York City Metropolitan Area and is typically contaminated with heavy metals and semi-volatile compounds. There is also potential that Asbestos-Containing Materials (ACM) and/or Lead-Based Paint (LBP) may be present. ACM and LBP surveys should be conducted prior to the renovation or demolition of the structures, if proposed.

Limitations

The following are Data Gaps disclosed in the PSA:

- At the time of report preparation, information had not been received from the NYSDEC or the NYCDEP regarding the property.
- During the limited exterior site reconnaissance, trash bags and trash cans limited the ability to assess the exterior portions of the buildings present at the property.

Full limitations and exceptions are detailed in Section 1.3 in the PSA, attached in Appendix I2 of this EAS.

V. FUTURE WITHOUT PROPOSED ACTION

Absent the proposed actions, all projected development sites in the No Action condition would remain in its existing conditions with the exception of Projected Development Site #2 (Lot 30, Block 2600), which is anticipated to be redeveloped from its existing use of transportation/utility use into an as-of-right two-story commercial/retail development with a maximum bulk of 11,700 gsf by the 2025 Build year as allowed under the current zoning designation of M1-2. The condition in the future without the action (the No Action condition) was defined on the basis of the identification of known development projects within the Project Area and assessment of the development on soft sites within the Project Area. Based on coordination with the Bronx Office of NYCDCP, there are no known ongoing or proposed development within the Project Area, other than the project proposed by the Applicant. There are also no concurrent plans by any city agency for area-wide zoning changes in the Project Area. Therefore, in the No Action condition, there would be no change in conditions the Project Area with relation to urban design and visual resources.

Projected Development Site #2

In coordination with NYCDCP, Projected Development Site #2 (Lot 30, Block 2600) is reasonably expected in the No Action condition to be developed into a two-story commercial/retail structure with a maximum bulk of 11,700 gsf. Commercial/retail use is expected to consist of general local retail or services in addition to food stores smaller than 2,000 sf. Approximately 39 total parking spaces would be required (pursuant to ZR 44-21). The site is currently under single ownership, cleared of debris, and has sufficient frontage along an existing commercial strip for commercial/retail developments to be economically viable. The owner of Projected Development Site #2 has also developed other properties in the area for commercial/retail use within the immediate vicinity of the site. Field visit on March 9th, 2016, with DCP staff members and Applicant, confirmed the No Action condition for Projected Development Site #2.

VI. FUTURE WITH PROPOSED ACTION

In the future with the Proposed Action, a multi-lot portion of Block 2600 in Bronx Community District One would be rezoned from M1-2 and M1-3 to R7X and R7X/C1-4. It is anticipated that the projected and potential development sites in the Project Area be redeveloped with more multi-family residential and retail uses. In-ground excavation would be required for the below-grade parking on Project Development Site 1.

A Phase I ESA was conducted for Projected Development Site 1, which is owned Applicant. The other Projected Development Sites and the Potential Development Site, which are not owned or controlled by the Applicant and expected to be developed as a result of the proposed rezoning were also reviewed for potential hazardous material contamination. Five Preliminary Screening Assessments were performed for the remaining Projected Development Sites and the Potential Development Site. All of the assessments established that some level of potential hazardous material contamination is present on all Projected and Potential Development Sites.

As a result, the proposed zoning map actions include an (E) designation (E-385) for all five Projected Development Sites and the one Potential Development Site. By placing (E) designations on sites where there is some level of potential hazardous material contamination, the potential for an adverse impact to human health and the environment resulting from the Proposed Action would be reduced or avoided. The (E) designation provides a mechanism to ensure that testing for and mitigation and/or remediation of hazardous materials, if necessary, are completed prior to, or as part of, future development of an affected site, thereby eliminating the potential for a hazardous materials impact. With respect to lots with (E) designations, the New York City Department of Buildings (DOB) will not issue building permits or certificates of occupancy until it receives an appropriate “Notice” from the New York City Office of Environmental Remediation (OER) that the environmental requirements have been met.

The (E-385) designation requirements related to hazardous materials would apply to all lots associated with all Projected and Potential Development Sites:

Projected Development Sites:

Projected Development Site #1: Block 2600, Lots 187, 222, 220 and 213

Projected Development Site #2: Block 2600, Lot 30

Projected Development Site #3: Block 2600, Lot 96

Projected Development Site #4: Block 2600, Lots 99, 100, 101 and 103

Projected Development Site #5: Block 2600, Lot 51

Potential Development Site:

Potential Development Site #1: Block 2600, Lot 47, 49 and 50

The (E) designation text related to hazardous materials is 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.

VII. CONCLUSION

With the requirements of the (E) designation on Projected and Potential Development Sites, there would be no impact from the Proposed Action due to the potential presence of contaminated materials.

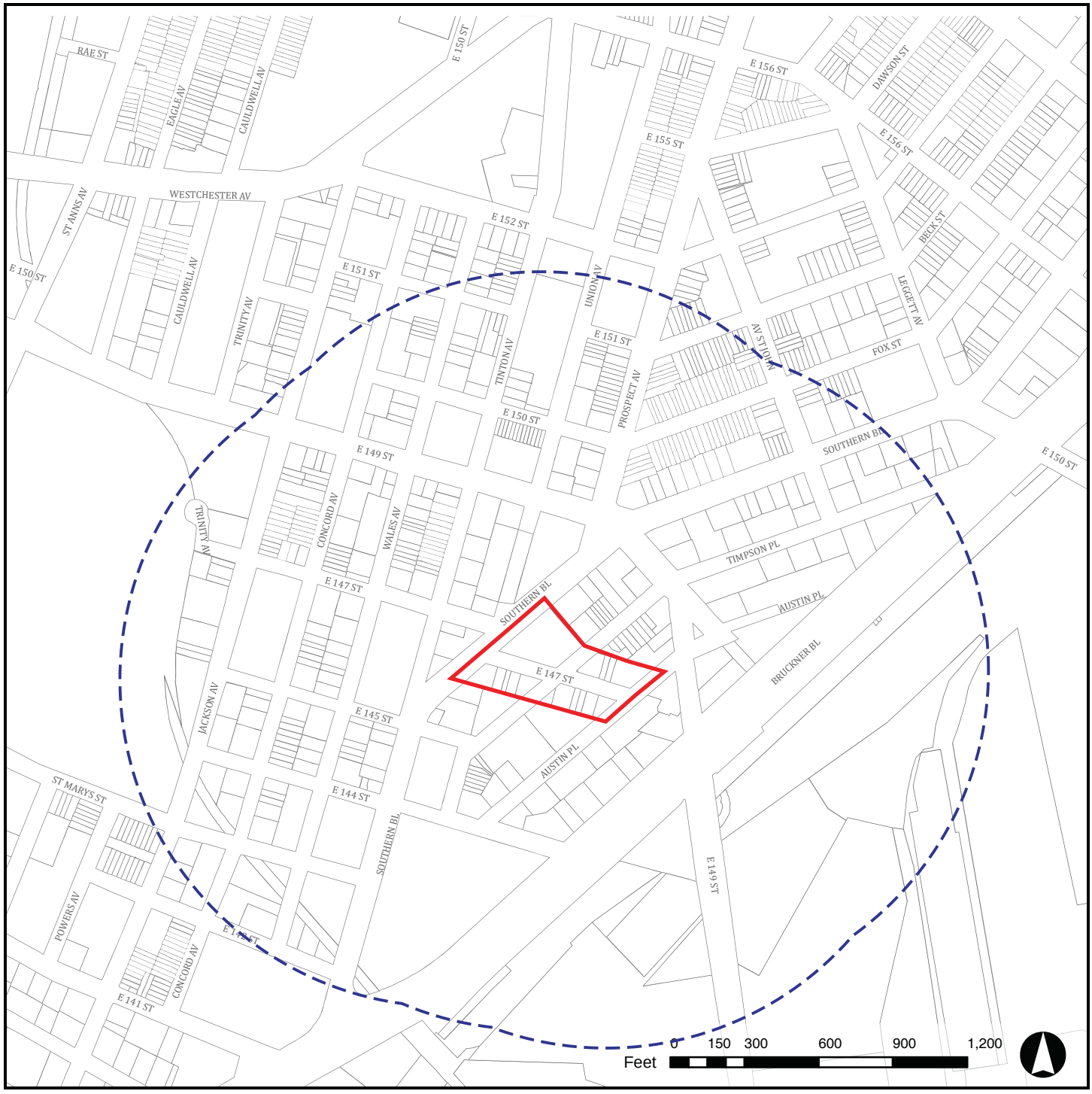
Attachment J: Transportation

I. INTRODUCTION

This attachment examines the potential traffic, transit, pedestrian, safety, and parking impacts associated with the proposed E 147th Street Rezoning (the "Proposed Action") in the Bronx, New York. The Proposed Action seeks to rezone a multi-lot portion to facilitate the development of new residential buildings. The Proposed Action would consist of approximately 366 residential dwelling units, -3,230 gsf of commercial/retail use, and 25 new parking spaces in a garage. The Proposed Action would also result in a reduction of 88 off-street parking spaces.

The rezoning area (the "Project Area") is bounded by development parcels to the north and south of E 147th Street, Austin Place to the east, and Southern Boulevard to the west, and is bisected by Timpson Place and E 147th Street. The Project Area is identified on **Figure J-1**. The study area includes one signalized intersection, one unsignalized intersection, and 5 pedestrian elements.

Four peak hours were considered for the transportation analysis: Weekday AM (7:45 AM to 8:45 AM), Weekday Midday (MD) (12:45 PM to 1:45 PM), Weekday PM (4:00 PM to 5:00 PM), and Saturday MD (12:30 PM to 1:30 PM).



Basemap source: New York City GIS

Project Area

1/4 Mile Study Area

PROJECT AREA

Figure J-1

II. PRINCIPAL CONCLUSIONS

Traffic Flow and Operating Conditions

The Proposed Action would add vehicle trips to the study area. However, the traffic analysis shows that the Proposed Action would not result in any significant adverse traffic impacts.

Pedestrian Facilities

Corners

Under the Proposed Action Condition, all corners are projected to operate at LOS A. Therefore, there would not be any corner-related significant adverse impacts.

Crosswalks

Under the Proposed Action Condition, all crosswalks are projected to operate at LOS B or better with available crosswalk circulation space more than 40 ft2/p. Therefore, there would not be any crosswalk-related significant adverse impacts.

Parking Conditions

The Proposed Action would provide 25 on-site parking spaces (in a garage) and would result in the loss of 88 existing off-street parking spaces. There would be sufficient on-street parking capacity to accommodate the parking demand generated by the Proposed Action and the demand accommodated by the existing off-street parking spaces. Therefore, there would not be any parking-related significant adverse impacts.

Vehicular and Pedestrian Safety Assessments

The intersection at East 149th Street and Southern Boulevard is the only study intersection classified as a high pedestrian/bicycle crash location. The Proposed Action would increase the level of vehicular activity at this intersection; however, the implementation of the City-wide reduction in speed limit in 2015 and elements of the engineering, planning, enforcement, and education action plan along Priority Corridors associated with Vision Zero are anticipated to improve safety at this intersection. Therefore, there would not be any safety-related significant adverse impacts.

III. SCREENING METHODOLOGY

Transportation impact analysis methodologies for proposed projects in New York City are defined in the *2014 CEQR Technical Manual (CEQR Technical Manual)*, which outlines a two-tiered screening process. The Level 1 screening assessment includes a trip generation analysis to determine whether the Proposed Action would result in more than 50 vehicle trips, 200 subway/rail or bus riders, or 200 pedestrian trips in a peak hour. The Level 2 screening is a trip assignment review that identifies intersections with 50 or more vehicle trips, pedestrian elements with 200 or more pedestrian trips, 50 bus trips in a single direction on a single route, or 200 passengers at a subway station or line during any analysis peak hour which would require detailed analyses. The results of the screening analysis are described below.

Traffic

According to the criteria specified in the *CEQR Technical Manual*, traffic analyses are generally required at intersections where more than 50 new vehicle trips would be generated by a proposed action during an individual peak hour based on the results of the vehicle trip assignment. It was determined that individual intersections exceed this threshold during the following four critical peak hours:

- Weekday AM peak hour: 7:45 AM to 8:45 AM
- Weekday MD peak hour: 12:45 PM to 1:45 PM
- Weekday PM peak hour: 4:00 PM to 5:00 PM
- Saturday MD peak hour: 12:30 to 1:30 PM

Detailed intersection analyses were conducted for all four peak periods at two study intersections within the Project Area that exceeded the 50 new vehicle trip criteria specified in the *CEQR Technical Manual* or that were identified as high crash locations.

Transit

The transit criteria specified in the *CEQR Technical Manual* and thresholds used by New York City Transit/New York City Metropolitan Transportation Authority (NYCT/MTA) were used to determine which subway/rail and bus routes in the study area would be analyzed. According to the criteria, if a proposed action is projected to result in fewer than 200 peak hour subway/rail passengers assigned to a single subway station or on a single subway line or 50 bus passengers assigned to a single bus line (in one direction), further transit analyses are not typically required, as a proposed action is considered unlikely to create a significant transit impact.

Subway Transit

It was determined that the number of new subway trips generated by the Proposed Action would not exceed the thresholds during any of the peak hours; therefore, analyses of subway lines and subway station elements were not conducted.

Bus Transit

It was determined that the number of new bus trips generated by the Proposed Action would not exceed these thresholds during any of the peak hours; therefore, analyses of bus routes were not conducted.

Pedestrians

Based on criteria specified in the *CEQR Technical Manual*, projected pedestrian volume increases of more than 200 pedestrians per hour at any sidewalk, crosswalk, or intersection corner would be considered a location with the potential for significant impacts and would require a detailed analysis. It was determined that the number of new pedestrian trips generated by the Proposed Action would not exceed these

thresholds during any of the peak hours. However, as the intersection of Southern Boulevard and E 149th Street has been identified as a high crash location, a detailed pedestrian analysis was conducted for two crosswalks and three corners at this intersection during the four peak hours.

Parking Conditions

A parking analysis identifies the extent to which on-street and off-street parking is available and utilized under Existing, No Action, and With Action conditions. Typically, this analysis encompasses a study area within ¼ mile of the Project Area. If the analysis identifies a shortfall in parking in the ¼-mile study area, the study area could be extended to ½ mile to identify additional parking supply. The analysis, which takes into consideration anticipated changes in area parking supply, provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from additional demand generated by the proposed project.

Vehicular and Pedestrian Safety Assessment

An evaluation of traffic safety is necessary for locations within the study area that have been identified as high-accident locations as specified in the *CEQR Technical Manual*. These locations are defined as those with more than 48 total reportable and non-reportable crashes or five or more pedestrian/bicycle injury crashes that occur during any consecutive 12 months of the most recent three-year period for which data is available. Crash histories are reviewed to determine whether projected vehicular and pedestrian traffic would further impact safety as these locations or whether existing unsafety conditions could adversely impact the flow of the projected new vehicular or pedestrian/bicycle trips.

IV. STUDY AREA

To assess the potential transportation impacts associated with the Proposed Action, the study area was defined based on principal access routes to and from the project sites, traffic conditions in the surrounding area, and key intersections likely to be affected by trips generated by the Proposed Action. In total, one signalized intersection and one unsignalized intersection were selected for the traffic analysis and five pedestrian elements were selected for the pedestrian analysis. The safety assessment was conducted for all vehicular and pedestrian study locations. The geographic locations of these intersections and pedestrian elements are depicted on **Figures J-2 and J-3**, respectively.

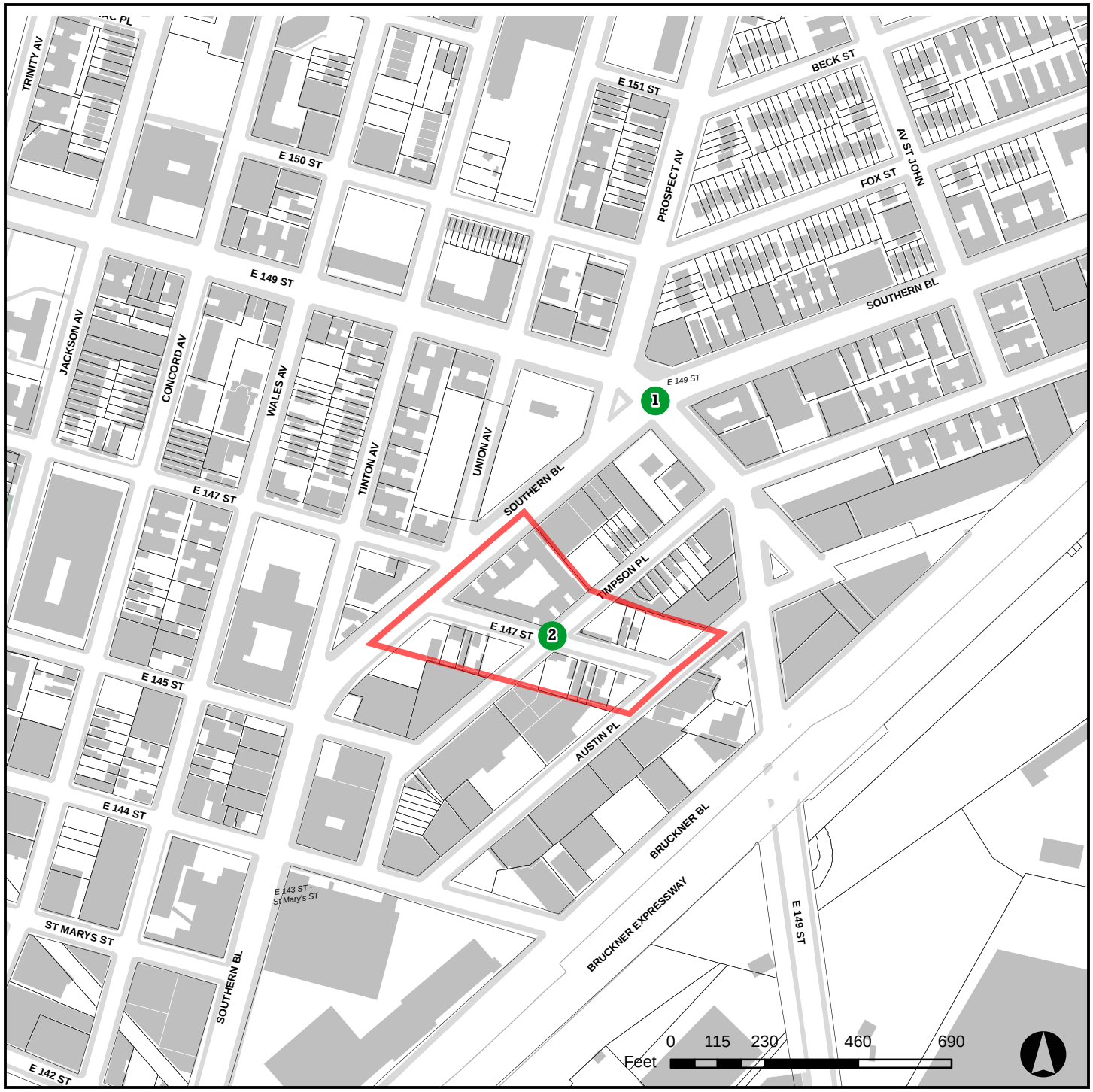
Study Area Intersection and Roadway Characteristics

As shown in **Figure J-2**, the study area consists of the following study intersections:

1. E 149th Street and Southern Boulevard (signalized)
2. E 147th Street and Timpson Place (unsignalized)

The physical and operational characteristics of the major roadways in the study area are as follows:

- Southern Boulevard is a two-way north-south roadway that operates with one to two travel lanes in each direction and curbside parking on both sides of the street. At the intersection with E 149th Street, left-turn bays are provided. The NYCT/MTA Bx19 bus route provides service on this roadway north of E 149th Street. Vehicular access to the Project Area would be provided along Southern Boulevard.
- Timpson Place is a local two-way north-south roadway that operates with one travel lane in each direction and curbside parking on both sides of the street. Vehicular access to the Project Area would be provided along Timpson Place.
- E 149th Street is a major two-way east-west roadway that operates with two travel lanes in each direction and curbside parking on both sides of the street. The NYCT/MTA Bx17 and Bx19 bus routes provide service on this roadway.
- E 147th Street is a local one-way westbound east-west roadway that operates with one travel lane and curbside parking on both sides of the street. E 147th Street is offset by approximately 100 feet on either side of Southern Boulevard, resulting in two closely spaced T-intersections. Vehicular access to the Project Area would be provided along E 147th Street.



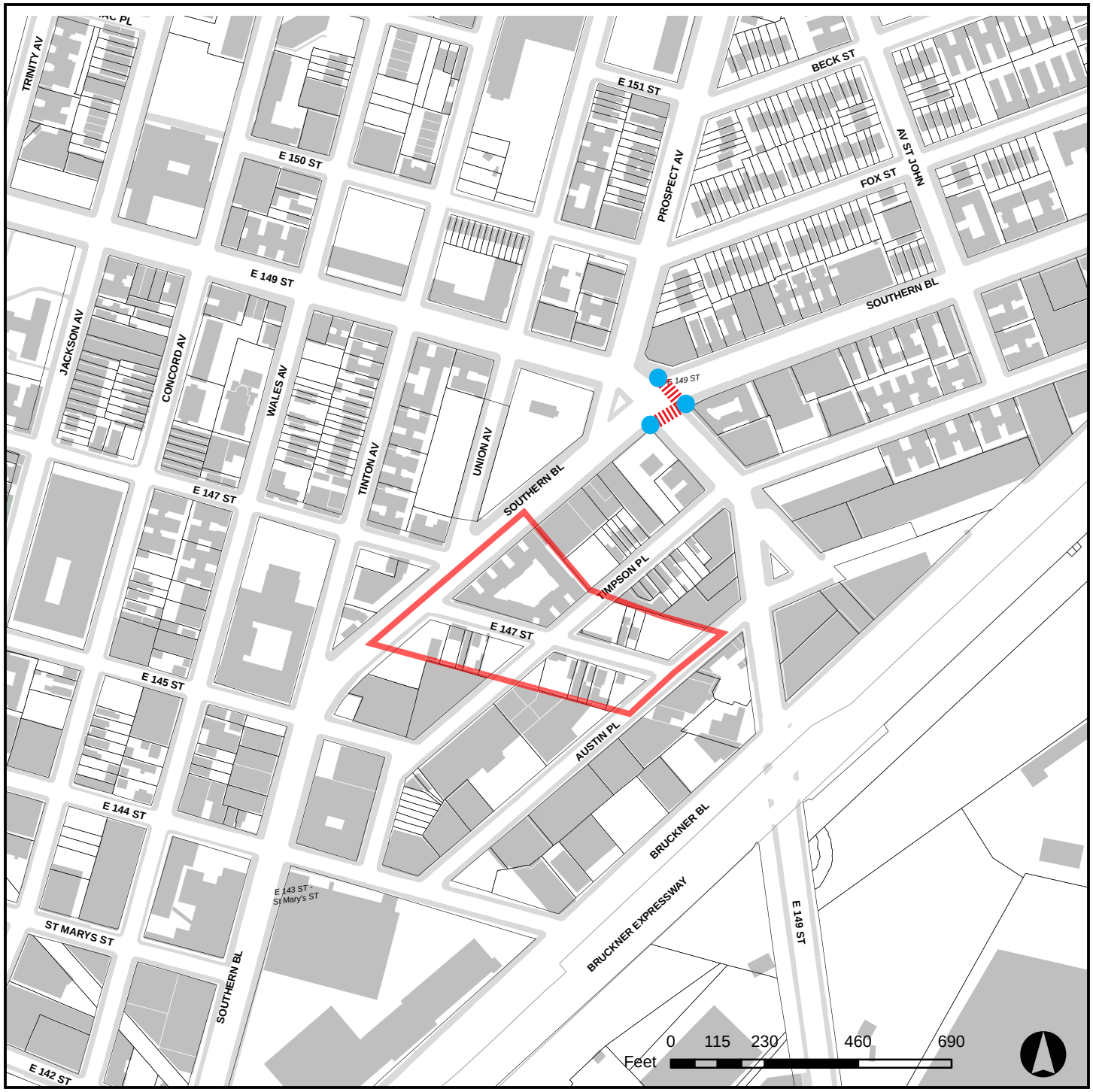
Basemap source: New York City GIS

1 Study locations

Project Area

PROPOSED ACTION
VEHICULAR STUDY LOCATIONS

Figure J-2



Basemap source: New York City GIS

Crosswalk

Corner

Project Area

PROPOSED ACTION
PEDESTRIAN STUDY LOCATIONS

Figure J-3

Transit Elements

Transit elements in the study area include one subway line and two bus routes, as shown on **Figure J-4**.

Subway Elements

The No. 6 line operates within the study area and serves two subway stations located less than ¼-mile from the Project Area, as shown on **Figure J-4**:

- E 143 St - St Mary's St Station located at E 143rd Street/St. Mary Street and Southern Boulevard
- E 149 St Station located at E 149th Street and Southern Boulevard

Bus Elements

Two NYCT/MTA local bus routes provide regular bus service to the study area including the Bx17 and Bx19. Each bus route is briefly described below and shown graphically on **Figure J-4**.

- *Bx17* operates between Third Avenue / Fordham Road / Fordham Plaza and E 135th Street / St. Ann's Avenue in the Port Morris section of the Bronx. The Bx17 route provides daily service between 4:20 AM and 1:08 AM. Headways on the Bx17 are generally between 6 and 12 minutes during the weekday peak periods and between 12 and 15 minute during the Saturday peak period.
- *Bx19* operates between the New York Botanical Garden in the Bronx and Riverbank State Park in Harlem, Manhattan. The Bx19 route provides daily service at all times, 24-hours per day. Headways on the Bx19 are generally between 4 and 9 minutes during the weekday peak periods and between 7 and 8 minute during the Saturday peak period.

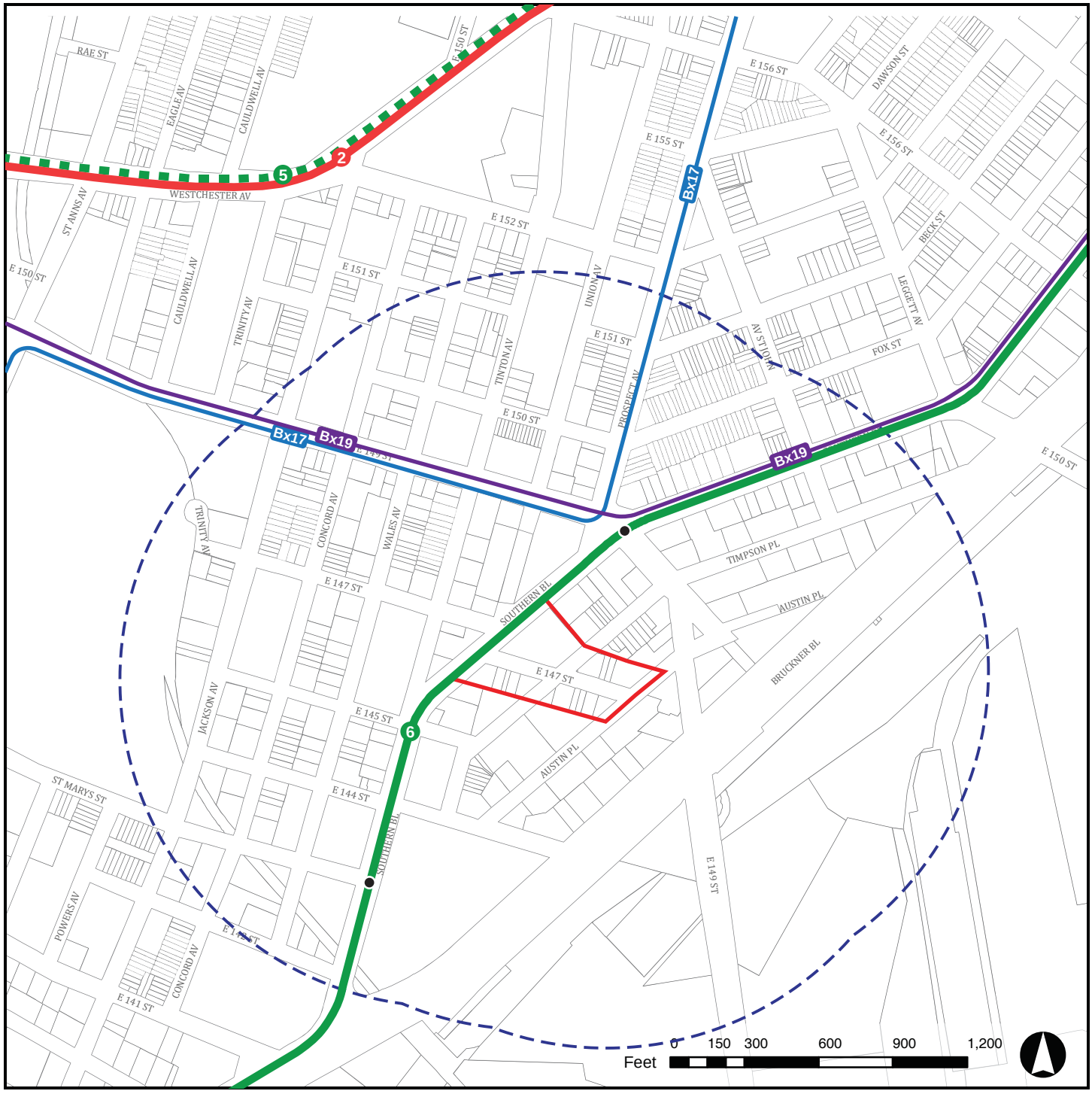
The Bx19 route stops on Southern Boulevard north of East 149th Street and the Bx17 bus stops on Prospect Avenue north of East 149th Street.

Pedestrian Elements

Pedestrian elements including three corner reservoirs and two crosswalks were assessed at key intersections in the vicinity of the proposed project sites. The pedestrian elements are located along key routes to the subway stations, and represent locations where most of the pedestrian trips generated by the Proposed Action are anticipated. These locations are shown on **Figure J-3.**

Parking Supply and Inventory

Existing study area parking conditions for on-street and off-street parking were evaluated through site visits. On-street parking regulations are shown on **Figure J-5** and summarized in **Table J-1**. Parking utilization surveys were conducted for on-street parking facilities within a ¼ mile of the Project Area. There are no off-street parking facilities located within a ¼ mile radius of the Project Area.



Basemap source: New York City GIS

Project Area

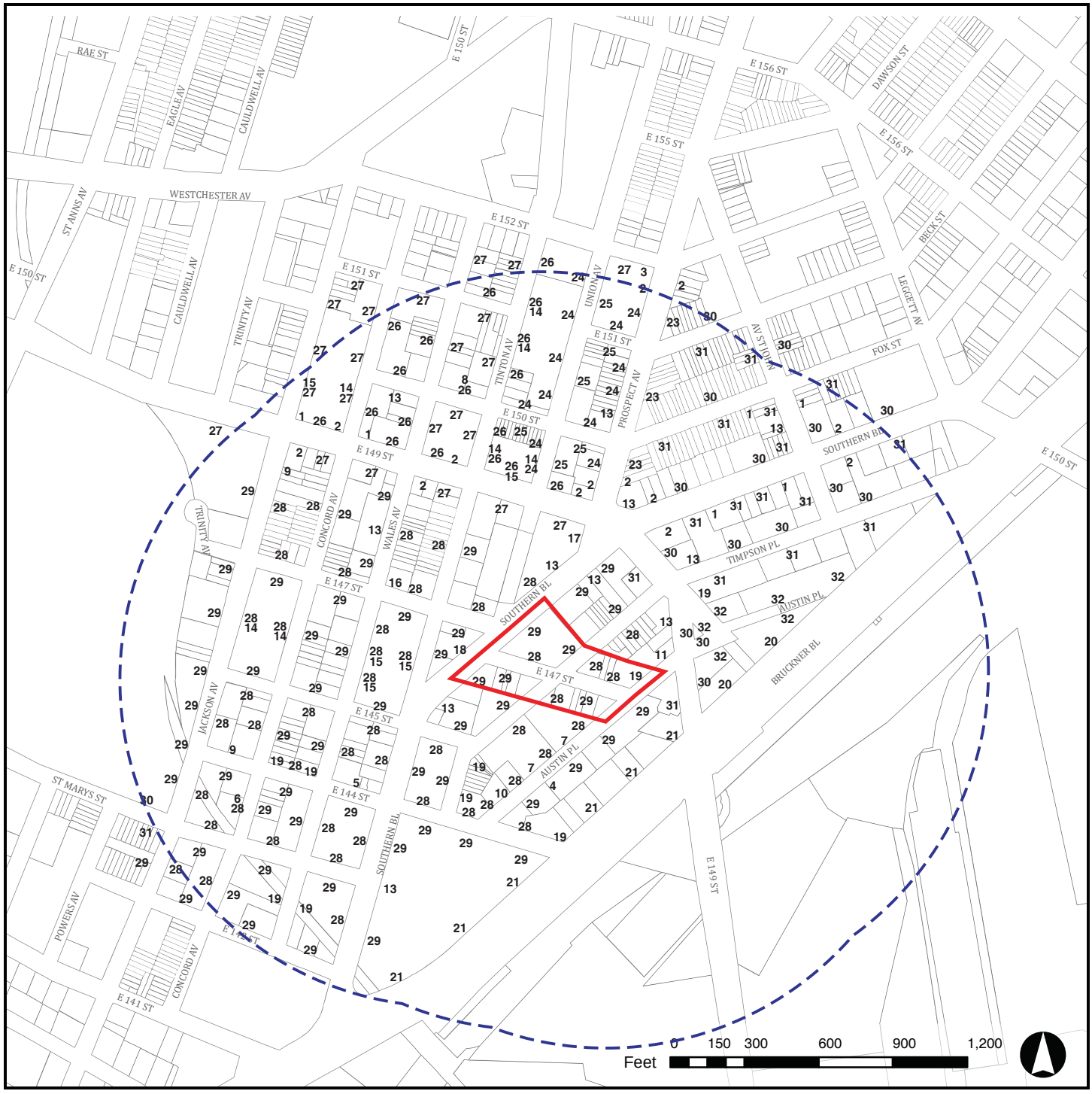
1/4 Mile Study Area

Subway Line (with Station)

Bus Route

TRANSIT MAP

Figure J-4



Project Area

1/4 Mile Study Area

13 Parking Regulation

ON-STREET PARKING REGULATION MAP

Figure J-5

TABLE J-1: ON-STREET PARKING REGULATION LEGEND

Map #	Regulation
1	No Standing Anytime
2	Bus Stop - No Standing Anytime
3	No Standing Anytime Except Authorized Vehicles (Fire Dept.)
4	No Standing Anytime Except Trucks Loading and Unloading
5	No Standing 8 AM - 6 PM Mon, Wed, Fri Except Authorized Vehicles (Licensed Applicants NYS Road Tests)
6	No Standing 7 AM - 4 PM School Days
7	No Standing 7 AM - 5 PM Monday - Friday
8	No Standing 7 AM - 4 PM Except Sunday Except Trucks Loading and Unloading
9	No Standing 7 AM - 5 PM Monday - Friday Except Trucks Loading and Unloading
10	No Standing 7 AM - 5 PM Except Sunday Except Trucks Loading and Unloading
11	No Standing 8 AM - 6 PM Except Sunday Except Trucks Loading and Unloading
12	No Standing 9 AM - 5 PM Monday - Friday Except Trucks Loading and Unloading
13	No Parking Anytime
14	No Parking 7 AM - 4 PM School Days (Department of Education)
15	No Parking 7 AM - 4 PM School Days
16	No Parking 7 AM - 4 PM Monday - Friday
17	No Parking 7 AM - 6 PM Monday - Friday (Temporary Construction Regulation)
18	No Parking 7 AM - 7 PM Monday - Friday
19	No Parking 8 AM - 6 PM Monday - Friday
20	No Parking (Overnight Street Cleaning) Midnight - 3 AM Monday, Thursday
21	No Parking (Overnight Street Cleaning) Midnight - 3 AM Tuesday
22	No Parking (Street Cleaning) 8 AM - 9:30 AM Monday, Thursday
23	No Parking (Street Cleaning) 8 AM - 9:30 AM Tuesday, Friday
24	No Parking (Street Cleaning) 9 AM - 10:30 AM Monday, Thursday
25	No Parking (Street Cleaning) 9 AM - 10:30 AM Tuesday, Friday
26	No Parking (Street Cleaning) 9:30 AM - 11 AM Monday, Thursday
27	No Parking (Street Cleaning) 9:30 AM - 11 AM Tuesday, Friday
28	No Parking (Street Cleaning) 11 AM - 12:30 PM Monday, Thursday
29	No Parking (Street Cleaning) 11 AM - 12:30 PM Tuesday, Friday
30	No Parking (Street Cleaning) 11:30 AM - 1 PM Monday, Thursday
31	No Parking (Street Cleaning) 11:30 AM - 1 PM Tuesday, Friday
32	No Posted Regulation

V. OPERATIONAL ANALYSIS METHODOLOGY

The following sections summarize the operational analysis methodologies and significant impact criteria in accordance with the *CEQR Technical Manual* guidelines for traffic, pedestrians, parking, and safety.

Traffic Operations

The operations of the study area intersections were analyzed in accordance with the *CEQR Technical Manual* guidelines by applying the methodologies presented in the *2000 Highway Capacity Manual* (HCM 2000) using the Highway Capacity Software (HCS+ 5.5). A description of these methodologies is provided below.

Signalized Intersections

The Level of Service (LOS) of a signalized intersection is defined in terms of control delay per vehicle (seconds per vehicle). Control delay is the portion of total delay experienced by a motorist that is attributed to the traffic signal. Several factors contribute to the delay at a signalized intersection including cycle length, pedestrian crossing times, progression/signal coordination, and volume to capacity (v/c) ratios. For signalized intersections, LOS A describes operations with minimal delays, up to 10 seconds per vehicle, while LOS F describes operations with delays in excess of 80 seconds per vehicle. Delays experienced at LOS A, B, C or mid-D (less than 45 seconds per vehicle) are generally considered "acceptable" operating conditions according to the *CEQR Technical Manual*. Conversely, LOS E and F are generally considered "unacceptable" operating conditions. The LOS criteria for signalized intersections, as defined in the HCM 2000, are provided in **Table J-2**.

TABLE J-2: LOS CRITERIA FOR SIGNALIZED INTERSECTIONS[1]

Level of Service (LOS)	Average Delay
A	≤ 10.0 seconds
B	> 10.0 and ≤ 20.0 seconds
C	> 20.0 and ≤ 35.0 seconds
D	> 35.0 and ≤ 55.0 seconds
E	> 55.0 and ≤ 80.0 seconds
F	> 80.0 seconds

Unsignalized Intersections

For unsignalized intersections, the total delay is defined as the total elapsed time from which a vehicle stops at the end of the queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue to the first-in-queue position. The average control total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation. The LOS thresholds for unsignalized intersections are different from those for signalized intersections and are summarized in **Table J-3** as follows:

[1] Transportation Research Board. *Highway Capacity Manual*, 2000.

