



City Environmental Quality Review

ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) FULL FORM

Please fill out and submit to the appropriate agency ([see instructions](#))**Part I: GENERAL INFORMATION****PROJECT NAME** 2560 Boston Road Rezoning**1. Reference Numbers**CEQR REFERENCE NUMBER (to be assigned by lead agency)
22DCP184X

BSA REFERENCE NUMBER (if applicable)

ULURP REFERENCE NUMBER (if applicable)
220283ZMX, N22084ZRXOTHER REFERENCE NUMBER(S) (if applicable)
(e.g., legislative intro, CAPA)**2a. Lead Agency Information**NAME OF LEAD AGENCY
NYC Department of City PlanningNAME OF LEAD AGENCY CONTACT PERSON
Stephanie Shellooe, AICP

ADDRESS 120 Broadway, 31st Floor

CITY New York

STATE NY

ZIP 10271

TELEPHONE 212-720-3328

EMAIL
sshellooe@planning.nyc.gov**2b. Applicant Information**NAME OF APPLICANT
Boston Road AssociatesNAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON
John Valladares

ADDRESS 38 East 29th Street, 9th Floor

CITY New York

STATE NY

ZIP 10016

TELEPHONE (646) 439-4000
x226EMAIL
jvalladares@slatepg.com**3. Action Classification and Type****SEQRA Classification**☒ UNLISTED ☐ TYPE I: Specify Category (see 6 NYCRR 617.4 and NYC Executive Order 91 of 1977, as amended):**Action Type** (refer to [CEQR Technical Manual Chapter 2](#), "Establishing the Analysis Framework" for guidance)☒ LOCALIZED ACTION, SITE SPECIFIC☐ LOCALIZED ACTION, SMALL AREA☐ GENERIC ACTION**4. Project Description**

The Applicant seeks to rezone Block 4440, Lots 16, 30 and 32 (the "Project Site"), from R6/C8-1 district to R7-2/C2-4 district. The Proposed Actions would allow the development of one primarily residential building comprised of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The Proposed Project would be constructed over 33 months, with completion in 2026.

The Applicant is seeking approvals of the following discretionary land use actions:

- 1) Zoning Map Amendment to rezone the Rezoning Area from the existing R6/C8-1 zoning district to R7-2/C2-4.
- 2) Zoning Text Amendment: to Appendix F (Inclusionary Housing and Mandatory Inclusionary Housing Areas) of the ZR to designate the Rezoning Area an MIH area under Options 1 and 2.

In addition, the Applicant intends to seek public financing through the New York City (NYC) Housing Development Corporation (HDC)/NYC Department of Housing Preservation and Development (HPD). These actions are collectively referred to as the "Proposed Actions." See Attachment A: Project Description.

Project Location

BOROUGH Bronx

COMMUNITY DISTRICT(S) 11

STREET ADDRESS 2560 Boston Road

TAX BLOCK(S) AND LOT(S) Block 4440, Lots 16, 30, 32

ZIP CODE 10467

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The Project Site is a corner lot bounded by Boston Road to the north, Barnes Avenue to the east and Matthews Avenue to the east.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY R6,C8-1

ZONING SECTIONAL MAP NUMBER 4a

5. 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 ☐ SITE SELECTION—PUBLIC FACILITY ☐ HOUSING PLAN & PROJECT ☐ SPECIAL PERMIT (if appropriate, specify type:	☐ ACQUISITION—REAL PROPERTY ☐ DISPOSITION—REAL PROPERTY ☐ OTHER, explain: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:	☐ REVOCABLE CONSENT ☐ FRANCHISE
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION		
Board of Standards and Appeals: ☐ YES ☒ NO ☐ VARIANCE (use) ☐ VARIANCE (bulk) ☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:		
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION		
Department of Environmental Protection: ☐ YES ☒ NO ☐ Cogeneration Facility ☐ Title V Permit		
Other City Approvals Subject to CEQR (check all that apply) ☐ LEGISLATION ☒ FUNDING OF CONSTRUCTION, specify: Discretionary funding from HPD ☐ RULEMAKING ☐ POLICY OR PLAN, specify: ☐ CONSTRUCTION OF PUBLIC FACILITIES ☐ FUNDING OF PROGRAMS, specify: ☐ 384(b)(4) APPROVAL ☐ PERMITS, specify: ☐ OTHER, explain:		
Other City Approvals Not Subject to CEQR (check all that apply) ☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC) ☐ LANDMARKS PRESERVATION COMMISSION APPROVAL ☐ OTHER, explain:		
State or Federal Actions/Approvals/Funding: ☒ YES ☐ NO If "yes," specify: HDC funding		
6. 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.): 54,770 Waterbody area (sq. ft.) and type: N/A Roads, buildings, and other paved surfaces (sq. ft.): 54,770 Other, describe (sq. ft.): 10,11		
7. 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): 360,577 NUMBER OF BUILDINGS: 2 GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): N/A HEIGHT OF EACH BUILDING (ft.): 110', 120' NUMBER OF STORIES OF EACH BUILDING: 10,11		
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: 54,770 The total square feet not owned or controlled by the applicant:		
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 disturbance (if known): AREA OF TEMPORARY DISTURBANCE: 54,770 sq. ft. (width x length) VOLUME OF DISTURBANCE: 547,700 cubic ft. (width x length x depth) AREA OF PERMANENT DISTURBANCE: 54,770 sq. ft. (width x length)		
8. Analysis Year CEQR Technical Manual Chapter 2		
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2026		
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 33		
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO IF MULTIPLE PHASES, HOW MANY?		
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: The 2026 Build Year assumes a 33-month construction period. Based on anticipated ULURP approvals by mid 2023 and a 33-month construction period (Excavation and Foundation: 6 months, Superstructure: 9 months, Exterior and Interior: 15 months, and landscaping and BPP: 3 months.		

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

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

DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS

The information requested in this table applies to the directly affected area. The directly affected area consists of the project site and the area subject to any change in regulatory control. The increment is the difference between the No-Action and the With-Action conditions.

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures	Residence (Multiple Use)	Residence (Multiple Use)	Multi-family	
No. of dwelling units	4	4	333	329
No. of low- to moderate-income units	0	0	333	333
Gross floor area (sq. ft.)	1,986	1,986	277,990	276,004
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Supermarket, Office	Supermarket, Office	Supermarket, Local Retail	
Gross floor area (sq. ft.)	13,800	13,800	15,000	1,200
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type	Childcare	Childcare	Childcare, Medical Office	
Gross floor area (sq. ft.)	1,986	1,986	6,752	4,766
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):				
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	67	67
Operating hours	N/A	N/A	24-hour	
Attended or non-attended	non-attended	non-attended	non-attended	
Lots	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces	0	0	0	
No. of accessory spaces	67	67	50	-17
Operating hours	N/A	N/A	24-hour	
Other (includes street parking)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
POPULATION				
Residents	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify number:	11	11	892	881
Briefly explain how the number of residents	Average household size: 2.71 persons x 329 = 892 new residents. Source: DCP PopulationFactFinder,			

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
was calculated:	Neighborhood: Bronx CD10, 2020 Decennial Census, average household size: 2.71 persons			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. and type	47	47	87	40
No. and type of workers by business	1)Supermarket: 40 2)Childcare: 2 3)Office: 4 4)Parking: 1	1)Supermarket: 40 2)Childcare: 2 3)Office: 2 4)Parking: 1	1)Supermarket: 45 2)Childcare: 2 3)Medical Office: 12 4)Retail: 13 5)Dwelling Unit: 13 6)Parking: 2	
No. and type of non-residents who are not workers	N/A	N/A	N/A	
Briefly explain how the number of businesses was calculated:	Existing/No-Action employment source: 1) Applicant (for supermarket), and 2) multipliers from "Gowanus Neighborhood Plan EAS" (CEQR No. 19DCP157K). (1,050 gsf office use) x (0.004 worker multiplier) = 4 workers (conservatively rounded up), (67 parking spaces) x (0.02 worker multiplier) = 1 workers, and (1,986 gsf childcare) x (0.001 multiplier) = 2 workers. With-Action employment: Multipliers from "Gowanus Neighborhood Plan EAS" (CEQR No. 19DCP157K): (15,000 gsf of supermarket) x (0.003 worker multiplier) = 45 workers, (4,281 gsf commercial uses) x (0.003 worker multiplier) = 13 workers, (5,229 gsf medical office) x (0.002 worker multiplier) = 12 workers (conservatively rounded up), (117 parking spaces) x (0.02 worker multiplier) = 2 workers, (1,986 gsf childcare) x (0.001 multiplier) = 2 workers, and (333 DUs) x (0.04 multiplier) = 13 workers.			
Other (students, visitors, concert-goers, etc.)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If any, specify type and number:				
Briefly explain how the number was calculated:				
ZONING				
Zoning classification	R6, C8-1	R6, C8-1	R7-2,C2-4	
Maximum amount of floor area that can be developed	262,896	262,896	356,005	93,109
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	The area within a 400-foot radius of the Project Area is characterized by a mix of one-story commercial buildings and residential buildings generally ranging from one to six stories in height	The area within a 400-foot radius of the Project Area is characterized by a mix of one-story commercial buildings and residential buildings generally ranging from one to six stories in height	The area within a 400-foot radius of the Project Area is characterized by a mix of one-story commercial buildings and residential buildings generally ranging from one to ten stories in height	
Attach any additional information that may be needed to describe the project. If your project involves changes that affect one or more sites not associated with a specific development, it is generally appropriate to include total development projections in the above table and attach separate tables outlining the reasonable development scenarios for each site.				

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 Full EAS Form. For example, if a question is answered "no," an agency may request a short explanation for this response.

	YES	NO
1. LAND USE, ZONING, AND PUBLIC POLICY: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☐	☒
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
o 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 ?	☐	☒
o If "yes," complete the Consistency Assessment Form .		
2. SOCIOECONOMIC CONDITIONS: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
o Generate a net increase of more than 200 residential units or 200,000 square feet of commercial space?	☒	☐
▪ If "yes," answer both questions 2(b)(ii) and 2(b)(iv) below.		
o Directly displace 500 or more residents?	☐	☒
▪ If "yes," answer questions 2(b)(i), 2(b)(ii), and 2(b)(iv) below.		
o Directly displace more than 100 employees?	☐	☒
▪ If "yes," answer questions under 2(b)(iii) and 2(b)(iv) below.		
o Affect conditions in a specific industry?	☐	☒
▪ If "yes," answer question 2(b)(v) below.		
(b) If "yes" to any of the above, attach supporting information to answer the relevant questions below. If "no" was checked for each category above, the remaining questions in this technical area do not need to be answered.		
i. Direct Residential Displacement		
o If more than 500 residents would be displaced, would these residents represent more than 5% of the primary study area population?	☐	☒
o If "yes," is the average income of the directly displaced population markedly lower than the average income of the rest of the study area population?	☐	☐
ii. Indirect Residential Displacement		
o Would expected average incomes of the new population exceed the average incomes of study area populations?	☐	☒
o If "yes:"		
▪ Would the population of the primary study area increase by more than 10 percent?	☐	☐
▪ Would the population of the primary study area increase by more than 5 percent in an area where there is the potential to accelerate trends toward increasing rents?	☐	☐
o If "yes" to either of the preceding questions, would more than 5 percent of all housing units be renter-occupied and unprotected?	☐	☐
iii. Direct Business Displacement		
o Do any of the displaced businesses provide goods or services that otherwise would not be found within the trade area, either under existing conditions or in the future with the proposed project?	☐	☒
o Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve,	☐	☒

	YES	NO
enhance, or otherwise protect it?		
iv. Indirect Business Displacement		
o Would the project potentially introduce trends that make it difficult for businesses to remain in the area?	☐	☒
o Would the project capture retail sales in a particular category of goods to the extent that the market for such goods would become saturated, potentially resulting in vacancies and disinvestment on neighborhood commercial streets?	☐	☒
v. Effects on Industry		
o Would the project significantly affect business conditions in any industry or any category of businesses within or outside the study area?	☐	☒
o Would the project indirectly substantially reduce employment or impair the economic viability in the industry or category of businesses?	☐	☒
3. COMMUNITY FACILITIES: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
o Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
i. Early Childhood Programs		
o 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)	☒	☐
o If "yes," would the project result in a collective utilization rate of the Early Childhood Programs in the study area that is greater than 100 percent?	☐	☒
o If "yes," would the project increase the collective utilization rate by 5 percent or more from the No-Action scenario?	☐	☐
ii. Public Schools		
o 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)	☒	☐
o If "yes," would the project result in a utilization rate of the elementary or middle schools that is equal to or greater than 100 percent?	☐	☒
o If "yes," would the project generate 100 or more elementary or middle school students past the 100% utilization rate?	☐	☒
o If "yes," would the project result in a utilization rate of the high schools that is equal to or greater than 100 percent?	☐	☒
o If "yes," would the project increase the high school utilization rate by 5 percent or more from the No-Action scenario?	☐	☒
iii. Libraries		
o 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)	☐	☒
o If "yes," would the project increase the study area population by 5 percent or more from the No-Action levels?	☐	☐
o If "yes," would the additional population impair the delivery of library services in the study area?	☐	☐
iv. Health Care Facilities		
o Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
o If "yes," would the project affect the operation of health care facilities in the area?	☐	☐
v. Fire and Police Protection		
o Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
o If "yes," would the project affect the operation of fire or police protection in the area?	☐	☐
4. OPEN SPACE: CEQR Technical Manual Chapter 7		
(a) Would the project change or eliminate existing open space?	☐	☒
(b) Would the project generate more than 200 additional residents or 500 additional employees?	☒	☐
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?	☐	☒
(c) If "yes" to either of the above questions, attach supporting information explaining whether the project's shadow would reach any sunlight-sensitive resource at any time of the year. See Attachment F		