TABLE J-3: LOS CRITERIA FOR UNSIGNALIZED INTERSECTIONS[2]

Level of Service (LOS)	Average Delay
A	≤ 10.0 seconds
B	> 10.0 and ≤ 15.0 seconds
C	> 15.0 and ≤ 25.0 seconds
D	> 25.0 and ≤ 35.0 seconds
E	> 35.0 and ≤ 50.0 seconds
F	> 50.0 seconds

Significant Impact Criteria: Traffic Operations

According to the criteria presented in the *CEQR Technical Manual* for signalized intersections, a lane group under the With Action Condition operating within LOS A, B, or C, or mid-LOS D up to a maximum average control delay of 45.0 seconds/vehicle is not considered significant. However, if a lane group under the No Action condition is within LOS A, B, or C, then deterioration under the With Action Condition to worse than mid-LOS D (delay greater than 45.0 seconds/vehicle) is considered a significant impact.

For lane groups operating at LOS D, E, or F under the No Action Condition, then deterioration under the With Action Condition that meet the following criteria are considered significant impacts:

- For a lane group operating at LOS D under the No Action Condition, an increase in projected average control delay of five or more seconds is considered significant if the With Action Condition delay exceeds mid-LOS D.
- For a lane group operating at LOS E under the No Action Condition, an increase in projected average control delay of four or more seconds is considered significant when compared with the With Action Condition delay.
- For a lane group operating at LOS F under the No Action Condition, impacts are considered significant and require examination of mitigation if they result in an increase of three or more seconds when compared with the With Action Condition.

The same criteria for signalized intersections apply to unsignalized intersections (mid-LOS D for unsignalized intersections is 30 seconds of delay); however, for the minor approach to trigger a significant impact, 90 passenger-car-equivalents (PCEs) must be identified in the With Action condition in any peak hour.

Pedestrian Operations

The pedestrian crosswalk and corner elements were analyzed in accordance with the *CEQR Technical Manual* guidelines. A description of these methodologies is provided below.

Crosswalk/Corner

Crosswalk and corner analyses are conducted at signalized intersections using the analytical procedures described in the *2010 Highway Capacity Manual* (HCM 2010). The capacity of crosswalks and corners are evaluated on the basis of pedestrian space measured in terms of square feet per pedestrian. To calculate pedestrian space, effective crosswalk widths and corner areas, hourly pedestrian volumes (crosswalk, corner, and sidewalk), conflicting hourly turning vehicles, average walking speed (3.5 feet/second or 3.0 feet/second if 20 percent of pedestrians are seniors and/or school children or the intersection is in a Senior

[2] Transportation Research Board. *Highway Capacity Manual*, 2000.

Pedestrian Focus Area), and signal timing area required. **Table J-4** shows the LOS conditions for crosswalks and corners based on pedestrian space.

TABLE J-4: LOS CRITERIA FOR CROSSWALKS AND CORNERS[3]

Level of Service (LOS)	Pedestrian Space (feet^2/pedestrian)
A	> 60
B	60 to > 40
C	40 to > 24
D	24 to > 15
E	15 to > 8
F	≤ 8

Significant Impact Criteria: Pedestrian Operations

The *CEQR Technical Manual* provides guidance on the impact criteria for pedestrian facilities based on the general comfort and convenience levels of pedestrians, according to the location of the study area. Pedestrians in central business district (CBD) areas have become accustomed to higher pedestrian volumes and generally are more tolerant of restricted LOS conditions that might not be acceptable in other less congested (non-CBD) locations. An acceptable LOS for CBD areas is generally a mid-LOS D or better while an acceptable LOS for non-CBD areas is generally the upper limit of LOS C or better. For purposes of the pedestrian operations analysis, the pedestrian elements in the study area were considered to be part of a CBD area.

For corners and crosswalks in CBD areas, the average pedestrian space that is considered acceptable ranges from LOS A to mid-LOS D. If the pedestrian space deteriorates to mid-LOS D or worse (less than 19.5 ft^2/p), significant impacts are determined based on a sliding scale, as follows:

- If the average pedestrian space under the No Action condition is greater than 21.5 ft^2/p, then a decrease to 19.5 ft^2/p or less under the With Action condition is considered a significant impact.
- If the average pedestrian space under the No Action condition is between 5.1 and 21.5 ft^2/p, a decrease in space under the With Action condition should be considered significant if it is greater than or equal to ((No Action pedestrian space ft^2/p / 9.0) – 0.31). The With Action condition increments are provided in Table 16-13 in the *CEQR Technical Manual*.
- If the average pedestrian space under the No Action condition is less than 5.1 ft^2/p, then a decrease in pedestrian space greater than or equal to 0.2 ft^2/p under the With Action condition is considered a significant impact.

Parking Conditions Assessment

The parking analysis identifies the extent to which on-street parking and off-street parking is available and utilized under Existing, No Action, and With Action conditions. Typically, this analysis encompasses a study area within ¼ mile of the project site. If the analysis identifies a shortfall in parking in the ¼ mile study area, the study area could be extended to ½ mile to identify additional parking supply. The analysis, which takes into consideration anticipated changes in area parking supply, provides a comparison of parking needs versus availability to determine if a parking shortfall is likely to result from additional demand generated by the proposed project.

[3] Transportation Research Board. *Highway Capacity Manual*, 2010.

Determination of Significant Parking Shortfalls

According to the *CEQR Technical Manual*, if the proposed project generates more parking demand than it supplies, this shortfall may be considered significant. However, the available parking supply should consider the parking spaces within a ¼ mile of the proposed project site. If the project generated parking demand can be accommodated with the on-site project parking supply and on-street/off-street parking spaces within a ¼-mile radius of the project site, then the shortfall would not be considered significant depending on the location of the project. For projects in locations outside the *CEQR Technical Manual* parking zones 1 and 2, a parking shortfall may be considered significant if the parking demand a project generates would consume more than half the available on-street and off-street parking spaces within a ¼-mile of the project site. The Proposed Action and Project Area are located within zone 2.

Vehicular and Pedestrian Safety Assessment

Crash data is collected for the most recent three-year period from the New York City Department of Transportation (NYCDOT) and classified as Reportable, Non-Reportable, or Property Damage Only. For locations that are identified as a high-crash location, the assessment of safety should include accident type and severity (including pedestrian and bicycle accidents), type of intersection control, and any discernible patterns of accidents. Other factors should be considered such as high volumes of at-risk pedestrian age groups (children or the elderly), crossing locations with difficult sight lines, or uncontrolled locations. High-crash locations are defined as those with more than 48 total reportable and non-reportable crashes or five or more pedestrian/bicycle injury crashes during any consecutive 12 months of the most recent three-year period for which data is available.

Assessment of Vehicular and Safety Issues

The assessment of safety impacts is often subjective and depends largely on the location of the proposed project and the circumstances under which historic crashes took place. It is the goal of this analysis to determine whether the proposed project would increase the potential for pedestrian and bicycle crashes at study intersections that are considered high-crash locations. In cases where this determination is made, measures to improve pedestrian and bicycle safety should be identified and coordinated with NYCDOT.

VI. EXISTING CONDITIONS

Once the project characteristics have been defined, baseline conditions ("Existing Conditions") are established for traffic, transit, pedestrian data, parking, and other physical and operational characteristics.

Traffic Conditions

Existing study area traffic volumes were based on traffic data collected in November 2015 and January/February 2016 during peak periods when background traffic is typically greatest and/or when the Proposed Action is projected to generate the greatest number of trips that would be added to the roadway network. The field programs included manual traffic counts at study area intersections during the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak periods while local schools were in session. Crosswalk counts were collected during all peak periods for all intersections.

Turning movement counts and vehicle classification counts were performed at each study intersection. Traffic volumes were balanced between intersections where appropriate. Automated Traffic Recorders (ATRs) were placed at 14 locations for a continuous nine-day period in November 2015 and February 2016 to collect 24-hour counts. The ATR counts were used to identify daily and temporal traffic variations.

An inventory of the study intersections was performed to determine traffic signal timing, phasing, and cycle length; street and curbside signage; pavement markings; and lane dimensions to be used in the calculation of street capacities. Also, official signal timing data were obtained from NYCDOT to confirm field observations and for incorporation into the capacity analysis.

Figures J-6 through J-9 show the Existing Conditions traffic volumes for the four peak hours. The representative peak hours of background traffic in the study area were determined to be:

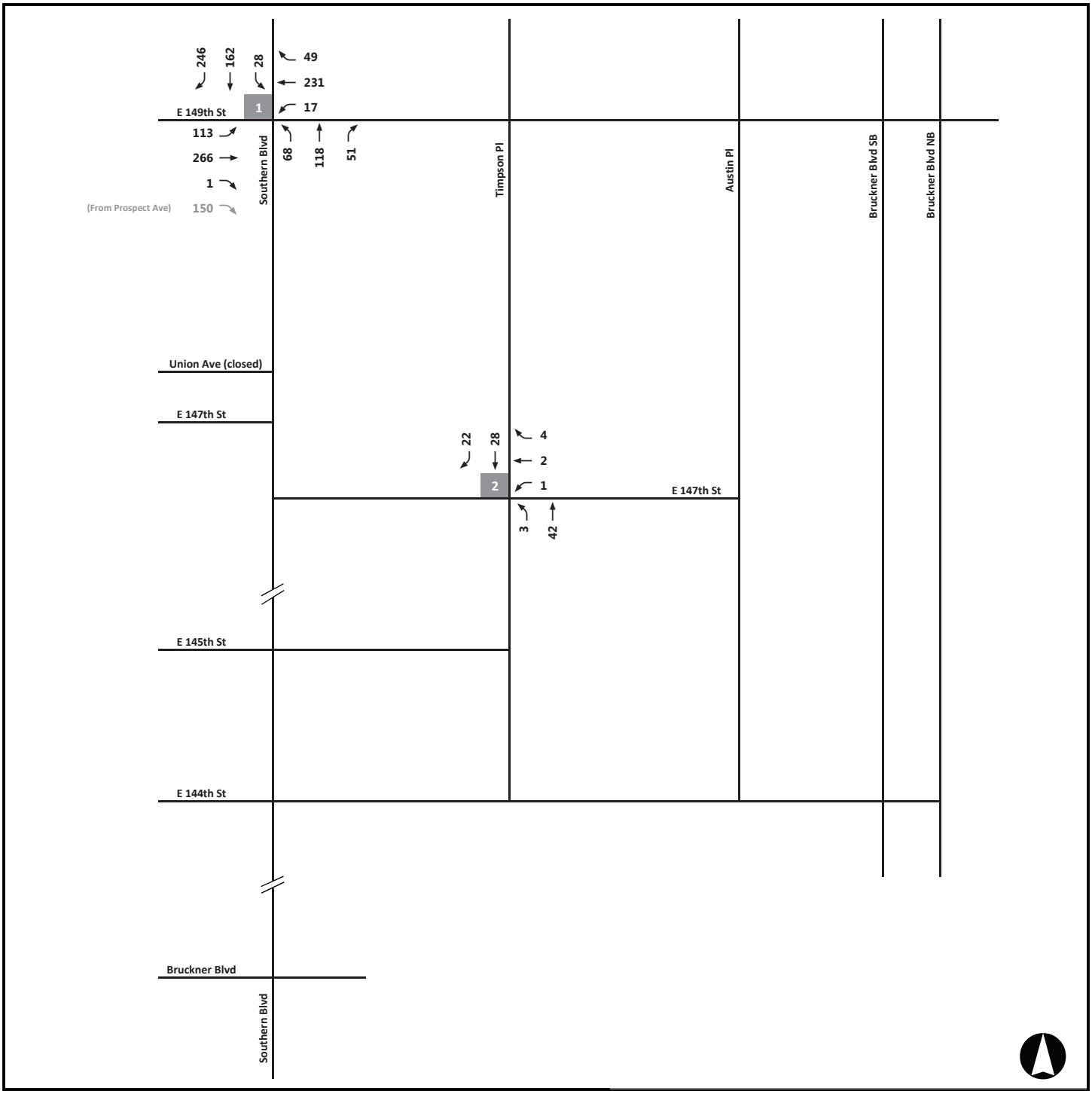
- Weekday AM: 7:45 AM – 8:45 AM
- Weekday MD: 12:45 PM – 1:45 PM
- Weekday PM: 4:00 PM – 5:00 PM
- Saturday MD: 12:30 PM – 1:30 PM

Level of Service – Signalized Intersection

Table J-6 presents the capacity analysis results for the signalized intersection included in the study area. All of the analyzed intersection approaches and lane groups operate at an acceptable level of mid-LOS D or better (45.0 seconds of delay for signalized intersections) during the four analysis peak hours.

Level of Service – Unsignalized Intersection

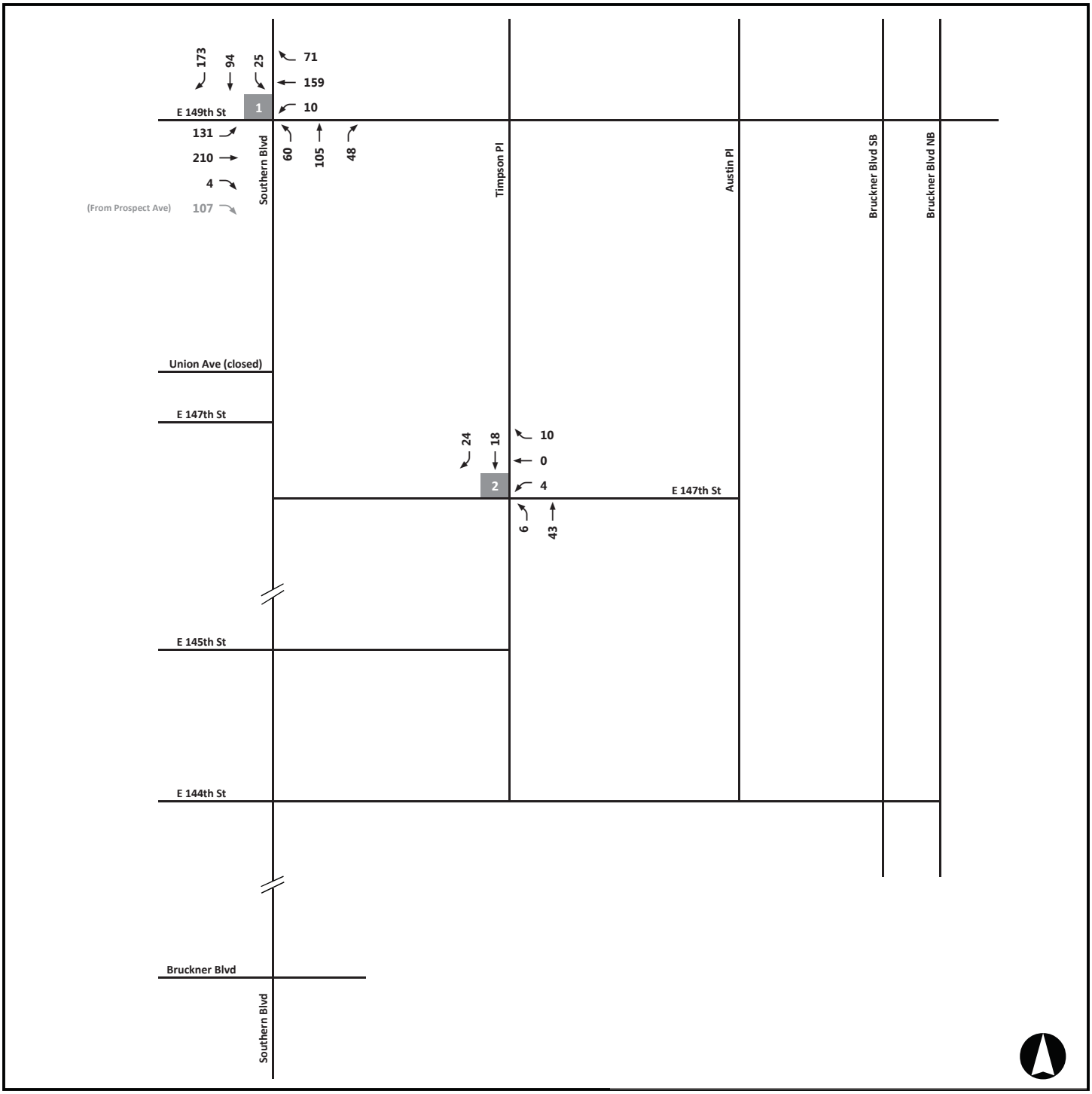
Table J-7 presents the capacity analysis results for the unsignalized intersection included in the study area. All of the analyzed intersection approaches and lane groups operate at an acceptable level of mid-LOS D or better (30.0 seconds of delay for unsignalized intersections) during the four analysis peak hours.



Peak hour volume

EXISTING CONDITIONS TRAFFIC VOLUMES WEEKDAY AM PEAK HOUR

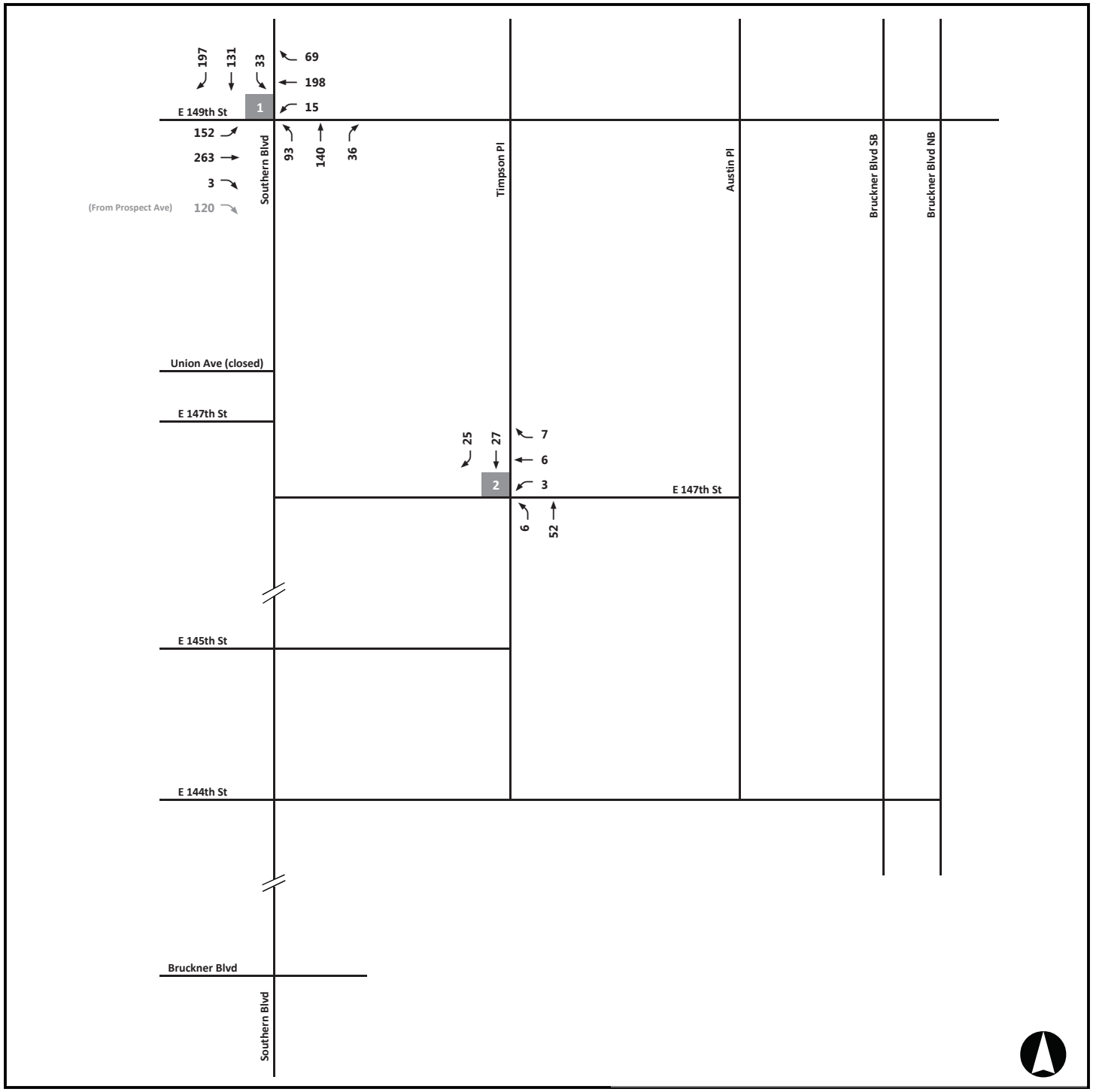
Figure J-6



Peak hour volume

EXISTING CONDITIONS TRAFFIC VOLUMES WEEKDAY MD PEAK HOUR

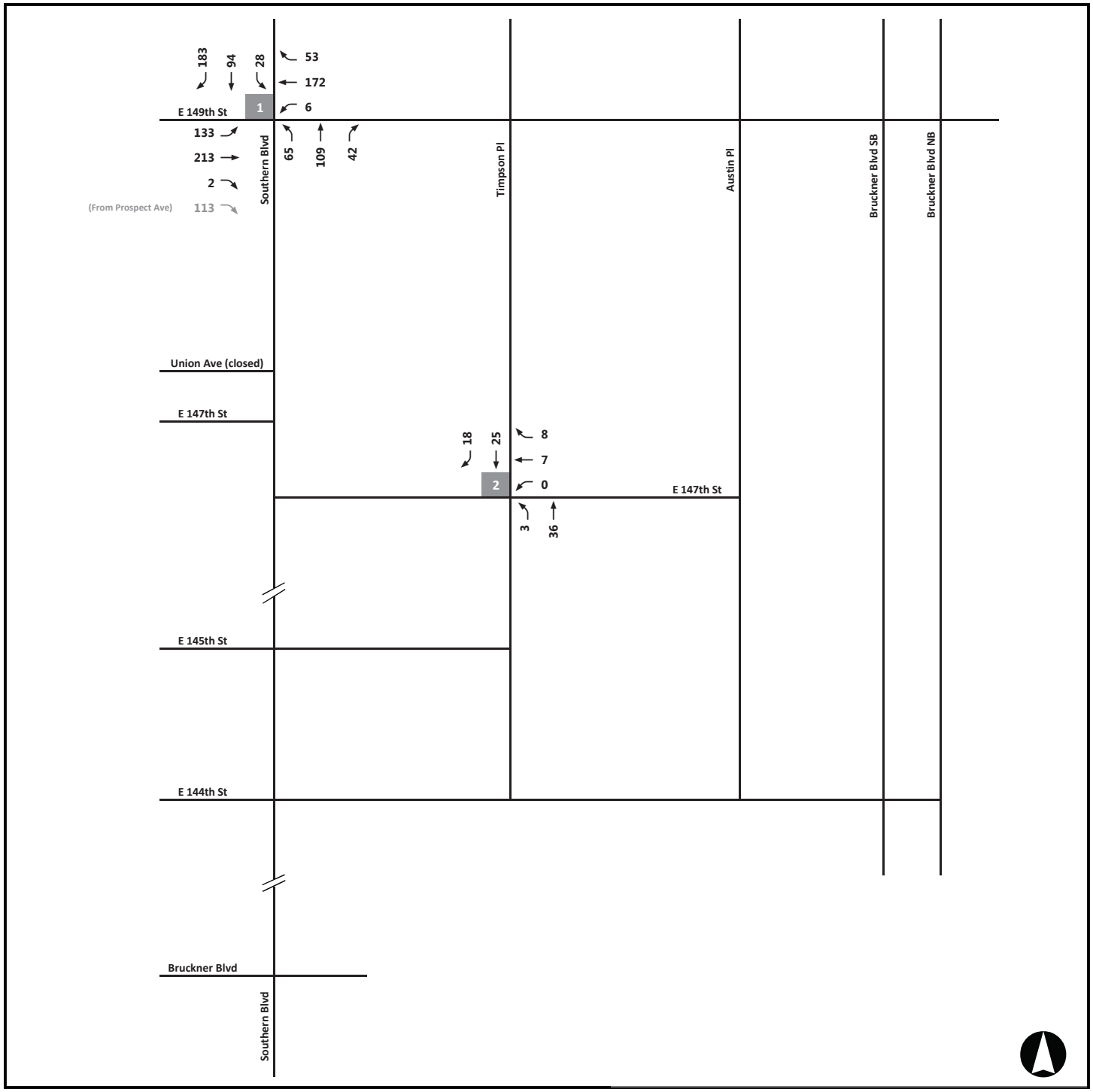
Figure J-7



Peak hour volume

EXISTING CONDITIONS TRAFFIC VOLUMES WEEKDAY PM PEAK HOUR

Figure J-8



Peak hour volume

EXISTING CONDITIONS TRAFFIC VOLUMES SATURDAY MD PEAK HOUR

Figure J-9

TABLE J-6: 2015 EXISTING CONDITIONS LEVEL OF SERVICE ANALYSIS – SIGNALIZED INTERSECTIONS[4]

Intersection & Approach		Weekday AM				Weekday MD				Weekday PM				Saturday MD			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 149th Street and Southern Boulevard																	
1	EB													DefL	0.63	42.7	D
		LTR	0.55	33.4	C	LTR	0.47	31.7	C	LTR	0.58	34.1	C				
														TR	0.35	29.5	C
	WB	LTR	0.39	30.0	C	LTR	0.31	28.7	C	LTR	0.39	30.0	C	LTR	0.29	28.4	C
	NB	L	0.29	30.8	C	L	0.20	26.6	C	L	0.33	31.2	C	L	0.18	26.6	C
		TR	0.28	14.8	B	TR	0.26	14.6	B	TR	0.26	14.5	B	TR	0.19	13.6	B
	SB	L	0.07	12.4	B	L	0.06	12.4	B	L	0.08	12.6	B	L	0.06	12.3	B
		TR	0.34	15.6	B	TR	0.22	14.0	B	TR	0.28	14.7	B	TR	0.18	13.5	B
		R	0.49	34.9	C	R	0.27	27.5	C	R	0.31	30.4	C	R	0.32	29.1	C
		Intersection		26.6	C	Intersection		24.7	C	Intersection		26.4	C	Intersection		26.2	C

TABLE J-7: 2015 EXISTING CONDITIONS LEVEL OF SERVICE ANALYSIS – UNSIGNALIZED INTERSECTIONS[5]

Intersection & Approach		Weekday AM				Weekday MD				Weekday PM				Saturday MD			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 147th Street and Timpson Place																	
2	WB	LTR	0.01	9.3	A	LTR	0.02	9.2	A	LTR	0.02	9.6	A	LTR	0.02	9.3	A
	NB	LT	0.00	7.4	A	LT	0.00	7.4	A	LT	0.00	7.3	A	LT	0.00	7.3	A

Pedestrian Conditions

The existing operations of the study area's corner reservoirs and crosswalks were assessed during the four peak periods (Weekday AM, Weekday MD, Weekday PM, and Saturday MD). The specific elements analyzed were selected because they belong to a key intersection within the study area that has been identified as a high-crash location. The analyses were performed at a total of five locations within the study area including three corners and two crosswalks.

Pedestrian (corner reservoir and crosswalk) counts were conducted within the study area in November 2015 during the four peak periods. These counts are summarized into one-hour intervals.

Corners

Corner reservoir locations were analyzed using pedestrian data within the study area. As presented in **Table J-8**, all three corner reservoirs included in the transportation analysis operate at LOS A during all four peak hours.

TABLE J-8: 2015 EXISTING CONDITIONS LEVEL OF SERVICE ANALYSIS - CORNERS

		Peak Hour Volume				Available Circulation Space (ft²/p)				Corner Circulation LOS			
		Weekday			Sat	Weekday			Sat	Weekday			Sat
Location	Corner	AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
E 149th St & Southern Blvd	NW	591	330	439	328	728	1397	1083	1520	A	A	A	A
E 149th St & Southern Blvd	NE	790	505	804	545	295	521	324	482	A	A	A	A
E 149th St & Southern Blvd	SE	341	250	357	235	652	992	681	1030	A	A	A	A

[4] L = Left Turn, T= Through, R = Right Turn, DefL = de facto Left Turn; LOS = Level of Service.
[5] L = Left Turn, T= Through, R = Right Turn, LOS = Level of Service.

Crosswalks

The two crosswalk locations within the study area were analyzed using the collected pedestrian data. As presented in **Table J-9**, all crosswalks included in the transportation analysis operate at a LOS B or better during the four peak hours.

TABLE J-9: 2015 EXISTING CONDITIONS LEVEL OF SERVICE ANALYSIS - CROSSWALKS

				Peak Hour Volume								Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS			
	Crosswalk			Weekday						Saturday		Weekday			Sat	Weekday			Sat
				AM		MD		PM		MD									
Location	Leg	Length (ft)	Width (ft)	IB	OB	IB	OB	IB	OB	IB	OB	AM	MD	PM	MD	AM	MD	PM	MD
E 149th St & Southern Blvd	North	69.6	17.9	275	233	125	177	142	255	119	180	53	89	71	97	B	A	A	A
E 149th St & Southern Blvd	East	61.4	16.8	95	75	62	48	84	84	67	44	256	541	346	481	A	A	A	A

Parking Conditions

On-Street Parking

Existing study area on-street parking conditions were evaluated by performing a field inventory of parking regulations and utilization within a ¼-mile radius of the project sites. On-street parking regulations within ¼-mile of the Project Area are summarized in **Figure J-5** and **Table J-1**. Parking spaces are largely unrestricted except for certain sanitation-related regulations and truck loading zones.

Parking utilization surveys were conducted in the study area under typical weekday and Saturday conditions in February 2016 during the four peak hours as well as the weekday overnight condition, when residential parking demand is expected to be the greatest. Individual street capacities and an hourly assessment of on-street parking utilization were collected for each street in the study area. **Table J-11** presents a summary of the survey results, in terms of the average percentage of available on-street spaces utilized during each peak hour.

The results indicate that within ¼-mile of the project site, on-street parking utilization is 80, 79, 72, and 70 percent of available spaces during the Weekday AM, MD, PM, and overnight periods, respectively. The on-street parking utilization was 72 percent for the Saturday MD period.

TABLE J-11: 2016 EXISTING CONDITIONS
ON-STREET PARKING UTILIZATION SUMMARY

2016 Existing	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
Capacity	1894	1894	1894	1894	1894
Demand	1510	1500	1360	1330	1364
Available Spaces	384	394	534	564	530
Utilization	**80%**	**79%**	**72%**	**70%**	**72%**

Off-Street Parking

There are no off-site parking facilities within a ¼-mile radius of the Project Area.

VII. FUTURE CONDITIONS WITHOUT THE PROPOSED PROJECT

The future without the Proposed Action ("No Action Condition") builds on the Existing Conditions analysis by incorporating background growth, other nearby projects expected to be completed by the project analysis year (With Action year), and anticipated changes in the transportation network. The No Action Condition analysis focuses on conditions in 2025, when the Proposed Action is expected to be complete. The analysis of the No Action Condition serves as the baseline to which the future condition with the project will be compared to identify potential impacts.

The *CEQR Technical Manual* guidelines (Table 16-4) provide an annual background growth rate for this area of the Bronx of 0.25 percent for the first five years and 0.125 percent for the years beyond. The annual growth rates were applied, over a period of 10 years, to the 2015 Existing Condition volumes to develop the 2025 No Action Condition background traffic, pedestrian, and parking volumes. In addition to the background growth, the development projects expected to be completed by 2025 located within and adjacent to the ¼-mile described were considered to forecast the No Action condition volumes, as shown in **Table J-12** and **Figure B-4**.

TABLE J-12: NO ACTION DEVELOPMENTS

Project #	Site Description	Build Year	Building Program
¼-mile Radius			
1	Crossroads Plaza 828 East 149th Street	2017	428 residential units 41,174 gsf commercial retail
2	Lot 30 Block 2600	2017	11,700 gsf local retail

The Crossroads Plaza No Action project consists of three buildings. While a portion of the project was constructed when the existing traffic counts were performed, the analysis conservatively assumes that the full project increment would be included as part of the No Action condition. The vehicular and pedestrian trip increments for the Crossroads Plaza were obtained from the *Crossroads Plaza EAS* (2011).

The development of Lot 30, Block 2600 is an as-of-right development zoned as M1-2 which would allow for up to 11,700 gsf of local retail space.

The background growth and trips generated by these development projects were added to the Existing Condition volumes to develop the No Action volumes.

Roadway Improvements

Union Avenue is currently closed between E 147th and E 149th Streets as part of the construction of the Crossroads Plaza development. It will remain closed once the Crossroads Plaza development is complete as it will be reconstructed as a central plaza on the development site, with a partial opening at Southern Boulevard to provide access to the Crossroads Plaza parking garage and passenger pick-up/drop-off area. Based on the changes to this intersection associated with the Crossroads Plaza development, the No Action condition considers the following traffic operating conditions:

- At the intersection of Southern Boulevard with E 147th Street and Union Avenue, Union Avenue would be controlled by a stop sign and Southern Boulevard would operate uncontrolled. Drivers traveling northbound on Southern Boulevard would be permitted to turn left onto E 147th Street or Union Avenue. Drivers traveling southbound on Southern Boulevard would be permitted to turn right onto E 147th Street or Union Avenue. Drivers exiting Union Avenue at Southern Boulevard would only be permitted to turn right onto Southern Boulevard; left-turns onto northbound Southern Boulevard would be prohibited.

Traffic Conditions

Figures J-10 through J-13 show the 2025 No Action traffic volumes for the four peak hours. **Table J-13** presents the 2025 No Action conditions for the signalized study intersections, and **Table J-14** presents the 2025 No Action conditions for the unsignalized study intersections. Based on the analysis results, the majority of the approaches/lane-groups would operate at the same LOS as in the Existing Conditions. At the following locations, the addition of No Action traffic would result in changes in LOS beyond mid-LOS D:

East 149th Street and Southern Boulevard

- During the **Saturday MD** peak hour, the eastbound defacto left-turn lane group would deteriorate within LOS D from an average delay of 42.7 seconds and a v/c ratio of 0.63 to an average delay of 51.4 seconds and a v/c ratio of 0.73.

TABLE J-13: 2025 NO ACTION CONDITION
SIGNALIZED INTERSECTION LEVEL OF SERVICE ANALYSIS

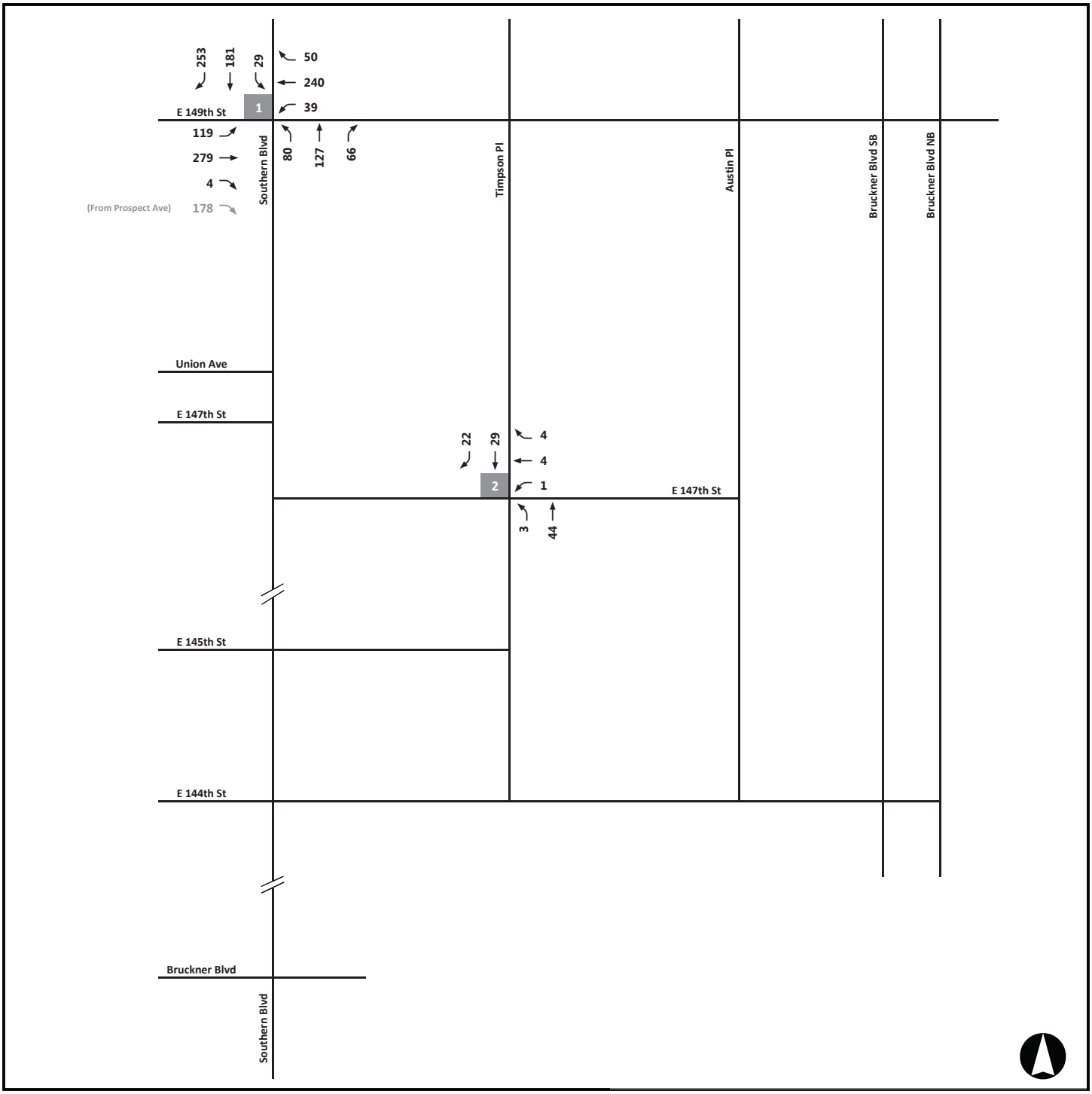
Intersection & Approach		Weekday AM								Weekday MD							
		Existing				No Action				Existing				No Action			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 149th Street and Southern Boulevard																	
1	EB	LTR	0.55	33.4	C	LTR	0.59	34.6	C	LTR	0.47	31.7	C	LTR	0.52	32.8	C
	WB	LTR	0.39	30.0	C	LTR	0.48	31.8	C	LTR	0.31	28.7	C	LTR	0.38	30.1	C
	NB	L	0.29	30.8	C	L	0.36	32.8	C	L	0.20	26.6	C	L	0.26	27.7	C
		TR	0.28	14.8	B	TR	0.33	15.5	B	TR	0.26	14.6	B	TR	0.32	15.5	B
	SB	L	0.07	12.4	B	L	0.07	12.5	B	L	0.06	12.4	B	L	0.07	12.5	B
		TR	0.34	15.6	B	TR	0.37	16.1	B	TR	0.22	14.0	B	TR	0.26	14.4	B
		R	0.49	34.9	C	R	0.51	35.3	D	R	0.27	27.5	C	R	0.28	27.7	C
		Intersection		26.6	C	Intersection		27.5	C	Intersection		24.7	C	Intersection		25.3	C

Intersection & Approach		Weekday PM								Saturday MD							
		Existing				No Action				Existing				No Action			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 149th Street and Southern Boulevard																	
1	EB	LTR	0.58	34.1	C	LTR	0.61	35.0-	C	DefL	0.63	42.7	D	DefL	0.73	51.4	D
										TR	0.35	29.5	C	TR	0.36	29.8	C
	WB	LTR	0.39	30.0	C	LTR	0.44	30.9	C	LTR	0.29	28.4	C	LTR	0.33	29.0	C
	NB	L	0.33	31.2	C	L	0.41	33.4	C	L	0.18	26.6	C	L	0.22	27.3	C
		TR	0.26	14.5	B	TR	0.35	15.7	B	TR	0.19	13.6	B	TR	0.23	14.1	B
	SB	L	0.08	12.6	B	L	0.10	12.8	B	L	0.06	12.3	B	L	0.06	12.4	B
		TR	0.28	14.7	B	TR	0.31	15.1	B	TR	0.18	13.5	B	TR	0.21	13.8	B
		R	0.31	30.4	C	R	0.33	30.7	C	R	0.32	29.1	C	R	0.33	29.3	C
		Intersection		26.4	C	Intersection		26.9	C	Intersection		26.2	C	Intersection		27.3	C

TABLE J-14: 2025 NO ACTION CONDITION
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection & Approach		Weekday AM								Weekday MD							
		Existing				No Action				Existing				No Action			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 147th Street and Timpson Place																	
2	WB	LTR	0.01	9.3	A	LTR	0.01	9.6	A	LTR	0.02	9.2	A	LTR	0.05	10.2	B
	NB	LT	0.00	7.4	A	LT	0.00	7.4	A	LT	0.00	7.4	A	LT	0.01	7.5	A

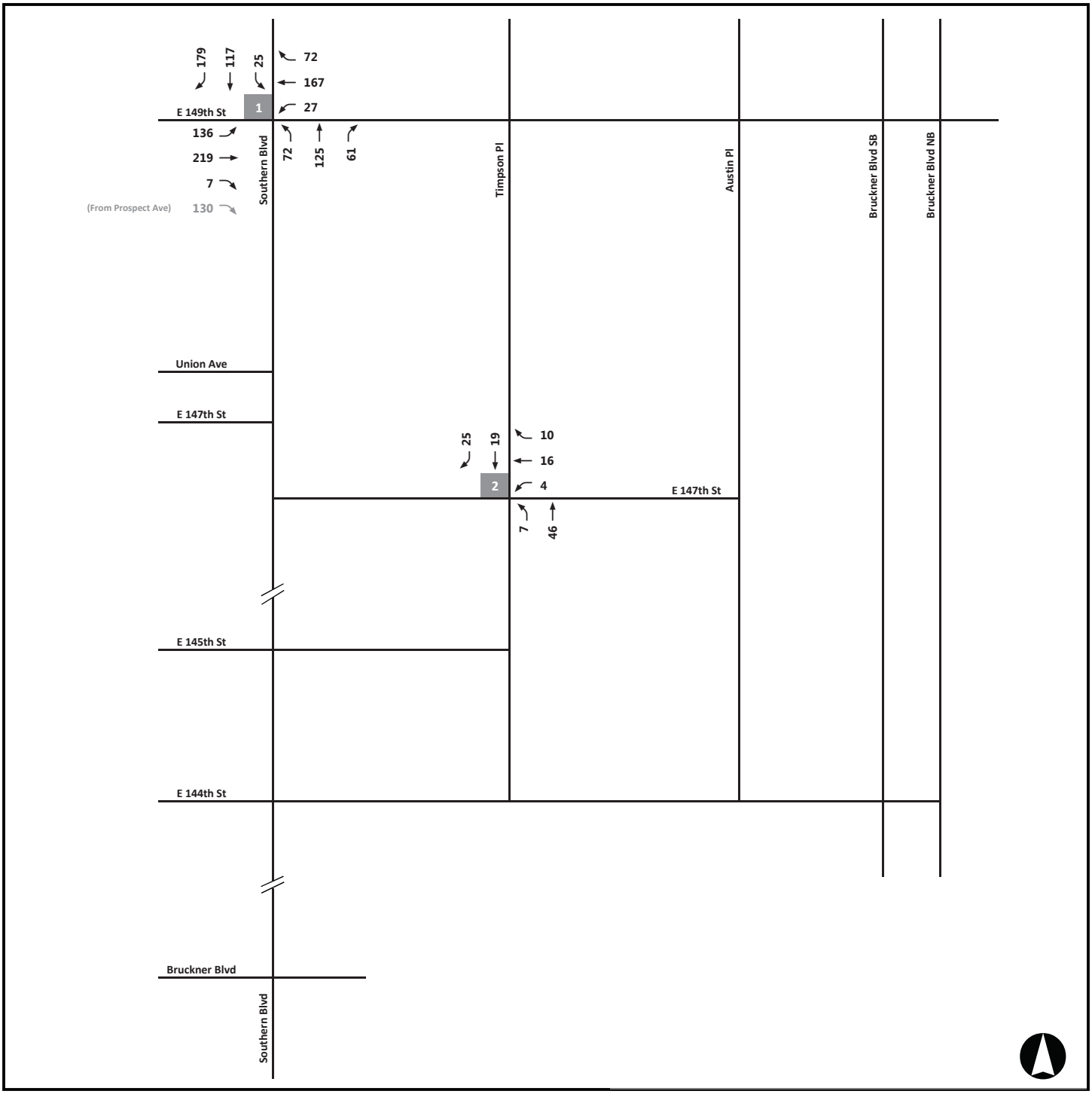
Intersection & Approach		Weekday PM								Saturday MD							
		Existing				No Action				Existing				No Action			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 147th Street and Timpson Place																	
2	WB	LTR	0.02	9.6	A	LTR	0.06	10.7	B	LTR	0.02	9.3	A	LTR	0.04	9.8	A
	NB	LT	0.00	7.3	A	LT	0.00	7.4	A	LT	0.00	7.3	A	LT	0.00	7.4	A



Peak hour volume

2025 NO ACTION TRAFFIC VOLUMES WEEKDAY AM PEAK HOUR

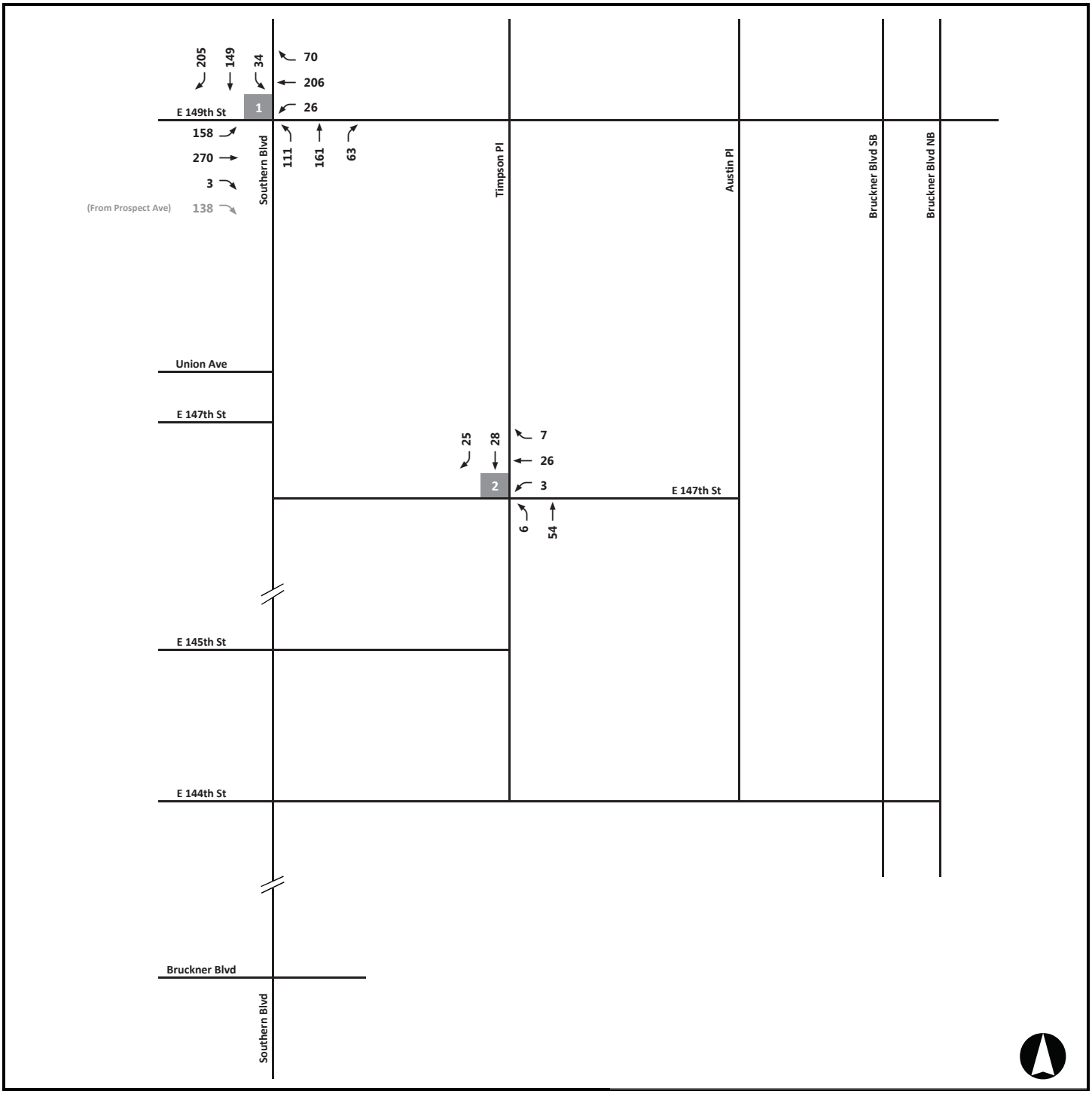
Figure J-10



Peak hour volume

2025 NO ACTION TRAFFIC VOLUMES WEEKDAY MD PEAK HOUR

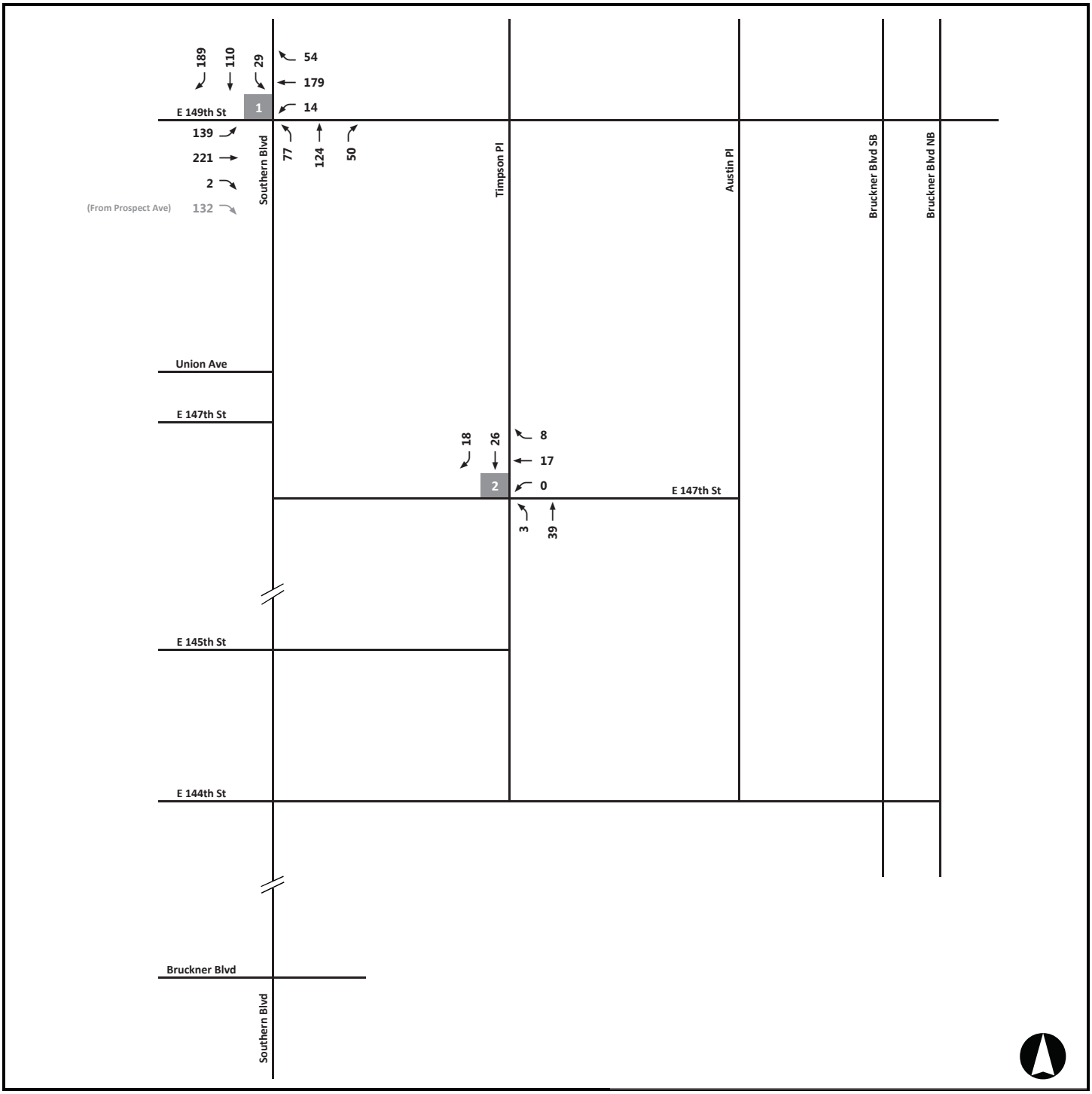
Figure J-11



Peak hour volume

2025 NO ACTION TRAFFIC VOLUMES WEEKDAY PM PEAK HOUR

Figure J-12



Peak hour volume

2025 NO ACTION TRAFFIC VOLUMES SATURDAY MD PEAK HOUR

Figure J-13

Pedestrian Operations

Pedestrian trips associated with general annual background growth of 0.25 percent for the first five years and 0.125 percent for the next five years for pedestrian elements in the Bronx and the development projects planned for 2025 were superimposed onto the existing pedestrian elements (corner reservoirs and crosswalks) to generate No Action condition peak period volumes for analysis during the four peak hours.

Corners

As presented in **Table J-15**, all three corner reservoirs included in the transportation analysis are projected to operate at LOS A during the four peak hours during the No Action condition.

TABLE J-15: 2025 NO ACTION CONDITION LEVEL OF SERVICE ANALYSIS - CORNERS

		Peak Hour Volume				Available Circulation Space (ft^2/p)				Corner Circulation LOS			
		Weekday			Sat	Weekday			Sat	Weekday			Sat
Location	Corner	AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
E 149th St & Southern Blvd	NW	620	435	502	397	693	1056	950	1254	A	A	A	A
E 149th St & Southern Blvd	NE	852	770	961	718	271	339	270	362	A	A	A	A
E 149th St & Southern Blvd	SE	427	555	553	438	524	453	432	550	A	A	A	A

Crosswalks

Table J-16 summarizes the No Action condition crosswalk analysis. All two crosswalks included in the transportation analysis are projected to operate at a LOS B or better during the four peak hours.

TABLE J-16: 2025 NO ACTION CONDITION LEVEL OF SERVICE ANALYSIS - CROSSWALKS

				Peak Hour Volume								Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS			
	Crosswalk			Weekday						Saturday		Weekday			Sat	Weekday			Sat
Location	Leg	Length (ft)	Width (ft)	AM		MD		PM		MD		AM	MD	PM	MD	AM	MD	PM	MD
				IB	OB	IB	OB	IB	OB	IB	OB								
E 149th St & Southern Blvd	North	69.6	17.9	289	247	170	237	168	292	151	217	49	65	61	78	B	A	A	A
E 149th St & Southern Blvd	East	61.4	16.8	114	88	145	123	130	129	118	96	213	218	221	250	A	A	A	A

Parking Supply and Utilization

The utilization of on-street parking facilities in the study area is expected to increase due to the area's background growth by an annual growth rate of 0.25 percent for the first five years and 0.125 percent for the following five years. The utilization of on-street parking for the No Action condition also considers the on-street demand generated by the Crossroads Plaza development as described in the *Crossroads Plaza EAS* and expected parking demand generated by lots to be developed as part of the No Action condition. Finally, the utilization of on-street parking for the No Action condition considers the expected parking demand shift from off-street to on-street parking due to the removal of 11 existing parking spaces in order to construct the No Action developments.

On-Street Parking

Table J-18 presents the expected on-street parking utilization in 2025, assuming an annual background growth in parking demand of 0.25 percent for the first five years and 0.125 percent for the next five years. The results indicate that within ¼-mile of the project site, on-street parking utilization is expected to increase

to 85, 85, 78, and 72 percent during the Weekday AM, Weekday MD, Weekday PM, and Weekday Overnight periods, respectively, in the 2025 No Action condition. The on-street parking utilization is expected to increase to 78 percent for the Saturday MD period.

TABLE J-18: 2025 NO ACTION CONDITION
ON-STREET PARKING UTILIZATION SUMMARY

2025 No Action	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
Capacity	1894	1894	1894	1894	1894
Background Growth	1539	1528	1386	1355	1390
No Build Project	61	77	76	0	83
Off-Street Demand Shifted On-street	11	11	11	11	11
Total No Build Demand	1611	1616	1473	1366	1484
Available Spaces	283	278	421	528	410
Utilization	**85%**	**85%**	**78%**	**72%**	**78%**

VIII. DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action would result in the redevelopment of a multi-lot portion of Block 2600 in the Bronx. The Project Area is located in area bounded by development parcels to the north and south of E 147th Street,, Austin Place to the east, and Southern Boulevard to the west, as shown in **Figure J-1**. The Proposed Action would include 366 residential dwelling units, a decrease of 3,230 gsf of local retail space, and 25 new off-street parking spaces. There would be a decrease in existing manufacturing uses of 2,325 gsf within the Project Area; however, to be conservative, a credit was not taken for this existing and active land use. Additionally, the Proposed Action would result in a decrease of 88 existing off-street parking spaces.

The following section describes the methods and assumptions used to develop the trip generation and trip distribution characteristics of the proposed project.

Analysis Scenarios

The trip generation and assignment estimates were prepared for four peak hours: Weekday AM (7:45 AM to 8:45 AM), Weekday MD (12:45 PM to 1:45 PM), Weekday PM (4:00 PM to 5:00 PM), and Saturday MD (12:30 PM to 1:30 PM).

Trip Generation

The following section describes the assumptions used to develop the trip generation and trip distribution characteristics of the Proposed Action, which are described in greater detail in the Transportation Demand Factors Memo, included in **Appendix J1.**

Residential

The residential component of the Project Area is proposed to consist of 366 residential dwelling units. The daily trip generation rates, temporal distribution, daily truck trip generation rates, and truck temporal distribution were obtained from the *CEQR Technical Manual*, Table 16-2. Modal split and vehicle occupancy were calculated from the 2014 American Community Survey 5-year estimates for Census Tracts 31, 33, 35, and 83 in the Bronx. Directional distribution and truck directional distribution were obtained from the *Hunters Point South Rezoning and Related Actions FEIS (2008)*, Table 16-9, for the residential land use. Within the Project Area, half of the residential component of the Proposed Action is located north of E 147th Street.

Local Retail

Approximately 3,023 gsf of local retail would be removed as part of the Proposed Action. The daily trip generation rates, temporal distribution, daily truck trip generation rates, and truck temporal distribution were obtained from the *CEQR Technical Manual*, Table 16-2. Modal split, vehicle occupancy, directional distribution, and truck directional distribution were obtained from the *Hunters Point South Rezoning and Related Actions FEIS (2008)*, Table 16-9, for the local retail land use.

Linked Trips

Linked trips are pass-by trips or trips that have multiple destinations within the Project Area and are typical for multi-use sites. As the local retail use would be visited by patrons living or working within the Project Area, a 15% linked trip credit was applied to the total retail trips.

Trip Generation Results

The results of the trip generation estimates for the four peak hours are summarized in **Table J-19** for the Proposed Action. Complete transportation demand factors are shown in **Table J-20**, with detailed trip generation estimates shown in **Table J-21** for the Proposed Action.

TABLE J-19: 147th STREET REZONING – PROPOSED ACTION
SUMMARY TRIP GENERATION ESTIMATES

Peak hour	Vehicle (Auto/Taxi/Truck)	Subway	Bus	Bike/Walk Only
Weekday AM	65	164	37	16
Weekday MD	28	74	10	-66
Weekday PM	62	177	37	-11
Saturday MD	54	151	29	-21

TABLE J-20 147th STREET REZONING TRANSPORTATION DEMAND FACTORS

		Residential		Local Retail	
Program Size	**Size**	366		-3,230	
	Unit	dwelling unit		gsf	
Daily Person Trip Rate		(1)		(1)	
	Weekday	8.075		205	
	Saturday	9.6		240	
	Unit	per dwelling unit		per 1,000 gsf	
Daily Truck Trip Rate		(1)		(1)	
	Weekday	0.06		0.35	
	Saturday	0.02		0.04	
	Unit	per dwelling unit		per 1,000 gsf	
Modal Split		(2)		(3)	
		Weekday	Saturday	Weekday	Saturday
	Auto	19.8%	19.8%	2.0%	2.0%
	Taxi	1.2%	1.2%	3.0%	3.0%
	Bus	13.1%	13.1%	10.0%	10.0%
	Subway	56.2%	56.2%	10.0%	10.0%
	Walk	9.7%	9.7%	75.0%	75.0%
		100.0%	100.0%	100.0%	100.0%
Vehicle Occupancy		(2)		(3)	
	Auto	1.07	1.07	1.65	1.65
	Taxi	1.07	1.07	1.40	1.40
Linked Trips		0%	0%	15%	15%
Temporal Distribution		(1)		(1)	
	Weekday AM	10.0%		3.0%	
	Weekday MD	5.0%		19.0%	
	Weekday PM	11.0%		10.0%	
	Saturday MD	8.0%		10.0%	
Truck Temporal Distribution		(1)		(1)	
	Weekday AM	12.0%		8.0%	
	Weekday MD	9.0%		11.0%	
	Weekday PM	2.0%		2.0%	
	Saturday MD	9.0%		11.0%	
Directional Distribution		(3)		(3)	
		In	**Out**	**In**	**Out**
	Weekday AM	15.0%	85.0%	50.0%	50.0%
	Weekday MD	50.0%	50.0%	50.0%	50.0%
	Weekday PM	70.0%	30.0%	50.0%	50.0%
	Saturday MD	50.0%	50.0%	55.0%	45.0%
Truck Directional Distribution		(3)		(3)	
		In	**Out**	**In**	**Out**
	Weekday AM	50.0%	50.0%	50.0%	50.0%
	Weekday MD	50.0%	50.0%	50.0%	50.0%
	Weekday PM	50.0%	50.0%	50.0%	50.0%
	Saturday MD	50.0%	50.0%	50.0%	50.0%

(1) 2014 CEQR Technical Manual. Table 16-2.
(2) 2010-2014 American Community Survey 5-year estimates. Table B08006: Sex of Workers by Means of Transportation to Work. Census Tracts 31, 33, 35, and 83 (Bronx).
(3) Hunters Point South Rezoning and Related Actions (2008). Table 16-9. Weekday Travel Demand Characteristics: Build Condition.

TABLE J-21: 147th STREET REZONING – PROPOSED ACTION
DETAILED TRIP GENERATION ESTIMATES

		Residential		Local Retail		Total		
Person Trips								
Daily Trips	**Weekday**	2,955		-563		**2,392**		
	Saturday	3,514		-659		**2,855**		
Peak Hour Trips	**Weekday AM**	296		-17		**279**		
	Weekday MD	148		-107		**41**		
	Weekday PM	325		-56		**269**		
	Saturday MD	281		-66		**215**		
		In	**Out**	**In**	**Out**	**In**	**Out**	**Total**
Weekday AM	**Auto**	9	50	0	0	**9**	**50**	**59**
	Taxi	1	3	0	0	**1**	**3**	**4**
	Bus	6	33	-1	-1	**5**	**32**	**37**
	Subway	25	141	-1	-1	**24**	**140**	**164**
	Walk	4	24	-6	-6	**-2**	**18**	**16**
	Total	45	251	-8	-8	**37**	**243**	**280**
Weekday MD	**Auto**	15	15	-1	-1	**14**	**14**	**28**
	Taxi	1	1	-2	-2	**-1**	**-1**	**-2**
	Bus	10	10	-5	-5	**5**	**5**	**10**
	Subway	42	42	-5	-5	**37**	**37**	**74**
	Walk	7	7	-40	-40	**-33**	**-33**	**-66**
	Total	75	75	-53	-53	**22**	**22**	**44**
Weekday PM	**Auto**	45	19	-1	-1	**44**	**18**	**62**
	Taxi	3	1	-1	-1	**2**	**0**	**2**
	Bus	30	13	-3	-3	**27**	**10**	**37**
	Subway	128	55	-3	-3	**125**	**52**	**177**
	Walk	22	9	-21	-21	**1**	**-12**	**-11**
	Total	228	97	-29	-29	**199**	**68**	**267**
Saturday MD	**Auto**	28	28	-1	-1	**27**	**27**	**54**
	Taxi	2	2	-1	-1	**1**	**1**	**2**
	Bus	18	18	-4	-3	**14**	**15**	**29**
	Subway	79	79	-4	-3	**75**	**76**	**151**
	Walk	14	14	-27	-22	**-13**	**-8**	**-21**
	Total	141	141	-37	-30	**104**	**111**	**215**
Vehicle Trips								
		In	**Out**	**In**	**Out**	**In**	**Out**	**Total**
Weekday AM	**Auto**	8	47	0	0	**8**	**47**	**55**
	Taxi	1	3	0	0	1	3	4
	Balanced Taxi	4	4	0	0	**4**	**4**	**8**
	Truck	1	1	0	0	**1**	**1**	**2**
	Total	13	52	0	0	**13**	**52**	**65**
Weekday MD	**Auto**	14	14	-1	-1	**13**	**13**	**26**
	Taxi	1	1	-1	-1	0	0	0
	Balanced Taxi	2	2	-2	-2	**0**	**0**	**0**
	Truck	1	1	0	0	**1**	**1**	**2**
	Total	17	17	-3	-3	**14**	**14**	**28**
Weekday PM	**Auto**	42	18	-1	-1	**41**	**17**	**58**
	Taxi	3	1	-1	-1	2	0	2
	Balanced Taxi	4	4	-2	-2	**2**	**2**	**4**
	Truck	0	0	0	0	**0**	**0**	**0**
	Total	46	22	-3	-3	**43**	**19**	**62**
Saturday MD	**Auto**	26	26	-1	-1	**25**	**25**	**50**
	Taxi	2	2	-1	-1	1	1	2
	Balanced Taxi	4	4	-2	-2	**2**	**2**	**4**
	Truck	0	0	0	0	**0**	**0**	**0**
	Total	30	30	-3	-3	**27**	**27**	**54**
Walk Trips								
		In	**Out**	**In**	**Out**	**In**	**Out**	**Total**
Weekday AM	**Total Walk**	35	198	-8	-8	**27**	**190**	**217**
Weekday MD	**Total Walk**	59	59	-50	-50	**9**	**9**	**18**
Weekday PM	**Total Walk**	180	77	-27	-27	**153**	**50**	**203**
Saturday MD	**Total Walk**	111	111	-35	-28	**76**	**83**	**159**

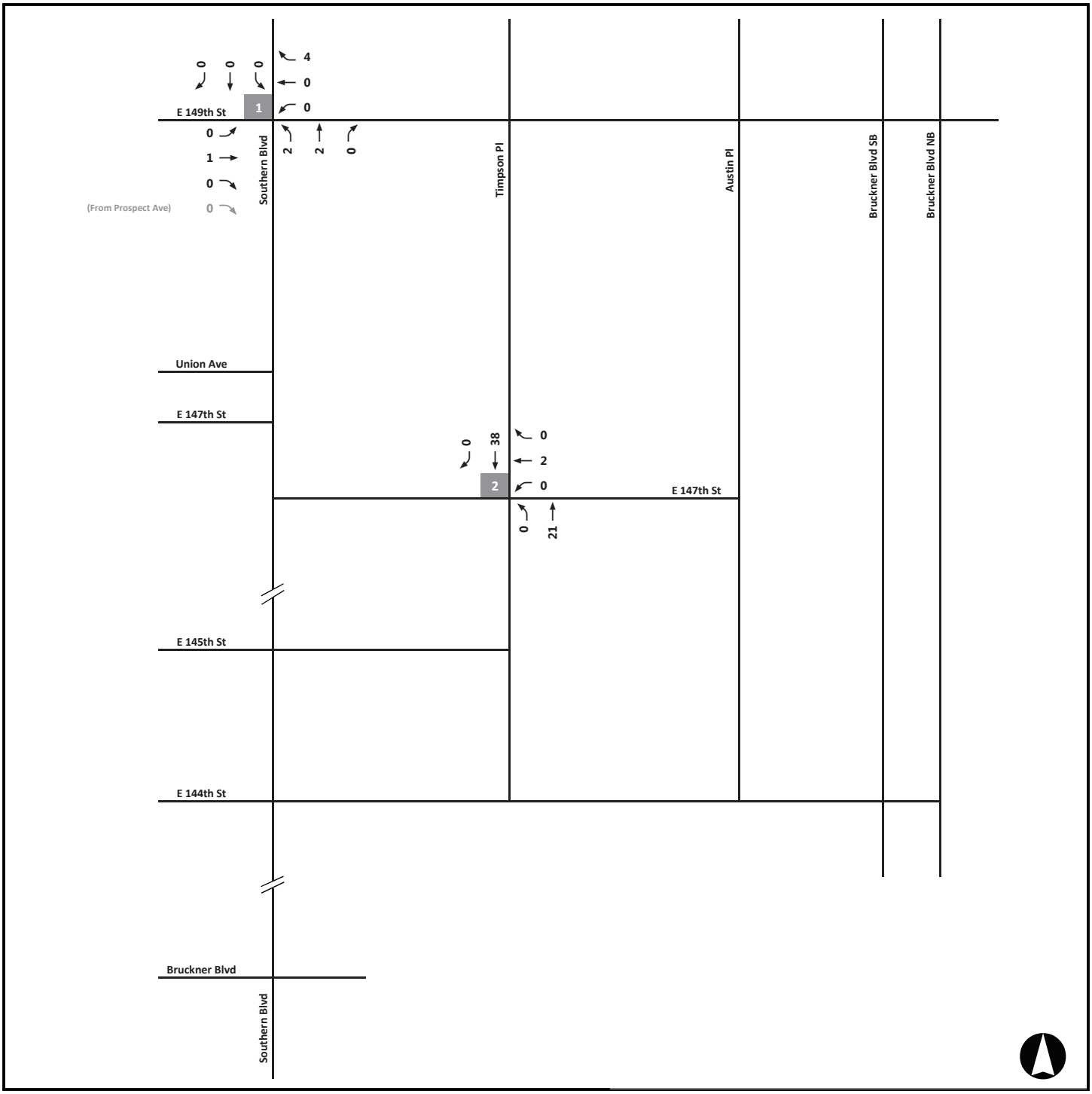
Trip Assignment

Trips were assigned to the study area along main streets and arterials that connect to the regional roadway network. Additional information regarding the vehicular trip assignments are provided in the Transportation Demand Factors Memo, included in **Appendix J1**.

Figures J-14 through J-17 show the trips generated by the Proposed Action for each peak hour.

Parking Accumulation

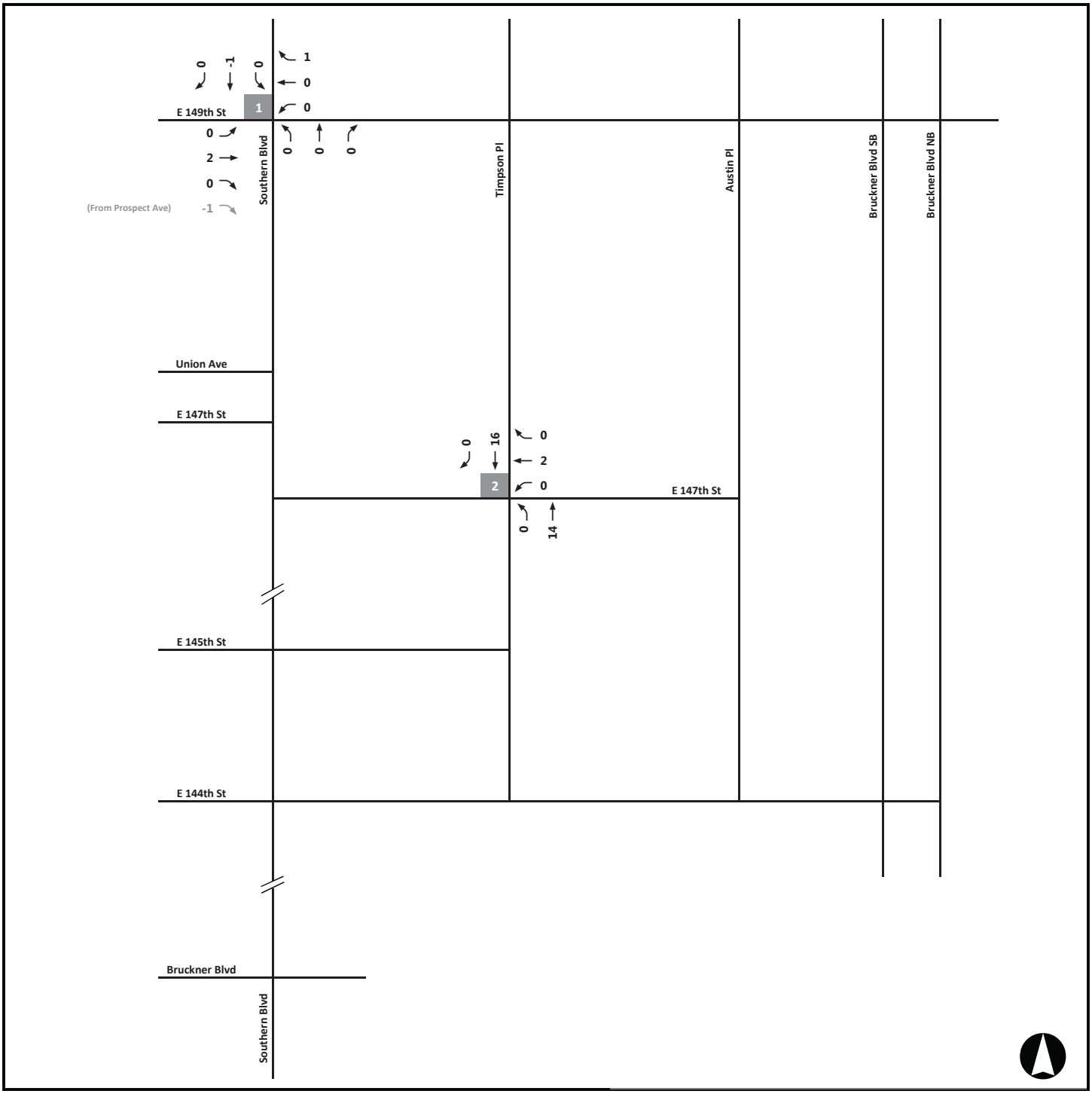
Tables J-22 and J-23 show the parking accumulation for a typical Weekday and a typical Saturday for the Proposed Action. The total parking demand during a typical weekday would peak at 131 spaces between 8:00 and 9:00 PM. The total parking demand during a typical Saturday would peak at 138 spaces between 6:00 and 7:00 AM. The parking demand generated by the Proposed Action would be accommodated by a combination of the 25 proposed off-street, on-site parking spaces and available on-street parking.