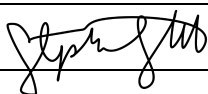
	YES	NO
6. HISTORIC AND CULTURAL RESOURCES: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☐	☒
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources.		
7. URBAN DESIGN AND VISUAL RESOURCES: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
(c) If "yes" to either of the above, please provide the information requested in Chapter 10 . See Attachment G		
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 ?	☐	☒
o If "yes," list the resources and attach supporting information on whether the project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed ?	☐	☒
o If "yes," complete the Jamaica Bay Watershed Protection Plan Project Tracking 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) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) 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?	☐	☒
(d) 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 the Hazardous Materials Appendix (including nonconforming uses)?	☒	☐
(e) 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?	☒	☐
(f) 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)?	☒	☐
(g) 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?	☐	☒
(h) 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?	☐	☒
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See Attachment H		
(j) Based on the Phase I Assessment, is a Phase II Investigation needed?	☐	☒
10. WATER AND SEWER INFRASTRUCTURE: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewer area , would it result in the same or greater development than that listed in Table 13-1 in Chapter 13 ?	☐	☒
(d) Would the 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 sewer or currently unsewered?	☐	☒

	YES	NO
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or contribute contaminated stormwater to a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
(i) If "yes" to any of the above, conduct the appropriate preliminary analyses and attach supporting documentation.		
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): 15,679		
o 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?	☐	☒
o If "yes," would the proposed project comply with the City's Solid Waste Management Plan?	☐	☐
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): 31,994,267 thousand Btu (MBTU)/sf		
(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 appropriate screening analyses, attach back up data as needed for each stage, and answer the following questions:		
o 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? <i>**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.</i>	☒	☐
o Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry 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), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
o 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, bus stop, or Citywide Ferry Service landing?	☐	☒
14. AIR QUALITY: CEQR Technical Manual Chapter 17		
(a) <i>Mobile Sources:</i> Would the proposed project result in the conditions outlined in Section 210 in Chapter 17 ?	☒	☐
(b) <i>Stationary Sources:</i> Would the proposed project result in the conditions outlined in Section 220 in Chapter 17 ?	☒	☐
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17 ? (Attach graph as needed) See Attachment J	☐	☐
(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?	☐	☒
(f) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation.		
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) Would the proposed project result in the development of 350,000 square feet or more?	☐	☒
(d) If "yes" to any of the above, would the project require a GHG emissions assessment based on guidance in Chapter 18 ?	☐	☐
o If "yes," would the project result in inconsistencies with the City's GHG reduction goal? (See Local Law 22 of 2008 ; § 24-803 of the Administrative Code of the City of New York). Please attach supporting documentation.	☐	☐
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 114 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	☒	☐

	YES	NO
rail line with a direct line of sight to that rail line?		
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. See Attachment K		
17. PUBLIC HEALTH: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☐	☒
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20 , "Public Health." Attach a preliminary analysis, if necessary.		
18. NEIGHBORHOOD CHARACTER: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21 , "Neighborhood Character." Attach a preliminary analysis, if necessary. The Proposed Project would not result in any significant adverse impacts in the following technical areas: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Community facilities and Services; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Air quality and Noise. The Proposed Project would not result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. Therefore, the Proposed Project would not result in a significant adverse impact on Neighborhood Character.		
19. CONSTRUCTION: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	☒	☐
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?	☐	☒
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
o The operation of several pieces of diesel equipment in a single location at peak construction?	☒	☐
o Closure of a community facility or disruption in its services?	☐	☒
o Activities within 400 feet of a historic or cultural resource?	☐	☒
o Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
o 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.		
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 Kovid Saxena; Sam Schwartz Engineering, D.P.C.	SIGNATURE <i>Kovid Saxena</i>	DATE 10/20/2022
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? 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 <i>Positive Declaration</i> and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).			
☒ Conditional Negative Declaration: A <i>Conditional Negative Declaration</i> (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 <i>Negative Declaration</i> . The <i>Negative Declaration</i> may be prepared as a separate document (see template) or using the embedded Negative Declaration on the next page.			
4. LEAD AGENCY'S CERTIFICATION			
TITLE Director, Environmental Assessment and Review Division		LEAD AGENCY Department of City Planning on behalf of the City Planning Commission	
NAME Stephanie Shellooe, AICP, Director		DATE October 21, 2022	
SIGNATURE 			



CITY PLANNING COMMISSION
CITY OF NEW YORK

OFFICE OF THE CHAIR

CONDITIONAL NEGATIVE DECLARATION

Project Identification

CEQR No. 22DCP184X
ULURP No. 220283ZMX; N22028ZRX
SEQRA Classification: Unlisted

Lead Agency

City Planning Commission
120 Broadway, 31st Floor
New York, NY 10271
Contact: Stephanie Shellooe
(212) 720-3328

Name, Description and Location of Proposal

2560 Boston Road Rezoning

The Applicant, Boston Road Associates, seeks approval of a zoning map amendment and a zoning text amendment in order to facilitate the development of 2560 Boston Road (Block 4440, Lots 16, 30, and 32 – the “Projected Development Site”) with two mixed-use buildings, including residential, commercial, and community facility uses located in the Allerton section of Bronx Community District 11. In addition, the Applicant intends to seek public financing through the New York City Housing Development Corporation (“HDC”)/Department of Housing Preservation and Development (“HPD”). These actions are collectively referred to as the “Proposed Actions.”

The zoning map amendment would rezone Block 4440, Lots 16, 30, and 32 from an R6/C8-1 district to an R7-2/C2-4 district. The zoning text amendment would modify Appendix F of the Zoning Resolution to establish a new Mandatory Inclusionary Housing (MIH) Area coterminous with the Projected Development Site.

Approval of the proposed actions would facilitate the development of two buildings (10 and 11 stories, and 110’ and 120’ feet tall, respectively) containing a total of 360,577 gross square feet (“gsf”), including 277,990 gsf of residential space (333 affordable dwellings units), 19,281 gsf of commercial space, and 6,752 of community facility space, along with 117 parking spaces.

Absent approval of the proposed actions, the affected area would remain unchanged. The proposed project is anticipated to be completed by 2026.

To avoid any potential significant adverse impacts, an (E) designation (E-694) for hazardous materials, air quality, and noise would be placed on the applicant’s property, Bronx Block 4440, Lots 16, 30, and 32.

The (E) designation text related to hazardous materials is as follows:

Task 1 – Sampling Protocol A Phase I Environmental Site Assessment must be submitted to the New York City Mayor’s Office of Environmental Remediation (OER). If required based on Phase I ESA conclusions, a soil, groundwater and soil vapor testing protocol must also be submitted, including a description of methods and a site map with all sampling locations clearly and precisely represented.

If subsurface 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 be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination will be 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 needed, a proposed remediation plan must be submitted to OER for review and approval. Such remediation must be completed as determined necessary by OER. Appropriate documentation indicating that the work has been satisfactorily completed must be provided.

A Construction Health and Safety Plan (CHASP) 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 CHASP will be submitted to OER prior to implementation.

The (E) designation text related to air quality is as follows:

Block 4440, Lots 16, 30, and 32 (Projected Development Site)

Any new residential, commercial and/or community facility development on the above-referenced property must use natural gas as the type of fuel for the heating, ventilating, and air conditioning (HVAC) systems and hot water equipment and ensure the HVAC systems and hot water equipment stack is located at the highest tier

and at least 120 feet above grade to avoid any potential significant adverse air quality impacts.

The (E) designation text related to noise is as follows:

Block 4440, Lots 16, 30, and 32 (Projected Development Site)

In order to ensure an acceptable interior noise environment, future residential/commercial office/community facility uses must provide a closed-window condition with a minimum of 28 dBA window/wall attenuation on the facades facing Boston Road and the facades facing Barnes Avenue within 50 feet of Boston Road and the facades facing Matthews Avenue within 50 feet of Boston Road in order to maintain an interior noise level not greater than 45 dBA for residential and community facility or not greater than 50 dBA for commercial office uses as illustrated in the EAS. 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.

Statement of No Significant Effect:

The Environmental Assessment and Review Division of the Department of City Planning, on behalf of the City Planning Commission, has completed its technical review of the Environmental Assessment Statement, dated October 21, 2022, prepared in connection with the ULURP Application (Nos 220283ZMX and N220284ZRX). The City Planning Commission has determined that the proposed action will have no significant effect on the quality of the environment, once it is modified as follows:

The Applicant agrees to enter into a Restrictive Declaration (RD) to ensure the implementation of Project Components Related to the Environment (PCREs) relating to transportation and construction noise that would avoid the potential for any significant adverse impacts. The PCREs are as follows:

1. The Applicant shall implement as part of its development of the Project Site, and at its sole cost and expense, the following construction noise PCREs:
 - a. Source Controls listed below shall be implemented beyond existing New York regulations for construction of the proposed project:
 - i. The applicant commits to achieving specific construction equipment noise levels identified in the EAS through the use of quieter equipment, better engine mufflers, refinements in fan design, and improved hydraulic systems.
 - ii. Pile installation and foundation elements shall be constructed by drilling rather than impact pile driving.
 - iii. Concrete pump and mixer trucks will not be used during superstructure construction.

2560 Boston Road Rezoning
CEQR No. 22DCP184X
Conditional Negative Declaration

- b. Path Controls listed below shall be implemented beyond existing New York regulations for the construction of the proposed project:
 - i. Concrete operations, including pumps and trucks, would occur within a 12-foot plywood enclosure along Barnes and Matthews Avenues.
 - ii. Path noise control measures (e.g., portable noise barriers, panels, enclosures, and acoustical tents) for generators would be implemented. The details to construct portable noise barriers, enclosures, tents, etc., are noted in DEP's Rules for Citywide Construction Noise Mitigation.
2. The Applicant shall implement, at its sole cost and expense, the following transportation measures:
 - a. The applicant shall develop and submit a plan for review and approval by NYC DOT to re-stripe the northeast-bound Boston Road approach at Allerton Avenue to widen the left lane from 9'-6" to 11'. The two through lanes would be narrowed from 10'-6" to 10' and 12' to 11'. The 8'-wide parking lane would remain the same. The improvement would apply to all time periods.

Supporting Statement:

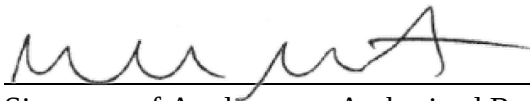
The above determination is based on an environmental assessment which finds that:

1. The applicant will enter into a Restrictive Declaration to ensure the implementation of project components relating to transportation and construction noise which would avoid the potential for any significant adverse impacts related thereto.
2. No other significant adverse effects on the environment which would require an Environmental Impact Statement are foreseeable.

It is fully agreed and understood that if the foregoing conditions, modification, and alterations are not fully incorporated into the proposed action, this Conditional Negative Declaration shall become null and void. In such event, the applicant shall be required to prepare a Draft Environmental Impact Statement before proceeding further with said proposal.

This Conditional Negative Declaration has been prepared in accordance with Article 8 of the Environmental Conservation Law 6NYCRR part 617.

I, the Undersigned, as the applicant or authorized representative for this proposal, hereby affix my signature in acceptance of the above conditions to the proposed action.



Signature of Applicant or Authorized Representative

Date: October 21, 2022

David Schwartz

Name of Applicant or Authorized Representative



Stephanie Shellooe, AICP, Director
Environmental Assessment and Review Division
Department of City Planning

Date: October 21, 2022

Daniel R. Garodnick, Chair
City Planning Commission

Date: October 24, 2022

Attachment A: Project Description

I. INTRODUCTION

The Applicant seeks to rezone Block 4440, Lots 16, 30 and 32 (the “Project Site”), from R6/C8-1 district to R7-2/C2-4 district. The Proposed Actions would allow the development of one primarily residential building comprised of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area (“Proposed Project”) on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The commercial parking entrance would be on Barnes Avenue while the residential parking garage entrance and the supermarket loading dock entrance would be along Matthews Avenue.

Lot 16 is currently improved with an approximately 13,800 gsf, one-story supermarket constructed circa 1965 with an accessory 55-space parking lot and loading dock. Lot 30 is improved with an approximately 3,972 gsf, two-story building constructed circa 1935 with an approximately 1,986 gsf day care on the first floor and approximately 6,207 gsf of residential uses with 4 DUs on the second floor. Lot 32 is improved with an approximately 1,050 gsf, one-story commercial building constructed circa 1934 and occupied by Classico Corp., a building maintenance company. The Proposed Project would be constructed over 33 months with completion in 2026.

The Applicant is seeking approvals of the following discretionary land use actions:

1. **Zoning Map Amendment** to rezone the Rezoning Area from the existing R6/C8-1 zoning district to R7-2/C2-4.
2. **Zoning Text Amendment:** to Appendix F (Inclusionary Housing and Mandatory Inclusionary Housing Areas) of the ZR to designate the Rezoning Area an MIH area under Options 1 and 2.

In addition, the Applicant intends to seek public financing to facilitate affordable housing construction. These actions are described in more detail below and collectively referred to as the “Proposed Actions.” The Proposed Actions are subject to environmental review pursuant to the State Environmental Quality Review Act (SEQRA) and in conformance to the *City Environmental Quality Review (CEQR)* guidelines and procedures. The New York City Department of City Planning (DCP) will serve as the CEQR lead agency.

II. EXISTING CONDITIONS

Description of the Study Area

The Project Site is located in Bronx CD 11. Block 4440 is bounded by Barnes Avenue on the west, Matthews Avenue on the east, and Boston Road northeast of the Project Site. Boston Road is a major arterial road, Matthews Avenue is a one-way road and Barnes Avenue is a two-way road. Land uses within a half-mile radius of the Project Site include residential, commercial, institutional, and auto-oriented uses and some manufacturing uses. Bronx River Park is located approximately 0.5 miles east of the Project Site. Within the surrounding area, the Project Site is located on Boston Road (US Route 1) which is a principal arterial and a commercial street retail corridor generally developed with one-story auto-oriented and general retail uses. Boston Road is a two-way wide street and runs irregular relative to the street grid at a

southwest/northeast diagonal in this section of the Bronx. The irregular orientation of Boston Road produces blocks of irregular size and shape along its frontages.

Land Use, Zoning and Public Policy

The Project Site is currently mapped with R6 and C8-1 zoning districts. As defined in the New York City Zoning Resolution (ZR), an R6 district has a permitted floor area ratio (FAR) of 3.00. R6 zoning districts are typically built-in medium-density areas in Brooklyn, Queens and the Bronx, with a height limit of 65 feet. The area between a building's street wall and the street line must be planted and the buildings must have interior amenities for the residents pursuant to the Quality Housing Program. C8-1 districts tie commercial and manufacturing districts together; typical uses for C8 districts are automobile showrooms and repair shops, warehouses, gas stations and car washes. The zoning district directly south and east of the Project Site is designated as R5 and west of the Project Site is designated is R7-1.

Public policies applicable to the Project Site include *Housing New York: A Five-Borough*.

Housing New York: A Five-Borough, Ten-Year Plan

Released in May 2014, Housing New York: A Five-Borough, Ten-Year Plan commits to the preservation or new construction of 200,000 affordable homes by 2025. The plan's goals include fostering diverse and thriving neighborhoods, anchored by quality affordable housing for the diverse communities of New York City. In October 2017, the City announced an updated plan that increased the goal for the construction and preservation of affordable homes by an additional 100,000 homes, bringing the total to 300,000 affordable apartments (Housing New York 2.0, or "HNY2.0").

III. REQUIRED APPROVALS AND REVIEW PROCEDURES

The Proposed Project would require several discretionary approvals subject to CEQR and the City's Uniform Land Use Review Procedure (ULURP),

1. **Zoning Map Amendment** to rezone the Rezoning Area from the existing R6/C8-1 zoning district to R7-2/C2-4. The proposed zoning map amendment would facilitate redevelopment of the Project Site from a supermarket to a mixed-use development with affordable housing, community facility, and commercial uses. As described in Part 1, Section 3 of the RWCDs form, the discretionary actions, including the Zoning Map Amendment, would facilitate an approximately 360,577 gsf mixed-use development, including approximately 333 DUs, with approximately 277,990 gsf of residential use, approximately 19,281 gsf of local retail space, and approximately 6,752 gsf of community facility use ("Proposed Project."); and
2. **Zoning Text Amendment:** to Appendix F (Inclusionary Housing and Mandatory Inclusionary Housing Areas) of the ZR to designate the Rezoning Area an MIH area under Options 1 and 2.

In addition, the Applicant intends to seek public financing to facilitate affordable housing construction. These actions together are referred to collectively as the "Proposed Actions."

City Environmental Quality Review

The Proposed Project is classified as an Unlisted Action under New York Codes, Rules and Regulations (NYCRR) 617.4(b)(6)(v), pursuant to SEQRA and is subject to environmental review in accordance with SEQRA/CEQR.

IV. PROJECT PURPOSE AND NEED

The Proposed Actions would support the goals and principles outlined in *Housing New York: A Five-Borough, Ten- Year Plan* (the “Plan”) by providing new mixed-use affordable housing. The goal of the Plan is to create and preserve 300,000 high-quality, affordable homes by 2026 to address the City’s affordable housing crisis. The Proposed Actions would facilitate the creation of approximately 333 new income restricted DUs in Bronx Community District 11, where, according to the American Community Survey 2013-2017, 47.6% of households are rent burdened (spending 35% or more of their income on rent). According to the Bronx Community District 11 Summary Profile, one of the top 3 pressing issues identified by Community Board 11 in 2019 include quality of life issues. Introducing more affordable housing units would help alleviate the affordable housing burden placed on residents within the community. The Project Site is located within a Transit Zone and very close to the Bx26 bus line and the 2 and 5 subway lines at the Allerton Avenue subway station, four blocks from the Project Site thereby locating affordable housing near public transportation options.

Approximately half of the Project Site is zoned C8-1, which is meant to facilitate automotive related uses while the remaining portion is zoned R6. C8-1 zoning districts only permit limited commercial and community facility uses and would not allow development of the proposed mixed-use income restricted residential, commercial and community facility building.

V. PROPOSED PROJECT

The Proposed Actions would allow the development of one mixed use building comprised of approximately 277,990 gsf of residential use or up to 333 DUs, approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site.

The proposed R7-2/C2-4 zoning district permits a maximum residential Floor Area Ratio (FAR) of 4.6, a maximum commercial FAR of 2.0, and a maximum community facility FAR of 6.5. The Proposed Project would result in 4.6 FAR of residential use, 0.34 FAR of commercial use, and 0.09 FAR of community facility use.

For Quality Housing Buildings on MIH lots, the R7-2 zoning district permits a maximum base building height of 75 feet and a maximum building height of 135 feet. On narrow streets, the required setback above the maximum base building height is 15 feet and on wide streets the required setback above the maximum base building height is 10 feet. The Proposed Project includes a maximum base building height 70 feet. Above the maximum base building height, the Proposed Project includes setbacks of 15 feet along all street frontages and would rise to a maximum building height of 120 feet, plus a 17-foot bulkhead.

VI. FRAMEWORK FOR ANALYSIS

Provided below is a description of the framework for the analysis of the potential impacts of the Proposed Action, including the anticipated year in which the Proposed Project will be completed and fully operational (analysis year), a description of existing conditions on the Project Site, a description of conditions on the Project Site in the analysis year with (“With-Action condition”) and without (No-Action condition), and incremental difference of conditions on the Project Site in the analysis year between the With-Action and

2560 Boston Road EAS
CEQR No: 22DCP184X
ULURP No(s): 220283ZMX, N22084ZRX

No-Action Condition. The incremental difference between the No-Action and With-Action conditions serves as the basis for the impact analysis of the environmental review.

Reasonable Worst-Case Development Scenario (RWCDs)

To assess the possible effects of the Proposed Actions, a RWCDs was developed that identifies anticipated conditions on the Project Site (Lots 16, 30 and 32 of Block 4440) in the analysis year in the No-Action condition (conditions in the future under existing zoning) and the With-Action condition (conditions in the future with the Proposed Actions). See **Table A-1: Reasonable Worst-Case Development Scenario**.

Table A-1: Reasonable Worst-Case Development Scenario

Land Use	Existing Conditions (gsf)	No-Action Condition (gsf)	With-Action Condition (gsf)
Residential	6,207	6,207	277,990
<i>(dwelling units)</i>	<i>4</i>	<i>4</i>	<i>333</i>
Commercial: Supermarket)	13,800	13,800	15,000
Commercial: Local Retail	0	0	4,281
Commercial: Office (Lot 32)	1,050	1,050	0
Community Facility: Medical Office	0	0	5,229
Community Facility: Child Care	1,986	1,986	1,523
Parking:	0	0	56,554
<i>(spaces)</i>	<i>67</i>	<i>67</i>	<i>117</i>
Garage	0	0	35,450
<i>(spaces: 67 residential)</i>	<i>0</i>	<i>0</i>	<i>67</i>
Lot	N/A	N/A	21,104
<i>(spaces: 50 commercial)</i>	<i>67</i>	<i>67</i>	<i>50</i>
<i>Mechanical space and common areas</i>	<i>NA</i>	<i>NA</i>	<i>23,933</i>
Total (gsf)	23,043	23,043	360,577

Analysis Year

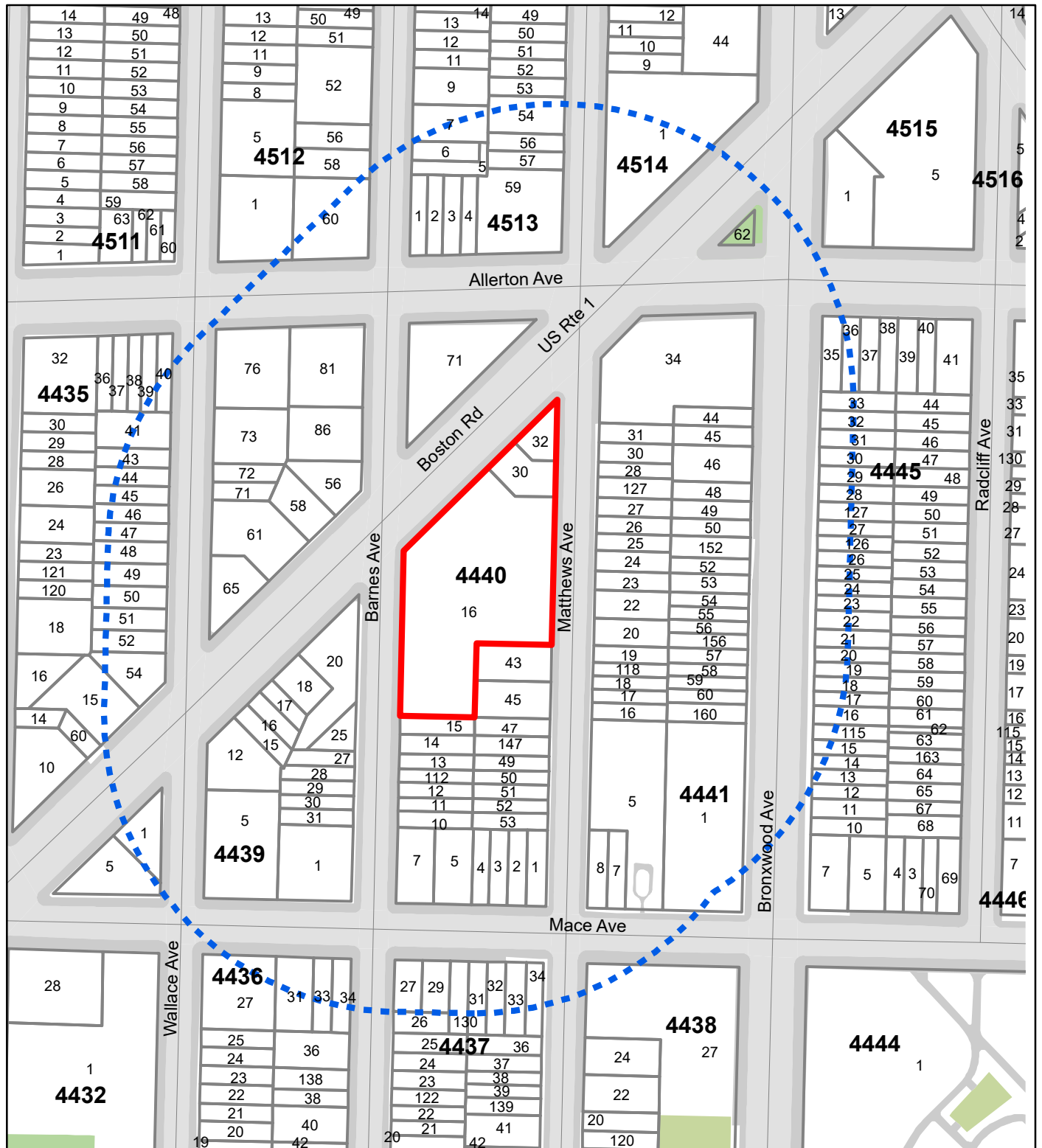
It is anticipated that the Proposed Project would be completed and operational in 2026. Accordingly, a 2026 analysis year is assumed for assessment purposes.