Peak hour volume

PROPOSED ACTION INCREMENTS
WEEKDAY AM PEAK HOUR

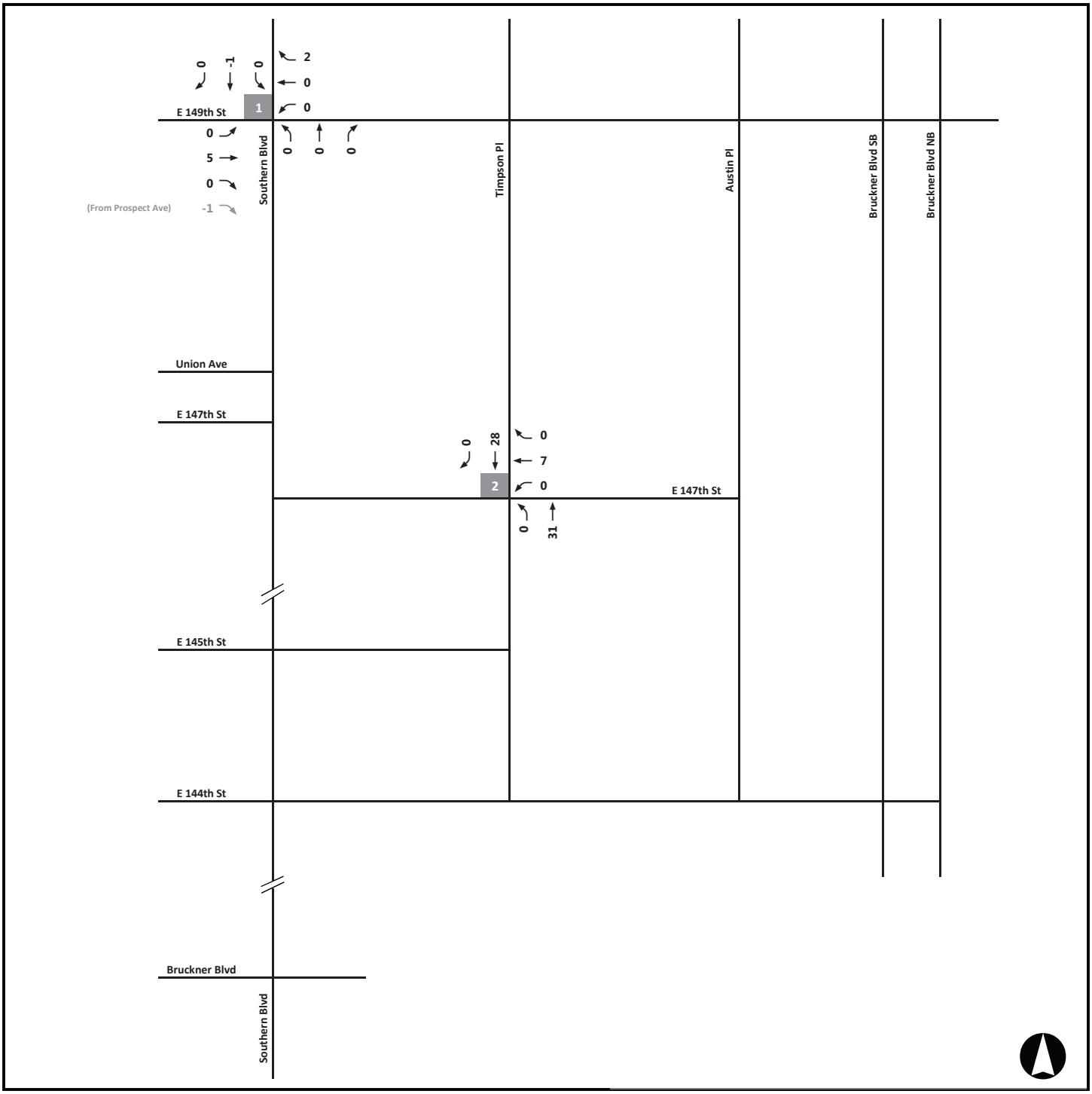
Figure J-14



Peak hour volume

PROPOSED ACTION INCREMENTS
WEEKDAY MD PEAK HOUR

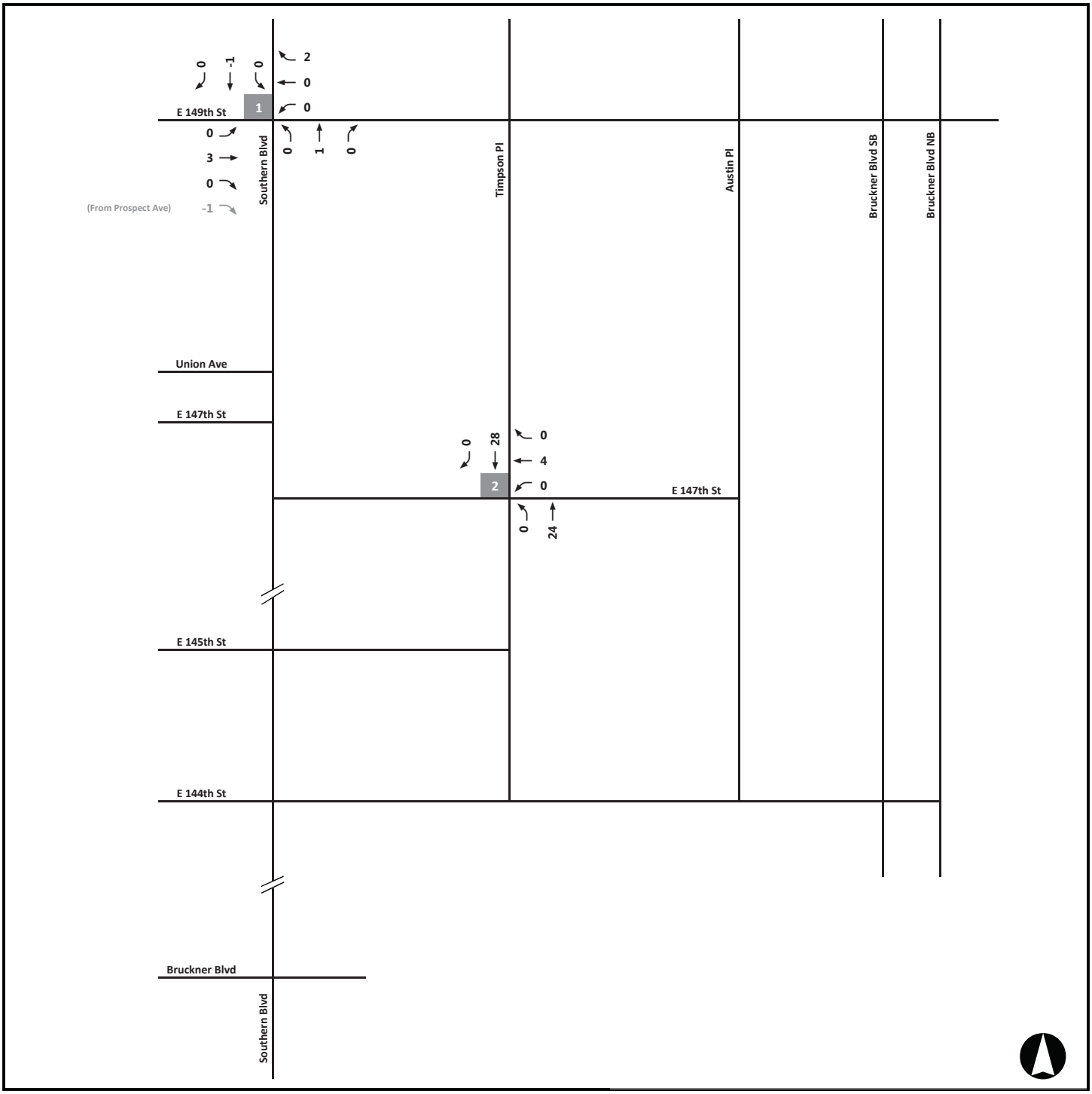
Figure J-15



Peak hour volume

PROPOSED ACTION INCREMENTS
WEEKDAY PM PEAK HOUR

Figure J-16



Peak hour volume

PROPOSED ACTION INCREMENTS
SATURDAY MD PEAK HOUR

Figure J-17

TABLE J-22: 2025 WITH ACTION CONDITION
WEEKDAY PROJECT PARKING ACCUMULATION[6]

	Residential (Off-Street)			Residential (On-Street)			Local Retail			Total		
Time Starting	**In**	**Out**	**Accum-ulation**	**In**	**Out**	**Accum-ulation**	**In**	**Out**	**Accum-ulation**	**In**	**Out**	**Accum-ulation**
Before 12 AM			120			23			97	0	0	120
12:00 AM	5	5	120	1	1	23	4	4	97	5	5	120
1:00 AM	2	2	120	0	0	23	2	2	97	2	2	120
2:00 AM	1	1	120	0	0	23	1	1	97	1	1	120
3:00 AM	1	1	120	0	0	23	1	1	97	1	1	120
4:00 AM	1	1	120	0	0	23	1	1	97	1	1	120
5:00 AM	1	1	120	0	0	23	1	1	97	1	1	120
6:00 AM	1	2	119	0	0	23	1	2	96	1	2	119
7:00 AM	4	14	109	1	3	21	3	11	88	4	14	109
8:00 AM	8	47	70	2	9	13	6	38	56	8	47	70
9:00 AM	9	24	55	2	5	10	7	19	44	9	24	55
10:00 AM	11	13	53	2	2	10	9	11	43	11	13	53
11:00 AM	12	12	53	2	2	10	10	10	43	12	12	53
12:00 PM	12	11	54	2	2	10	10	9	43	11	10	54
1:00 PM	14	14	54	3	3	10	11	11	43	13	13	54
2:00 PM	11	11	54	2	2	10	9	9	43	11	11	54
3:00 PM	11	9	56	2	2	11	9	7	45	11	9	56
4:00 PM	42	18	80	8	3	15	34	15	64	41	17	80
5:00 PM	30	17	93	6	3	18	24	14	75	30	17	93
6:00 PM	36	16	113	7	3	22	29	13	91	36	16	113
7:00 PM	29	16	126	6	3	24	23	13	102	29	16	126
8:00 PM	13	8	131	2	2	25	11	6	106	13	8	**131**
9:00 PM	4	13	122	1	2	23	3	11	98	4	13	122
10:00 PM	9	10	121	2	2	23	7	8	98	9	10	121
11:00 PM	7	8	120	1	2	23	6	6	97	7	8	120

[6] Temporal distribution for residential land use based on Flushing Commons FEIS (2010), Table 14-37.

TABLE J-23 2025 WITH ACTION CONDITION
SATURDAY PROJECT PARKING ACCUMULATION[7]

	Residential (Off-Street)			Residential (On-Street)			Local Retail			Total		
Time Starting	**In**	**Out**	**Accum-ulation**	**In**	**Out**	**Accum-ulation**	**In**	**Out**	**Accum-ulation**	**In**	**Out**	**Accum-ulation**
Before 12 AM			120			22			98	0	0	120
12:00 AM	9	5	124	2	1	22	7	4	101	9	5	124
1:00 AM	7	4	127	1	1	23	6	3	104	7	4	127
2:00 AM	5	3	129	1	1	23	4	2	105	5	3	129
3:00 AM	4	2	131	1	0	24	3	2	107	4	2	131
4:00 AM	5	1	135	1	0	24	4	1	110	5	1	135
5:00 AM	4	2	137	1	0	25	3	2	112	4	2	137
6:00 AM	8	7	138	1	1	25	7	6	113	8	7	**138**
7:00 AM	10	11	137	2	2	25	8	9	112	10	11	137
8:00 AM	10	22	125	2	4	23	8	18	102	10	22	125
9:00 AM	15	20	120	3	4	22	12	16	98	15	20	120
10:00 AM	18	20	118	3	4	21	15	16	96	18	20	118
11:00 AM	20	21	117	4	4	21	16	17	95	20	21	117
12:00 PM	17	18	116	3	3	21	14	15	95	17	18	116
1:00 PM	26	26	116	5	5	21	21	21	95	25	25	116
2:00 PM	26	20	122	5	4	22	21	16	100	25	19	122
3:00 PM	23	21	124	4	4	22	19	17	101	22	20	124
4:00 PM	21	19	126	4	3	23	17	16	103	20	18	126
5:00 PM	18	18	126	3	3	23	15	15	103	18	18	126
6:00 PM	17	19	124	3	3	22	14	16	101	17	19	124
7:00 PM	16	17	123	3	3	22	13	14	100	16	17	123
8:00 PM	14	17	120	3	3	22	11	14	98	14	17	120
9:00 PM	13	17	116	2	3	21	11	14	95	13	17	116
10:00 PM	10	8	118	2	1	21	8	7	96	10	8	118
11:00 PM	9	7	120	2	1	22	7	6	98	9	7	120

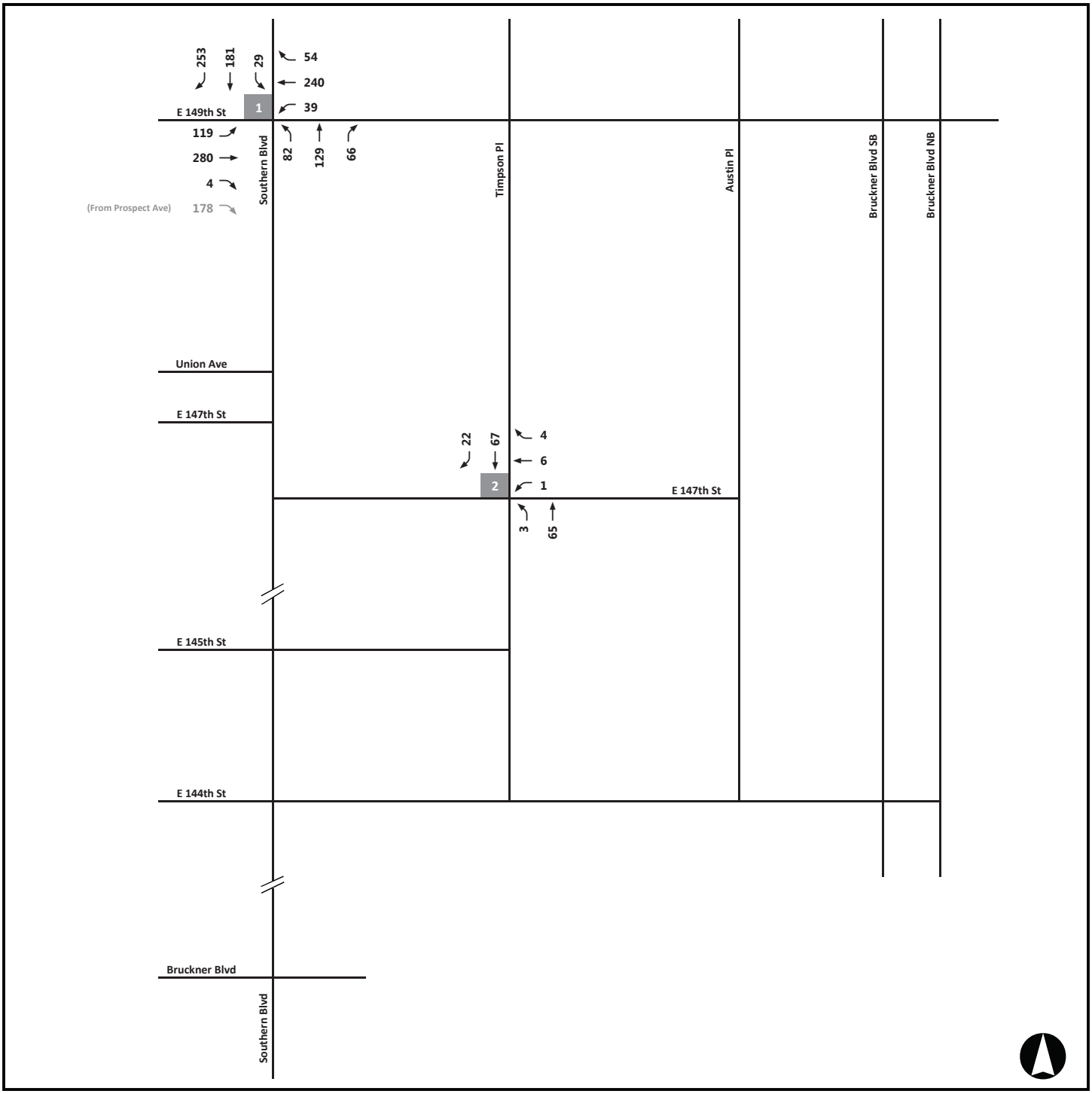
[7] Temporal distribution for residential land use based on Flushing Commons FEIS (2010), Table 14-37.

X. FUTURE CONDITIONS WITH THE PROPOSED ACTION

The No Action Condition analysis forms the future baseline to which projected trip increments associated with the Proposed Action are added to formulate the "With Action Condition." The *CEQR Technical Manual* defines how impacts to traffic, pedestrians, safety, and parking are to be determined. If the analysis results show that the Proposed Action would result in significant transportation-related impacts, mitigation measures are recommended to alleviate these impacts.

Traffic Conditions

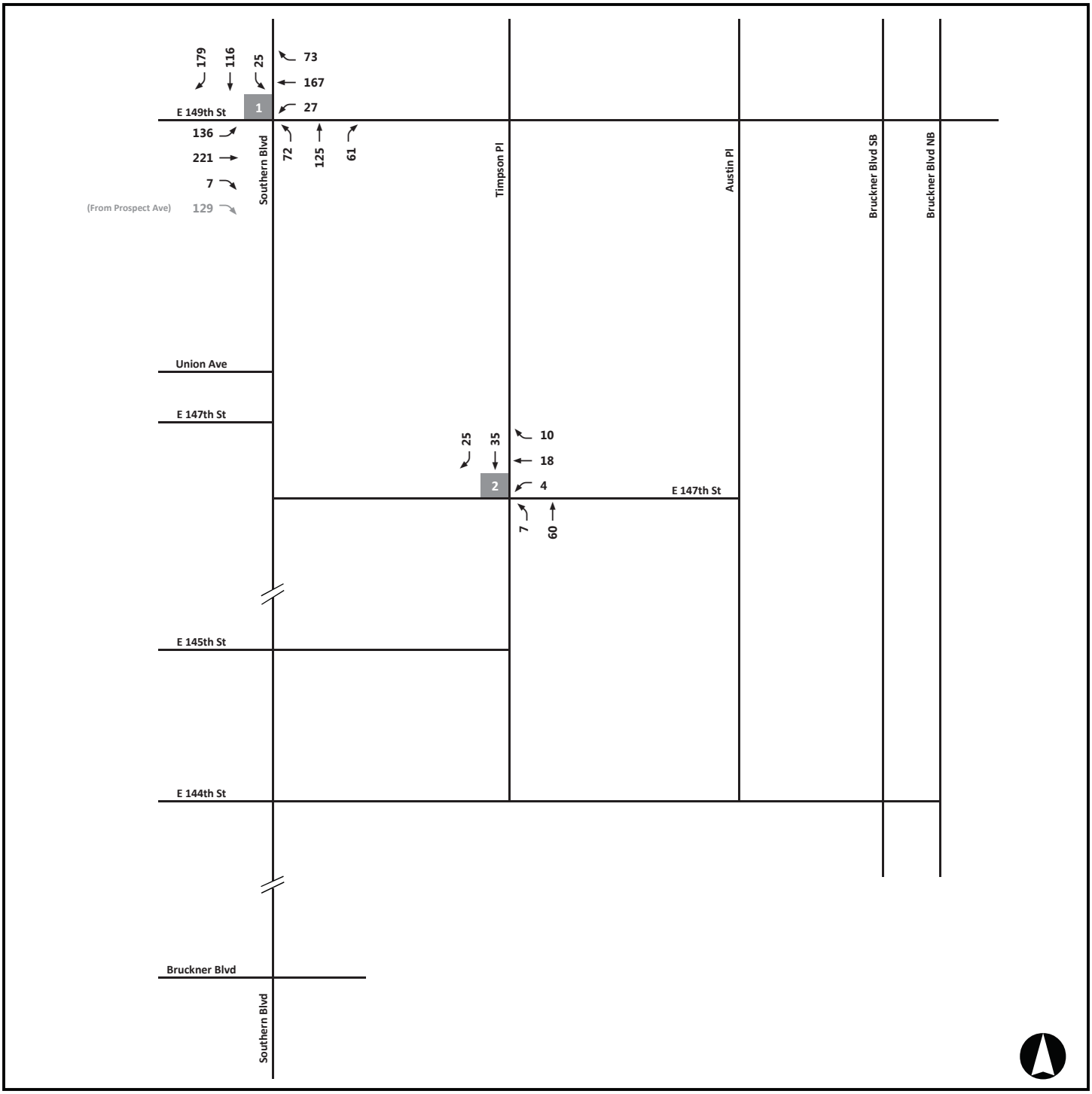
Figures J-18, **J-19**, **J-20**, and **J-21** show the 2025 With Action Condition traffic volumes for the four peak hours. **Table J-25** presents a comparison of No Action and With Action conditions for the signalized study intersections, and **Table J-26** presents a comparison of No Action and With Action conditions for the unsignalized study intersections. The results presented in these tables show that there would be no significant adverse traffic impacts due to the Proposed Action.



Peak hour volume

2025 WITH ACTION TRAFFIC VOLUMES WEEKDAY AM PEAK HOUR

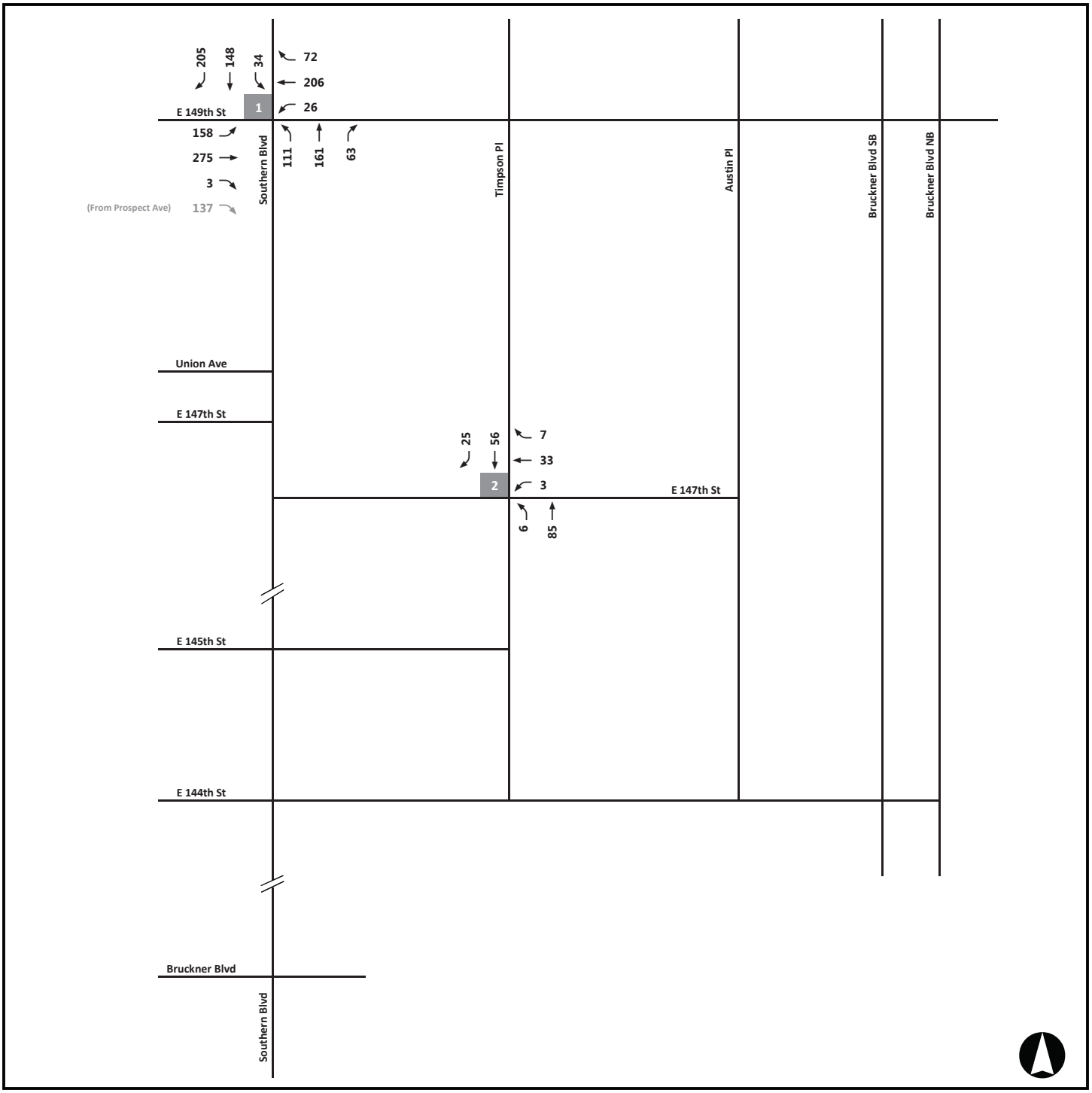
Figure J-18



Peak hour volume

2025 WITH ACTION TRAFFIC VOLUMES WEEKDAY MD PEAK HOUR

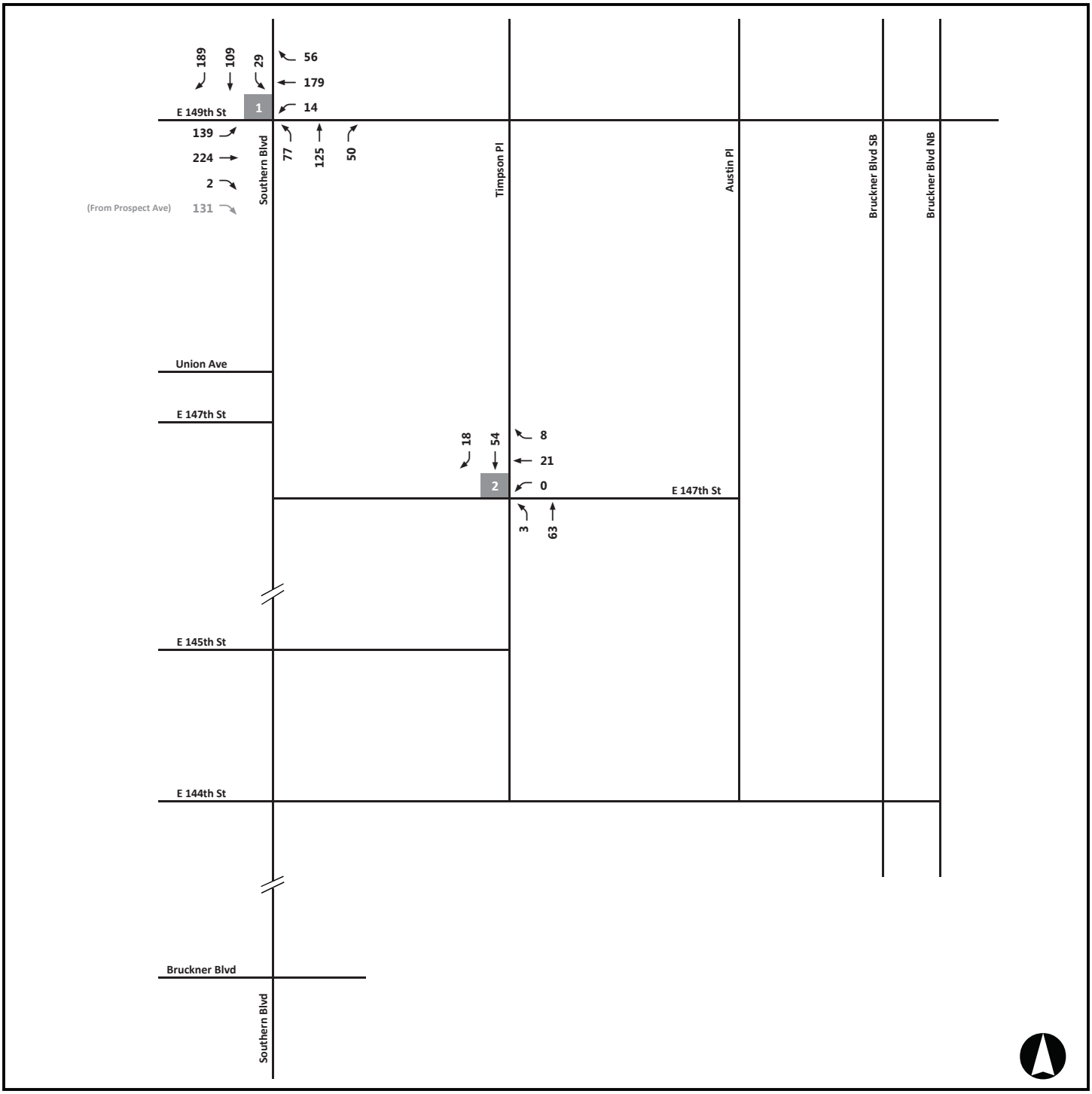
Figure J-19



Peak hour volume

2025 WITH ACTION TRAFFIC VOLUMES WEEKDAY PM PEAK HOUR

Figure J-20



Peak hour volume

2025 WITH ACTION TRAFFIC VOLUMES SATURDAY MD PEAK HOUR

Figure J-21

TABLE J-25: 2025 NO ACTION AND WITH ACTION CONDITION
LEVEL OF SERVICE ANALYSIS – SIGNALIZED INTERSECTIONS

Intersection & Approach		Weekday AM								Weekday MD							
		No Action				With Action Without Proposed Improvements				No Action				With Action Without Proposed Improvements			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 149th Street and Southern Boulevard																	
1	EB	LTR	0.59	34.6	C	LTR	0.60	34.8	C	LTR	0.52	32.8	C	LTR	0.52	32.8	C
	WB	LTR	0.48	31.8	C	LTR	0.49	32.1	C	LTR	0.38	30.1	C	LTR	0.38	30.1	C
	NB	L	0.36	32.8	C	L	0.37	33.0	C	L	0.26	27.7	C	L	0.26	27.7	C
		TR	0.33	15.5	B	TR	0.33	15.6	B	TR	0.32	15.5	B	TR	0.33	15.5	B
	SB	L	0.07	12.5	B	L	0.08	12.5	B	L	0.07	12.5	B	L	0.07	12.6	B
		TR	0.37	16.1	B	TR	0.37	16.1	B	TR	0.26	14.4	B	TR	0.26	14.4	B
		R	0.51	35.3	D	R	0.51	35.3	D	R	0.28	27.7	C	R	0.28	27.7	C
		Intersection		27.5	C	Intersection		27.7	C	Intersection		25.3	C	Intersection		25.4	C

Intersection & Approach		Weekday PM								Saturday MD							
		No Action				With Action Without Proposed Improvements				No Action				With Action Without Proposed Improvements			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 149th Street and Southern Boulevard																	
1	EB	LTR	0.61	35.0-	C	LTR	0.62	35.2	D	DefL	0.73	51.4	D	DefL	0.76	54.4	D
										TR	0.36	29.8	C	TR	0.36	29.8	C
	WB	LTR	0.44	30.9	C	LTR	0.44	31.1	C	LTR	0.33	29.0	C	LTR	0.34	29.1	C
	NB	L	0.41	33.4	C	L	0.41	33.4	C	L	0.22	27.3	C	L	0.22	27.3	C
		TR	0.35	15.7	B	TR	0.35	15.8	B	TR	0.23	14.1	B	TR	0.23	14.1	B
	SB	L	0.10	12.8	B	L	0.10	12.9	B	L	0.06	12.4	B	L	0.07	12.4	B
		TR	0.31	15.1	B	TR	0.31	15.1	B	TR	0.21	13.8	B	TR	0.21	13.7	B
		R	0.33	30.7	C	R	0.33	30.7	C	R	0.33	29.3	C	R	0.33	29.3	C
		Intersection		26.9	C	Intersection		27.1	C	Intersection		27.3	C	Intersection		27.7	C

TABLE J-26: 2025 NO ACTION AND WITH ACTION CONDITION
LEVEL OF SERVICE ANALYSIS – UNSIGNALIZED INTERSECTIONS

Intersection & Approach		Weekday AM								Weekday MD							
		No Action				With Action Without Proposed Improvements				No Action				With Action Without Proposed Improvements			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 147th Street and Timpson Place																	
2	WB	LTR	0.01	9.6	A	LTR	0.02	10.7	B	LTR	0.05	10.2	B	LTR	0.05	10.7	B
	NB	LT	0.00	7.4	A	LT	0.00	7.6	A	LT	0.01	7.5	A	LT	0.01	7.6	A

Intersection & Approach		Weekday PM								Saturday MD							
		No Action				With Action Without Proposed Improvements				No Action				With Action Without Proposed Improvements			
		Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS	Lane Group	v/c Ratio	Delay (sec)	LOS
E 147th Street and Timpson Place																	
2	WB	LTR	0.06	10.7	B	LTR	0.09	11.5	B	LTR	0.04	9.8	A	LTR	0.05	10.8	B
	NB	LT	0.00	7.4	A	LT	0.00	7.5	A	LT	0.00	7.4	A	LT	0.00	7.5	A

Pedestrian Operations

Trips associated with the Proposed Action were added to the No Action pedestrian network to generate With Action peak hour volumes for the four peak hours.

Corners

The 2025 With Action Condition results for the three corner reservoir locations were compared with the No Action Condition results for all four peak hours. As shown in **Table J-27**, all corners would operate at LOS A. As a result, the Proposed Action would not cause a significant adverse impact at any of the seven corner reservoirs.

TABLE J-27: 2025 WITH ACTION CONDITION LEVEL OF SERVICE ANALYSIS - CORNERS

		Peak Hour Volume				Available Circulation Space (ft^2/p)				Corner Circulation LOS			
		Weekday			Sat	Weekday			Sat	Weekday			Sat
Location	Corner	AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
E 149th St & Southern Blvd	NW	714	450	550	449	606	1023	869	1103	A	A	A	A
E 149th St & Southern Blvd	NE	1048	799	1074	833	217	326	240	308	A	A	A	A
E 149th St & Southern Blvd	SE	536	564	617	499	409	446	389	478	A	A	A	A

Crosswalks

The 2025 With Action Condition results for the two crosswalk locations were compared with the No Action Condition results for all four peak hours. As shown in **Table J-28**, all crosswalks would operate at LOS B or better. As a result, the Proposed Action would not cause a significant adverse impact at any of the two crosswalk locations.

TABLE J-28: 2025 WITH ACTION CONDITION LEVEL OF SERVICE ANALYSIS - CROSSWALKS

				Peak Hour Volume								Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS			
	Crosswalk			Weekday						Saturday		Weekday			Sat	Weekday			Sat
Location	Leg	Length (ft)	Width (ft)	AM		MD		PM		MD		AM	MD	PM	MD	AM	MD	PM	MD
				IB	OB	IB	OB	IB	OB	IB	OB								
E 149th St & Southern Blvd	North	69.6	17.9	292	337	169	252	187	321	159	261	42	63	55	68	B	A	B	A
E 149th St & Southern Blvd	East	61.4	16.8	210	94	158	123	159	162	163	111	143	207	176	192	A	A	A	A

Parking Occupancy and Utilization

A total of 25 off-street parking spaces would be provided as part of the Proposed Action. The remaining vehicles generated by the Proposed Action were assigned to on-street parking spaces. Additionally, 88 off-street spaces would be removed in order to construct the Proposed Action. The demand associated with the 88 off-street spaces was assumed to be accommodated on-street.

As a result, the utilization of on-street parking spaces in the study area is expected to increase due to the auto trips generated by the Proposed Action. **Table J-30** shows the With Action Condition parking utilization analysis. The on-street parking spaces would have sufficient capacity to accommodate the project generated demand, with on-street parking utilization increasing to 93, 92, 86, and 82 percent during the Weekday AM, Weekday MD, Weekday PM, and Weekday Overnight peak hours, respectively. The on-street parking utilization for the Saturday MD peak hour would be 88 percent. Since there would be available on-street parking to accommodate the Proposed Action, there would be no significant adverse parking impacts.

TABLE J-30: 2025 WITH ACTION CONDITION
ON-STREET PARKING UTILIZATION SUMMARY

2025 With Action	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
Capacity	1894	1894	1894	1894	1894
Total No Build Demand	1611	1616	1473	1366	1484
Project Demand*	56	43	64	106	95
Off-Street Demand Shifted On-street	88	88	88	88	88
Total Demand	1755	1748	1625	1560	1667
Available Spaces	139	146	269	334	227
Utilization	**93%**	**92%**	**86%**	**82%**	**88%**

*On-street parking demand excludes the demand in the on-site, off-street parking facility, which accommodates 13, 10, 15, and 25 vehicles during the Weekday AM, MD, PM, and Overnight peak hours, respectively, and 21 vehicles during the Saturday MD peak hour.

X. SAFETY ASSESSMENT

Safety at Intersections

Crash data for the study area intersections were obtained from NYCDOT for the three-year time period between January 1, 2012 and December 31, 2014, and quantify the total number of reportable crashes (involving fatality, injury, or more than $1,000 in property damage), fatalities, and injuries during the study period, as well as a yearly breakdown of pedestrian- and bicycle-related crashes at each location. According to the *CEQR Technical Manual*, a high-crash location is one with more than 48 total reportable and non-reportable crashes or five or more pedestrian/bicycle injury crashes during any consecutive 12 months of the most recent three-year period for which data is available.

During this three-year period, 45 total crashes, including 10 pedestrian-related crashes and two bicycle-related crashes, occurred at the study area intersections. **Table J-31** depicts total crashes by intersection during the three-year period, as well as a breakdown of pedestrian and bicycle crashes by year and location. E 149th Street between the 145th Street Bridge and Oak Point Avenue, which includes the intersection with Southern Boulevard, is considered a Priority Corridor according to the *Bronx Vision Zero Pedestrian Safety Action Plan* (NYCDOT, 2015).

TABLE J-31: CRASH DATA[8,9]

#	Intersection	Crashes by Year											
		Total Crashes			Pedestrian			Bicycle			Combined Ped/Bike		
		2012	2013	2014	2012	2013	2014	2012	2013	2014	2012	2013	2014
1	E 149th St & Southern Blvd	1	8	6	1	6	3	0	1	1	1	**7**	4
2	E 147th St/Union Ave & Southern Blvd	1	1	3	0	0	0	0	0	0	0	0	0
3	E 147th St & Southern Blvd	1	2	2	0	0	0	0	0	0	0	0	0
4	E 147th St & Timpson Pl	0	0	0	0	0	0	0	0	0	0	0	0
5	E 145th St & Timpson Pl	0	0	0	0	0	0	0	0	0	0	0	0
6	E 144th St & Southern Blvd	1	1	1	0	0	0	0	0	0	0	0	0
7	E 144th St & Timpson Pl	0	0	0	0	0	0	0	0	0	0	0	0
8	Southern Blvd & Bruckner Blvd	9	5	3	0	0	0	0	0	0	0	0	0

Based on the crash data, the intersection of E 149th Street and Southern Boulevard would be classified as a high-crash location per the *CEQR Technical Manual*, as there were seven pedestrian/bicycle crashes in 2013, exceeding the threshold by two crashes. This intersection has crosswalks on the north, east, and south approaches (portions of the crosswalk markings are faded) and includes pedestrian countdown signals and advanced stop-bars. Drivers turning at this intersection are required to yield to pedestrians as there are no protected turning movements.

The Proposed Action would increase the vehicular and pedestrian activity at the intersection of E 149th Street and Southern Boulevard, which could exacerbate any potential safety issues at this location. However, the Proposed Action would add at most nine peak-hour vehicle trips to this intersection which represents only a 0.6% increase in total intersection volumes. Also, the implementation of the City-wide reduction in speed limit in 2015 (of which any potential effects on improving safety are not reflected in the 2012, 2013, and 2014 data) and elements of the engineering, planning, enforcement, and education action plan along Priority Corridors associated with Vision Zero are anticipated to improve safety at this

[8] Intersections that are highlighted reflect occurrence of 48 or more crashes (reportable and non-reportable) or five or more pedestrian/bike injury crashes in a twelve-month period.
[9] Source: NYSDOT January 1, 2012 to December 31, 2014 crash data.

intersection. Additional safety measures such as restriping the faded portions of the intersection crosswalk markings can be implemented to improve pedestrian safety at this intersection.

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 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 Action, fourteen lots on Block 2600 in the Bronx would be redeveloped into six primarily residential properties. Projected Development Site 1 at the corner of Timpson Place and E. 147th Place is the Applicant's site. The other five development sites include four additional Projected Development sites and one Potential Development Site as shown in **Table K-1: Affected Properties within Rezoning Area**. Under the rezoning action, the projected and potential development sites would affect air quality due to additional traffic, parking facilities, and emissions from boiler stacks. This chapter provides background information on air quality, describes the assessment methods and evaluation criteria, and determines the potential for impacts. The primary sources of concern are project-generated emissions from motor vehicles, emissions from boiler stacks, and emissions from industrial operations. Although the planned completion year is 2018, the assessment of impacts was carried out for 2025, consistent with the 2014 CEQR Technical Manual.