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

Without the Proposed Actions in place the Project Site would remain as under existing conditions, where Lot 16 will continue to be improved with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 will continue to be improved with an approximately 8,193 gsf, two-story building with approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf residential uses with 4 DUs on the second floor. Lot 32 will continue to be improved with approximately 1,050 gsf, one-story commercial building. Lot 16 will continue to be mapped as R6, C8-1 while Lots 30 and 32 will continue to be mapped as C8-1 districts.

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

In the future with the Proposed Actions, the Rezoning Area, including the Project Site, would be rezoned from R6, C8-1 to R7-2, C2-4. The Proposed Project would result in an approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use, and approximately 56,554 gsf for parking.



TAX MAP

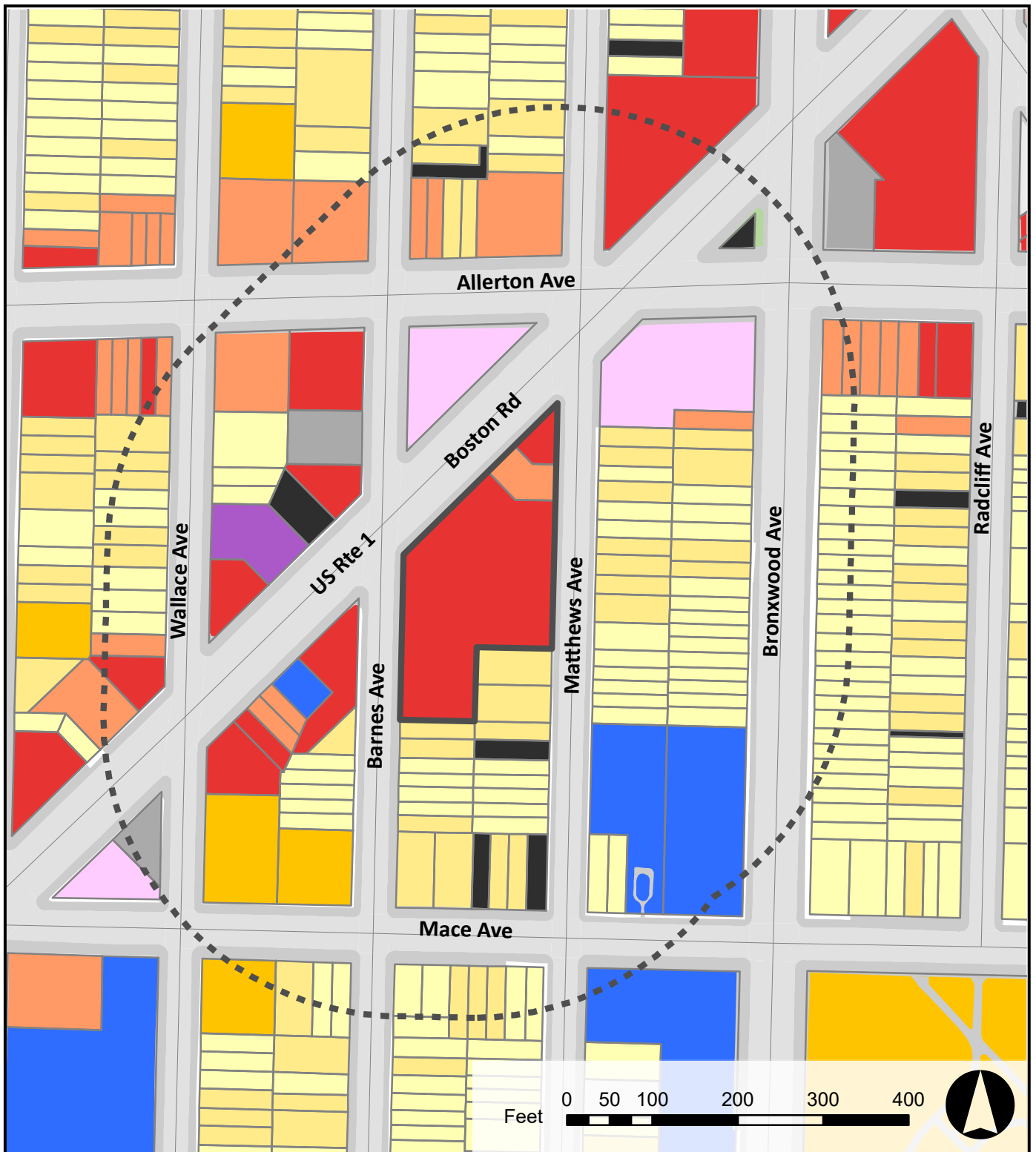
- Projected Site
- - - 400-foot Study Area

4440 Block

16,30,32 Lot

Figure A-2

2560 Boston Road Rezoning EAS



Source: 2020 PLUTO, DCP

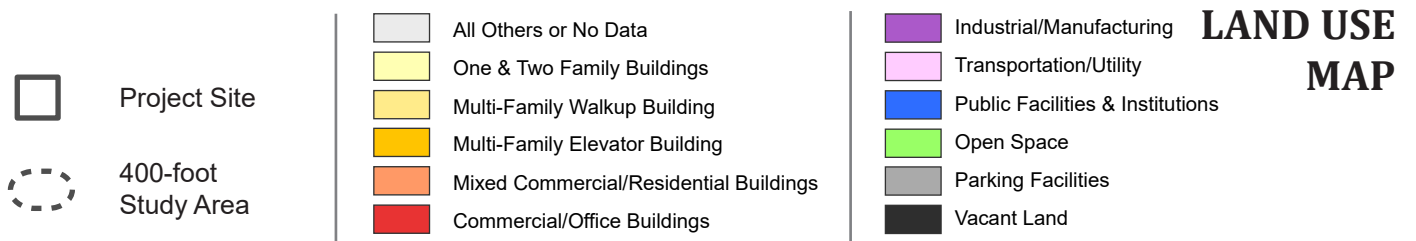
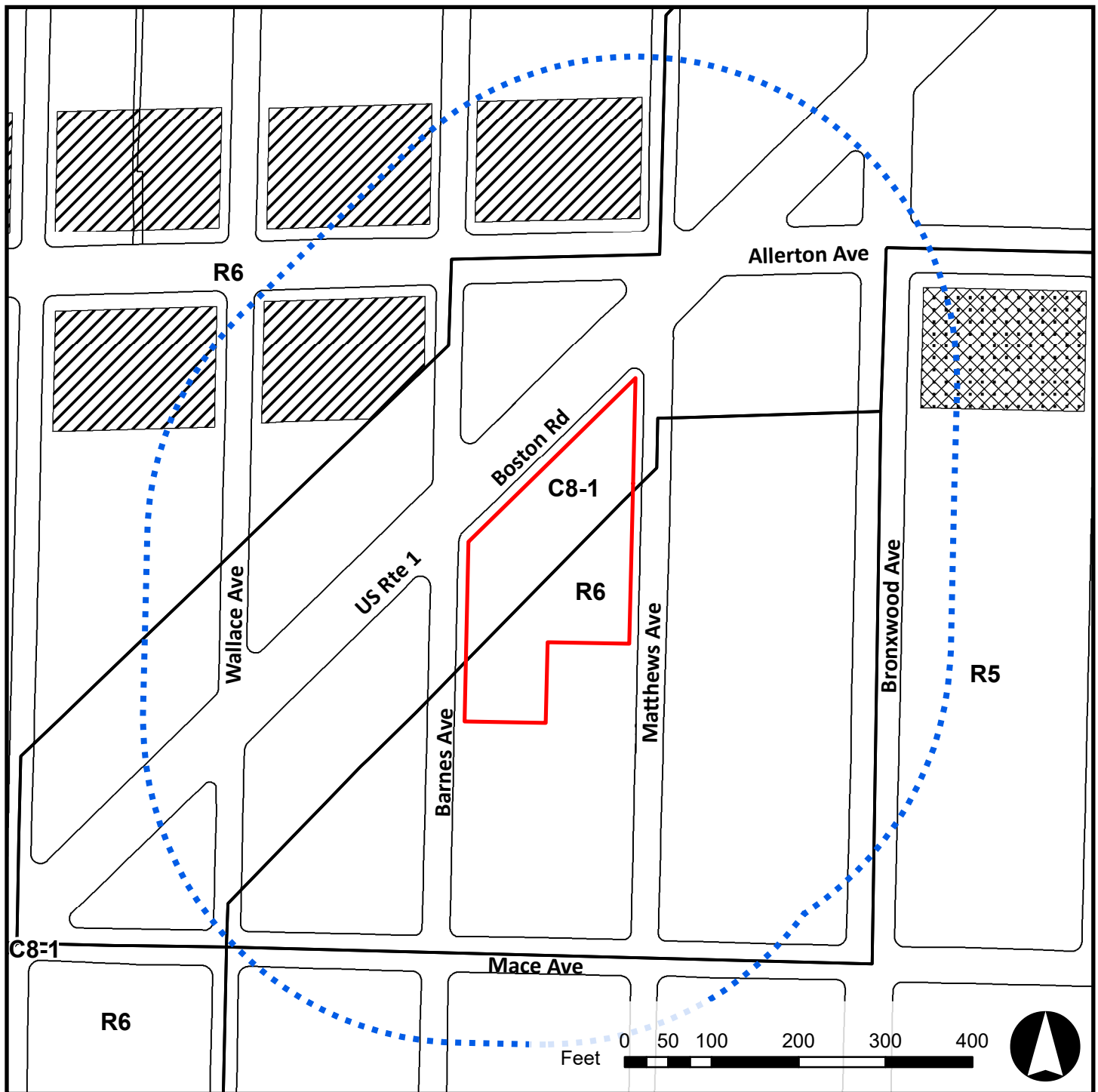


Figure A-3
2560 Boston Road Rezoning EAS



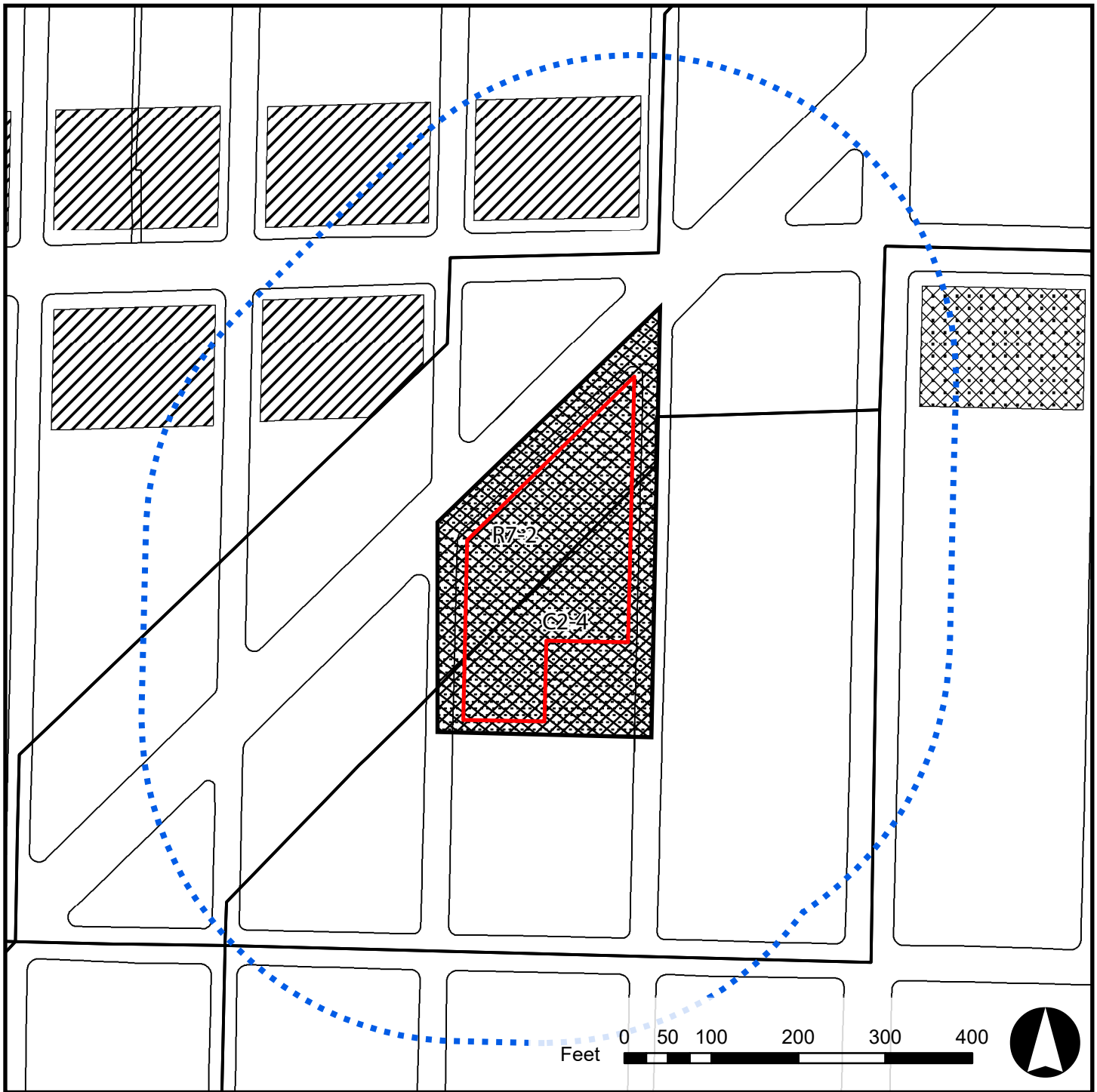
- Projected Development Site
- ⋯ 400-foot Study Area
- R-** Residential District
- C-** Commercial District
- M-** Manufacturing District

Commercial Overlay

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

EXISTING ZONING MAP

Figure A-4
2560 Boston Road Rezoning EAS

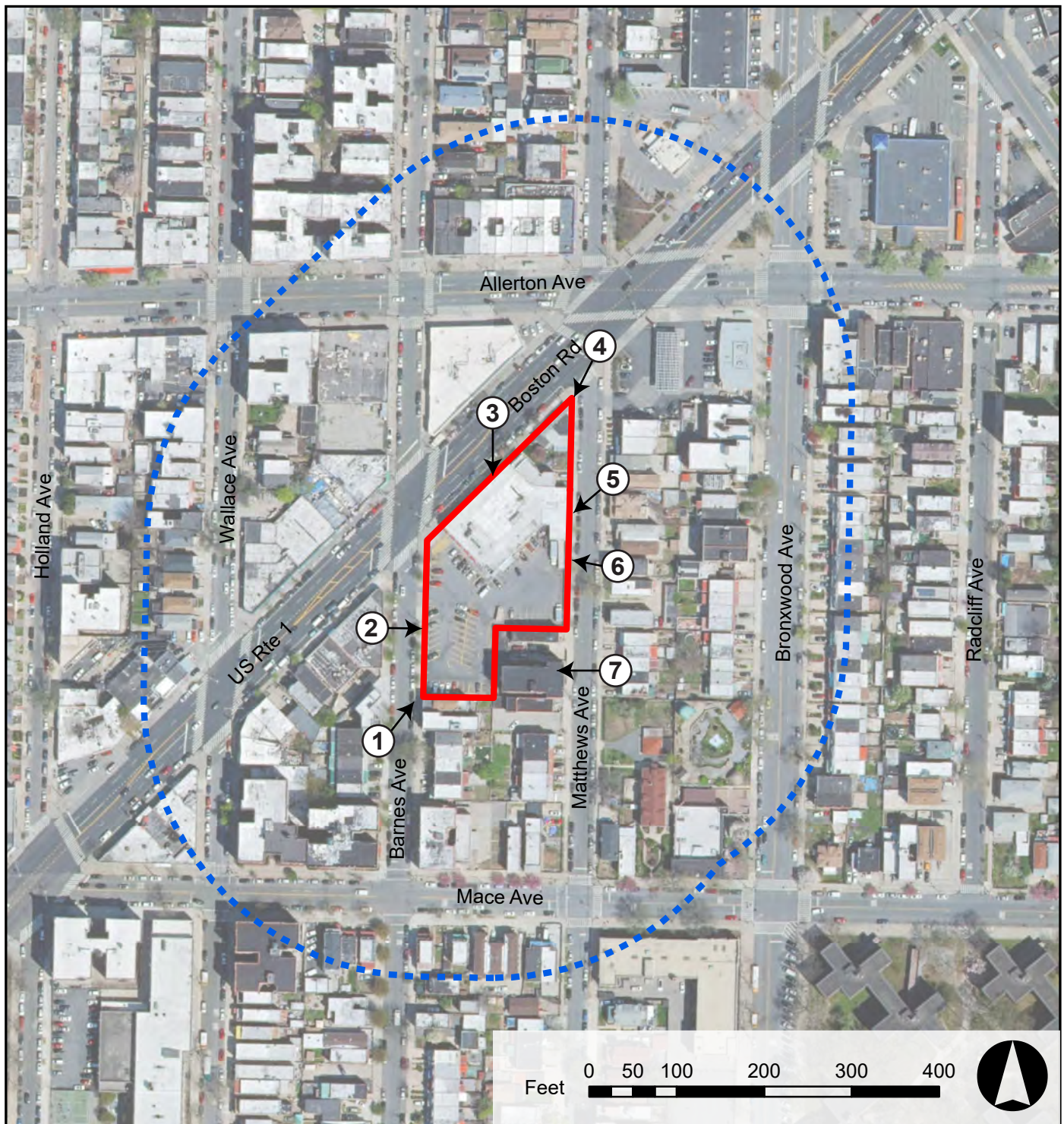


-  Projected Development Site
-  400-foot Study Area
-  Proposed R7-2/ C2-4 Zoning
- R-** Residential District
- C-** Commercial District
- M-** Manufacturing District

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

EXISTING ZONING MAP

Figure A-4
2560 Boston Road Rezoning EAS



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
 Note: All photographs taken on October 17, 2019 keyed to map

- Projected Development Site
- 400-foot Study Area
- # Keyed Photograph

AERIAL MAP

Figure A-5
 2560 Boston Road Rezoning EAS

Photograph 1: View of Project Site, looking east from Barnes Avenue.



Photograph 2: View of Project Site, looking east from Barnes Avenue.



Note: All photographs taken on October 17, 2019

Figure A-5: Keyed Photographs

Photograph 3: View of the Project Site, looking south from Boston Road



Photograph 4: View of the Project Site, looking southwest from Boston Road.



Photograph 5: View of the Project Site, looking southwest along Matthews Avenue.



Photograph 6: View of the Project Site, looking west along Matthews Avenue.



Photograph 7: View of the Project Site, looking northeast from Matthews Avenue.

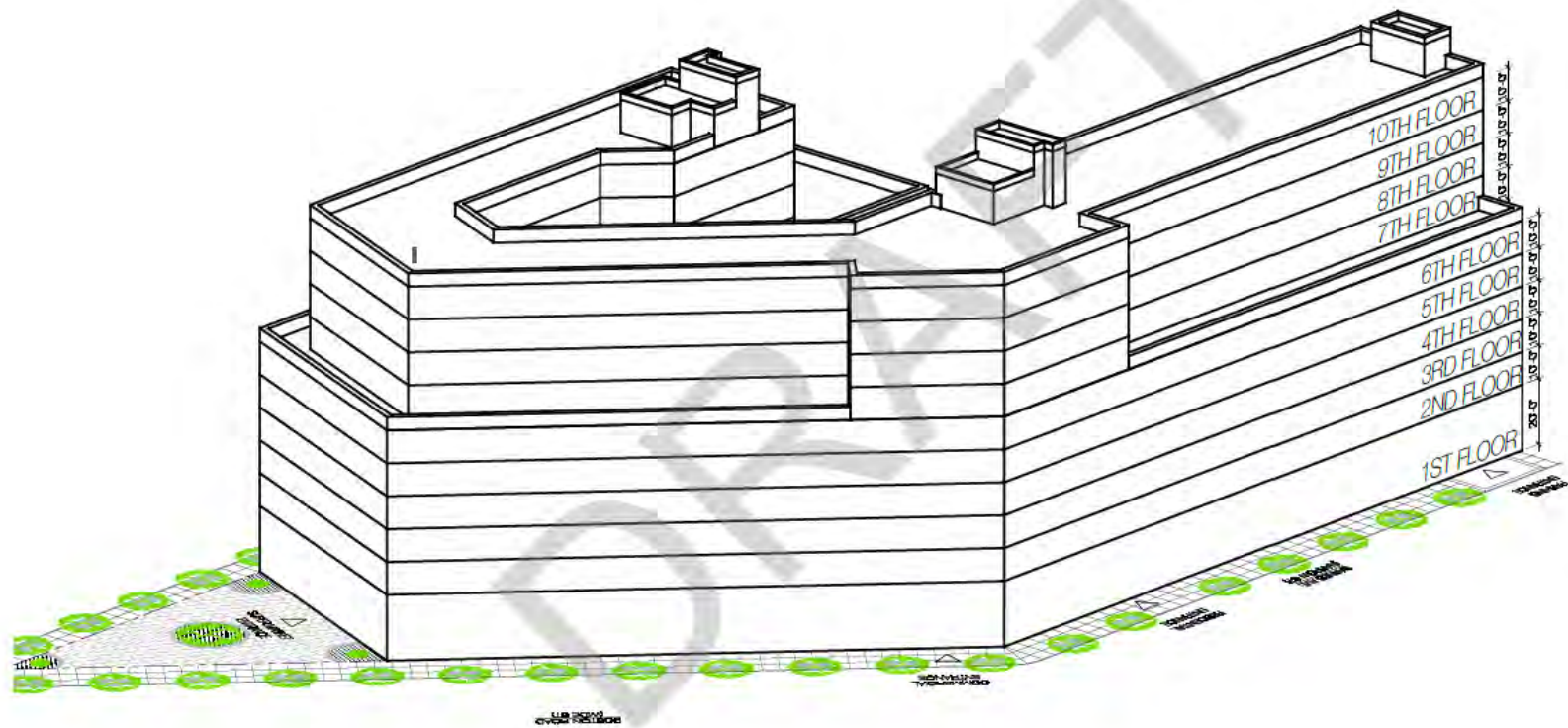




Source: Aufgang Architects
 Note: For Illustrative Purposes Only

WITH-ACTION SITE PLAN

Figure A-6
 2560 Boston Road Rezoning EAS



Source: Aufgang Architects
 Note: For Illustrative Purposes Only

WITH-ACTION MASSING DIAGRAM

Figure A-7
 2560 Boston Road Rezoning EAS

Attachment B: Land Use, Zoning, and Public Policy

I. INTRODUCTION

This attachment assesses the potential for significant adverse impacts of the Proposed Project on land use, zoning, and public policy. As described in Section 210 of Chapter 4 of the *City Environmental Quality Review (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 conformance to, and effect on, the area's zoning and other applicable public policies.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate the development of a primarily residential building comprised of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The Proposed Project would be operational in 2026.