Table K-1:
Affected Properties within Rezoning Area

ID	Block	Lot	Existing Land Use
Projected Development Sites			
1*	2600	187, 222, 220, 213	Residential, parking
2	2600	30 (partial)	Medical and Mixed-Use Commercial/Residential
3	2600	96	Residential
4	2600	99, 100, 101, 103	Residential, industrial/manufacturing
5	2600	51	Vacant
Potential Development Sites			
1	2600	47, 49, 50	Residential

*Applicant's site
Source: Sam Schwartz Engineering

II. PRINCIPAL CONCLUSIONS

Based on the information and analyses provided in this chapter, no significant adverse impacts are projected as a result of the project. This includes the effects of the Proposed Action on the surrounding community and the effects of the surrounding community on the Proposed Action.

A screening analysis was carried out for CO and Particulate Matter (PM) from additional motor vehicles. The results showed that modeling of traffic air quality was warranted for $PM_{2.5}$ and PM_{10} at the intersection of E. 147th Street and Timpson Place. Modeling was carried out with MOVES2010b and CAL3QHCR. The results showed no potential for impacts.

A screening analysis for parking showed that no air quality analysis of the proposed garage is required. The size of the garage would not be large enough to cause concern for potential CO impacts.

A screening analysis for boiler stack emissions (HVAC) for the Proposed Action showed that it would screen out. No major sources are within 1,000 feet of the Proposed Action. A project-on-project analysis was carried out for HVAC stacks for the sprojected and potential development sites. Some development sites screened out and some were analyzed further using AERMOD modeling. No significant adverse impacts are projected providing that developers adhere to the recommended mitigation measures outlined in the e designations for specific buildings and fuel types.

NYCDEP was contacted for a list of permitted industrial facilities within 400 feet of the Proposed Action. Two active operational permits were found, one for a drycleaner and one for a studio. The drycleaner did not require analysis because all permitted drycleaners are required to have a closed system that does not emit pollutants into the outdoors. The studio, a woodworking facility, was evaluated with the industrial source screen; it did not show potential impacts to the Proposed Action.

III. METHODOLOGY

Standards and Guidelines

National Ambient Air Quality Standards

National Ambient Air Quality Standards (NAAQS) were promulgated by The U.S. Environmental Protection Agency (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) is a heavy metal principally associated with industrial sources.
- Nitrogen dioxide (NO_2), which is formed by chemical conversion from nitric oxide (NO), which is emitted primarily by industrial furnaces, power plants, and motor vehicles.
- Ozone (O_3), a principal component of smog, is formed through a series of chemical reactions between hydrocarbons and nitrogen oxides in the presence of sunlight.
- Inhalable Particulates (PM_{10}/$PM_{2.5}$) 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 10 micrometers or less. The $PM_{2.5}$ standard covers particulates with diameters of 2.5 micrometers or less.
- Sulfur dioxides (SO_2) are heavy gases primarily associated with the combustion of sulfur-containing fuels such as coal and oil.

Table K-2: National and New York State Ambient Air Quality Standards shows the New York and National Ambient Air Quality Standards, as well as monitored values at stations closest to the site.

Table K-2:
National And New York State Ambient Air Quality Standards

Pollutant	Averaging Period	Standard
Sulfur Dioxide	1-hour average[e]	197 µg/m^3 (75 ppb)
	3-hour average	1300 µg/m^3 (0.50 ppm)
Inhalable Particulates (PM_{10})	24-hour average	150 µg/m^3
Inhalable Particulates ($PM_{2.5}$)	3-yr average annual mean	12 µg/m^3
	Maximum 24-hr. 3-yr. avg.[d]	35 µg/m^3
Ozone	Maximum daily 8-hr avg.[b]	0.075 ppm
Carbon Monoxide	8-hour average[a]	9 ppm
	1-hour average[a]	35 ppm
Nitrogen Dioxide	12-month arithmetic mean	100 µg/m^3 (53 ppb)
	1-hr 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 8-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 3 years).
d. Three-year average of the 98th percentile of the daily maximum 1-hour average, effective January 22, 2010.
e. Three-year average of the 99th percentile of the daily maximum 1-hour average, final rule signed June 2, 2010.
Sources: New York State Department of Environmental Conservation; New York State Ambient Air Quality Development Report, 2014; New York City Department of Environmental Protection, 2014.

NYC De Minimis Criteria and Interim Guidelines

For carbon monoxide from mobile sources, the 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 8-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 8-hour average carbon monoxide concentration at a location where the predicted No Action 8-hour concentration is equal to or above 8 ppm.
- An increase of more than half the difference between the baseline (i.e., No Action) concentrations and the 8-hour standard, where No Action concentrations are below 8 ppm.

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 ug/m^3 at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or 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 (2014), which lists a background value of 25.7 ug/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 4.7 ug/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 New York State Department of Environmental Conservation (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 1-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, NYCDEP 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 10 times the AGC are not considered significant. This is because NYSDEC developed the AGCs for these pollutants by reducing the health risk criteria by a factor of 10 as an added safety measure. In determining potential impacts, therefore, NYCDEP 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 NYCDEP, 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 (NAA) as geographic regions that have been designated as not meeting one or more of the NAAQS; and (2) requires states to submit to 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 a nonattainment area for $PM_{2.5}$. As of April 18, 2014, EPA redesignated the 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 2014 as follows:

- 45.4 µg/m^3 for the 1-hour SO_2 concentration (IS52),
- 40.6 µg/m^3 for the annual NO_2 average (IS52),
- 109.3 ug/m^3 for the 1-hour NO_2 average (Botanical Gardens),
- 29 µg/m^3 for the 24-hour PM_{10} average (IS52),
- 25.7 ug/m^3 for the 24-hour $PM_{2.5}$ average (Botanical Gardens),
- 9.3 ug/m^3 for the annual $PM_{2.5}$ average (Botanical Gardens),
- 2.2 ppm for the 1-hour CO average (Botanical Gardens), and
- 1.3 ppm for the 8-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. MOVES2010b was used to obtain pollutant emission factors for free-flow links in grams/vehicle-mile. The vehicular mix and speeds used in MOVES2010b were obtained from the traffic study. 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 $PM_{2.5}$.

MOVES2010b was run for January 1st for the 2025 Build Year for the weekday PM peak period (5 pm to 6 pm). 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 emission factors calculated by MOVES2010b.

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.

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 intersections, and additional points were modeled 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 La Guardia Airport. Each computer run covered wind angles from 0 to 360 degrees and identified the worst-case wind angle for each receptor point. A surface roughness of 175 centimeters (cm) was used in the modeling.

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 $PM_{2.5}$, 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

Screening Nomographs

The first step in the HVAC analysis is a screening analysis using Figure 17-5 (SO_2 boiler screen for residential #2 fuel oil) from the 2014 *CEQR Technical Manual Appendices*. The size of the development is plotted against the distance to the receptor building. As a worse-case analysis for screening purposes, the distance between a stack and the nearest building of similar or greater height is assumed to be the distance between the lot lines for the two buildings. If the site passes the screen then no further analysis is necessary. If it fails, a more detailed analysis is carried out. If the detailed analysis shows potential for impacts, then a screen for natural gas using Figure 17-7 (NO_2 boiler screen for residential natural gas) is carried out.

Figures 17-5 and 17-7 are applicable to buildings where the lot lines are at least 30 feet apart. If the plotted point is on or above the applicable curve, the potential for a significant air quality impact exists, and further analysis is required using AERSCREEN or AERMOD modeling. If the distance between the lots is less than 30 feet, a more detailed analysis must be carried out, and no nomograph is necessary.

AERMOD Modeling

AERMOD, designed to support 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.

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.

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 1,700,000, and the default urban surface roughness length of 1.0 m was used for the site.

Stack parameters. EPA defines GEP (good engineering practice) 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.
- Btu for the source buildings was calculated as 60.3 thousand Btu per sq. ft. of heated area. Resulting Btu for the source buildings ranged from 0.43 to 2.49 MMBtu per hour. Therefore, all stacks were assumed to have diameters of 1.0 feet per the most recent NYCDEP CA permit database.

- Per guidance from the NYC Department of City Planning, the stack parameters are based on the NYCDEP "CA Permit[1]" 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 less than 5 million BTU per hour. For boilers of this size, the stacks were assigned an exhaust temperature of 300.0° F[2] and an inside stack diameter of 1.0 feet. The average exhaust velocity provided by the CA database was 7.8 m/s.

- Stacks were assumed to be three feet higher than the roof or mechanical bulkhead. They were placed as close as feasible to the receptor buildings, but at least 10 feet from the edge of the roof.

- Per discussions with NYC DEP on previous projects, the equilibrium ratio was set to 0.3, and the in-stack ratio was 0.5.

Pollutants. Pollutants included NO_2 (1-hour, annual) and $PM_{2.5}$ (24-hour, annual) from natural gas, and SO_2 (1-hour), PM_{10} (24-hour), and $PM_{2.5}$ (24-hour, annual) from #2 fuel oil. No modeling of the 3-hour concentration for SO2 was done because the NAAQS is much higher than for the 1-hour concentration. If no impacts are modeled for the 1-hour period, none would occur for the 3-hour period.

- Emission factors for natural gas were based on an annual consumption rate of 45.2 cubic feet of natural gas per square foot for a residential structure, as indicated in the NYC *CEQR Technical Manual (2012).* The annual consumption of natural gas, in cubic feet, was converted to pounds using a multiplier of 100 or 50 for a low 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 lbs/1 million scf.

- The SO2 emission factors for #2 oil assumed the use of low sulfur #2 oil with a sulfur content of 0.0015%, and an emission factor of 0.213 lbs/1000 gallons of oil.

- PM_{10} from #2 oil used an emission factor of 2.38 lbs/1,000 gallons of fuel.

- $PM_{2.5}$ from #2 oil used an emission factor of 2.13 lbs/1,000 gallons of fuel.

The resulting annual emissions were converted to hourly emission rates in grams/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.

For NO_2, the calculated emission factors were used in the AERMOD model. For all other pollutants, the model was run using a generic emission factor of 1 g/s. The results were then multiplied by the calculated emission factors to determine the modeled concentrations.

Meteorological Data. The model was run with data from LaGuardia Airport for 2010 through 2014. The upper air station used with La Guardia 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] CA refers to Combustion Applicable

[2] Preliminary runs show this results in higher concentrations than the 293º shown in the *CEQR Technical Manual*

Receptors.

- If the two buildings were the same height and were contiguous, receptor points on the receiving building were assumed to be at the same height and below the source building. Otherwise, a set of receptors was placed on the exterior wall of the receiving building.
- If a receptor building was taller than the source building, a line of five receptors was placed at the same height as the stack, one floor higher than the stack, and one floor lower than the stack.
- Receptors were also placed on the sidewalks in front of the receptor buildings at a height of 1.8 meters.
- Review of the building configurations showed that no Development Sites would create clusters for a cumulative analysis.

Industrial Source Screen

The 2014 NYC *CEQR Technical Manual* provides pollutant concentrations (µg/m^3), at various distances, from a source emitting 1 g/s of a generic pollutant. **Table K-3: Generic Pollutant Concentrations for Industrial Source Screen** shows the generic table from the NYC *CEQR Technical Manual (2014).* Industrial sources typically emit pollutants at a lower rate than 1 g/s. Thus, the emissions would be scaled downward accordingly. For example, if a stack was 65 feet from the project site and emitted a pollutant at a rate of 0.004158 grams/second, it would have a 1-hour concentration of 124 µg/m^3 (29,719 × 0.004158). This concentration would be compared with the NYSDEC SGC for that pollutant to determine whether an impact was likely.

The Industrial Source Screen is very conservative. It assumes that all inputs represent worst-case conditions for meteorology, stack temperature, exhaust velocity, and other variables. Both the receptor height and stack height are assumed to be 20 feet high, which places the receptor in the centerline of the pollutant plume. A site which fails the Industrial Source Screen would be analyzed using AERMOD and five years of meteorological data. Because AERMOD uses meteorology and building configurations that are specific to the location, it is considered to be less conservative, but more accurate, than the Industrial Source Screen. Thus, an AERMOD analysis would generally show lower concentrations than the Industrial Source Screen.

Table K-3
Generic Pollutant Concentrations for Industrial Source Screen

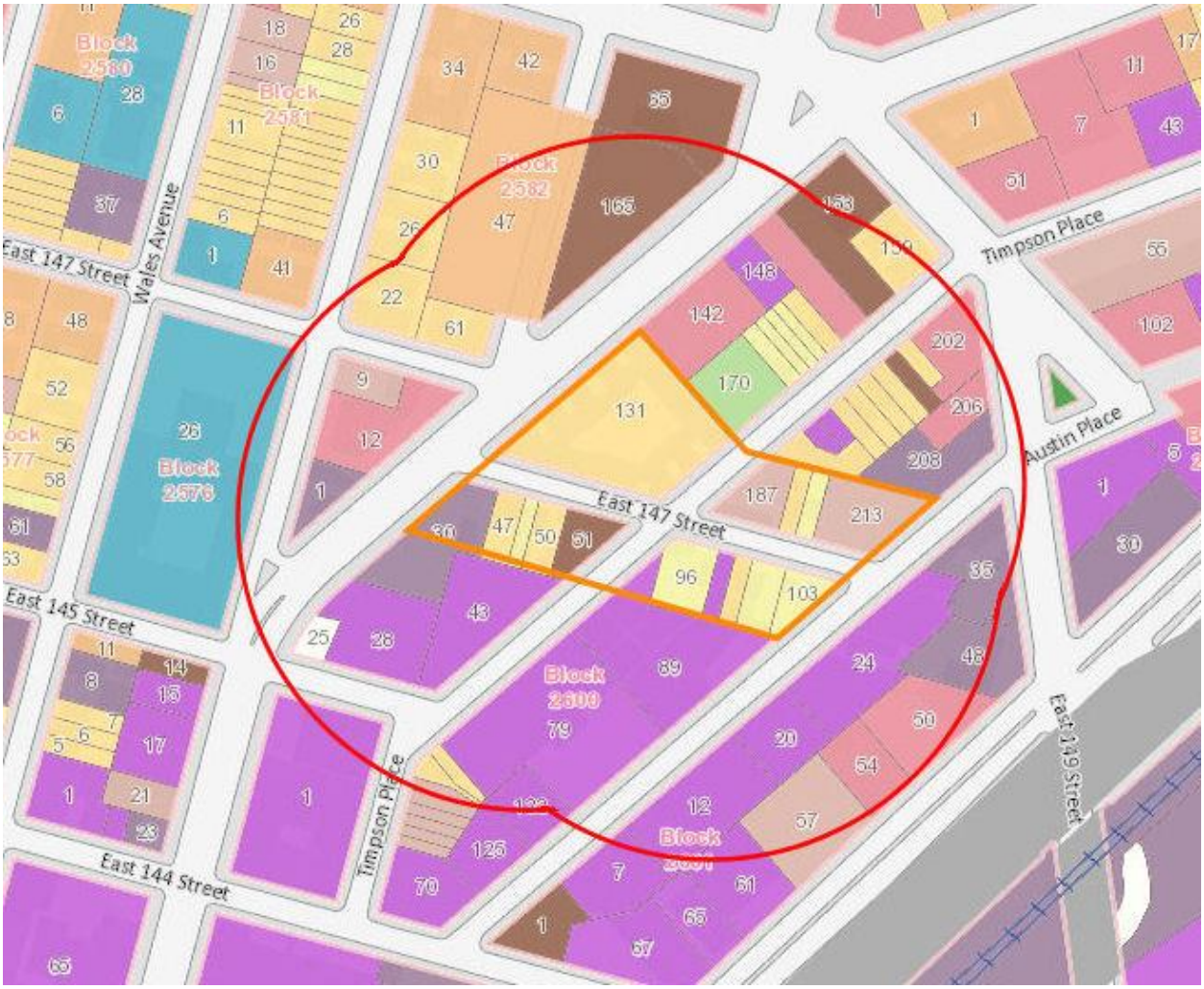
Generic Pollutant Concentrations (1 g/s emission rate)				
Distance from Source (ft)	**Averaging Periods (µg/m^3)**			
	1 Hour	**8-Hours**	**24 Hours**	**Annual**
30	126,370	64,035	38,289	6,160
65	27,787	15,197	8,841	1,368
100	12,051	7,037	4,011	598
130	7,345	4,469	2,511	367
165	4,702	2,967	1,643	236
200	3,335	2,153	1,174	167
230	2,657	1,720	924	131
265	2,175	1,377	727	103
300	1,891	1,142	594	84
330	1,703	991	509	73
365	1,528	857	434	62
400	1,388	755	377	54

Note: Numbers in bold indicate the distance & concentrations used for the screen analysis
Source: NYC CEQR Technical Manual (2014).

IV. PRELIMINARY ASSESSMENT

Preliminary assessments were carried out for traffic air quality, parking, heating, ventilation and air conditioning (HVAC), and air toxics. Except for Southern Boulevard and the Bruckner Boulevard/Expressway, traffic volumes on local streets are low. **Figure K-1: Project Site and Surrounding Land Uses within 400 Ft** shows the Project Development Site and surrounding land uses within 400 feet. The rezoning area is largely composed of residential and commercial uses. However, some industrial uses are within the rezoning area, and a substantial number of industrial uses are south and east of the rezoning area.

Figure K-1:
Project Site and Surrounding Land Uses within 400 Ft



Source: OASIS Map

Traffic Air Quality

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. **Table K-4: 2025 Traffic Volumes** shows the projected traffic volumes for the study area for 2025. The project would generate a maximum of 61 auto trips during the peak AM period, 32 during the Midday period, 66 during the PM period, and 56 during the Saturday Midday period. The worst-case increment of 66 vehicles would occur at the intersection of E. 147th Street and Timpson Place during the weekday PM peak period.

Table K-4:
2025 Traffic Volumes

ID	Intersection	No Action	Action	Increment
AM				
1	E. 149th Street & Southern Boulevard	1,467	1,476	9
2	E. 147th St. & Timpson Place	107	181680	61
Midday				
1	E. 149th Street & Southern Boulevard	1,206	1,208	2
2	E. 147th St. & Timpson Place	127	159	32
PM				
1	E. 149th Street & Southern Boulevard	1,456	1,462	6
2	E. 147th St. & Timpson Place	149	215	66
Saturday				
1	E. 149th Street & Southern Boulevard	1,188	1,193	5
2	E. 147th St. & Timpson Place	111	167	56

Source: Sam Schwartz Engineering.

Localized increases in CO levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of the Proposed Action. 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. For this area of the City, the threshold volume for modeling CO concentrations using MOVES2010b and CAL3QHC or CAL3QHCR is an increment of 170 vehicles through an intersection during a peak traffic hour. The highest increment of 77 vehicles would not trigger the 170-vehicle threshold. Therefore, no CO modeling is required.

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 heavy duty diesel vehicles (HDDVs) that would generate equivalent emissions. The equivalent number of HDDVs varies by type of road. Based on guidance from 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.

Table K-5: NYCDOT Functional Classifications within Project Area shows the New York State (NYSDOT) functional classifications for the roadways within the project area. 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.

Table K-5:
NYCDOT Functional Classifications within Project Area

Roadway	From	To	NYS Urban Code	Urban Classification
E. 147th St.	Southern Blvd.	Austin Place	19	Local
Austin Place	E. 144th St.	E. 149th St.	19	Local
Timpson Place	E. 144th St.	Bruckner Blvd.	19	Local
E. 149th St.	Austin Place	Timpson Place	19	Local
Southern Blvd.	Bruckner Blvd.	E. 163rd St.	16	Minor arterial
Bruckner Blvd.	E. 135th St.	E. 149th St.	14	Principal arterial

Source: New York State Functional Class Maps.

Based on **Table K-5**, the roadways within the study area are local except for Southern Boulevard and Bruckner Boulevard, which are arterials. Local roads are treated as paved roads with average daily traffic of fewer than 5,000 vehicles.

As shown in **Table K-4**, the highest increment would be 66 vehicles at E. 147th Street and Timpson Place. These are both local roads, and the equivalent truck calculations showed that the increment is equivalent to 32 diesel trucks. It fails the screen for local roads (13 HDDV) and requires a more detailed analysis of $PM_{2.5}$ and PM_{10} using MOVES 2010b and CAL3QHCR. Although other intersections would also fail the screen, this intersection 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:

E. 147th St. @ Timpson Place

This is presented under Section V Detailed Assessment.

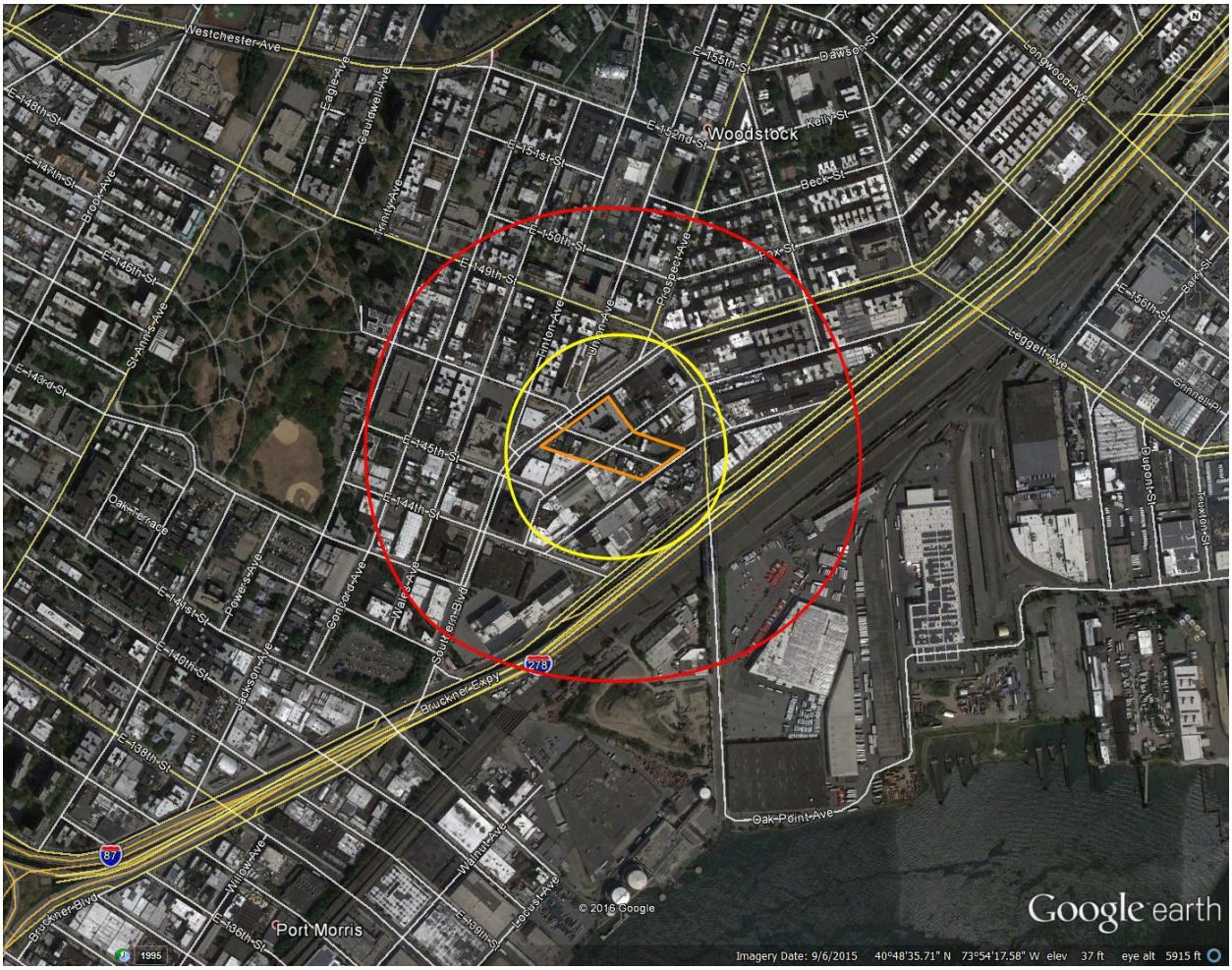
Parking Facilities

The applicant proposes to provide 25 spaces of underground parking within the proposed development. Based on Table 16-1 in the Transportation chapter of the *NYC CEQR Technical Manual*, this number of off-street spaces would not require analysis.

Heating Ventilation and Air Conditioning (HVAC)

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. **Figure K-2: Area within 400-Ft and 1000-Ft of the Proposed Action** shows the 400- and 1000-foot radii for the Proposed Action.

Figure K-2:
Area within 400-Ft and 1000-Ft of the Proposed Action



Source: Google Earth

Existing Buildings on Proposed Action

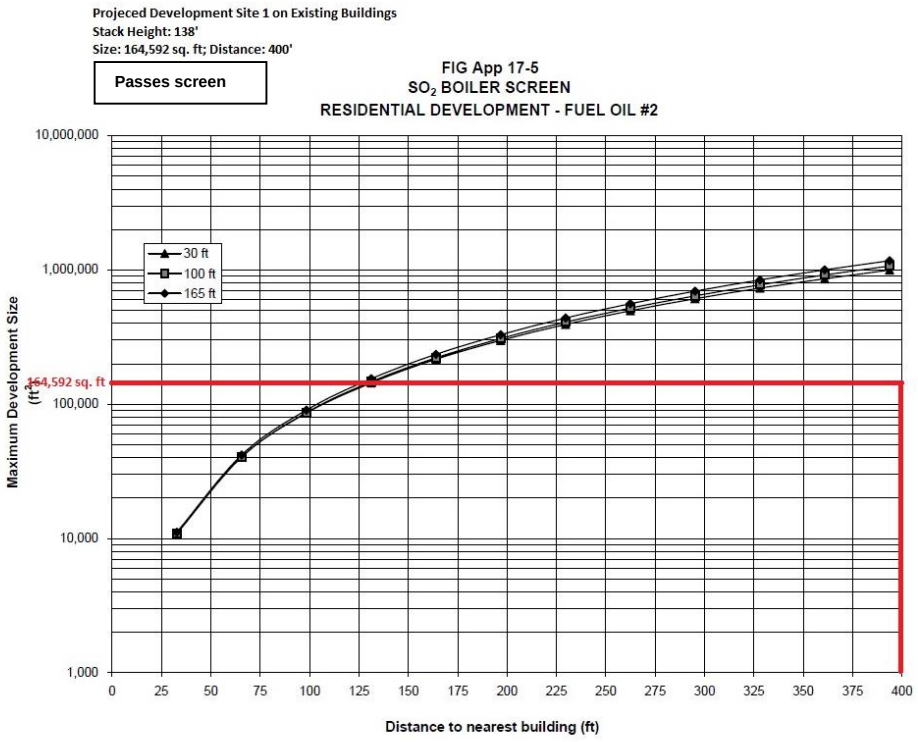
No existing large or major HVAC sources were identified within the 1,000-foot study area. The only site of interest was the Mott Haven Con Edison Substation at 415 Bruckner Boulevard (Block 2599, Lot 5) approximately 600 feet southeast of the rezoning boundary. A search of DEP records turned up three permits. Permit PB024306R is for an emergency power generator using #2 diesel fuel. It is operated only one hour per day one day per week. As an emergency generator, it does not warrant additional analysis. No permits were found in the State Facility or Title V permits were found for this facility on the NYSDEC website. As a substation, it distributes electricity but does not generate electricity. Based on this available information no further analysis of existing HVAC emissions on the proposed project is required for CEQR purposes.

Proposed Action on Existing and Future Buildings

The Proposed Development would be 12 stories (125 feet) high with a total square footage of 164,592 gross sq. ft. A 10-foot high bulkhead would be on the roof, bringing the total height to 135 feet. If the stack for the boiler were on top of the bulkhead and were 3 feet high, the release height for boiler emissions would be 138 feet. The nearest building of similar or greater height would be the new 13-floor residential structure under construction at 501 Southern Boulevard (Block 2582, Lots 47, 65, and 165). It is 125 feet high and about 340 feet away. In this case, the Proposed Development would screen out because the stack would be higher than any other building within 400 feet.

Figure K-3: Proposed Development on Existing Buildings, Fuel Oil #2 shows the screening analysis using Figure 17-5 (*SO2 Boiler Screen for Residential Development, Fuel Oil #2 Oil*) from the NYC *CEQR Technical Manual* (2014) as a worst-case analysis. The graph shows that the stack height would be sufficient to avoid significant impacts. Thus, no further analysis of the Proposed Development's HVAC stacks on existing land uses is required.

Figure K-3: Proposed Development on Existing Buildings, Fuel Oil #2



The Proposed Action may result in development on other sites within the rezoning area. This includes seven projected sites that are likely to be developed within a 10-year planning horizon and five potential sites that may not be developed within the 10-year planning horizon but may be developed within a reasonable period thereafter. Because some of these sites are contiguous to each other, existing buildings, and/or the Proposed Development Site, AERMOD modeling would be required for the analysis. Therefore, all

projected and potential development sites not controlled by the Applicant are analyzed in Section V, Detailed Assessment.

Air Toxics and Odors

A variety of commercial, residential, industrial, and transportation-oriented uses are located near the property. According to the *2014 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 Manual lists the following types of uses as a source of concern for the residential uses that would occur under the proposed action:

- large emission source (e.g., solid waste or medical waste incinerators, cogeneration facilities, asphalt and concrete plants, or power generating plants) within 1,000 feet,
- a medical, chemical, or research laboratory nearby,
- a manufacturing or processing facility within 400 feet, and
- an odor producing facility within 1,000 feet.

As part of the air toxics analysis, on-line searches of NYSDEC's Air Permit Facilities Registry and EPA's Facility Registry System for permitted facilities, an on-line search of data provided by the NYC Department of Buildings, New York City's Open Accessible Space Information System Cooperative (OASIS) data base, and available aerial photos provided by Google and Bing were carried out. Field reconnaissance further augmented the gathering of information.

No large emission sources or medical, chemical, or research laboratories were identified within the search radii. No odor producing facilities were found. However, a variety of commercial, manufacturing, or processing facilities likely to have NYC operational permits are present within 400 feet of the rezoning boundaries. A list of these sites was sent to the New York Department of Environmental Protection (NYCDEP) for a permit search. They are shown in **Table K-6: Sites of Interest for Air Toxics within 400 Feet of Rezoning Area**. Five of them are in the rezoning area. Of these, four are Projected Development Sites.

NYCDEP found operational permits for two of the sites:

- Personal Touch Dry Cleaner at 421-423 Austin Place,
- Inform Studios, Inc., at 480 Austin Place, and

No permits were found for Amaro Auto Body at 872 E. 149th Street. However, the firm's online website does not list auto body work or auto painting among the available auto repair services. No permits were found for the Con Edison Substation other than the one for an emergency generator that was discussed previously. The two sites with permits for industrial processes are discussed below.

Table K-6: Sites of Interest for Air Toxics within 400 Feet of Rezoning Area

ID	Address(es)	Block	Lot	Land Use Code	Notes	Field Observation
1	522 Southern Blvd.	2600	148	E9-Warehouse	Projected Development Site 4	Warehouse
2	518 Timpson Pl.	2600	193	E1-Warehouse	Projected Development Site 4	Warehouse - All American Heating
3	520 Timpson Pl.	2600	194	E1-Warehouse	Projected Development Site 4	Warehouse
4	872 149th St.	2600	202	K1-Store Building	In rezoning area	Auto Body – Amaro Auto Body Shop
5	450 Southern Blvd.	2600	28	F9-Factory/Ind.		Warehouse - Utility Warehouse & Garage
6	447 Timpson Pl.	2600	43	E9-Warehouse		Warehouse
7	430 Southern Blvd.	2600	1	F1-Factory/Ind.		K&B Furniture
8	423 Austin Pl.	2600	70	F9-Factory/Ind.		Dry Cleaner – Personal Touch Valet
9	829 East 144 St.	2600	70	F9-Factory/Ind.		Longo Electrical NY - Warehouse
10	425 Austin Pl.	2600	125	F9-Factory/Ind.		Office & Warehouse
11	435 Austin Pl.	2600	122	E9-Warehouse		Glass Work Electrician Warehouse
12	450 Timpson Pl.	2600	79	E9-Warehouse		Warehouse - Smolka Co. Plumbing
13	476 Timpson Pl.	2600	89	F4-Factory/Ind.		Warehouse - Mech Heating Supply
14	868 East 147 St.	2600	99	E9-Warehouse	Projected Development Site 5	Warehouse
15	421 Bruckner Blvd.	2601	67	E9-Warehouse		Warehouse
16	429 Bruckner Blvd.	2601	65	E9-Warehouse		Vacant
17	433 Bruckner Blvd.	2601	61	F9-Factory/Ind.		Rearden Metalworks
18	432 Austin Pl.	2601	7	F9-Factory/Ind.		Various Workshops/Warehouse
19	450 Austin Pl.	2601	12	E9-Warehouse		Warehouse
20	470 Austin Pl.	2601	20	E9-Warehouse		Rigging Consultant/Midway Electric Data Supply
21	476 Austin Pl.	2601	24	F9-Factory/Ind.		Lightning Warehouse
22	480 Austin Pl.	2601	24	F9-Factory/Ind.		Woodwork Shop
23	515 Bruckner Blvd.	2602	5	E9-Warehouse		New York Beverage
24	891 East 149 St.	2602	1	E9-Warehouse		Milea Truck Sale Leasing
25	581 Austin Pl.	2603	83	E9-Warehouse		Farm Fresh Products
26	571 Timpson Pl.	2603	43	E1-Warehouse		Warehouse
27	785 East 144 St.	2576	1	F4-Factory/Ind.		Chik Chok Woodworking
28	431 Southern Blvd.	2576	17	E9-Warehouse		Prince Custome Jewelry
29	441 Southern Blvd.	2576	15	E9-Warehouse		Sabrosos Clothing Warehouse wholesale
30	791 East 144 St.	2576	25	F9-Factory/Ind.		D.S. Iron Work
31	457 Southern Blvd.	2582	1	G9-Garage/Gas Sta		Auto Body Repair & Hand Car Wash
32	415 Bruckner Blvd.	2599	5	U0- Utility Bureau Pr		Con Edison Sub Station – Mott Haven

Note: Sites in bold type have NYCDEP operational permits

Personal Touch Valet Wholesale

Personal Touch Valet Wholesale at 421 Austin Place (Block 2600, Lot 70) has two active operational permits for its dry cleaning equipment: PB0576037 and PB057703M. Both are for 4th generation, non-vented, totally enclosed dry cleaning machines with closed exhaust systems. They do not emit pollutants into the outside air. Dry cleaning equipment is regulated and inspected under a separate requirement. Therefore, further analysis is not warranted.

Inform Studios, Inc.

Inform Studios, Inc., at 480 Austin Place (Block 2601, Lot 24) is a cabinet maker specializing in cabinets, book cases, and custom millwork. The firm has two active operational permits. PB012011M is for particulate emissions from woodworking equipment. PB475303J is for a spray paint booth. Emissions from this facility are analyzed in more detail in Section V, Detailed Assessment.

V. DETAILED ASSESSMENT

Future without the Proposed Action

Under No Action Conditions, given the current development trend in the neighborhood and the existing M1-2 zoning classification, the Applicant is unlikely to develop or change the use of the Development Site (Lots 187, 222, 220, and 213 in Block 2600). Absent the Proposed Action, only one of the other development sites is likely to change. The No Action scenario for Projected Development Site 2 is 11,700 sf of retail and commercial development as allowed under the existing M1-2 zoning. All other lots would remain in their existing conditions. Based on coordination with the Bronx Office of NYCDCP, no other known ongoing or proposed development has been identified for the Project Area.

Additional commercial/retail development is also unlikely due to the Development Site's close proximity to the Crossroad Plaza III construction at Lot 165 and 65 in Block 2582, which will include 17,000 sf of commercial space on-site. In addition, the lack of current and past development considerations on both projected and potential development sites further suggests that no future developments will occur within the 10-year planning horizon.

HVAC Analysis, Future without the Proposed Action

No analysis of HVAC boiler emissions is required for the Future without the Proposed Action. The development that may occur on Projected Development Site 2 is as-of-right.

Traffic Air Quality, Future without the Proposed Action

Traffic air quality was analyzed for the Future without the Proposed Action for purposes of comparison with the Future with the Proposed Action. EPA's MOVES2010b model was used to obtain emission factors and CAL3QHCR was used to obtain pollutant concentrations as described in the Methodology section. **Table K-7: Mobile Source PM_{10} ($\mu g/m^3$), 2025 No Action Conditions** shows the results for PM_{10}. The highest value was at the southwest corner of the intersection.

Table K-7
Mobile Source PM_{10} ($\mu g/m^3$), 2025 No Action Conditions

Intersection	Receptor ID	24-Hour Modeled Value ($\mu g/m^3$)	Background ($\mu g/m^3$)	Total ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
E. 147th St. & Timpson Pl.	19, SW corner of intersection	4.2 (2011)	29.0	33.2	150

Source: Sandstone Environmental Associates, Inc.

Table K-8: Mobile Source $PM_{2.5}$ ($\mu g/m^3$), 2025 No Action Conditions shows the modeled results for $PM_{2.5}$. The highest modeled values for the 24-hour and annual concentrations were at the southwest corner of the intersection.

Table K-8:
Mobile Source $PM_{2.5}$ ($\mu g/m^3$), 2025 No Action Conditions

Time Period	Intersection	Receptor ID	Concentration (µg/m3)
24-Hour	E. 147th St. & Timpson Pl.	19, SW corner of intersection	1.09 (2011)
Annual	E. 147th St. & Timpson Pl.	272, SW corner of intersection	0.0143 (2011)

Notes: NA = not applicable to No-Action concentrations
Source: Sandstone Environmental Associates, Inc.

Future with the Proposed Action

Under the Proposed Action, fourteen lots on Block 2600 in the Bronx would be redeveloped into six primarily residential properties. As discussed under the Preliminary Assessment, detailed analyses are warranted for traffic air quality, HVAC for project-on-project impacts, and air toxics for Inform Studio. The completion year is 2018.

Traffic Air Quality

Traffic air quality modeling was carried out using MOVES2010b for emission factors and CAL3QHCR for the dispersion model as described in the Methodology section. **Table K-9: Mobile Source Pm_{10} (ug/m^3), 2025 With Action Conditions** and **Table K-10: Mobile Source $Pm_{2.5}$ (ug/m^3), 2025 With-Action Conditions** 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 ug/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 NYC de minimis criteria of 4.7 $\mu g/m^3$ for the 24-hour averaging period and 0.1 for the annual period. No significant adverse impacts are projected.