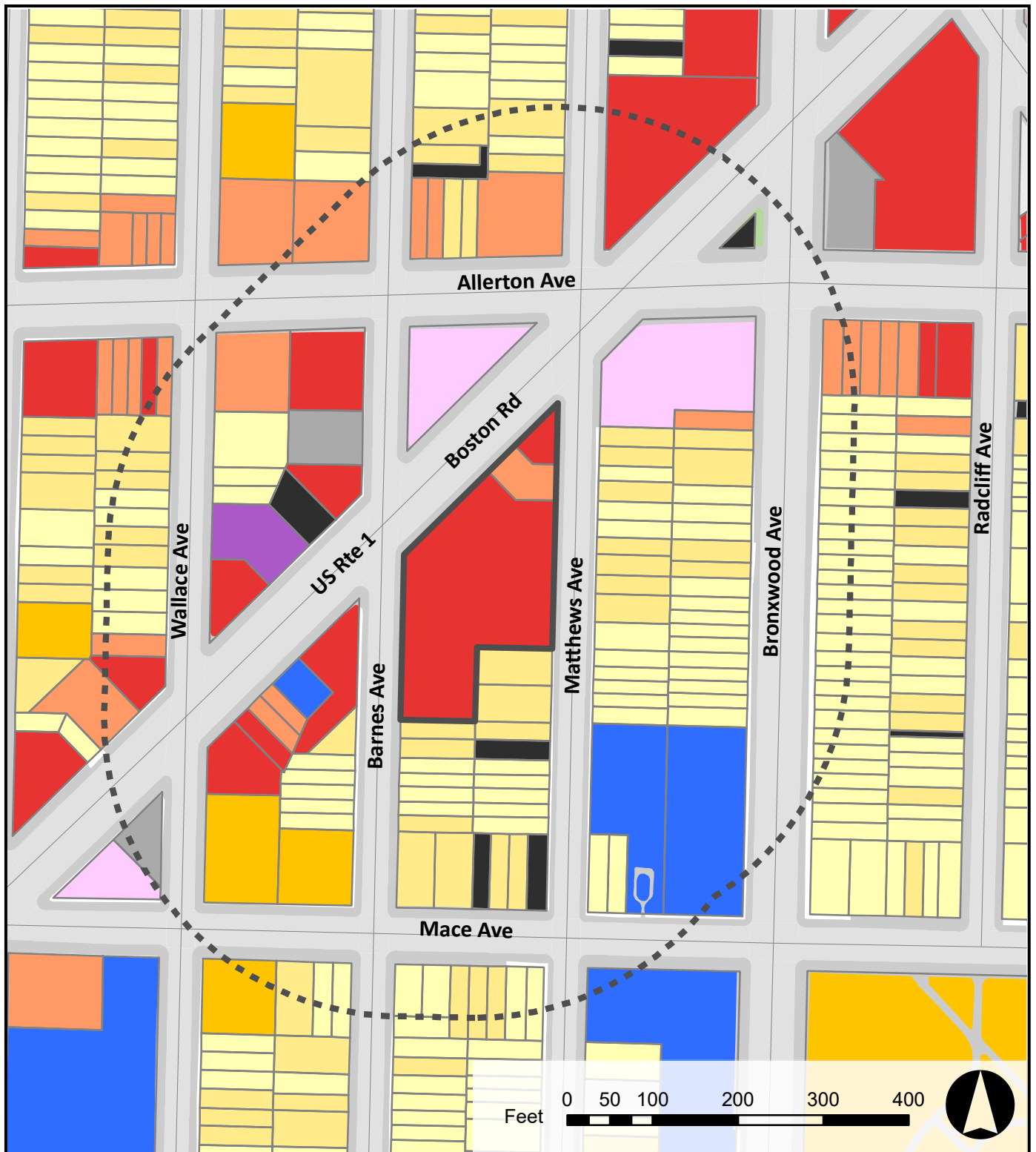
A zoning text amendment to Appendix F (Inclusionary Housing Designated Areas and Mandatory Inclusionary Areas) of the Zoning Resolution (ZR) is also proposed to designate the Project Site as a Mandatory Inclusionary Housing (MIH) Area pursuant to Options 1 and 2.

CEQR guidelines require that a land use, zoning, and public policy assessment 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. This assessment describes existing, future (2026) No-Action and future (2026) With-Action conditions related to land use, zoning and public policy for the Project Site and for an area within 400 feet of the Project Site (the "study area"). Changes in land use and zoning that would occur between the No-Action and With-Action conditions are disclosed.

II. METHODOLOGY

Existing land uses were identified through the NYC Zoning and Land Use (ZoLa) database and PLUTO™ 20v1 shapefiles and verified by site visits in October 2020. NYC Zoning Maps and the ZR of the City of New York were consulted to describe existing zoning districts in the land use study area, which provided the basis for the identification of future No-Action and With-Action conditions. Research was conducted to identify relevant public policies recognized by the NYC Department of City Planning (DCP) and other city agencies.

The appropriate study area for land use and zoning is related to the type and size of the proposed project and the location and neighborhood context of the area that could be affected by the proposed project. Since the Proposed Actions are site-specific, in conformance to *CEQR Technical Manual* guidance, the impact of the Proposed Actions on land use, zoning, and public policy are addressed for a land use study area that extends approximately 400 feet from the boundary of the Project Site and encompasses the area most likely to experience indirect impacts due to the Proposed Project.



Source: 2020 PLUTO, DCP

-  Project Site
-  400-foot Study Area

-  All Others or No Data
-  One & Two Family Buildings
-  Multi-Family Walkup Building
-  Multi-Family Elevator Building
-  Mixed Commercial/Residential Buildings
-  Commercial/Office Buildings

-  Industrial/Manufacturing
-  Transportation/Utility
-  Public Facilities & Institutions
-  Open Space
-  Parking Facilities
-  Vacant Land

LAND USE MAP

Figure B-1
2560 Boston Road Rezoning EAS

III. EXISTING CONDITIONS

Land Use

Project Site

The Project Site is located on Lots 16, 30 and 42 in Block 4440 in the Allerton neighborhood of Bronx. The Project Site is bounded by Barnes Avenue on the west, Matthews Avenue on the east, and Boston Road northeast of the Project Site. Boston Road is a major arterial road, Matthews Avenue is a one-way road and Barnes Avenue is a two-way road.

The Project Site has a lot area of approximately 54,770 square feet (sf), a lot frontage of 221 feet of frontage on Barnes Avenue, 289 feet of frontage on Boston Road, and 330 feet of frontage on Matthews Avenue.

Study Area

Existing land uses within the 400-foot radius study area include, along Barnes Avenue, a mix of commercial, one- to two-story detached single-family homes, some multifamily homes. Matthews Avenue similarly has a mix of commercial, one- to two-story detached single-family homes and multifamily homes as well as some public facility and institutional land uses. The Church of St. Lucy is south of the Project Site between Matthews and Mace Avenue. Boston Road is comprised of mostly commercial uses, interspersed with transportation and utility uses (**Figure B- 1: Land Use Map**).

Zoning

Project Site

The Project Site is mapped with an R6 and C8-1 zoning designation (**Figure B- 2: Existing Zoning Map**). R6 zoning districts typically produce a diverse mix of building types and heights, and are widely mapped in built-up, medium-density areas. The minimum lot area in R6 districts is 1,700 sf with a minimum 18' width and 30 feet rear yard. Standard height factor regulations produce small multi-family buildings on small zoning lots and tall buildings on larger lots with setbacks from the street with the residential FAR ranging from 0.78 at one-story to 2.43 for a typical height of 13 stories with no height limitations. Off-street parking is generally required for 70% of a building's DUs, with lower requirements for income-restricted housing units.

R6 with Quality Housing Regulations produce high lot coverage buildings set at or near the street line. The maximum allowable FAR is 3.0; the maximum base height before setback is 65 feet with a maximum building height of 75 with a qualifying ground floor (70 feet without). On a narrow street (beyond 100 feet of a wide street), the maximum FAR is 2.2; the maximum base height before setback is 45 feet with a maximum building height of 55 feet.

C8-1 zoning districts tie commercial and manufacturing districts together, typical uses for C8 districts are automobile showrooms and repair shops, warehouses, gas stations and car washes. They are also mapped along major traffic arteries.

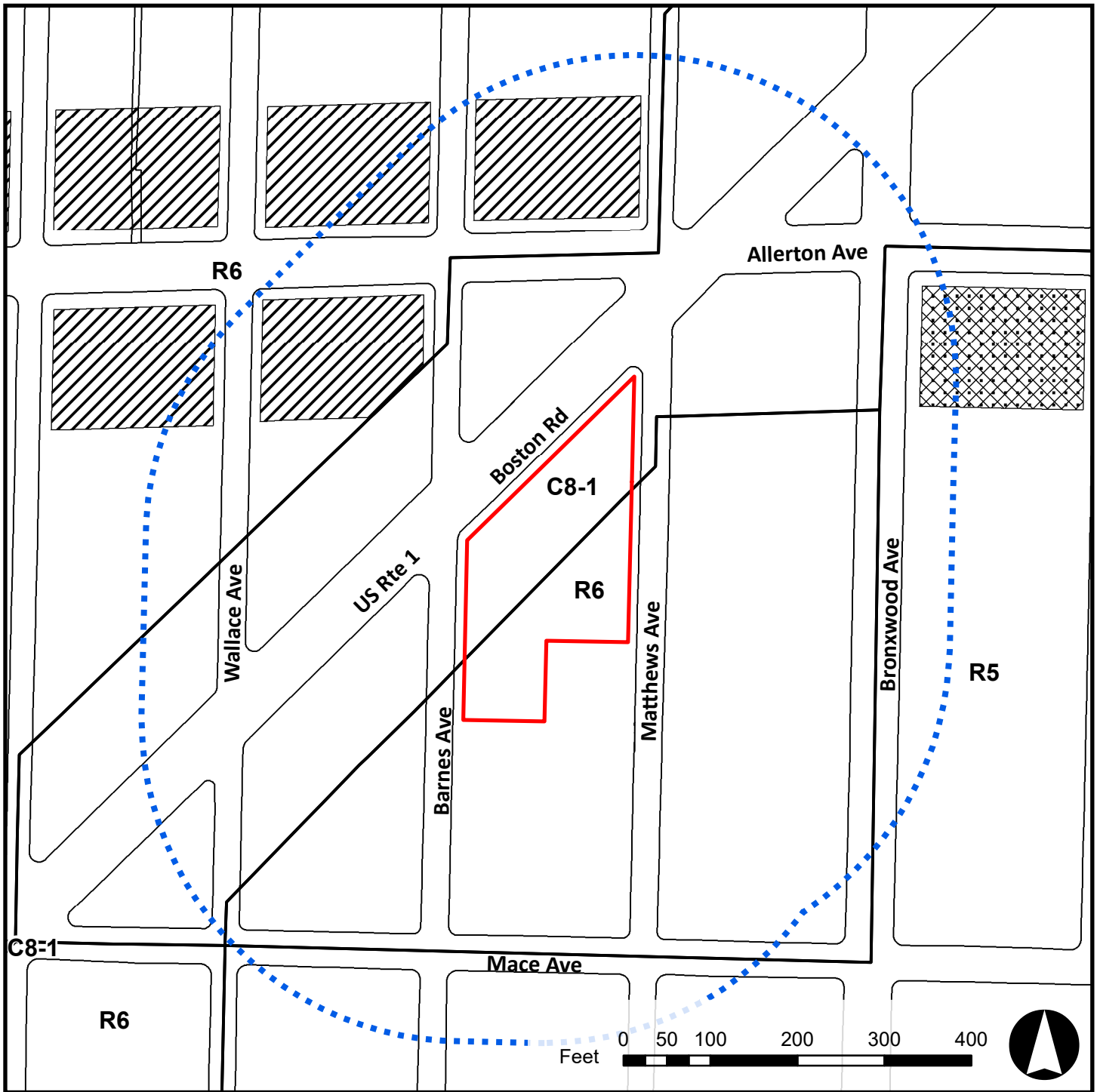
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ULURP No(s): 220283ZMX, N22084ZRX

Study Area

In addition to the R6 and C8-1 zoning, the study area also includes one other residential zoning district and two commercial zoning districts/overlays. East of the Project Site, portions of the study area are zoned R5, north of the study area are mapped R6 but with C1-3 and C2-2 overlays.

The maximum floor area ratio (FAR) in R5 districts is 1.25 FAR. To ensure compatibility with neighborhood scale, the maximum street wall height of a new building is 30 feet. Above a height of 30 feet, a setback of 15 feet is required from the street wall of the building; in addition, any portion of the building that exceeds a height of 33 feet must be setback from a rear or side yard line. Apartment houses need two side yards, each at least eight feet wide. Front yards must be 10 feet deep or, if deeper, a minimum of 18 feet to prevent cars parked on-site from protruding onto the sidewalk. Cars may park in the side or rear yard, in the garage or in the front yard within the side lot ribbon; parking is also allowed within the front yard when the lot is wider than 35 feet. Off-street parking is required for 85% of the DUs in the building.

C1-3 and C2-2 are commercial overlays mapped within residential districts typically for local retail and service uses within a mixed-use building. Commercial uses are limited to the ground floor. Retail uses typically include neighborhood grocery stores, restaurants, and beauty parlors.



- Projected Development Site
- ⋯ 400-foot Study Area
- R-** Residential District
- C-** Commercial District
- M-** Manufacturing District

Commercial Overlay

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

EXISTING ZONING MAP

Figure B-2
2560 Boston Road Rezoning EAS

Public Policy

Public policies applicable to the Project Site include *Housing New York: A Five-Borough, Ten-Year Plan*; The Project Site falls outside of the NYC coastal zone boundary and, consequently, would not be subject to the City's Waterfront Revitalization Program. Neither the Project Site nor land use study area are governed by a 197-a Plan.

Housing New York: A Five-Borough, Ten-Year Plan

Released in May 2014, Housing New York: A Five-Borough, Ten-Year Plan commits to the preservation or new construction of 200,000 affordable homes by 2025. The plan's crucial goals include fostering diverse and thriving neighborhoods, anchored by quality affordable housing for the diverse communities of New York City. In October 2017, the City announced an updated plan to increase the goal for the construction and preservation of affordable homes by an additional 100,000 homes, bringing the goal to 300,000 affordable apartments (*Housing New York 2.0, or "HNY2.0"*).