Table K-9
Mobile Source Pm_{10} (ug/m^3), 2025 With Action Conditions

Intersection	Receptor ID	24-Hour Modeled Value ($\mu g/m^3$)	Background ($\mu g/m^3$)	Total ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)
E. 147th St. & Timpson Pl	19, SW corner of intersection	5.9 (2011)	29.0	34.9	150

Source: Sandstone Environmental Associates, Inc.

Table K-10:
Mobile Source $Pm_{2.5}$ (ug/m^3), 2025 With-Action Conditions

Time Period	Intersection	Receptor	No-Action Concentration	With-Action Concentration	Difference	De Minimis
24-Hour	E. 147th St. & Timpson Pl	19, SW corner of intersection	1.09	1.20	0.11	4.7
Annual	E. 147th St. & Timpson Pl	272, SW corner of intersection	0.014	0.018	0.004	<0.1

Source: Sandstone Environmental Associates, Inc.

HVAC

Table K-11: Affected Properties Within Rezoning Area shows the affected properties and their anticipated development within the planning horizon. **Figure K-4: Projected Development Sites** shows their locations. Projected Development Site 1 is the Applicant's Development Site. It would be a residential building with 164,592 sf and a maximum height of 135 feet, which includes the elevator bulkhead. The Proposed Action may result in development on other sites within the rezoning area. This includes six other projected sites that are likely to be developed within a 10-year planning horizon and five potential sites that may not be developed within the 10-year planning horizon but may be developed within a reasonable period thereafter.

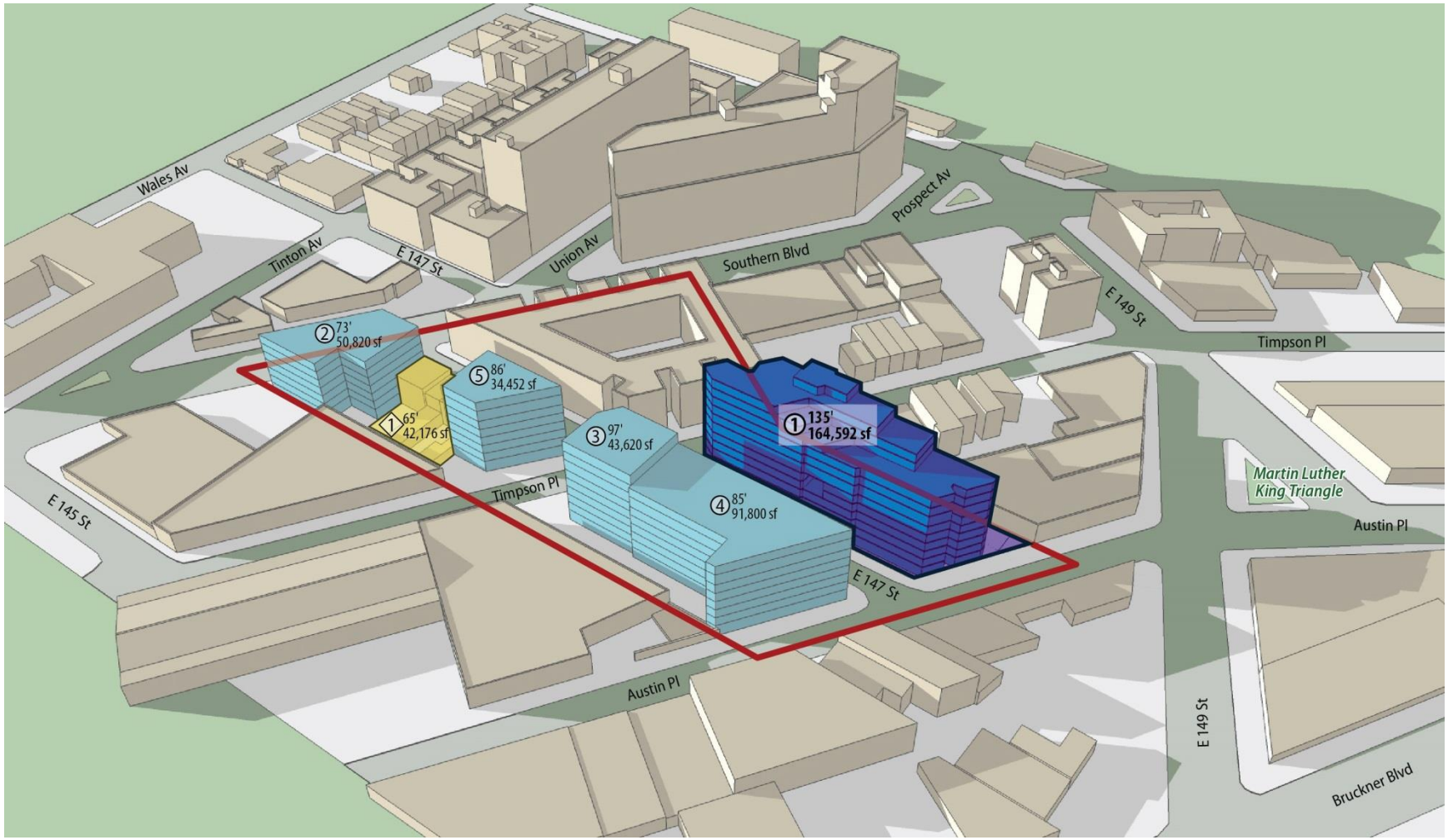
Lot 89 in Block 2600 was not considered to be either a projected or potential development site because only a small portion of the lot is included within the Project Area. Lot 131 was excluded due to an existing multi-family residential building determined to have low redevelopment potential.

Table K-11:
Affected Properties Within Rezoning Area

ID	Block	Lots	Height (ft)	Stories	Gross Floor Area (sq. ft)	Proposed Development
Projected Development Sites						
1	2600	187, 222, 220, 213	135	12	164,592	Residential
2	2600	30 (partial)	73	8	99,294	Medical and Mixed-Use Commercial/Residential
3	2600	96	97	9	43,620	Residential
4	2600	99, 100, 101, 103	85	8	91,800	Residential
5	2600	51	86	8	34,452	Residential
Potential Development Sites						
1	2600	47, 49, 50	65	6	42,176	Residential

Note: Lots in bold type represent the Applicant's site.
Source: Sam Schwartz Engineering

Figure K-4: Projected Development Sites



Legend: Dark blue = Applicant's projected development site
Light blue = Projected development sites (numbers in circles)
Yellow = Potential development sites (numbers in diamonds)

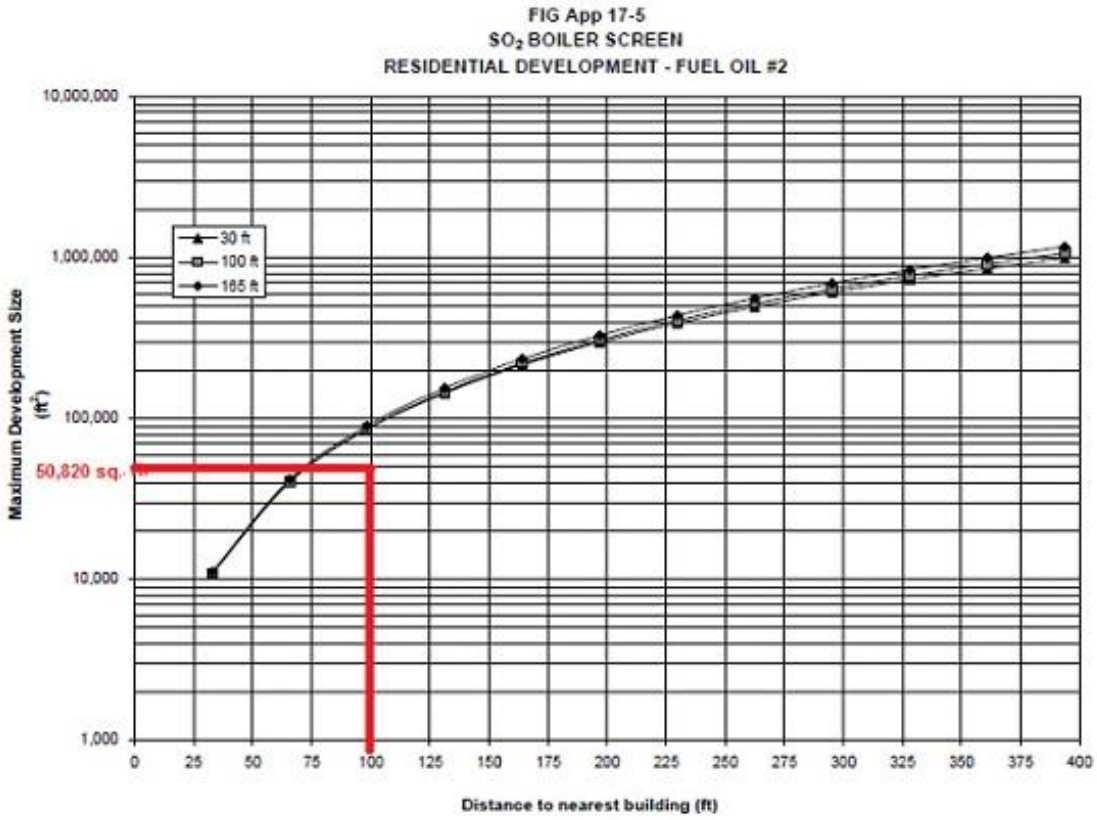
Project on Project Analysis, Fuel Oil #2. The preliminary assessment indicated the potential for project-on-project impacts for some Projected and Potential Development sites due to their proximity to each other. **Table K-12: Project-On-Project Boiler Screen, Fuel Oil #2** shows the results of the screening analysis using Figure 17-5 (*SO_2 Boiler Screen, Residential Development, Fuel Oil #2*) from the NYC *CEQR Technical Manual.* The applicant's site screens out, as was shown in **Figure K-3**. **Figures K-5 through K-8** show the screens for the other five development sites.

Table K-12:
Project-On-Project Boiler Screen, Fuel Oil #2

Development Site ID	Stack Ht. (ft.)	Heated Area (sq. ft.)	Receptor Building	Distance (ft.)	Comments
Projected 1	138	164,592	NA	400+	Screens out (See Figure K-3)
Projected 2	76	50,820	Projected 5	100	Screens out (See Figure K-5)
Projected 3	100	43,620	Projected 1	50	Use AERMOD (See Figure K-6)
Projected 4	88	91,800	Projected 1	50	Use AERMOD (See Figure K-7)
Projected 4	88	91,800	Projected 3	0	Use AERMOD
Projected 5	89	34,452	Projected 3	60	Use AERMOD (See Figure K-8)
Potential 1	68	42,176	Projected 2 & Projected 5	0	Use AERMOD

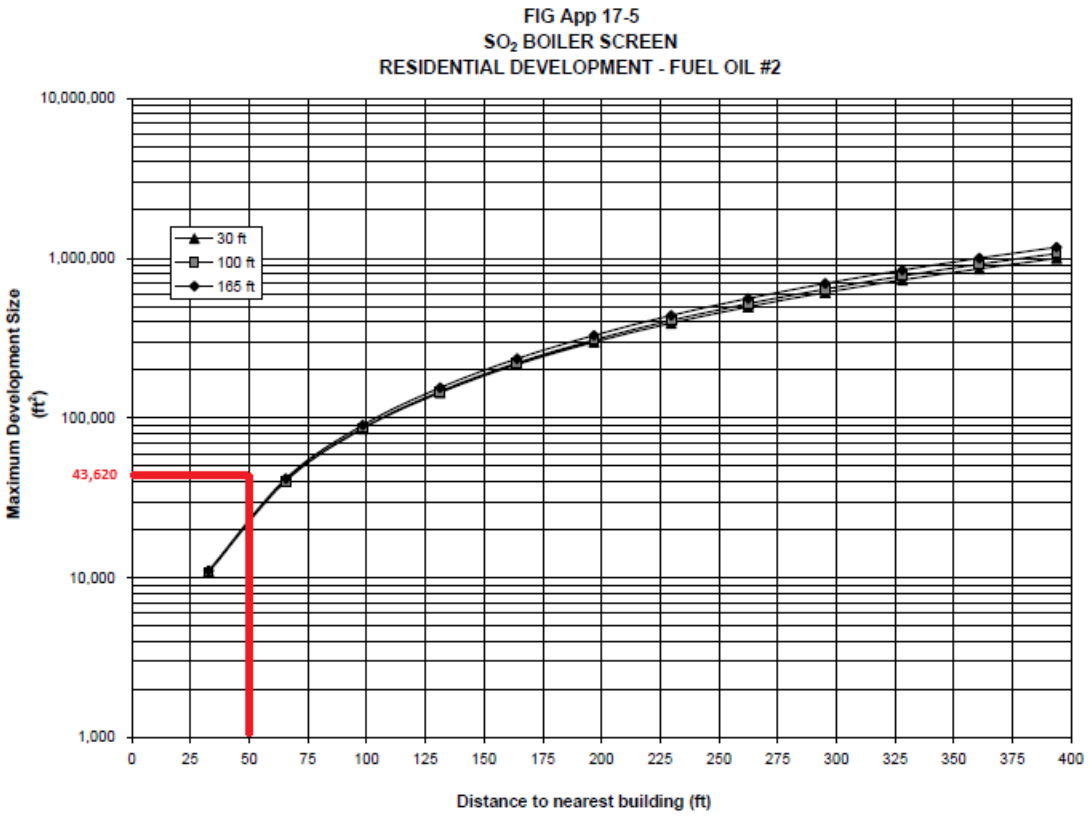
Source: Sandstone Environmental Associates, Inc.

Figure K-5:
Projected Development Site 2 on Projected Site 5, Fuel Oil #2



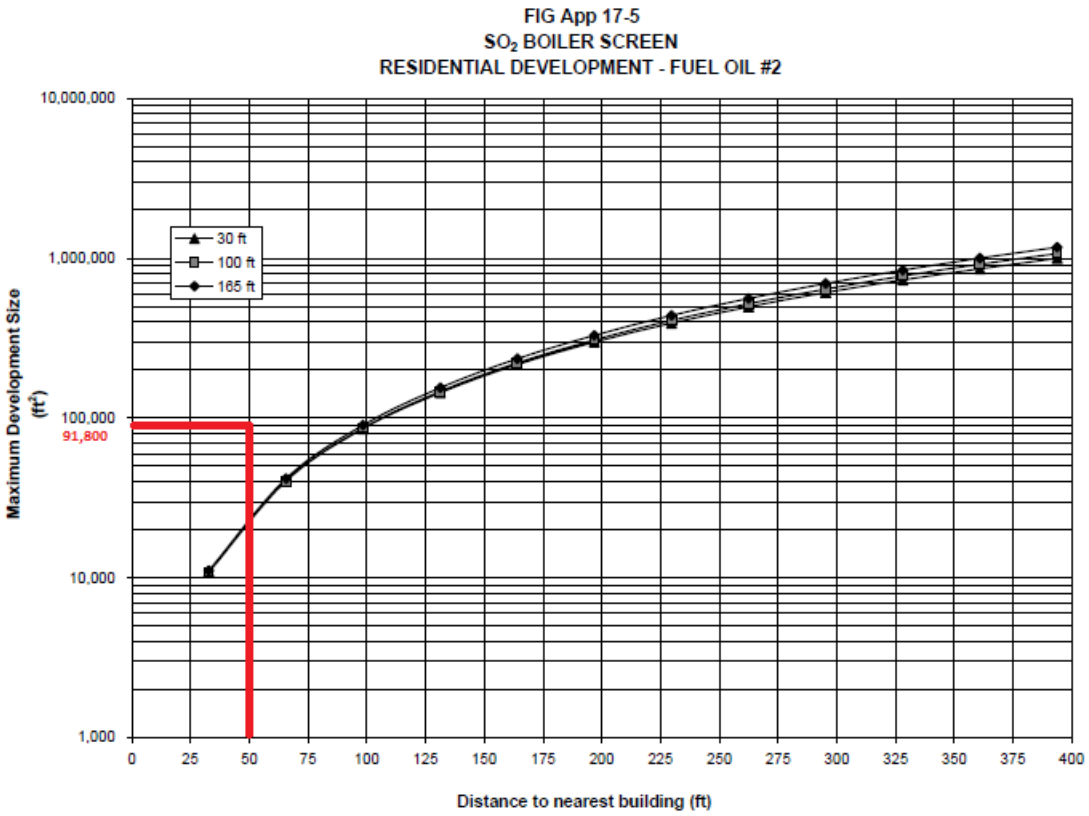
Building size: 50,820 sq. ft.
Stack Height: 76'
Distance: 100'
Passes screen

Figure K-6: Projected Development Site 3 on Projected Development Site 1, Fuel Oil #2



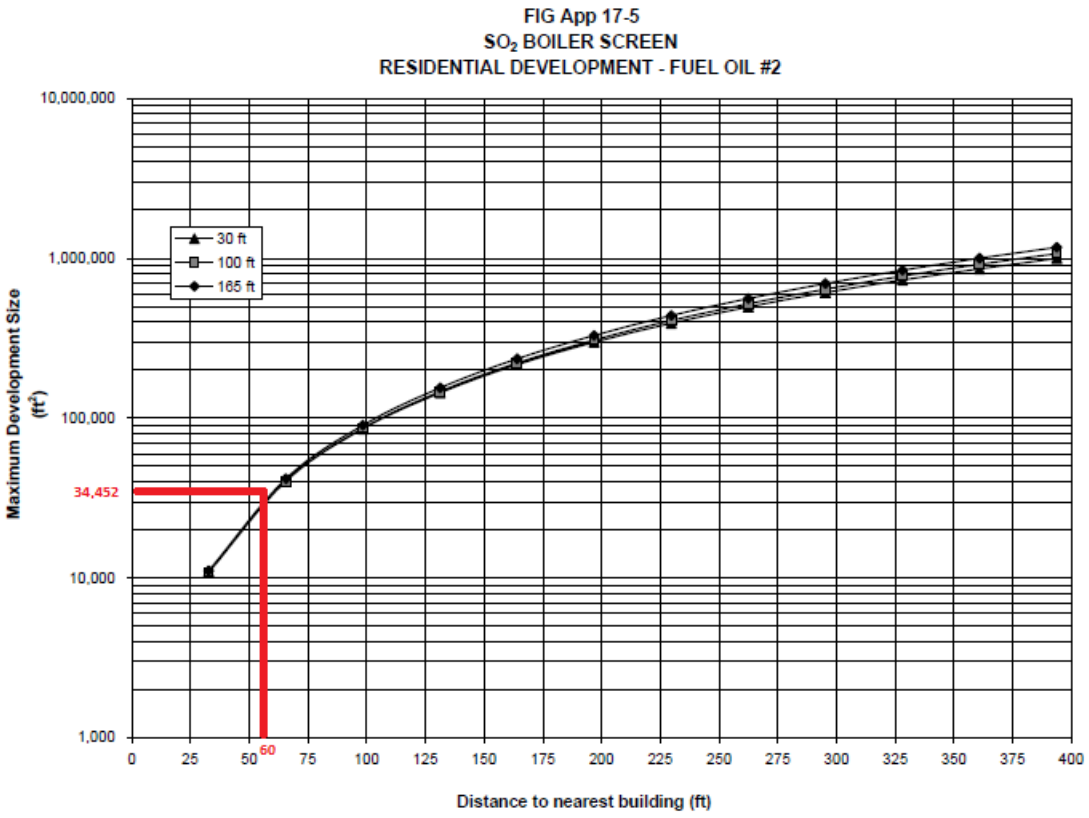
Building size: 43,620 sq. ft.
Stack Height: 100'
Distance: 50'
Fails screen

Figure K-7: Projected Development Site 4 on Projected Development Site 1, Fuel Oil #2



Building size: 91,800 sq. ft.
Stack Height: 88'
Distance: 50'
Fails screen

Figure K-8: Projected Development Site 5 on Projected Development Site 3, Fuel Oil #2



Building size: 34,452 sq. ft.
Stack Height: 89'
Distance: 60'
Fails screen

Pollutant emissions from the buildings that did not pass the screening were modeled with EPA's AERMOD model to determine whether the resulting pollutant concentrations would fall within applicable legislation and guidelines at the receptor buildings. **Table K-13: Project On Project Pollutant Concentrations, Fuel Oil #2 (µg/m^3)** shows the resulting pollutant concentrations from AERMOD modeling for fuel oil #2. Where a building could affect two other buildings, the configuration requiring the most restrictive stack parameters was used in the subsequent (E) designation.

Table K-13:
Project on Project HVAC Analysis, Fuel Oil #2 (µg/m^3)

Project on Project Scenario	Total Concentrations* (µg/m^3)				Increment		Comments
	1-Hr SO_2	24-Hr PM_{10}	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$	
Projected 3 on Projected 1	46.7	32.7	29.8	9.33	4.1	0.027	No restrictions
Projected 4 on Projected 1	47.5	37.5	34.6	9.36	8.9	0.069	No restrictions
Projected 4 on Projected 3	45.8	29.8	26.6	9.31	0.9	0.005	Stack 10' from Projected Site 3 and 95' high (10' above 85' roof)
Projected 5 on Projected 3	45.9	31.6	28.4	9.33	2.7	0.031	No restrictions
Potential 1 on Projected 2	45.6	29.6	26.3	9.30	0.6	0.004	10' from Projected Site 2 and 75' high (10'above 65' roof)
Potential 1 on Projected 5	45.6	30.0	26.8	9.31	1.1	0.006	10' from Projected Site 5 and 85' high (20' above 65' roof)

*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Project on Project Analysis, Natural Gas. Projected and Potential Development sites that did not require restrictions on fuel type or stack parameters for #2 fuel oil would not require restrictions for natural gas and were not analyzed further. Otherwise, the pollutant emissions from natural gas were screened with Figure 17-7 (NO_2 boiler screen for residential natural gas). If they did not pass the screen, they were modeled with EPA's AERMOD model to determine whether the resulting pollutant concentrations would fall within applicable legislation and guidelines at the receptor buildings. However, since the source and receiving buildings are less than 30 feet apart, they could not be screened, first, with the nomographs in the *CEQR Technical Manual*. **Table K-14: Project-on-Project Boiler Screen, Natural Gas** shows the development sites that were modeled with AERMOD for natural gas. As noted previously, where a building could affect two other buildings, the configuration requiring the most restrictive stack parameters was used in the subsequent (E) designation.

Table K-14:
Project-On-Project Boiler Screen, Natural Gas

Development Site ID	Stack Ht. (ft.)	Heated Area (sq. ft.)	Receptor Building	Distance (ft.)	Comments
Projected 4	88	91,800	Projected 3	0	Use AERMOD
Potential 1	68	42,176	Projected 2 & Projected 5	0	Use AERMOD

Source: Sandstone Environmental Associates, Inc.

The pollutants of interest for natural gas were NO_2 and $PM_{2.5}$ from NO_2. **Table K-15: Project on Project Pollutant Concentrations, Natural Gas (µg/m³)** shows the resulting pollutant concentrations from the AERMOD modeling. One-hour concentrations are based on a five-year average of the 8th highest modeled concentration. As indicated in the table, each of the three source buildings would be subject to restrictions on the stack height/and or location to avoid a potential significant impact.

Table K-15:
Project On Project Pollutant Concentrations, Natural Gas (µg/m³)

Project on Project Scenario	Total Concentrations* (µg/m³)				Increment		Comments
	1-Hr NO_2	Annual NO_2	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$	24-Hr $PM_{2.5}$	Annual $PM_{2.5}$	
Projected 4 on Projected 3	119.4	32.4	26.4	9.30	0.7	0.004	Stack 10' from Projected Site 3 and 95' high (10' above 85' roof)
Potential 1 on Projected 2	112.5	34.3	26.1	9.30	0.4	0.003	Stack 10' from Projected Site 2 and 75' high (10' above 65' roof)
Potential 1 on Projected 5	115.3	32.4	26.6	9.31	0.9	0.005	Stack 10' from Projected Site 5 and 85' high (20' above 65' roof)
NAAQS (ug/m³)	**188**	**100**	**35**	**12**			
De Minimis					**4.7**	**0.3**	

*Includes background concentrations
Source: Sandstone Environmental Associates, Inc.

Air Quality (E) Designations or Restrictive Declaration. The HVAC analysis determined that certain sites would require an (E) designation or a restrictive declaration that would specify the type of fuel to be used or the distance that the vent stack on the building roof must be from the edge of a lot line. The restriction for the applicable building with respect to HVAC system is presented below. The restriction is based on the maximum buildout for these sites.

Block 2600, Lots 99, 100, 101, 103 (Projected Development Site 4): Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack is located at the highest tier, or at least 95 feet high, and at least 10 feet from the lot line facing Timpson Place to avoid any potential significant adverse air quality impacts.

Block 2600, (Lots 47, 49, 50) (Potential Development Site 1): Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack is located at the highest tier, or at least 85 feet high, and at least 10 feet from the lot line facing Southern Boulevard and at least 10 feet from the lot line facing Timpson Place to avoid any potential significant adverse air quality impacts.

Air Toxics with Industrial Source Screen

The emissions for two permits from Inform Studio at 480 Austin Place (Block 2601, Lot 24) were analyzed using the Industrial Source Screen. The facility is approximately 70 feet from the nearest rezoning area boundary.

Permit PB475303J is for a spray booth operating 8 hours per day, 200 days per year. The maximum use of paint in an hour is 0.5 gallons, and the maximum number of gallons used in a day is 4.0. No emissions are listed on the permit. Therefore a permit from a similar facility was used to estimate emissions. The

surrogate facility is Decorative Concepts at 1635 62nd Street in Brooklyn, and the permit is PA051395X. Decorative Concepts operates a similarly-sized spray booth with similar operating conditions. It also uses 0.5 gallons per day with a maximum of 4 gallons per day. The pollutants analyzed include Particulates, Toluene, Dioctyl Phthalate, and Dimethyl Ketone (Acetone).

Permit PB012011M for Inform Studios is for woodworking equipment that operates 8 hours per day, 250 days per year. The only pollutant emitted is Particulates.

Table K-16: Cumulative Air Toxics Concentrations at Rezoning Boundary shows the results of the Industrial Source Screen. All pollutant concentrations are within the NYSDEC guidelines.

Table K-16:
Cumulative Air Toxics Concentrations at Rezoning Boundary

Pollutants		Cumulative Concentrations		NYSDEC Guideline Criteria	
Chemical Name	**CAS #**	**1-Hour ($\mu g/m^3$)**	**Annual ($\mu g/m^3$)**	**SGC ($\mu g/m^3$)**	**AGC ($\mu g/m^3$)**
Particulates (PM)	NY075-00-0	3.8	0.04	380.0	45.0
Toluene	00108-88-3	221.2	0.4	37,000.0	5,000.0
Dioctyl Phthalate	00117-81-7	22.1	0.04	N/A	0.5
Dimethyl Ketone (Acetone)	00067-64-1	64.1	0.1	180,000.0	30,000.0

Note: Numbers in bold type indicate potential impact
Source: Sandstone Environmental Associates, Inc.

The concentrations for particulates also were compared with the NAAQS for PM_{10} and $PM_{2.5}$. To do this, the one-hour PM emission factor was converted to a PM_{10} emission factor using EPA's recommended multiplier of 0.467. EPA's recommended multiplier of 0.286 was used to convert the one-hour and annual PM emission factors to $PM_{2.5}$. The emission factors were then multiplied by the 24-hour and annual generic pollutant concentrations to get their concentrations at the rezoning area boundary. **Table K-17: Cumulative PM_{10} And $PM_{2.5}$ Concentrations From Air Toxics Permits** shows the results. All pollutants are within the applicable standards and guidelines.

Table K-17:
Cumulative Pm_{10} And $Pm_{2.5}$ Concentrations From Air Toxics Permits

	Pollutant		
	PM_{10} 24-Hour	**$PM_{2.5}$ 24-Hour**	**$PM_{2.5}$ Annual**
Concentration	3.6	2.2	0.2
Background	38.0	25.7	NA
Total	41.6	27.9	NA
NAAQS	188	35	12
De Minimis	NA	5.5	0.3
Result	Pass	Pass	Pass

Source: Sandstone Environmental Associates, Inc.

VI. CONCLUSION

Based on the analyses in this document, no air quality impacts are anticipated as a result of the proposed action from mobile source emissions, HVAC sources, or air toxics provided that the development complies with all applicable legislation.

Attachment L: Noise

I. INTRODUCTION

Noise, in its simplest definition, is unwanted sound. While high noise levels may cause hearing loss, the levels associated with environmental noise assessments are often below this hazardous range. However, noise levels that are not considered hazardous should not be overlooked since they can cause stress-related illnesses, disrupt sleep, and interrupt activities requiring concentration. In New York City, with its high concentration of population and commercial activities, such problems may be common.

This chapter discusses the topic of noise as it relates to the Proposed Action and the surrounding community. It defines technical terms, identifies evaluation methods and criteria, describes methodology, and the potential for impacts. The goal of the analysis is to determine both (1) a proposed project's potential effects on sensitive noise receptors, including the effects of noise levels on sensitive receptors, and (2) the effects of ambient noise levels on new sensitive uses introduced by the proposed project. If significant adverse impacts are identified, such impacts must be mitigated or avoided to the greatest extent practicable.

The primary source of noise associated with the Proposed Action is increased auto traffic. Ambient noise from the surrounding community includes traffic on nearby streets and the elevated Bruckner Expressway, the playground on Timpson Street, and industrial activities such as auto repair shops.

II. PRINCIPAL CONCLUSIONS

Based on the information and analyses in this chapter, no significant adverse impacts due to noise are projected for the proposed action. Analyses of increased vehicular noise, using the proportionality equation, showed that no sensitive receptors would experience a relative increase of 3 dBA or more. With regard to the potential impact of ambient noise levels on the Projected and Potential Development Sites, no impacts would occur provided that the construction materials provide window/wall attenuation sufficient to ensure that interior noise levels are 45 dBA or less. To accomplish this, e designations have been recommended for the facades of the buildings on the development sites. These designations will comply both with HUD (US Department of Housing and Urban Development) guidelines and CEQR requirements. Alternate means of ventilation would also be required for all sites with an exterior noise level of 70 dBA. With these measures in place, no noise level impacts would occur.

III. METHODOLOGY

Noise Fundamentals

Noise Descriptors

Noise is measured in sound pressure level (SPL), which is converted to a decibel scale. The decibel is a relative measure of the sound level pressure with respect to a standardized reference quantity. Decibels on the A-weighted scale are termed “dBA.” The A-weighted scale is used for evaluating the effects of noise in the environment because it most closely approximates the response of the human ear. On this scale, the threshold of discomfort is 120 dBA, and the threshold of pain is about 140 dBA. **Table L-1: Sound Pressure Level and Loudness of Typical Noises in Indoor and Outdoor Environments** shows the range of noise levels for a variety of indoor and outdoor noise levels. Because the scale is logarithmic, a relative increase of 10 decibels represents a sound pressure level that is 10 times higher.

However, humans don't perceive a 10 dBA increase as 10 times louder, they perceive it as twice as loud. The following is typical of human response to relative changes in noise level:

Table L-1:
Sound Pressure Level and Loudness of Typical Noises in Indoor and Outdoor Environments

Noise Level (dBA)	Subjective Impression	Typical Sources		Relative Loudness (Human Response)
		Outdoor	Indoor	
120-130	Uncomfortably Loud	Air raid siren at 50 feet (threshold of pain)	Oxygen torch	32 times as loud
110-120	Uncomfortably Loud	Turbo-fan aircraft at take-off power at 200 feet	Riveting machine Rock band	16 times as loud
100-110	Uncomfortably Loud	Jackhammer at 3 feet		8 times as loud
90-100	Very Loud	Gas lawn mower at 3 feet Subway train at 30 feet Train whistle at crossing Wood chipper shredding trees Chain saw cutting trees at 10 feet	Newspaper press	4 times as loud
80-90	Very Loud	Passing freight train at 30 feet Steamroller at 30 feet Leaf blower at 5 feet Power lawn mower at 5 feet	Food blender Milling machine Garbage disposal Crowd noise at sports event	2 times as loud
70-80	Moderately Loud	NJ Turnpike at 50 feet Truck idling at 30 feet Traffic in downtown urban area	Loud stereo Vacuum cleaner Food blender	Reference loudness (70 dBA)
60-70	Moderately Loud	Residential air conditioner at 100 feet Gas lawn mower at 100 feet Waves breaking on beach at 65 feet	Cash register Dishwasher Theater lobby Normal speech at 3 feet	2 as loud
50-60	Luiet	Large transformers at 100 feet Traffic in suburban area	Living room with TV on Classroom Business office Dehumidifier Normal speech at 10 feet	1/4 as loud
40-50	Quiet	Bird calls, Trees rustling, Crickets, Water flowing in brook	Folding clothes Using computer	1/8 as loud
30-40	Very quiet		Walking on carpet Clock ticking in adjacent room	1/16 as loud
20-30	Very quiet		Bedroom at night	1/32 as loud
10-20	Extremely quiet		Broadcast and recording studio	
0-10	Threshold of hearing			

Sources: Noise Assessment Guidelines Technical Background, by Theodore J. Schultz, Bolt Beranek and Newman, Inc., prepared for the US Department of Housing and Urban Development, Office of Research and Technology, Washington, D.C., undated; Sandstone Environmental Associates, Inc.; Highway Noise Fundamentals, prepared by the Federal Highway Administration, US Department of Transportation, September 1980; Handbook of Environmental Acoustics, by James P. Cowan, Van Nostrand Reinhold, 1994.

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

The sound pressure level that humans experience typically varies from moment to moment. Therefore, a variety of descriptors are used to evaluate environmental noise levels over time. Some typical descriptors are defined below:

- L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating sound pressure levels is averaged over time to create a single number to describe the mean energy or intensity level. High noise levels during a monitoring period will have greater effect on the L_{eq} than low noise levels. The L_{eq} has an advantage over other descriptors because L_{eq} values from different noise sources can be added and subtracted to determine cumulative noise levels.
- L_{max} is the highest SPL measured during a given period of time. It is useful in evaluating L_{eq}s for time periods that have an especially wide range of noise levels.
- L_{10} is the SPL exceeded 10 percent of the time. Similar descriptors are the L_{01}, L_{50}, and L_{90}.
- L_{dn} is the day-night equivalent sound level. It is similar to a 24-hour L_{eq}, but with 10 dBA added to SPL measurements between 10 pm and 7 am to reflect the greater intrusiveness of noise experienced during these hours. L_{dn} is also termed DNL.

Passenger Car Equivalent Values

Vehicular volumes can be converted into Passenger Car Equivalent (PCE) values, where one medium-duty truck (with a gross weight between 9,900 and 26,400 pounds) would generate the noise equivalent of 13 cars, one bus (capable of carrying more than nine passengers) would generate the noise equivalent of 18 cars, and one heavy-duty truck (having a gross weight of more than 26,400 pounds) would to generate the noise equivalent of 47 cars, as summarized below from the *2014 CEQR Technical Manual*.

- autos and light trucks = 1 passenger car,
- medium trucks = 13 passenger cars,
- heavy trucks = 47 passenger cars, and
- buses = 18 passenger cars.

Thus, PCEs are the numbers of autos that would generate the same noise level as the observed vehicular mix of autos, medium trucks, and heavy trucks. PCEs are useful for comparing the effects of traffic noise on different roadways or for different future scenarios.

Where traffic volumes are projected to change, proportional modeling techniques, as described in the *2012 CEQR Technical Manual*, typically are used to project incremental changes in traffic noise levels. This technique uses the relative changes in traffic volumes to project changes between (e.g.) No Action and With Action noise levels. The change in future noise levels is calculated using the following proportionality equation:

$FNL = ENL + 10 \times \log_{10} (FPCE/EPCE)$,

where:

FNL= Future Noise Level

ENL= Existing Noise Level

FPCE= Future PCEs

EPCE= Existing PCEs

Because sound levels use a logarithmic scale, this model proportions logarithmically with traffic change ratios. 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 volume were increased by 50 PCEs to a total of 150 PCEs, the noise level would increase by 1.8 dBA. If the future traffic were increased by 100 PCEs, (i.e., doubled to a total of 200 PCEs), the noise level would increase by 3.0 dBA.

Window/Wall Attenuation Ratings

The attenuation of a composite structure is a function of the attenuation provided by each of its component parts and how much of the area is made up of each part. Normally, a building façade is composed of the wall, glazing, and any vents or louvers for HVAC systems in various ratios of area. To avoid significant adverse noise impacts, all new facades would need to provide composite Outdoor-Indoor Transmission Class (OITC) ratings greater than or equal to the attenuation requirements described in the Section "Conclusion". The OITC classification is defined by the American Society of Testing and Materials (ASTM E1332-90) and provides a single-number rating that is used for designing a building façade including walls, doors, glazing, and combinations thereof. The OITC rating is designed to evaluate building elements by their ability to reduce the overall loudness of ground and air transportation. The US Department of Housing and Urban Development (HUD) uses the STC rating when specifying attenuation. This is an older classification system which uses different factors to weight the noise levels in various frequencies. Generally, a window with an STC rating of (e.g.) 31 dBA is not as effective in reducing noise as a window with an OITC rating of 31 dBA.

Noise Standards and Guidelines

CEQR Guidelines

In 1983, the New York City Department of Environmental Protection (NYCDEP) adopted the City Environmental Protection Order - City Environmental Quality Review (CEQR) noise standards for exterior noise levels. These standards are the basis for classifying noise exposure into four categories based on the L_{10}: Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable, as shown in **Table L-2: CEQR Noise Exposure Guidelines for Use in City Environmental Impact Review**.

Table L-3: Required Attenuation Values to Achieve Acceptable Interior Noise Levels shows the required attenuation for sensitive uses within the last three categories shown in **Table L-2**. For example, an L_{10} may approach 80 dBA provided that buildings are constructed of materials that reduce exterior to interior noise levels by at least 35 dBA to 45 dBA for residential and community facility uses.

Table L-2:
CEQR Noise Exposure Guidelines for Use in City Environmental Impact Review[1]

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

Source: New York City Department of Environmental Protection (adopted policy 1983).
Notes:
(i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;
[1] Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.
[2] Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and old-age homes.
[3] One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.
[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

Table L-3:
Required Attenuation Values to Achieve Acceptable Interior Noise Levels

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

Note: [A] The above composite window-wall attenuation values are for residential dwellings. Commercial office spaces and meeting rooms would be 5 dB(A) less in each category. All the above categories require a closed window situation and hence an alternate means of ventilation.
[B] Required attenuation values increase by 1 dB(A) increments for L_{10} values greater than 80 dBA.
Source: New York City Department of Environmental Protection / 2014 CEQR Technical Manual, Table 19-3.