IV. FUTURE WITHOUT PROPOSED ACTIONS (NO-ACTION CONDITION)

Land Use

Project Site

Without the Proposed Actions in place, the Project Site would remain as under existing conditions, where Lot 16 will continue to be improved with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 will continue to be improved with an approximately 8,193 gsf, two-story building with an approximately 1,986 gsf day care on the first floor and approximately 6,207 gsf of residential uses with 4 dwelling units. Lot 32 will continue to be improved with approximately 1,050 gsf, one-story commercial building. Lot 16 will continue to be mapped as R6, C8-1 while Lots 30 and 32 will continue to be mapped as C8-1 districts.

Study Area

Based on a review of recent building permits issued by the NYC Department of Buildings (DOB), there is one planned or ongoing developments are located within the land use study area. A new seven-story 75,919 sf mixed-use building is proposed for 790 Allerton Avenue (Permit #22058924) with 43 DUs and 12,528 sf of commercial space, 21,010 sf of community facility space and 103 parking spaces.

Zoning

In the No-Action condition, no changes to zoning are expected to occur on the Project Site or in the study area. The Project Site would remain in its current R6 and C8-1 zoning designation.

Public Policy

Project Site

Without the Proposed Actions in place the Project Site would remain as under existing conditions therefore, the Project Site would not contribute any affordable housing measures to the area as identified in the *Housing New York: A Five-Borough, Ten-Year Plan*.

V. FUTURE WITH PROPOSED ACTIONS (WITH-ACTION CONDITION)

Land Use

Project Site

As described in Attachment A, “Project Description,” in the In the future with the Proposed Actions, the Rezoning Area, including the Project Site, would be rezoned from R6, C8-1 to R7-2, C2-4. The Proposed Project would result in an approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use, and approximately 56,554 gsf for parking (**Table B-1: Increment Between No-Action and With-Action Conditions**).

Table B-1: Increment between No-Action and With-Action Conditions

Use	Existing Condition (gsf)	No-Action Condition (gsf)	With-Action Condition (gsf)	Increment
Residential	6,207	6,207	277,990	271,783
	(4 DU)	(4 DU)	(333 DUs)	(329 DUs)
Commercial	14,850	14,850	19,281	4,431
Community Facility	1,986	1,986	6,752	4,766
Parking	0	0	56,554	56,554
(Spaces)	67 spaces	67 spaces	117 spaces	50 spaces
Total (gsf)	23,043	23,043	360,577	337,534

Study Area

Land uses and zoning designations in the study area would remain unchanged from the No-Action condition. Since the study area is substantially fully built-out for residential uses under current zoning, land use patterns would remain unchanged in study area as compared to the No-Action condition. Consequently, the Proposed Actions would not result in a significant adverse impact on land use since it would not affect land uses or development trends in the study area.

Zoning

As described in Attachment A, “Project Description,” in the future with the Proposed Project, the Project Site would be rezoned from R6, C8-1 to R7-2 with a C2-4 commercial zoning overlay. R7-2 zoning districts are commonly medium-density apartment house districts. These districts encourage lower apartment buildings on smaller zoning lots or taller buildings with less lot coverage. C2-4 commercial overlay districts are mapped in primarily residential areas with street level commercial uses. They are usually mapped to serve local retail needs such as grocery stores, dry cleaners, and restaurants.

The Project Site is currently located within R6 and C8-1 zoning districts. While the R6 zoning district allows a maximum residential FAR of 3.6, a maximum community facility FAR of 4.8, and maximum commercial FAR of 2.0 (within the C2-4 overlay), the C8-1 zoning district does not permit residential use. Compared to the existing zoning, the proposed R7-2 district would permit a higher maximum residential FAR of 4.6 as a result of MIH, a higher maximum community facility FAR of 6.5, and a higher commercial FAR of 2.0. In both R6 and R7-2 districts, developments can be constructed pursuant to height factor or Quality Housing regulations. Under height factor regulations, building height and setback are governed by a sky exposure plane, which begins 60 feet above the street line in both districts. Quality Housing regulations mandate a

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maximum base height of 65 feet and 75 feet before setback and a maximum building height of 75 feet and 85 feet in R6 and R7-2 districts, respectively.

The proposed R7-2 zoning district is appropriate as the Project Site is well served by public transportation such that it is well equipped to handle the proposed increase in density. Specifically, the Bx26 bus line runs along Allerton Avenue to the north of the Project Site and the Allerton Avenue subway station is located approximately four blocks (0.3 miles) from the Project Site, which is serviced by the 2 and 5 subway lines. The Project Site is also adjacent to Boston Road which is a wide street that can support the proposed increase in density. The proposed R7-2 zoning district would be consistent with existing land use and zoning patterns within the surrounding area. R7-2 zoning would allow a bulk and density consistent with what is currently permitted in the surrounding area, including the R7A/C2-3 district mapped to the north and west of the Project Site. The additional bulk and density would provide the flexibility needed to redevelop several irregularly shaped parcels with affordable housing, community facility uses, and a supermarket. These proposed uses are also more compatible with the surrounding area's largely residential uses than the existing automobile related uses that the C8-1 zoning districts permits.

Public Policy

Housing New York: A Five-Borough, Ten-Year Plan

The Proposed Project would support the goals and principles outlined in *Housing New York: A Five-Borough, Ten-Year Plan* by providing new mixed-use affordable housing. Within an MIH area, all housing developments, enlargements, and conversions that meet the criteria set forth in the MIH program must comply with the requirements of one of four options, to be selected through the land use review process. It is anticipated that the Rezoning Area would be designated under MIH Options 1 and 2. The Proposed Project would include the development of 333 affordable DUs that would be subject to MIH, a key goal of *New York: A Five-Borough, Ten-Year Plan*.

Attachment C: Socioeconomic Conditions

I. INTRODUCTION

This chapter assesses the potential for the Proposed Actions to result in a significant adverse impact on socioeconomic conditions in conformance to Chapter 5, Section 200 of the 2020 edition of the *City Environmental Quality Review (CEQR) Technical Manual*, the socioeconomic conditions assessment evaluates whether a proposed project would result in significant adverse impacts based on its direct and indirect effects on residential displacement, direct and indirect effects on business/institutional displacement, and its projected adverse effects on specific industries of importance to the City.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate the development of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The Proposed Project would be operational in 2026.

The incremental increase in residential uses from the No-Action to the With-Action condition would be 329 DUs, the incremental increase in commercial space would be 4,431 gsf, the incremental increase in community facilities space would be approximately 4,766 gsf. Consequently, the Proposed Actions would result in a net increase in residential population of approximately 886 residents¹ and a net increase in non-residential population of approximately 28 workers.²

II. METHODOLOGY

Background

As defined in the *CEQR Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activity. Although socioeconomic changes may not result in impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area. In some cases, these changes may be substantial but not adverse. In other cases, these changes may be good for some groups but bad for others. The objective of the analysis of socioeconomic conditions is to disclose whether any changes created by a proposed project as compared to conditions in the future without the proposed project would result in a significant impact on residents, business, or industries of importance to the City.

The assessment of socioeconomic conditions distinguishes between the impacts on the residents and business in an area and further separates these impacts into analyzing direct and indirect displacement. Direct displacement occurs when residents or businesses are involuntarily displaced from the site of a proposed project or sites directly affected by it. Indirect displacement occurs when residents, businesses,

¹ (Increment of 329 DUs) x (2.69 multiplier for average household size of renter-occupied unit, per the *American Community Survey 2014-2018*) = 886 residents (conservatively rounded up).

² (Increment of 4,431 gsf commercial uses) x (.003 worker multiplier) = 14 workers, (Increment of 5,229 gsf medical office) x (.002 worker multiplier) = 11 workers (conservatively rounded up) and (Increment of 117 parking spaces) x (0.2 worker multiplier) = 28 workers. Multipliers per "Gowanus Neighborhood Plan EAS" (CEQR No. 19DCP157K).

or employees are involuntarily displaced due to a change in socioeconomic conditions in the area caused by the proposed project. Some projects may also affect conditions within a specific industry.

Determining Whether a Socioeconomic Assessment is Appropriate

As indicated in *CEQR Technical Manual* guidelines, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes in the area affected by the project that would not be expected to occur in the absence of the project. The need for an assessment of socioeconomic conditions as identified in the *CEQR Technical Manual* is based on whether a proposed project would result in one or more the following thresholds:

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

The Proposed Project would not directly displace any residents since it would further add more residential uses to the Project Site. Therefore, an assessment of direct residential displacement is not warranted needed.

2. *Direct Business Displacement: Would the project directly displace more than 100 employees? If so, assessments of direct business displacement and indirect business displacement are appropriate. Would the project directly displace a business whose products or services are uniquely dependent on its location, are the subject of policies or plans aimed at its preservation, or serve a population uniquely dependent on its services in its present location? If so, an assessment of direct business displacement is warranted.*

The Proposed Project would not result in a direct displacement of more than 100 employees. Therefore, an assessment of direct business displacement is not warranted.

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

The Proposed Actions would generate a residential development with over 200 DUs. Therefore, a preliminary assessment of indirect residential displacement is needed. As the Proposed Project would not result in more than 200,000 sf of commercial development, an assessment of indirect businesses displacement due to increased rents is not warranted.

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

The Proposed Project would not result in 200,000 sf or more of retail on a single development site or 200,000 sf or more of region-serving retail across multiple sites. Therefore, an assessment of indirect business displacement due to retail market saturation is not warranted.

5. *Adverse Effects on Specific Industries: Is the project expected to affect conditions within a specific industry? This could affect socioeconomic conditions if a substantial number of workers or residents.*

depend on the goods or services provided by the affected businesses, or if the project would result in the loss or substantial diminishment of a particularly important product or service within the city.

The Proposed Project would not affect conditions within a specific industry, nor substantially reduce employment or impair the economic viability in the industry or category of businesses. Therefore, an assessment of adverse effects on specific industries is not warranted.

Based on the screening assessment, the Proposed Project warrants an assessment of indirect residential displacement. Generally, an indirect residential displacement analysis is conducted only in cases in which the potential impact may be experienced by populations that are vulnerable or at risk, i.e., renters living in privately held units unprotected by rent control, rent stabilization, or other government regulations restricting rents, or whose incomes or poverty status indicate that they may not support substantial rent increases. The potential for indirect displacement depends not only on the characteristics of the proposed project, but on the characteristics of the study area. Usually, the characteristics of the proposed project are known—the objective of the preliminary assessment, then, is to gather enough information about conditions in the study area so that the effect of the change in conditions with the proposed project relative to expected future conditions in the study area can be better understood. As described below, Section 322 of the *CEQR Technical Manual* defines the step-by-step guidelines for an indirect residential displacement assessment.

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. If no such trend exists either within or near the study area, the action could be expected to have a stabilizing effect on the housing market within the study area by allowing for limited new housing opportunities and investment.

Based on the screening assessment presented above, the assessment of the potential impact of the Proposed Project on socioeconomic conditions is limited to an assessment of the potential impact of the Proposed Project on indirect residential displacement.

Analysis Framework

Indirect Residential Displacement

According to *CEQR Technical Manual* guidelines, the objective of an indirect residential displacement assessment is to determine whether a proposed project may either introduce a trend or accelerate trends that exist near to or within smaller portions of the study area that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change.

Study Area Definition

CEQR Technical Manual guidelines state that the socioeconomic study area boundary should encompass the project site and adjacent area within a 400-foot, 0.25-mile, or 0.5-mile radius from the Project Site depending on the project size and area characteristics. If the data includes geographic units such as census tracts or zip-code areas, it may be appropriate to adjust the size of the study area to make its boundaries contiguous with those of the data sets. The socioeconomic conditions assessment seeks to examine the potential to change socioeconomic character relative to the study area population. For projects that would

result in an increase in residential population, the scale of the relative change is typically represented as a percent increase in population. *CEQR Technical Manual* guidelines indicate that a project that would result in a relatively large increase in population may be expected to affect a larger study area. A 0.5-mile study area is appropriate for projects that would increase population by five percent compared to population in the future without the proposed project in a 0.25-mile study area.

Based on *CEQR Technical Manual* guidelines, the preliminary assessment considered census tracts with at least 50% of their area within a 0.25-mile radius of the Project Site, including Census Tracts 328, 330, and 340. The Proposed Project would result in a net increase of 332 DUs, which would generate approximately 893 persons, an increase in the residential population of 5.8% between the conditions in the future with the proposed actions compared to conditions in the future without the proposed actions (**Table C-1: Estimated Population Within 0.25-Mile of the Project Site**).

Table C-1: Estimated Population Within 0.25-Mile of the Project Site

Census Tracts Within 0.25-Mile Radius	Existing Condition (persons)	No-Action Condition (persons)	With- Action Condition Increment (persons)	Percent Change
Total	15,331	15,334	16,230	5.8%

Source: U.S. Census, ACS 5-Year Estimates, 2014-2018

Note:

No-Action, Project Site: 1 DUs x 2.69 persons per household = 3 persons.

With-Action (increment), Proposed Project: 332 DUs x 2.69 persons = 893 persons.

Because the socioeconomic assessment depends on demographic data, it is appropriate to adjust the study boundary to conform to the census tract delineation that most closely approximates the desired radius (in this case, 0.5-mile radius surrounding the Project Site). Census tracts with at least 50% of their area within a 0.5-mile radius of the Project Site are comprised of Census Tracts 324, 326, 328, 330, 332.01, 332.02, 336, 338, 340, 342, and 344 (**Figure C-1: Socioeconomic Study Area Map**). The socioeconomic study area has an existing total population of approximately 47,391 persons (**Table C-2: Existing Study Area Population Within 0.5-Mile of the Project Site**).

Table C-2: Existing Study Area Population Within 0.5-Mile of the Project Site

Study Area	
Existing Condition (persons)	47,391

Source: U.S. Census, ACS 5-Year Estimates, 2014-2018, DP05

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Data Sources

Data related to residential conditions, including population, housing, and income data, were obtained from the 2016 American Community Survey 5-year estimates (2014-2018). The income limits for affordable rental DUs were computed using the New York City (NYC) Department of Housing Preservation and Development's (HPD's) "Area Median Income" guide for 2020.



Source: PLUTO 2020



 Project Site

 0.5-Mile Radius

 Socioeconomic Study Area Census Tracts

01 Study Area Census Tract Number

SOCIOECONOMIC STUDY AREA MAP

Figure C-1

2560 Boston Road EAS

III. EXISTING CONDITIONS

The Project Site is comprised of Lots 16, 30 and 32. Lot 16 is currently improved with an approximately 13,800 gsf, one-story supermarket constructed circa 1965 with an accessory 65-space parking lot and loading dock. Lot 30 is improved with an approximately 3,972 gsf, two-story building constructed circa 1935 with an approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf of residential uses with approximately 4 DUs on the second floor. Lot 32 is improved with an approximately 1,050 gsf, one-story commercial building constructed circa 1934 and occupied by Classico Corp., a building maintenance company.

The study area contains three NYC Housing Authority (NYCHA) developments: Parkside is located northwest of the Project Site, between Arnow Avenue and White Plains Road, and is comprised of 14 residential buildings with 879 DUs. Boston Road Plaza has one residential building with 235 DUs and is located along Boston Road with Holland Avenue to the east and Waring Avenue to the South. The NYCHA Pelham Parkway development is located between Mace Avenue and Waring Avenue on Bronxwood Avenue, and is comprised of 23 buildings with 1,266 DUs. As shown in **Table C-3: Housing Tenure in Study Area, Existing Condition**, renter-occupied housing units account for most of the housing units in the socioeconomic study area.

Table C-3: Housing Tenure in Study Area, Existing Condition

Occupied Housing Units (DUs)	Owner-Occupied (DUs)		Renter-Occupied (DUs)		Publicly Funded Housing (DUs)
	Number	Percent	Number	Percent	Number
16,823	3,563	21.2%	13,260	78.8%	2,380

Source: U.S. Census, 2014-2018 five-year estimates, DP04
NYCHA Development Interactive Map, 2019

Of the 16,823 occupied DUs in the socioeconomic study area, approximately 78.8 percent are renter occupied. Since owner-occupied units are not at risk of displacement due to market conditions, renter-occupied units are.

The median household income for the study area is \$44,415.³ **Table C-4: Distribution of Household Incomes, Existing Condition (2018)** illustrates the distribution of incomes within the socioeconomic study area. The income distribution in the study area shows that approximately 57.8 percent of households within the study area earn less than \$50,000. Approximately 35.4 percent of households earn less than \$25,000. Only 13.6 percent of households earn over \$99,999 with only 1.9 percent of households earning more than \$200,000.

³ U.S. Census, 2014-2018 five-year estimates

Table C-4: Distribution of Household Incomes, Existing Conditions

	Total Households	Households earning less than \$25,000		Households earning \$25,000 to \$49,999		Households earning \$50,000 to \$99,999		Households earning \$100,000 to \$199,999		Households earning \$200,000 or more	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Study Area	16,823	5,951	35.4%	3,781	22.5%	4,489	26.7%	2,289	13.6%	313	1.9%

Source: U.S. Census, 2014-2018 five-year estimates

Note: In 2018 inflation adjusted dollars

IV. FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITION)

Project Site

Without the Proposed Project, the Project Site would remain as under existing conditions. Lot 16 would continue to be occupied with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 would continue to be occupied with an approximately 8,193 gsf, two-story building with approximately 1,986 gsf day care on the first floor and approximately 6,207 gsf of residential uses with 4 DUs on the second floor. Lot 32 would continue to be occupied with approximately 1,050 gsf, one-story commercial building.

Study Area

Based on information from the CEQR Access database and NYC Department of Buildings, eight ongoing or proposed developments were identified within the socioeconomic study area, with anticipated completion dates in 2026 or earlier, as shown in **Table C-5: Known Developments Within 0.5-Mile of Project Site**.

Table C-5: Known Developments Within 0.5-Mile of Project Site

Map No.	Project Name	Description	Block	Lot	Residential (DU)
1	695 Thwaites Place	The 62-foot-tall structure will be approximately 35,040 sf, 1,725 sf dedicated to medical facility use, 5,160 sf for commercial-retail use, and 36 apartments DUs (24,420 sf)	4342	46	36
2	2278 Bronx Park East	8-story residential development with 33 DUs	4340	8	33
3	2434 Bronx Park East	8-story, 45,263 sf residential apartment building	4424	20	57
4	2439 Barker Avenue	4-story, 6,949 sf residential development with 12 DUs	4424	40	12
5	2500 Barker Avenue	7 story mixed use building with 35,992 sf of residential use and 12,460 sf of commercial use.	4428	7	53
6	2545 Cruger Ave	4-story, 13,997 masonry building with 15 dwelling units	4433	45	15
7	2761 Bronxwood Avenue	The 70-foot-tall structure will be approximately 41,500 square feet, with 18,820 sf residential use and 6,150 sf to ground floor healthcare facility and 32 DUs	4514	30	32
8	3013 Barker Ave	7-story, 22,744 sf residential building	4543	43	31

Source: The Department of Buildings, NYC Active Major Construction, updated 2/17/2021

The study area population projection in the No-Action condition would be 48,118 persons, as shown in **Table C-6: Study Area Population, No-Action Condition.**

Table C-6: Study Area Population, No-Action Condition

Existing Condition (persons)	No-Action Projects Population Increase	Project Site Population	No-Action Condition (persons)
47,391	724	11	48,126

Notes:

No-Action on Project Site: 4 DU x 2.69 persons per household = +11 persons (conservatively rounded up);

No-Action Projects in Study Area: 269 DUs x 2.69 persons per household = +724 persons (conservatively rounded up)

V. FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

In the With-Action condition, the Proposed Actions would result in the rezoning of the Project Site from R6, C8-1 to R7-2, C2-4. The Proposed Project would result in an approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, approximately 19,281 gsf of commercial use, and approximately 6,752 gsf of community facility use and approximately 56,554 gsf for parking.

Indirect Residential Displacement

In conformance to *CEQR Technical Manual* guidelines, the indirect residential displacement assessment first determines whether a 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. If the expected average incomes of the new population would be like the average incomes of the study area populations, no further analysis is necessary.

Median Household Income for Existing Population

In 2010, the median household income in the socioeconomic study area was \$33,959 compared to \$44,415 in 2018, representing an overall increase (**Table C-7: Median Household Income, 2010-2018**).

Table C-7: Study Area Median Household Income, 2010-2018

2010	2018	Direction of Change
\$33,959	\$44,415	Increase

Sources:

U.S. Census, ACS 2006-2010 five-year estimates and ACS 2014-2018 five-year estimates

Note:

Only the direction of the change is reported since the margin of error of the difference is greater than a third of the difference, but less than the difference itself, per DCP guidance.

Under the Proposed Project, 100% DUs would be restricted to households with incomes up to 80% of AMI. HPD standards for affordability, as shown in **Table C-8: Income Limits for Affordable Housing in New York City**, indicate that the average income of households in the Proposed Project would vary by household size, but at minimum would average \$63,680 for a household size of one person at the 80% of AMI level and \$103,480 for a household size of one person at the 130% of AMI level. Based on these estimated household incomes using HPD standards for affordability, household incomes of the Proposed Project would be higher than the median household income of \$44,415 for the study area. The Proposed Project is not expected to change the existing trend of little development in the study area, even with the increase in a higher income population. Consequently, according to *CEQR Technical Manual* guidelines, a Step 2 level of assessment for indirect residential displacement is necessary.

Table C-8: 2020 New York City Area AMI

Household Size	80% of AMI	130% of AMI
1	\$63,680	\$103,480
2	\$72,800	\$118,300
3	\$81,920	\$133,120
4	\$90,960	\$147,810
5	\$98,240	\$159,640

Source: NYC HPD, "2020 New York City Area AMI"
<http://www1.nyc.gov/site/hpd/renters/what-is-affordable-housing.page>

Study Area Population Change

In conformance with *CEQR Technical Manual* guidelines, the next step (Step 2) in a preliminary socioeconomic assessment is to determine whether the Proposed Project's increase in population is large enough relative to the size of the population expected to reside in the study area without the project to affect real estate market conditions in the study area. If the population increase is less than five percent within the study area, further analysis is not necessary as this change would not be expected to affect real estate market conditions.

Table C-9: Study Area Population Change

No-Action Condition (persons)	With-Action Condition (persons)	Percent Change (No-Action to With-Action)
48,126	49,012	1.84%

Notes:

With-Action (increment), Proposed Project: 329 DUs x 2.69 persons = 886 persons.

The change in population between the No-Action and With-Action conditions would be 1.84%, as shown in **Table C-9: Study Area Population Change**.

Since the population increase would be less than 5% within the study area, further analysis to determine whether the Proposed Project would result in indirect residential displacement is not necessary. Consequently, the Proposed Project would not result in a significant adverse impact on socioeconomic conditions.

Attachment D: Community Facilities and Services

I. INTRODUCTION

The 2021 edition of the *City Environmental Quality Review (CEQR) Technical Manual* states that a community facilities assessment should be conducted if a project would directly or indirectly affect existing community facilities, including publicly supported day care, libraries, public schools, health care facilities, and fire and police protection services. A project can affect community services when it physically displaces or alters a community facility or causes a change in population that may affect the services delivered by a community facility, as might happen if a facility is already over-utilized, or if a project is large enough to create a demand that could not be met by the existing facility.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate the development of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site.

The Proposed Project is expected to be completed by 2026. Currently, the Project Site is occupied by a one-story Fine Fare Supermarket constructed circa 1965 with an accessory 50-space parking lot and loading dock. Lot 30 is improved with a one-family, two-story residential dwelling constructed circa 1935, and Lot 32 is improved with a one-story commercial building constructed circa 1934 and occupied by Classico Corp., a building maintenance company.

Since the Proposed Project would increase demand on public schools and publicly funded childcare centers, an assessment is required of the potential of the Proposed Project to result in a significant adverse impact on community facilities or services.

III. METHODOLOGY

A community facilities assessment is warranted if a proposed project would potentially result in appreciable direct or indirect effects on a facility or service provided to the community. Detailed community facilities assessments are commonly associated with residential projects since the increased demand for community services strongly correlates with the introduction of new residents to an area. The *CEQR Technical Manual* establishes thresholds that may be used to determine whether detailed studies are necessary to determine potential indirect impacts on community facilities, (see **Table D- 1: Community Facilities Thresholds for Detailed Analyses**).

The Proposed Project would neither directly displace a community facility nor place a physical barrier to service delivery. The Proposed Project would result in an incremental increase of approximately 329 affordable DUs between the No-Action and With-Action conditions. Based on a comparison of the Proposed Project with *CEQR Technical Manual* thresholds, a detailed assessment of the potential impact of the Proposed Project on community facilities and services would be limited to potential impact of the Proposed Project on elementary/middle schools, and publicly funded childcare. The community facilities assessment is consequently limited to consideration of indirect effects of the Proposed Project on these facilities and services.

Preliminary and detailed assessments for public schools and publicly funded childcare facilities were based on data provided by NYC Department of City Planning (DCP), NYC Department of Education (DOE), NYC Department of Housing Preservation and Development, and NYC School Construction Authority (SCA). For purposes of the early childhood programs analysis, the HPD Housing New York Map¹ and database was reviewed to identify planned residential development projects that would add a substantial number of affordable housing units in the study area; displayed developments seemed to be repair or rehabilitation projects rather than new construction generating additional residential units. The analysis was prepared in accordance with *CEQR Technical Manual* guidelines.

Table D- 1: Community Facilities Thresholds for Detailed