HUD Standards and Guidelines

Based on EPA reports, the Department of Housing and Urban Development published regulations establishing standards for HUD-assisted projects in 1979. HUD categorized noise levels for proposed residential development as acceptable, normally unacceptable, and unacceptable, as shown in **Table L-4: HUD Acceptability Standards for Noise**. HUD assistance for construction of new noise sensitive uses is generally prohibited for projects with unacceptable noise exposures and is discouraged for projects with normally unacceptable noise exposure. HUD-financed buildings constructed in Normally Unacceptable or Unacceptable areas must provide sufficient sound attenuation, as specified by HUD, to reduce interior noise levels to an L_{dn} of 45 dBA.

Table L-4:
HUD Acceptability Standards for Noise

Category	Noise Level (L_{dn})
Acceptable	< 65 dBA
Normally Unacceptable	>65 dBA < 75 dBA
Unacceptable	> 75 dBA

Source: U.S. Department of Housing and Urban Development, March 1985

The Noise Guidebook, published by HUD in 1985, states that project sites in the vicinity of federally funded highways are subject to the noise analysis procedures of the Federal Highway Administration (FHWA). To convert the FHWA analyses to relevant HUD criteria, the Guidebook recommended the following rules of thumb:

- $L_{dn} \approx$ the peak-hour L_{eq}, or
- $L_{dn} \approx$ the peak-hour L_{10} - 3 decibels

These formulas assume that off-peak noise levels are lower than peak noise levels and that nighttime noise levels are lower than daytime noise levels. In addition, heavy trucks must not exceed 10% of the 24-hour traffic volume, and traffic flow between 10 pm and 7 am must not exceed 15% of the average daily traffic flow. Another rule of thumb used in analyzing environmental noise levels is that nighttime noise levels are approximately 10 dBA lower than daytime noise levels.

Evaluation Criteria

The selection of incremental values and absolute noise levels should be responsive to the nuisance levels of noise and critical time periods when nuisance levels are most acute. During daytime hours (between 7 am and 10 pm), nuisance levels for noise are generally considered to be more than 45 dBA indoors and 70 to 75 dBA outdoors. Indoor activities are subject to task interference above this level, and 70 to 75 dBA is the level at which speech interference occurs outdoors. Nighttime (between 10 pm and 7

am) is a particularly critical time period relative to potential nuisance values for noise level increases. Typical construction techniques used in the past (including typical single-glazed windows) provide a minimum of approximately 20 dBA of noise attenuation from outdoor to indoor areas.

Based on the foregoing, the NYC *CEQR Technical Manual* (2014) provides the following relative noise level increases for determining impacts from a proposed action:

- An increase of five dBA or more in With Action $L_{eq(1)}$ noise levels at sensitive receptors (including residences, play areas, parks, schools, libraries, and houses of worship) over those calculated for the No Action condition if the No Action levels are less than 60 dBA $L_{eq(1)}$ and the analysis period is not a nighttime period.
- An increase of four dBA or more in With Action $L_{eq(1)}$ noise levels at sensitive receptors over those calculated for the No Action condition if the No Action levels are 61 dBA $L_{eq(1)}$ and the analysis period is not a nighttime period.
- An increase of three dBA or more in With Action $L_{eq(1)}$ noise levels at sensitive receptors over those calculated for the No Action condition if the No Action levels are greater than 62 dBA $L_{eq(1)}$ and the analysis period is not a nighttime period.
- An increase of three dBA or more in With Action $L_{eq(1)}$ noise levels at sensitive receptors over those calculated for the No Action condition if the analysis period is a nighttime period.

Impact thresholds for proposed projects that introduce sensitive receptors are more straightforward. Typically, potential significant impacts on the newly created receptor relate to absolute noise limits. The Noise Exposure Guidelines shown in **Table L-1** are followed by lead agencies for this purpose. If a project is within an area where the project noise levels exceed the marginally acceptable limit shown in the Noise Exposure Guidelines (as measured at the proposed building line or property line), a significant impact would occur.

If a significant impact is projected, the project would be subject to mitigation measures to reduce the interior noise levels by 25 dBA or more below the maximum marginally acceptable levels for external exposure shown in **Table L-2**.

IV. PRELIMINARY ASSESSMENT

Noise levels would require additional analysis if: 1) the increased traffic volumes at the intersections in the study area had the potential to cause an impact, or 2) the Proposed Action would place sensitive receptors in an area with projected noise levels with an L_{10} of 70 dBA or more.

Traffic Noise

The proposed action would require more detailed analysis if the project-generated traffic increments would cause the volumes under No Action Conditions to double. A doubling of the volumes would cause noise levels to increase by 3 dBA. **Table L-5: 2025 Traffic Volumes** shows the future volumes projected for the two key intersections analyzed in the traffic study. The proposed rezoning action would generate a maximum traffic increase of 57.0% compared to the No Action Alternative. This would occur at East 147th Street and Timpson Place (Noise Monitoring Intersection 2) during the Weekday AM peak period. Based on **Table L-5**, the project would not double the traffic volumes compared to No Action Conditions, and no significant adverse impacts due to increased traffic are anticipated.

Table L-5:
2025 Traffic Volumes

ID	Intersection	No Action	Action	Increase	% Increase
AM					
1	E. 149th Street & Southern Boulevard	1,467	1,476	9	0.5
2	E. 147th St. & Timpson Place	107	168	61	57.0
Midday					
1	E. 149th Street & Southern Boulevard	1,206	1,208	2	0.2
2	E. 147th St. & Timpson Place	127	159	32	25.2
PM					
1	E. 149th Street & Southern Boulevard	1,456	1,462	6	0.4
2	E. 147th St. & Timpson Place	149	215	66	44.3
Saturday					
1	E. 149th Street & Southern Boulevard	1,188	1,193	5	0.4
2	E. 147th St. & Timpson Place	111	167	56	50.5

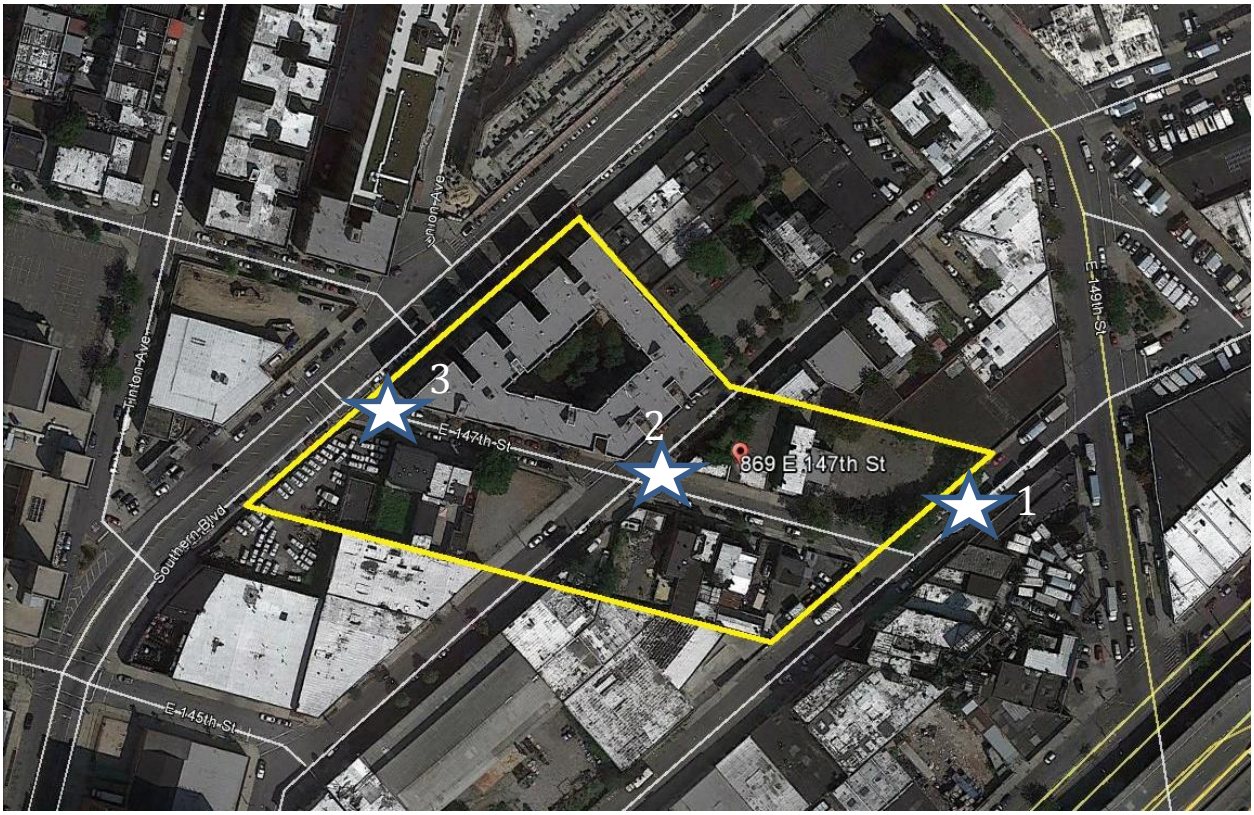
Source: Sam Schwartz Engineering.

New Sensitive Receptors

Existing noise levels were monitored at three locations representative of the Projected and Potential Development sites. They are listed below and shown on **Figure L-1**.

1) Austin Place, midblock between East 149th and East 147th Streets,
2) East 147th Street and Timpson Place, and
3) East 147th Street and Southern Boulevard.

Figure L-1:
Noise Monitoring Locations



Traffic and aircraft noise predominated during the monitoring periods. **Table L-6: Observed Noise Levels (dBA)** shows the noise monitoring results. No noise monitoring was carried out for the Saturday Midday period. Therefore, the L_{eq} and L_{10} were estimated with the proportionality equation using the observed weekday Midday vehicular mix and the volumes from the traffic study.

Noise levels were highest during the peak AM period at all sites. The weekday AM periods were substantially higher than the other periods. This was due to the number of aircraft flyovers during the morning. Site 2, in particular, experienced eleven aircraft flyovers with noise levels peaking in the 80s. As a result, three sites exceeded an L_{10} of 70 dBA. The maximum L_{10} noise level, which occurred during the peak AM period, was 74.1 dBA at Site 4 (Southern Boulevard & East 147th Street). This site has the highest traffic volumes compared to the other sites, and it also had intermittent noise from sirens and construction vehicles.

Because the L_{10} noise level exceeded 70 dBA at one or more sites, a more detailed analysis of future noise levels was carried out. It is presented in Section V. Detailed Assessment.

Table L-6:
Observed Noise Levels (dBA)

ID	Location	Period	L_{eq}	L_{10}	Lmin	Lmax	L_{01}	L_{50}	L_{90}
1	Austin Place	AM	67.3	**71.5**	80.0	55.5	77.2	61.0	57.5
		MD	62.0	64.0	80.3	54.4	71.4	59.1	56.6
		PM	64.0	64.3	80.6	61.8	69.6	63.2	62.7
		SAT	62.0	64.0	*	*	*	*	*
2	Timpson Place & East 147th Street	AM	67.0	**71.1**	82.4	54.6	77.7	59.3	56.4
		MD	59.1	60.4	74.5	54.0	67.8	57.3	55.6
		PM	59.7	61.2	74.0	52.5	70.7	56.5	54.5
		SAT	63.4	64.7	*	*	*	*	*
3	Southern Blvd & East 147th Street	AM	69.8	**74.1**	81.4	55.3	78.2	66.1	58.8
		MD	68.9	71.7	90.4	57.4	78.1	64.6	59.3
		PM	69.0	70.6	83.2	62.2	79.3	66.5	63.0
		SAT	65.9	68.7	*	*	*	*	*

*Saturday sound levels estimated from MD noise and Saturday Midday traffic volumes. Therefore, only the Leq and L_{10} are available.
Numbers in bold type are the highest for that site.
Source: Sandstone Environmental Associates, Inc.

V. DETAILED ASSESSMENT

Existing Conditions

As discussed in Section IV, Preliminary Assessment, a detailed analysis is warranted for the noise monitoring sites to determine the window/wall attenuation required to ensure that interior noise levels do not exceed an L_{10} of 45 dBA.

The observed noise levels and traffic volumes were adjusted to match the traffic volumes for Existing Conditions that were provided by the traffic study. The adjustments were made using the proportionality equation for the Existing Conditions traffic and the one-hour equivalent volumes for the observed traffic. **Table L-7: Peak Hour Traffic Volumes and Noise Levels, Existing Conditions** shows the one-hour traffic volumes and noise PCEs for Existing Conditions. Based on **Table L-3**, Noise Monitoring Sites 1 and 2 are in the Marginally Unacceptable I category, Site 3 is in the Marginally Acceptable category, and Site 4 is in the Marginally Unacceptable II category.

Table L-7:
Peak Hour Traffic Volumes and Noise Levels, Existing Conditions

ID	Location	Period	L_{eq}	L_{10}	Autos	Medium Trucks	Heavy Trucks	Buses	Total	PCEs
1	Austin Place	AM	67.3	**71.5**	42	12	0	0	54	198
		MD	62.0	64.0	18	3	3	0	24	198
		PM	64.0	64.3	18	12	0	0	30	174
		SAT	62.0	64.0	18	3	3	0	24	198
2	Timpson Place & East 147th Street	AM	67.0	**71.1**	60	9	0	0	69	177
		MD	59.1	60.4	63	0	0	0	63	63
		PM	59.7	61.2	57	3	0	0	60	96
		SAT	63.4	64.7	94	2	1	0	97	168
3	Southern Blvd & East 147th Street	AM	69.8	**74.1**	462	51	12	30	555	2,229
		MD	68.9	71.7	405	18	15	27	465	1,830
		PM	69.0	70.6	555	15	3	6	579	999
		SAT	63.8	66.6	318	4	3	4	328	571

Source: Sandstone Environmental Associates, Inc.

Future without Proposed Action

In the absence of the proposed action, no new development is anticipated in the rezoning area. **Table L-8: Peak Hour Noise Levels, Future without Proposed Action** shows the future traffic volumes and noise levels for 2025 without the Proposed Action. Ambient noise levels for the Future without the Proposed Action were based on changes in traffic volume and traffic mix obtained from the traffic study. The values were calculated from the proportionality equation. Noise level increases ranged from 0.0 to 6.0 dBA. The higher increments were due to changes in the vehicular mix compared to Existing Conditions. All sites would exceed an L_{10} of 70 dBA. Site 1 would fall into the Marginally Unacceptable I category, and Sites 2 and 3 would fall into the Marginally Unacceptable II category.

Table L-8:
Peak Hour Noise Levels, Future without Proposed Action

ID	Location	Period	Existing			No Action				Category
			L_{eq}	L_{10}	PCEs	PCEs	Noise Increase	L_{eq}	L_{10}	
1	Austin Place	AM	67.3	**71.5**	198	238	0.8	68.1	**72.3**	MU I
		MD	62.0	64.0	198	238	0.8	62.8	64.8	
		PM	64.0	64.3	174	209	0.8	64.8	65.1	
		SAT	62.0	64.0	198	238	0.8	62.8	64.8	
2	Timpson Place & East 147th Street	AM	67.0	**71.1**	177	286	2.1	69.1	**73.2**	MU II
		MD	59.1	60.4	63	187	4.7	63.8	65.1	
		PM	59.7	61.2	96	384	6.0	65.7	67.2	
		SAT	63.4	64.7	168	408	3.9	67.2	68.5	
3	Southern Blvd & East 147th Street	AM	69.8	**74.1**	2,229	2,229	0.0	69.8	**74.1**	MU II
		MD	68.9	71.7	1,830	2,249	0.9	69.8	72.6	
		PM	69.0	70.6	999	1,374	1.4	70.4	72.0	
		SAT	63.8	66.6	571	741	1.1	65.0	67.8	

Notes: MU I = Marginally Unacceptable I; MU II = Marginally Unacceptable II
Source: Sandstone Environmental Associates, Inc.

Future with Proposed Action

Table L-9: Peak Hour Noise Levels, Future with Proposed Action shows the future traffic volumes and noise levels for 2025 with the Proposed Action. The noise levels for the Future with the Proposed Action were based on the increments in traffic volume obtained from the traffic study. The volumes of buses and trucks were assumed to remain the same as for the Future without the Proposed Action. All project-generated increments were assumed to be passenger vehicles. The noise levels were calculated from the proportionality equation. Noise level increases ranged from -1.0 to 0.8 dBA. All sites would exceed an L_{10} of 70 dBA. Sites 1 and 3 would still fall into the Marginally Unacceptable I category, and Sites 2 and 3 would still fall into the Marginally Unacceptable II category.

Table L-9:
Peak Hour Noise Levels, Future with Proposed Action

ID	Location	Period	No Action			With Action				Category
			L_{eq}	L_{10}	PCEs	PCEs	Noise Increase	L_{eq}	L_{10}	
1	Austin Place	AM	68.1	**72.3**	238	238	0.0	68.1	**72.3**	MU I
		MD	62.8	64.8	238	238	0.0	62.8	64.8	
		PM	64.8	65.1	209	209	0.0	64.8	65.1	
		SAT	62.8	64.8	238	238	0.0	62.8	64.8	
2	Timpson Place & East 147th Street	AM	69.1	**73.2**	286	347	0.8	69.9	**74.0**	MU II
		MD	63.8	65.1	187	219	0.7	64.5	65.8	
		PM	65.7	67.2	384	303	-1.0	64.7	66.2	
		SAT	67.2	68.5	408	534	1.2	68.4	69.7	
3	Southern Blvd & East 147th Street	AM	69.8	**74.1**	2,229	2,229	0.0	69.8	**74.1**	MU II
		MD	69.8	72.6	2,249	2,250	0.0	69.8	72.6	
		PM	70.4	72.0	1,374	1,380	0.0	70.4	72.0	
		SAT	65.0	67.8	741	745	0.0	65.0	67.8	

Notes: MU I = Marginally Unacceptable I; MU II = Marginally Unacceptable II
Source: Sandstone Environmental Associates, Inc.

Window/Wall Attenuation

Because the proposed action would place sensitive receptors in an area with L_{10} noise levels that exceed 70 dBA, an impact would occur unless the project incorporates mitigation measures. Therefore, window/wall noise attenuation measures are required to ensure that L_{10} interior noise levels would be 45 dBA or less (50 dBA for commercial uses). Accordingly, the Projected and Potential Development sites were given E designations specifying the OITC ratings for the windows. This also requires alternate means of ventilation, such as air conditioning, so that windows may remain closed during warm weather. The minimum required attenuation for the Projected and Potential Development sites is shown in **Table L-10: Required Attenuation for Development Sites** and illustrated in **Figure L-2: Noise Attenuation Levels by Façade**.

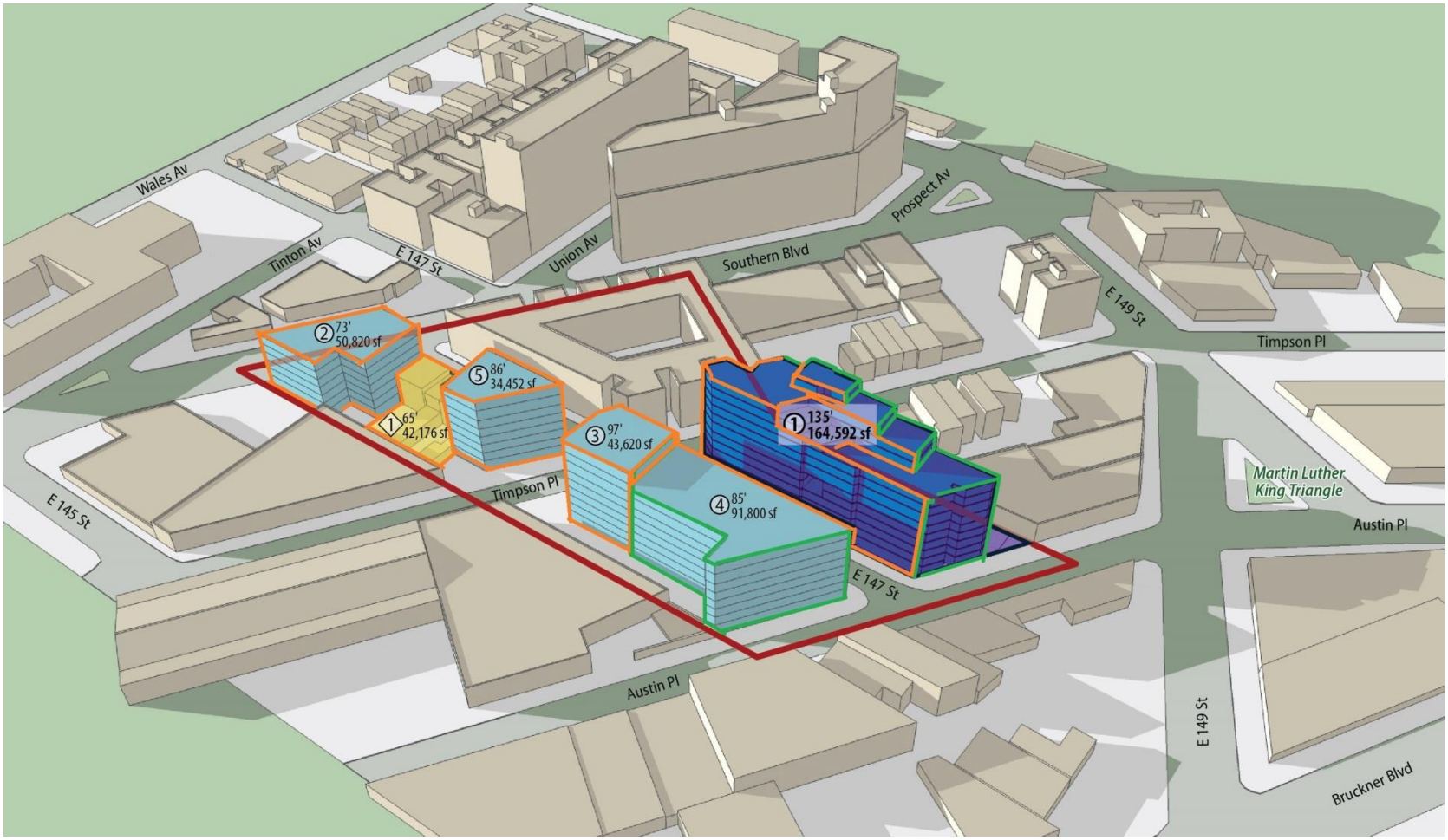
For HUD purposes, the Ldn is approximately equal to the peak-hour L_{eq}. All three sites would fall into HUD's Normally Unacceptable category because the L_{eq}s range between 65 and 75 dBA.

Table L-10:
Required Attenuation for Development Sites

Development Site ID	Façade Facing	Monitoring Site ID	Maximum L_{10}	CEQR Category	Minimum Required Attenuation
Projected Development Sites					
1	E. 149th St. (north)	1	72.3	Marginally Unacceptable I	28
	E. 147th St. (south)	2	74.0	Marginally Unacceptable II	31
	Austin Pl. (east)	1	72.3	Marginally Unacceptable I	28
	Timpson Pl. (west)	2	74.0	Marginally Unacceptable II	31
2	E. 147th St. (north)	3	73.6	Marginally Unacceptable II	31
	E. 144th St. (south)	3	73.6	Marginally Unacceptable II	31
	Timpson Pl. (east)	2	74.0	Marginally Unacceptable II	31
	Southern Blvd. (west)	3	73.6	Marginally Unacceptable II	31
3	E. 147th St. (north)	2	74.0	Marginally Unacceptable II	31
	E. 144th St. (south)	2	74.0	Marginally Unacceptable II	31
	Austin Pl. (east).	2	74.0	Marginally Unacceptable II	31
	Timpson Pl. (west)	2	74.0	Marginally Unacceptable II	31
4	E. 147th St. (north)	2	74.0	Marginally Unacceptable II	31
	E. 144th St. (south)	1	72.3	Marginally Unacceptable I	28
	Austin Pl. (east)	1	72.3	Marginally Unacceptable I	28
	Timpson Pl. (west)	2	74.0	Marginally Unacceptable II	31
5	E. 147th St. (north)	2	74.0	Marginally Unacceptable II	31
	E. 144th St. (south)	2	74.0	Marginally Unacceptable II	31
	Timpson Pl. (east)	2	74.0	Marginally Unacceptable II	31
	Austin Pl. (west)	2	74.0	Marginally Unacceptable II	31
Potential Development Sites					
1	E. 147th St (north).	3	73.6	Marginally Unacceptable II	31
	E. 144th St. (south)	2	74.0	Marginally Unacceptable II	31
	Timpson Pl. (east)	2	74.0	Marginally Unacceptable II	31
	Southern Blvd. (west)	3	73.6	Marginally Unacceptable II	31

Note: All lots are on Block 2600.
Source: Sam Schwartz Engineering

Figure L-2:
Noise Attenuation Levels by Façade



Note: Orange = 31 dBA OITC
Green = 28 dBA OITC
Numbers in circles are Projected Development Sites
Numbers in diamonds are Potential Development Sites

VI. CONCLUSION

No noise impacts are projected for the Proposed Action provided it complies with all applicable regulations. Noise from increased traffic generated by the proposed action would not cause impacts on nearby existing uses since the traffic noise PCEs would not double as a result of the proposed action. Therefore, noise levels would not increase by 3 dBA or more and no impacts to the surrounding community are projected.

Table L-10 showed two levels of noise attenuation for the Projected and Potential development sites. Depending on the projected exterior noise levels at each location, attenuation of 28 dBA or 31 dBA would be required. The text for the (E) designations is as follows:

Block 2600, Lots 187, 222, 220, 213 (Projected Development Site 1): "To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades facing south (E. 147th Street) or west (Timpson Place) and 28 dBA window/wall attenuation on all facades facing east (Austin Place) or north (E. 149th Street) to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning."

Block 2600, Lot 30 (Projected Development Site 2): "To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning. The specific attenuation requirements to be implemented for all facades are provided in Table L-10."

Block 2600, Lot 96 (Projected Development Site 3): "To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning. The specific attenuation requirements to be implemented for all facades are provided in Table L-10."

Block 2600, Lots 99, 100, 101, 103 (Projected Development Site 4):): "To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades facing north (E. 147th street) or west (Timpson Place) and 28 dBA of attenuation on all facades facing east (Austin Place) or south (E. 144th Street) to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning. The specific attenuation requirements to be implemented for all facades are provided in Table L-10."

Block 2600, Lot 51 (Projected Development Site 5): "To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning. The specific attenuation requirements to be implemented for all facades are provided in Table L-10."

Block 2600, Lots 47, 49, 50 (Potential Development Site 1): "To ensure an acceptable interior noise environment, future residential/commercial uses must provide a closed-window condition with a minimum

of 31 dBA window/wall attenuation on all facades to maintain an interior noise level of 45 dBA. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, air conditioning. The specific attenuation requirements to be implemented for all facades are provided in Table L-10."

The window/wall attenuation should be based on OITC attenuation ratings. In addition, all facades that would experience an L_{10} of 70 dBA or greater must provide an alternate means of ventilation (AMV) permitting a closed window condition during warm weather. This can be achieved by installing double-glazed windows on a heavy frame for masonry structures or windows consisting of laminated glass, along with AMV such as central air conditioning, through-wall sleeve fitted air conditioners, packaged terminal air conditioning (ptac) units, trickle vents integrated into window frames, or other approved means.

Based on the projected noise levels, these design measures would provide sufficient attenuation to satisfy CEQR and HUD requirements. With the specified attenuation measures in place, the proposed project would not have any significant adverse noise impacts and would comply with all CEQR noise requirements.

Attachment M: Public Health

I. INTRODUCTION

This attachment assesses the potential impacts from the Proposed Action on public health. As described in the *2014 CEQR Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability and premature death and reducing inequalities in health status. According to the 2*014 CEQR Technical Manual*, for most proposed projects, a public health analysis is not necessary. Where no significant unmitigated adverse impact is found in other CEQR analysis areas such as air quality, water quality, hazardous materials, or noise, no public health analysis is warranted.

Thus, this public health assessment is based on the results of the following attachments: Attachment K, "Air Quality", Attachment I, "Hazardous Materials," and Attachment L, "Noise." The impacts from each of these technical categories were evaluated to determine whether there is potential for significant adverse impacts related to public health.

As described in Attachment A, "Project Description", the Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of 5 projected development sites and one potential development site. The Proposed Action would facilitate a net increase over the No Action condition of 366 dwelling units (DUs), 219 of which would be affordable, in the Project Area.

II. FUTURE WITH PROPOSED ACTION

Air Quality

As described in Attachment K, "Air Quality," with the implementation of air quality-related (E) designations for a number of the Projected Development sites, the Proposed Action would not result in any significant adverse impacts on Air Quality. Specifically, based on guidance in the *2014 CEQR Technical Manual*, boiler stack emissions from heating, ventilation and air conditioning facilities on most of the Projected Development sites would not require an assessment of their impact on air quality. However, the HVAC analysis determined that certain Projected Development sites would require an (E) designation or a restrictive declaration that would specify the type of fuel to be used or the distance that the vent stack on the building roof must be from the edge of a lot line. Traffic air quality in future with Proposed Action was analyzed using EPA's MOVES2010b for emission factors and CAL3QHCR for the dispersion model and revealed that no significant adverse impacts are projected. Given the (E) designations on the specified sites, no air quality impacts are anticipated as a result of the proposed action from mobile source emissions, HVAC sources, or air toxics provided that the development complies with all applicable legislation. As such, there would be no significant adverse impacts on public health due to air quality from mobile or stationary source emissions.

Water Quality

As the Proposed Actions would result in a net increase of less than 400 residential units compared to No-Action conditions, wastewater and stormwater infrastructure was screened out from further analysis. As such, there would be no significant adverse impacts on public health due to water quality.

Hazardous Materials

As described in Attachment I, "Hazardous Materials," there would be no significant adverse hazardous material impacts resulting from construction in the Project Area that is anticipated to occur from the Proposed Action. The Phase I ESA for the Development Site (Projected Development Site Number 1) and the 5 PSAs for the Projected Development Sites Numbers 2 through 5 and the Potential Development Site indicated that there was the potential for the presence of hazardous material contamination all of the Projected and Potential Development Sites.

As a result, the proposed zoning map actions include (E) designations (E-385) for all privately held Projected and Potential Development Sites. By placing (E) designations on these privately held sites, there would be no impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures outlined in the (E) designation would reduce or avoid the potential for significant adverse hazardous materials impacts resulting from construction in the Project Area that would be allowed by the Proposed Action. As such, there would be no significant adverse impacts on public health due to hazardous materials.

Noise

As described in Attachment L, "Noise," no significant adverse impacts due to noise are projected for the proposed action. Analysis of increased vehicular noise showed that no sensitive receptors would experience a relative increase of 3 dBA or more, which the *2014 CEQR Technical Manual* states is the threshold below which it is likely that the Proposed Action would not cause a significant adverse vehicular noise impact.

With regard to the potential impact of ambient noise levels on the Projected and Potential Development Sites, no impacts would occur provided that the construction materials provide window/wall attenuation sufficient to ensure that interior noise levels are 45 dBA or less. To accomplish this, (E) designations have been recommended for the facades of the buildings on the development sites. These designations will comply both with HUD (US Department of Housing and Urban Development) guidelines and CEQR requirements. Alternate means of ventilation would also be required for all sites with an exterior noise level of 70 dBA. With these measures in place, no noise level impacts would occur.

As such, there would be no significant adverse impacts on public health due to noise.

III. CONCLUSION

As concluded in Attachment K, "Air Quality", Attachment I, "Hazardous Materials," and Attachment M, "Noise," the Proposed Action would not have the potential for unmitigated significant adverse impacts related to air quality, water quality, hazardous materials, or noise. Therefore, the Proposed Action would not have the potential for significant adverse impacts related to public health and no further analysis is warranted.

Attachment N: Neighborhood Character

I. INTRODUCTION

This section assesses the potential impacts from the Proposed Action on neighborhood character. Neighborhood character is defined by the composite of various elements that define the personality and feel of neighborhoods. These elements may include a neighborhood's land use, urban design, visual resources, historic resources, socioeconomics, traffic, and/or noise. According to the *2014 CEQR Technical Manual*, a neighborhood character assessment must consider how elements of the environment combine to create the context and feeling of a neighborhood and how a project may affect that context and feeling. Thus in order to determine a project's effects on neighborhood character, the different elements of neighborhood character are considered together.

The Applicant has requested the rezoning of a multi-lot portion of Block 2600 in Bronx Community District One (the "Project Area") from M1-2 and M1-3 to R7X and R7X/C1-4. The Applicant also seeks a text amendment of ZR Appendix F to classify the Project Area as an MIH designated areas. The rezoning and text amendment are collectively the "Proposed Action." The Proposed Action affects a lot area of approximately 115,948 sf[1] and is bound by Southern Boulevard to the west and Austin Place to the east, and is bisected by Timpson Place and East 147th Street. The proposed C1-4 commercial overlay will be located along the eastern side of Southern Boulevard, extend 100 feet from the nearest street, and affect Lot 30, 47, 49, and 131 in Block 2600. The Proposed Action would allow the Applicant to construct a 12-story, 135-foot tall, 164,592 gsf residential building on the Lot's 187, 222, 220, and 213 of Block 2600 in Bronx Community District One (the "Development Site") with an FAR of 6.0 and providing 165 affordable DUs.

As described in Attachment A, "Project Description", the Reasonable Worst-Case Development Scenario (RWCDS) has been identified for the Proposed Action, resulting in a total of 5 projected development sites and one potential development site. The Proposed Action would facilitate a net increase over the No Action condition of 366 dwelling units (DUs), 219 of which would be affordable, in the Project Area.

II. PRINCIPAL CONCLUSIONS

As described in Attachments B, C, E, F, G, H, J and L, the Proposed Action would not cause significant adverse impacts regarding land use, zoning and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. In addition, the combination of moderately adverse effects from each of the aforementioned technical areas would not affect a neighborhood's defining features. Therefore, the Proposed Action is not expected to have any significant adverse impacts on neighborhood character.

III. METHODOLOGY

A preliminary assessment determines whether changes expected in other technical areas may affect a contributing element of neighborhood character. The *2014 CEQR Technical Manual* states that the preliminary assessment of neighborhood character should answer the following questions:

[1] Calculated as the portion of tax lots within the Project Area only. Total area within boundary of Project Area is 186,264.4 sf.

1. What are the defining features of the neighborhood?
2. Does the project have the potential to affect the defining features of the neighborhood, either through the potential for a significant adverse impact or a combination of moderate effects in relevant technical areas?

This section assesses the effect of the Proposed Action on the surrounding character. First it provides a description of the existing conditions and defining features of the neighborhoods, then it analyzes whether any of the other technical areas have potential to impact these defining features.

Study Area

Neighborhood character is addressed and analyzed for two geographical areas for the Proposed Action: (1) Project Area (which includes the Development Site) and (2) a secondary study area. For the purpose of this assessment, the secondary study area extends an approximate 400-foot radius from the boundary of the rezoning area and encompasses areas that have the potential to experience indirect impacts as a result of the Proposed Action. The secondary study area is bounded East 149th Street and Southern Boulevard to the north, East 144th Street to the south, Wales Avenue to the west, and Bruckner Expressway to the east. Both the primary and secondary study areas have been established in accordance with guidelines set forth in *2014 CEQR Technical Manual* and are shown in **Figure H-1: Urban Design and Visual Resources Study Areas**.

IV. PRELIMINARY ASSESSMENT

Existing Neighborhood Character and Defining Features

Project Area

The Project Area is flanked by an area dominated by residential uses to the north and light manufacturing uses to the south. It is located within the eastern part of the Mott Haven neighborhood and is bordered by Port Morris to the east. Mott Haven is generally characterized as a residential neighborhood in the South Bronx, however there is a significant industrial and manufacturing presence in the northeast where the Project Area meets the boundaries of Port Morris. Port Morris, which is located on the eastern side of the Bruckner Expressway, is a predominantly industrial neighborhood. The Project Area has witnessed a steady transition away from manufacturing, and towards mixed-use residential and commercial use with large-scale affordable housing and multi-family housing developments (Crossroad Plaza) in Lots 65, 165, 9 and 12 within Block 2582 just north of the Project Area.

Currently, the Project Area is zoned M1-2 and M1-3 and has a mixture of single-family homes, occupied apartments, active commercial and light manufacturing businesses, and vacant residential buildings and lots. The urban design and character of the Project Area is characterized by relatively low density, shorter buildings, with the majority of buildings between one- and two- stories. Many are brick or wood paneled structures and are built directly against the street wall. A break in this overall character is the relatively large five-story residential building located at the southeastern corner of Southern Boulevard and East 147th Street (490 Southern Boulevard). This residential building is located on the largest lot and is the tallest, most dense building in the Project Area.

The mix of uses and building types depict a transitioning area and diverse area, with vacant lots, one-story warehouses, and multi-family residential buildings side-by-side. The only open space located within the Project Area is the private playground on Lot 170, which functions as a recreation space for the residents

of 490 Southern Boulevard. Streetscapes are defined by sidewalks lined with trees without tree guards, standard signage, and cobra head lampposts. Streets within the Project Area are often fully lined with parallel-parked cars. There are no designated or potential architectural resources within or in close proximity to the Project Area. The No. 6 line operates within the study area and serves two subway stations located less than ¼-mile from the Project Area, one at East 143 St (St Mary's St Station located at East 143rd Street/St. Mary Street and Southern Boulevard) and the second at East 149th St (East 149th Street and Southern Boulevard).

Secondary Study Area

The 400-foot secondary study area comprises of both Mott Haven and Port Morris neighborhoods, and as such is characterized by some areas that are more heavily residential and others that are more industrial. The Port Morris IBZ and the Port Morris Empire Zone, as described in detail in Attachment B, "Land Use, Zoning, and Public Policy," solidifies the neighborhood character of Port Morris as an industrial area with an intention of remaining a high-performing business district. The Mott Haven East Urban Renewal Plan on focuses on redevelopment with a focus on housing, which reflects the more residential and mixed-use character of the neighborhood. Recently, both Mott Haven and Port Morris have been experiencing slow gentrification, as depicted in the news and development trends.

The uses, zoning, and urban design character of the larger secondary study area are as a result, more diverse. There are manufacturing, residential, and commercial districts mapped within the study area, including a commercial overlay over parts of East 149th Street. The area south of East 147th Street, between Southern Boulevard and Bruckner Boulevard, is characterized primarily by industrial and manufacturing buildings, with several commercial/office buildings and a parking facility mapped along Bruckner Boulevard. To the west of Southern Boulevard is a mix of multi-family walkup buildings, mixed use commercial/residential, and the DOE owned Samuel Gompers Bronx Vocational High School. East 149th Street is a much more commercial and retail heavy corridor than the rest of the study area, with food establishments and other types of local retail. The area does not have a park or a large open space, but it does contain two Greenstreets Program spaces in addition to the private open space contained within the Project Area.

The larger study area also has a more diverse array of public transportation options, including two subway stations serving the No. 6 line (at East 143 St. and East 149 St. stations) and two NYCT/MTA local bus routes (Bx17 and Bx19). The Bx19 route stops on Southern Boulevard north of East 149th Street and the Bx17 bus stops on Prospect Avenue north of East 149th Street. As in the Project Area, many streets are lined with parallel-parked cars.

Assessment of Proposed Action's Potential Effects on Neighborhood Character

Land Use, Zoning and Public Policy

The Proposed Action would change the zoning designation of the Project Area from M1-2 and M1-3 to R7X and R7X/C1-4, and as a result, provide incentive for residential and mixed-use development on lots which are currently either being underutilized or used for other purposes. As described in Attachment B, "Land Use, Zoning, and Public Policy," while these changes in land use and zoning are expected, they would be consistent with the current development trends in the surrounding areas of a shift away from manufacturing/industrial uses and towards residential and commercial/retail developments. The Proposed Action would not introduce any new land uses into the surrounding area, and instead, allow future development to occur in a manner that corresponds to the current development patterns. The proposed zoning changes would introduce a residential district into an area that already has existing and proposed residential developments. It would also introduce commercial/retail overlay along the eastern side of

Southern Boulevard, which would extend a small local retail corridor that already exists along East 149th Street. The goals of applicable public policies that govern the Project Area and study area not only align with the changes that would occur as a result of the Proposed Action, but also work to support and reinforce them. As such, a significant adverse impact on neighborhood character from land use, zoning, and public policy is not expected as a result of the Proposed Action.

Socioeconomic Conditions

As described in Attachment C, "Socioeconomic Conditions," the current population characteristics of the Project Area and surrounding census tracts shows a range of AMI from as low as $9,327 from Census Tract 37 to $39,962 in Census Tract 31 well below the HPD defined AMI for a family of four at 50% below AMI[2]. The study area for Socioeconomic Conditions thus has a population characterized by low incomes. Existing housing supply currently shows lower rental rates that are able to accommodate the existing population. As a result of the rezoning, the Proposed Action is expected to provide additional opportunities for residential development and compensate for any direct displacement of residents on the 5 projected development sites within the Project Area. In addition, it is not anticipated that any businesses will be directly displaced. Furthermore, an examination of indirect displacement of residents and business also found that the potential increase in population and rental rates does not cross the threshold where a significant effect on real estate market conditions would be expected. Thus it is not expected that the Project Area and surrounding area would experience a significant shift in the demographics and population from the Proposed Action.

Open Space

As described in Attachment E, "Open Space," the Proposed Action would have no significant adverse direct or indirect residential impacts on open space, nor would it result in significant adverse impacts due to direct or indirect business and institutional displacement. The Project Area and the surrounding neighborhood is not located in an area that is either underserved or well-served by open space, as defined by the Open Space Appendix of the *2014 CEQR Technical Manual*. If a project is not located within an underserved or well-served area, an open space analysis should be conducted if the project would generate more than 200 residents or 500 employees. The Proposed Action would introduce up to 336 incremental residential DUs, which would introduce an estimated 1,043 residents to the Study Area, compared to the No Action condition.

The residential study area's (½-mile) total open space ratio (OSR) in the future with the Proposed Action would be 1.19 acres per 1,000 residents, which represents a reduction of approximately 3.25% from No Action conditions. The active OSR in the residential study area would decrease from 1.14 acres per 1,000 residents to 1.11 acres per 1,000 residents in the future with the Proposed Action, a 2.63% decrease. The passive OSR for residents would decrease from 0.09 acres per 1,000 residents to 0.08 acres per 1,000 residents, an 11.11% decrease. While this represents a significant decrease in passive OSR for residents in the study area, 8 out of 17 identified publicly accessible open space are both passive and active open space, but for the purposes of this analysis, they were categorized as active open space.

As the decrease in total OSR would not exceed the five percent impact threshold and the residential study area would continue to be neither well-served nor underserved by open space in the With Action condition, the Proposed Action would not result in a significant adverse indirect impact on total, active, and passive open space in the residential study area. As such, the decrease in OSR for open space would not affect neighborhood character.

[2] *2015 FMR Derived Area Median Income,* NYC Department of Housing Preservation and Development (HPD), Office of Development, Division of New Construction Finance, 2015

Historic and Cultural Resources

As described in Attachment G, "Historic and Cultural Resources," there are no architectural or archaeological resources that would be affected by the Proposed Action. With consultation by LPC, it was determined that there are no significant historic landscape features within the project area, no culturally or historically significant publicly accessible view corridors, and no historic landscapes or structures with features that depend on sunlight. Thus, historic and cultural resources are not a critical defining feature of the Project Area.

LPC concluded that none of the identified projected and potential development sites that could experience new/additional in-ground disturbance as a result of the Proposed Actions have any archaeological significance. Hence, there would be no adverse impacts on the neighborhood character from the Proposed Action.

Urban Design and Visual Resources

As detailed in Attachment H, "Urban Design and Visual Resources," the Proposed Action will not result in significant adverse impacts on urban design and visual resources. The Proposed Action would rezone the Project Area from M1-2 and M1-3 to R7X and designate a C1-4 commercial overlay 100 feet along the eastern side of Southern Boulevard. The proposed zoning changes is anticipated to facilitate a shift from manufacturing uses in the Project Area towards more residential and commercial developments. These changes, based on the general development trends occurring in the surrounding areas, would be in line with the existing development in the surrounding area.

After completing a preliminary urban design and visual resources analysis, the Proposed Action is anticipated to result in new development that is visually in accordance with the built forms and building types that currently existing the surrounding area. The developments that would occur as a result of the Proposed Action would generally exhibit the built characteristics of existing developments in the surrounding study area, which are more diverse in use and bulk. The Proposed Action would introduce 5 projected developments that are between 6 and 12 stories, with an FAR of 6.0, that would either be residential or mixed-use residential and commercial. These heights and densities are greater than that that currently allowed by the M1-2 and M1-3 zoning. However, the bulk of the new developments follow the pattern of the bulk of existing large-scale developments within and surrounding the Project Area. For example, the 275,000 gsf multi-family residential building within the rezoning area is 5-stories and rises to a maximum of 55 feet. The nearby Crossroads Plaza development is also a taller, denser residential building. Thus, the urban design character of secondary study area currently contains a mix of taller, higher density buildings that have built forms similar to the projected developments that are anticipated in the Project Area by 2025. Additionally, the anticipated commercial development that would occur along the eastern side of Southern Boulevard would provide support for existing ground floor retail that exists already along East 149th Street. The Proposed Action would not result in any changes to block form or street arrangement and orientation. Therefore, the Proposed Action is not expected to result in any significant adverse impacts to neighborhood character from urban design in the study area.

Shadows

As described in Attachment F, "Shadows," there are three sunlight-sensitive resources of concern within the Project Area: (1) NYC Department of Parks & Recreation's Martin Luther King Triangle, (2) and two smaller triangular landscaped Greenstreets Program facilities. The projected development sites resulting from the Proposed Action would cast new shadows on March 21st, May 6th, and June 21st on two of the three resources. Through a detailed analysis, these impacts were concluded to be minimal rather than significant due to their limited extent (often not covering the entire area of the resources) and duration

(early- to mid-mornings and late afternoons & evenings). Thus, these incremental shadows would not create significant adverse impacts on neighborhood character.

Transportation

As described in Attachment J, "Transportation," the character of transportation in the Project Area and surrounding neighborhoods is composed of a wide range of travel modes including vehicular traffic, pedestrian traffic on sidewalks and crosswalks, as well as public transit via bus and subway. An analysis of existing conditions revealed that for both signalized and unsignalized intersections analyzed, all of the intersections are currently operating at acceptable levels of capacity. Foot traffic from pedestrians at both corners and crosswalks are also at acceptable capacity levels. Within ¼ mile of the Project Site, the analysis revealed that there is existing capacity of on-street parking at all times. The No. 6 train subway line and the Bx17 and Bx19 bus routes serve the transportation study area

The Proposed Action would add vehicle trips to the study area. However, the traffic analysis shows that the Proposed Action would not result in any significant adverse traffic impacts. With regards to pedestrian facilities, under the Proposed Action Condition, there would be no significant adverse impacts to corners, crosswalks, or sidewalks. The addition of 25 on-site parking spaces, along with the remaining capacity of on-street parking would provide capacity to accommodate the parking demand generated be the Proposed Action. Therefore, there would not be any parking-related significant adverse impacts. Based on the number of new bus and subway trips generated by the Proposed Action, it was determined that there was no impact on bus or subway transit modes. In terms of safety, the one intersection at East 149th Street and Southern Boulevard was the only study intersection classified as a high pedestrian/bicycle crash location. The Proposed Action would increase the level of vehicular activity at this intersection; however, the implementation of the City-wide reduction in speed limit in 2015 and elements of the engineering, planning, enforcement, and education action plan along Priority Corridors associated with Vision Zero are anticipated to improve safety at this intersection. Therefore, there would not be any safety-related significant adverse impacts.

Therefore, while there would be increased transportation activity as a result of the Proposed Action, the resulting conditions would be similar to those seen in the urban neighborhoods defining the study area and would not result in the density of activity or service conditions that would be out of character with the surrounding neighborhoods. Thus, the changes in transportation due to the Proposed Action would not result in significant adverse impacts on neighborhood character.

Noise

As described in Attachment L, "Noise," the expected new development due to the Proposed Action is not expected to have any significant adverse impacts due to noise. Analyses of increased vehicular noise, using the proportionality equation, showed that no sensitive receptors would experience a relative increase of 3 dBA or more. With regard to the potential impact of ambient noise levels on the Projected and Potential Development Sites, no impacts would occur provided that the construction materials provide window/wall attenuation sufficient to ensure that interior noise levels are 45 dBA or less. Provided the measures detailed in Attachment L are implemented, no noise level impacts would occur. Therefore, any noise increases as a result of the Proposed Action are not expected to result in a significant adverse impact to neighborhood character.

VI. CONCLUSION

As described in the *2014 CEQR Technical Manual*, the combined effects on defining elements of a neighborhood may have the potential to significantly affect neighborhood character. Of the relevant technical areas specified by CEQR guidelines, the Proposed Action would not have significant adverse impacts regarding land use, zoning land use, zoning and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. In addition, the combination of moderately adverse effects from each of the aforementioned technical areas would not affect a neighborhood's defining features. Therefore, the Proposed Action is not expected to have any significant adverse impacts on neighborhood character.

Attachment O: Construction

I. INTRODUCTION

This attachment assesses the potential impacts of construction activities that could occur on the Projected Development sites as a result of the Proposed Action, as described in the Reasonable Worst-Case Development Scenario (RWCDS) presented in Attachment A, "Project Description." Construction impacts, although temporary, can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of construction impacts and 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, hazardous materials, archaeological resources, integrity of historic resources, community noise patterns, and air quality conditions.

The Proposed Action would facilitate the construction of new multi-unit residential buildings and mixed-use buildings with commercial use and community facilities on the ground floor. As discussed in Attachment A, "Project Description," a total of five projected development sites are proposed to develop under the RWCDS. Under the RWCDS, the Proposed Action would result in a total of approximately 366 additional residential DUs (362,121 gsf) in the With Action condition as compared to the No Action condition.

As described in other attachments to this EAS, the development that would occur on the projected development sites with the Proposed Action is expected to range in bulk between 34,452 gsf and 164,592 gsf and range in height between 73 feet and 135 feet. The five projected development sites would be completed by the Build year of 2025. In addition, there is one potential development site considered less likely to be developed by the 2025 Build year.

According to the *2014 CEQR Technical Manual*, construction duration is often broken down into short-term (less than two years) and long-term (two or more years). Where the duration of construction is expected to be short-term, any impacts resulting from such short-term construction generally do not require detailed assessment. While the accumulative construction period of all projected development sites may exceed two years, as described below, construction at any given projected development site would be completed within an 18 to 22 month time period and would consequently be considered short-term. Additionally, while construction activities associated with the RWCDS may require closing, narrowing, or otherwise impede traffic, transit, or pedestrian elements, the closure would not be located in an area with high pedestrian activity or near sensitive land uses.

However, as multiple projected development sites were identified and since there is a potential for on-site receptors on buildings to be completed before the final build-out, a preliminary assessment of potential construction impacts was prepared in accordance with the guidelines of the *2014 CEQR Technical Manual*, and is presented in this attachment.

II. PRINCIPAL CONCLUSIONS

The inconvenience and disruption arising from the construction of projected development sites could likely include temporary diversions of pedestrians, vehicles, and construction truck traffic to other streets. Given that the five projected development sites are distributed over approximately four blocks, no one location within the rezoning area would be under construction for the full anticipated construction timeframe. As there is a potential for on-site receptors on buildings to be completed before the final build-out, a preliminary

assessment of potential construction impacts was prepared in accordance with the guidelines of the *2014 CEQR Technical Manual*, and is presented in this attachment. As detailed below, construction of the development sites identified in the RWCDS for the Proposed Action would not result in construction related impacts.

Throughout the construction period, access to surrounding residences, businesses, institutions, and open spaces in the area would be maintained. In addition, throughout the construction period, measures would be implemented to control noise, vibration, and dust on the construction sites and minimize impacts on the surrounding areas in conformance with the City's building code. These measures would include the erection of construction fencing and, in some areas, fencing incorporating sound-reducing measures. In addition to the activity associated with construction, some part of the parcels not yet in construction would be used for construction staging. These uses would not conflict with or significantly affect neighborhood character in the surrounding areas.

As also discussed below, construction-related activities resulting from the Proposed Action is not expected to have any significant adverse impacts on transit or pedestrian conditions, air quality, noise, historic or archaeological resources, or hazardous materials conditions, and a detailed analysis of construction impacts is not warranted. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized.

III. REGULATORY FRAMEWORK

Governmental Coordination and Oversight

The governmental oversight of construction in New York City is extensive and involves a number of city, state, and federal agencies. **Table O-1: Construction Oversight in New York City** shows the main agencies involved in construction oversight and each agency's areas of responsibility. The primary responsibilities lie with New York City agencies. The New York City Department of Buildings (NYCDOB) has the primary responsibility for ensuring that the construction meets the requirements of the Building Code and that buildings are structurally, electrically, and mechanically safe. In addition, NYCDOB enforces safety regulations to protect both construction workers and the public. The areas of responsibility include installation and operation of construction equipment, such as cranes and lifts, sidewalk shed, and safety netting and scaffolding. The New York City Department of Environmental Protection (NYCDEP) enforces the Noise Code, approves remedial action plans (RAPs) and Construction Health and Safety Plans (CHASPs), and regulates water disposal into the sewer system. The New York City Fire Department (FDNY) has primary oversight for compliance with the Fire Code and for the installation of tanks containing flammable materials. The New York City Department of Transportation (NYCDOT) reviews and approves any traffic lane and sidewalk closures. New York City Transit (NYCT) is in charge of bus stop relocations, and any subsurface construction within 200 feet of a subway. The Landmarks Preservation Commission (LPC) approves studies and testing to prevent loss of archaeological materials and to prevent damage to fragile historic structures.

The New York State Department of Environmental Conservation (NYSDEC) regulates discharge of water into rivers and streams, disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. The New York State Department of Labor (NYSDOL) licenses asbestos workers. On the federal level, the US Environmental Protection Agency (EPA) has wide ranging authority over environmental matters, including air emissions, noise, hazardous materials, and the use of poisons. Much of the responsibility is delegated to the state level. The US Occupational Safety and Health Administration (OSHA) sets standards for work site safety and the construction equipment.

Table O-1: Construction Oversight in New York City

Agency	Area(s) of Responsibility
New York City	
Department of Buildings	Primary oversight for Building Code and site safety
Department of Environmental Protection	Noise, hazardous materials, dewatering
Fire Department	Compliance with Fire Code, tank operation
Department of Transportation	Traffic lane and sidewalk closures
New York City Transit	Bus stop relocation; any subsurface construction within 200 feet of a subway
Landmarks Preservation Commission	Archaeological and historic architectural protection
New York State	
Department of Labor	Asbestos workers
Department of Environmental Conservation	Dewatering, hazardous materials, tanks, Stormwater Pollution Prevention Plan, Industrial SPDES, if any discharge into the Hudson River
United States	
Environmental Protection Agency	Air emissions, noise, hazardous materials, toxic substances
Occupational Safety and Health Administration	Worker safety

Hours of Work

Construction activities for buildings in the city generally take place Monday through Friday, with exceptions that are discussed separately below. In accordance with city laws and regulations, construction work would generally begin at 7:00 AM on weekdays, with workers arriving to prepare work areas between 6:00 AM and 7:00 AM. Normally, work would end at 3:30 PM, but at times the workday could be extended to complete some specific tasks beyond normal work hours, such as completing the drilling of piles, finishing a concrete pour for a floor deck, or completing the bolting of a steel frame erected that day. The extended workday would generally last until about 6:00 PM and would not include all construction workers on-site, but just those involved in the specific task requiring additional work time.

Occasionally, Saturday or overtime hours may be required to complete some time-sensitive tasks. Weekend work requires a permit from NYCDOB and, in certain instances, approval of a noise mitigation plan from NYCDEP under the City's Noise Code. The New York City Noise Control Code, as amended December 2005 and effective July 1, 2007 limits construction (absent special circumstances as described below) to weekdays between the hours of 7:00 AM and 6:00 PM, and sets noise limits for certain specific pieces of construction equipment. Construction activities occurring after hours (weekdays between 6:00 PM and 7:00 AM and on weekends) may be permitted only to accommodate: (i) emergency conditions; (ii) public safety; (iii) construction projects by or on behalf of city agencies; (iv) construction activities with minimal noise impacts; and (v) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. The typical weekend workday would be on Saturday from 7:00 AM with worker arrival and site preparation to 5:00 PM for site cleanup.

IV. CONCEPTUAL CONSTRUCTION SCHEDULE AND ACTIVITIES

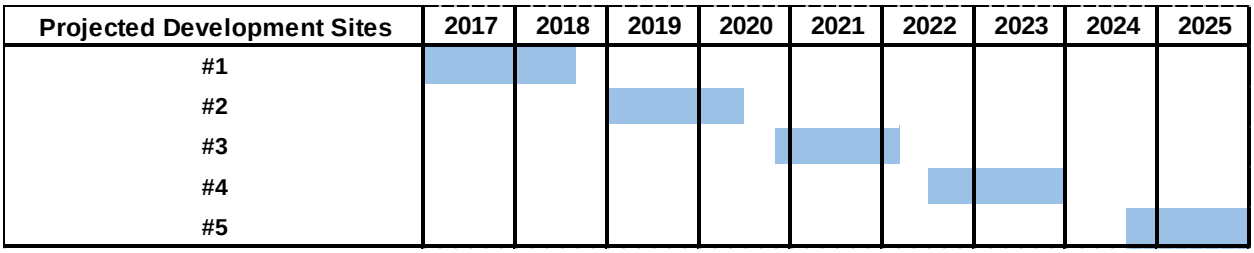
Construction Sequencing

Construction induced by the Proposed Action would be gradual, taking place over a 10-year period. The larger development sites, such as the Applicant's Development Site (Projected Development Site #1) and Projected Development Site 2 and 5, would take between 18 and 20 months to construct, whereas the construction period for the remaining sites, which are smaller, would take between 12 and 18 months to construct.

Apart from the Applicant's Proposed Development, the Proposed Action is not intended to facilitate any specific development on the remaining projected development sites. As such, the RWCDS presented in Attachment A, "Project Description," does not describe which of the sites would be developed first or assume a particular sequence of development. However, it is assumed that construction of all projected development sites, including the Proposed Development Site, would likely be completed by 2025. Market considerations will ultimately determine the demand for residential development. For the purposes of assessing potential construction impacts, it is assumed the construction of the Proposed Development Site would begin first, immediately after approval of the Proposed Action, with construction of the remaining four projected development sites entailing new construction staggered throughout the analysis period as illustrated in **Figure O-1: Assumed Construction Schedule for Assessment of Construction Impacts**.

The sequencing shown in **Figure O-1** was projected based on lot size, lot ownership, and proximity to the Proposed Development Site (with the assumption that larger vacant sites and parking lots near the Proposed Development Site would be developed first for example), as well as number of dwelling units currently occupying the lots (5 units or fewer versus 6 or more).

Figure O-1: Assumed Construction Schedule for Assessment of Construction Impacts



Following is a general outline of typical scheduling for construction on the projected development sites. It should be noted however that the duration and extent of new construction activities would vary based on which site is being developed.

- Months 1-4: Site clearance, excavation, and foundation. The first 4 months of construction would entail site clearance; digging, pile-driving, pile capping, and excavation for the foundation; dewatering (to the extent required), and reinforcing and pouring of the foundation. 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 construction debris.

- Months 5-10: Erection of the superstructure and underground parking foundation, if any. Once the foundations have been completed, the construction of the building's steel framework, parking ramp, and decking would take place. This process involves the installation of beams, columns and decking, and would require the use of cranes, derricks, hoists, and welding equipment.

- Months 11-24: Façade and roof construction, mechanical installation, interior and finishing work. This would include the assembly of exterior walls and cladding; installation of heating, ventilation and air conditioning (HVAC) equipment and ductwork; installation and checking of elevator, utility, and life safety systems; and work on interior walls and finishes. During these activities, hoists and cranes would continue to be used, and trucks would remain in use for material supply and construction waste removal. It should be noted that much of this work occurs when the building is fully enclosed, and therefore is not disruptive to the surrounding area.

In accordance with city laws and regulations, construction work would generally begin at 7:00 AM on weekdays, with some workers arriving to prepare work areas between 6:00 AM and 7:00 AM. Normally, work would end at 3:30 PM, but it can be expected that at times, the workday could be extended to complete some specific tasks beyond normal work hours, such as completing the drilling of piles, finishing a concrete pour for a floor deck, or completing the bolting of a steel frame erected that day. The extended workday would generally last until about 6:00 PM and would not include all construction workers on-site, but just those involved in the specific task requiring additional work time. Limited extended workdays are expected to occur on weekdays over the course of construction.

Occasionally, Saturday or overtime hours may be required to complete some time-sensitive tasks. Weekend work requires a permit from the NYCDOB and, in certain instances, approval of a noise mitigation plan from the NYCDEP under the City's Noise Code. The New York City Noise Control Code, as amended December 2005 and effective July 1, 2007 limits construction (absent special circumstances as described below) to weekdays between the hours of 7:00 AM and 6:00 PM, and sets noise limits for certain specific pieces of construction equipment. Construction activities occurring after hours (weekdays between 6:00 PM and 7:00 AM and on weekends) may be permitted only to accommodate: (i) emergency conditions; (ii) public safety; (iii) construction projects by or on behalf of city agencies; (iv) construction activities with minimal noise impacts; and (v) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. The typical weekend workday would be on Saturday from 7:00 AM with worker arrival and site preparation to 5:00 PM for site cleanup.

Construction staging would most likely occur on the projected and potential development sites themselves and may, in some cases, extend within portions of sidewalks and curb and travel lanes of public streets adjacent to the construction sites. During the course of construction, traffic lanes and sidewalks may have to be temporarily closed or protected for varying periods of time. The Applicant's Development Site, which is the largest of the identified sites, has three street frontages, and therefore the east curb lane on Timpson Place, the north curb lane on E 147th Street between Timpson Place and Austin Place, and the west curb lane on Austin Place would likely be used for construction purposes for the duration of the construction of the Applicant's Development Site. Given the identified projected development sites, it is likely that the east curb lane on Southern Boulevard between E 147th Street and E 145th Street would be used for construction purposes for the duration of constructing Projected Development Site #2; the south curb lane of E 147th Street between Timpson Place and Austin Place would be used for construction purposes for the duration of constructing Projected Development Site #3; and the west curb lane on Timpson Place at the intersection with E 147th Street would be used for construction purposes for the duration of constructing Projected Development Site #5.

Some other lanes and sidewalks may be closed intermittently to allow for certain construction activities. Any sidewalk or street closures require the approval of the New York City Department of Transportation's Office of Construction Management and Coordination (NYCDOT-OCMC), the entity that insures critical arteries are not interrupted, especially in peak travel periods. There are no bus stops on any of the affected

cross streets, and construction of the projected development sites would not affect either E 149th Street, Bruckner Boulevard, or Southern Boulevard north of E 149th Street (all of which are designated local truck routes).

Builders would be required to plan and carry out noise and dust control measures during construction. Construction activities would be subject to compliance with the New York City Noise Code and by EPA noise emission standards for construction equipment. In addition, there would be requirements for street crossing and entrance barriers, protective scaffolding, and strict compliance with all applicable construction safety measures.

V. PRELIMINARY ASSESSMENT

In accordance with the guidelines of the *2014 CEQR Technical Manual*, this preliminary assessment evaluates the effects associated with the Proposed Action's construction related activities including transportation, air quality, noise, archaeological resources, historic resources, and hazardous materials. As discussed below, based on the results of the preliminary assessment, a detailed analysis of construction impacts is not warranted for the Proposed Action.

Transportation

The Proposed Action would result in residential and mixed-use residential and commercial development over a nine-year period in newly constructed buildings on all five projected development sites in the rezoning area. These developments would replace No Action uses on the development sites, including, light industrial/warehousing, residential, and parking uses. During construction periods, projected development sites would generate trips by workers traveling to/from the construction sites, and in relation to the movement of materials and equipment. Given typical construction hours, worker trips would be concentrated in off-peak hours and would not represent a substantial increment during the area's peak travel periods and the project-generated trips would be less than what would be realized upon the full buildout in 2025. Therefore, the overall extent of potential traffic impacts during peak construction would be within the envelope of traffic impacts identified for the With Action condition in Attachment N, "Transportation".

Air Quality and Noise

The *2014 CEQR Technical Manual* states that preliminary assessments of construction impacts are warranted if a project construction extends for a period of greater than two years. An assessment of air and quality and noise impacts for construction activities is likely not warranted if the project's construction activities:

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

If a project meets one or more of the criteria above or if one of the above criteria is unknown at the time of review, a preliminary air quality or noise assessment is not automatically required. Instead, various factors should be considered, such as the types of construction equipment (e.g., gas, diesel, electric), the nature

and extent of any commitment to use the Best Available Technology (BAT) for construction equipment, the physical relationship of the project site to nearby sensitive receptors, the type of construction activity, and the duration of any heavy construction activity.

The Applicant's Development Site would be constructed by 2018. Therefore, it does not trigger the threshold criteria above that would require detailed analysis. Although the other four projected development sites and one potential development site are projected to achieve build-out between 2018 and 2025, their actual development and potential for overlapping construction periods cannot be estimated at this time. The majority of the buildings projected for the non-applicant development sites are small, with the exception of Projected Development Site #4. Based on construction period information obtained from the *Crotona Park East/West Farms Rezoning EIS* most, if not all, of the buildings could be constructed within one to two years (104 weeks) as shown in **Table O-2: Typical Construction Periods (Weeks)** below.

Table O-2: Typical Construction Periods (Weeks)

Development Size (sq. ft.)	Estimated Typical Construction Period (weeks)	Projected Development Sites
$\leq$ 25,000	$\leq$ 52	
25,000 – 75,000	52 – 86	2,3,5
75,000 – 125,000	86 -- 114	4

Based on the relatively short construction periods, and the dispersal of the development sites throughout the Project Area, the potential for sensitive receptors to experience construction impacts for a period of two years is low. Therefore, no analysis of on-site construction air quality or noise was carried out. However, as a conservative analysis, additional review of off-site construction vehicles during construction was carried out and is presented in Section VI. SCREENING ASSESSMENT.

Historic and Cultural Resources

As described in Attachment G, "Historic and Cultural Resources", the NYCLPC has determined that none of the projected or potential development sites is sensitive for archaeological resources (refer to **Figure G-1, NYCLPC Environmental Review Letter**). Therefore, it is not anticipated that construction induced by the Proposed Action would have any significant adverse impacts on archaeological resources in the area.

As discussed in more detail in Attachment G, "Historic and Cultural Resources", none of the projected or potential development sites contain buildings that are architecturally significant, nor are they located adjacent to any designated historic resources.

Hazardous Materials

The Proposed Action would result in new residential and mixed-use developments in areas currently zoned for light manufacturing uses. As such, a detailed hazardous materials assessment of the five projected and one potential development site was undertaken, and is described in Attachment J, "Hazardous Materials". As described in Attachment J, the Proposed Action would not result in significant adverse hazardous materials impacts. The analysis revealed that all projected and potential development sites have past or present use suggesting that they may contain hazardous materials contamination. To ensure that the Proposed Action would not result in significant, adverse hazardous materials impacts, (E) designations would be mapped on all privately held projected and potential development sites as part of the Proposed

Action. As discussed in Attachment J, an (E) designated site is an area designated on a zoning map within which no change of use or development requiring a New York City Department of Buildings (NYCDOB) permit may be issued without approval of the Mayor's Office of Environmental Remediation (OER). These sites require the OER's review to ensure protection of human health and the environment from any known or suspected hazardous materials associated with the site. The (E) designation also ensures that the fee owner conduct a testing and sampling protocol and remediation, where appropriate, to the satisfaction of OER before the issuance of a permit by NYCDOB. The environmental requirements for the (E) designation also include mandatory construction-related health and safety plan, which must also be approved by the OER.

In addition, demolition of interiors, portions of buildings or entire buildings are regulated by NYCDOB requiring abatement of asbestos prior to any intrusive construction activities including demolition. OSHA regulates construction activities to prevent excessive exposure of workers to contaminants in the building materials including lead in paint. New York State Solid Waste regulations control where demolition debris and contaminated materials associated with construction are handled and disposed. Adherence to these existing regulations would prevent impacts from development activities at any of the projected development sites in the proposed rezoning area.

VI. SCREENING ASSESSMENT

Air Quality

Emissions from on-site construction equipment and on-road construction-related vehicles, as well as dust generating construction activities, have the potential to affect air quality. In general, much of the heavy equipment used in construction has diesel-powered engines that generate carbon monoxide, nitrogen oxides, and fine particulates. Fugitive dust generated by equipment moving around on the site also contributes to concentrations of fine particulates. Therefore, the primary air pollutants of concern for construction activities include carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}), and particulate matter with an aerodynamic diameter of less than or equal to 2.5 micrometer ($PM_{2.5}$). For screening purposes, if no analysis is needed for PM, none is required for NO_2.

An impact would occur if pollutant concentrations would exceed the NAAQS or the City de minimis values as a result of the project. For CO, a screening analysis was carried out to verify the need for microscale modeling based on a construction increment of 170 vehicles in an hour for CO. The construction workers' vehicles would not exceed the 170-vehicle threshold. Thus, no further analysis of CO is necessary.

A screening analysis for $PM_{2.5}$ was conducted using the spreadsheet referenced on page 17-12 of the *2014 CEQR Technical Manual*. The algorithm uses traffic volume according to vehicular class and determines the number of heavy duty diesel vehicles (HDDVs) that would generate equivalent emissions. The equivalent number of HDDVs varies by type of road. A more detailed analysis is required if a proposed action would meet or exceed the thresholds shown below:

- 13 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.

Both E. 147th Street and Timpson Place are classified as local roads. Thus, they would be subject to the criterion of the equivalent of 13 heavy duty diesel vehicles.

Truck trips area greatest during the early stages of construction, particularly the Demolition and Excavation & Foundations stages. **Table O-3: Maximum Estimated Construction Trucks** shows the estimated truck trips, by development size, during Excavation & Foundation based on the information from the *Crotona East/West Farms Rezoning EIS*. The duration of this phase of construction would range from six to eight weeks.

Table O-3: Maximum Estimated Construction Trucks

Development Size (sf)	Daily Trucks				Average Trips/Hour (11 hours)	Duration of Phase (weeks)
	Inbound (hauling)	Outbound (delivery)	Total	Total Trips		
≤ 25,000	15	6	21	42	3.8	6
25,000 – 75,000	15	6	21	42	3.8	6
75,000 – 125,000	15	6	21	42	3.8	8

Based on **Table O-3**, up to three development sites could be in the Excavation & Foundations stage at the same time without triggering the need for analysis of off-site trucks. Given the approximately eight-year period for full buildout, the likelihood of more than three nearby sites undergoing the Excavation and Foundations stage of construction would be low. Therefore, no further analysis of construction air quality from off-site construction trucks was carried out.

To minimize pollutant emissions and ensure that construction of the proposed project results in the lowest practicable diesel particulate matter (DPM) emissions, the Applicant would implement the following measures:

- ***Dust Control***. Fugitive dust control plans would be required as part of contract specifications. For example, stabilized truck exit areas would be established for washing off the wheels of all trucks that exit the construction site. Tracking pads would be established at construction exits to prevent dirt from being tracked onto roadways. Any truck routes within the sites would be either watered as needed or, in cases where such routes would remain in the same place for an extended duration, the routes would be stabilized, covered with gravel, or temporarily paved to avoid the re-suspension of dust. All trucks hauling loose material would be equipped with tight fitting tailgates and their loads securely covered prior to leaving the sites. To minimize fugitive dust emissions, vehicles on-site could be limited to a speed of five mph. Chutes would be used for material drops during demolition. Water sprays and or misting systems would be used for all excavation, demolition, and transfer of spoils to ensure that materials are dampened as necessary to avoid the suspension of dust into the air. Loose materials would be watered, stabilized with a biodegradable suppressing agent, or covered. In addition, all necessary measures would be implemented to ensure that the New York City Air Pollution Control Code regulating construction-related dust emissions is followed. Construction areas would also be surrounded by perimeter fencing that would help contain fugitive dust emissions.

- ***Idle Times***. IN addition to adhering to the local law restricting unnecessary idling on roadways, on-site vehicle idle time will also be restricted to three minutes for all equipment and vehicles that are not using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing) or otherwise required for the proper operation of the engine.

- ***Utilization of Newer Equipment.*** The EPA's Tier 1 through 4 standards for nonroad engines regulate the emission of criteria pollutants from new engines, including PM, CO, NO_x, and hydrocarbons (HC). All nonroad construction equipment for the proposed project with a power rating of 50 hp or greater would meet Tier 3 with DPFs and SCRs or newer emissions standard. Tier 3 NO_x emissions range from 40 to 60 percent lower than Tier 1 emissions and considerably lower than uncontrolled engines. All nonroad construction equipment with power rating less than

50 hp would meet at least the Tier 2 emissions standard. This would be included in the bid documents and contracts.

- ***Source Location.*** To reduce the resulting concentration increments, stationary equipment would be located at least 50 feet away from nearby sensitive receptors (i.e., residential buildings and publicly accessible open spaces) and at least 30 feet away from sidewalks, to the extent practicable and feasible.

- ***Ultra Low Sulfur Fuel.*** To reduce sulfur oxide emissions, all diesel engines used in construction would use ultra-low sulfur fuel (ULSD). With the use of ULSD, emissions of sulfur oxides would be negligible.

- ***Diesel Equipment Reduction.*** Construction would minimize the use of diesel engines and maximize the use of electric engines where practical.

Additional measures may be taken to reduce pollutant emissions during construction of the proposed project besides all applicable laws, regulations, and building codes. Overall, the proposed emission reduction program is expected to significantly reduce DPM emissions consistent with the goals of the currently best available control technologies under New York City Local Law 77, which are required only for publicly funded City projects.

Noise

Potential impacts on community noise levels during construction of a proposed project can result from noise from construction equipment operation and from construction vehicles and delivery vehicles traveling to and from the construction site. Noise levels at a given location are dependent on the type and quantity of construction equipment being operated, the acoustical utilization factor of the equipment (i.e., the percentage of time a piece of equipment is operating), the distance from the construction site, and any shielding effects (from structures such as buildings, walls, or barriers). Noise levels caused by construction activities would vary widely, depending on the phase of construction (i.e., demolition, superstructure, interior fit-outs, etc.) and the location of the construction activities relative to noise-sensitive receptor locations. The most significant construction noise sources are expected to be the operation of backhoes/loaders, cranes, excavators, rebar bending machines, and vibratory plate compactors.

Construction noise is regulated by the requirements of the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113), the DEP Notice of Adoption Rules for Citywide Construction Noise Mitigation (also known as Chapter 28), and the EPA's noise emission standards. These local and Federal requirements mandate that specific construction equipment and motor vehicles meet specified noise emission standards; that construction activities be limited to weekdays between the hours of 7 AM and 6 PM; and that construction materials be handled and transported in such a manner as not to create unnecessary noise. For weekend and after hours work, permits would be required, as specified in the New York City Noise Control Code. In addition, EPA requirements mandate that certain classifications of construction equipment meet specified noise emission standards.

The *CEQR Technical Manual* states that significant noise impacts due to construction would occur "only at sensitive receptors that would be subjected to high construction noise levels for an extensive period of time." Based on the *CEQR Technical Manual* and subsequent protocols established by review agencies, a construction noise impact would occur if sensitive receptors would experience:

- Cumulative construction noise levels exceeding ambient noise levels by three to five dBA or more for a period of two years or more. If the No Action noise level is 60 dBA $L_{eq(1)}$ or less, a five dBA

$L_{eq(1)}$ or greater increase would be considered significant. If the No Action noise level is 61 dBA $L_{eq(1)}$, the maximum incremental increase would be four dBA. Similarly, if the No Action noise level is 62 dBA $L_{eq(1)}$ or more, a three dBA $L_{eq(1)}$ or greater change is considered significant;

- Cumulative construction noise levels exceeding 85 dBA for the duration of a construction phase; or
- Cumulative construction noise levels exceeding ambient noise levels by 15 dBA or more for the duration of a construction phase (i.e., more than 4 weeks).

In assessing the criteria above, further analysis should be performed if the proposed project would cause construction equipment to be operating within 1,500 feet of a receptor for a period of time exceeding two years. In some circumstances, however, even a shorter term construction phase may affect highly sensitive locations (such as schools, hospitals, etc.), warranting further quantitative analysis.

As discussed above and shown in **Table O-2**, the construction periods are not projected to exceed two years. No unusually noisy equipment, such as pile drivers, is anticipated for use. Given the dispersal of sites throughout the rezoning area, cumulative noise levels are not anticipated to exceed 15 dBA or more at residences in the area for more than four weeks. Therefore no construction noise impacts are projected.

Rodent Control

Construction contracts for the Applicant's proposed development would include provisions for a rodent (mouse and rat) control program. Before the start of construction of any of the proposed buildings, construction contractors would survey and bait the appropriate areas and provide for proper site sanitation. During the construction phase, as necessary, the contractors would carry out a maintenance program in a manner that avoids hazards to persons, domestic animals, and non-target wildlife. Coordination would be maintained with the appropriate public agencies.

VII. CONCLUSION

As discussed above, construction-related activities resulting from the Proposed Action is not expected to have any significant adverse impacts on traffic, air quality, noise, archaeological/historical resources, or hazardous materials conditions, and a detailed analysis of construction impacts is not warranted. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized.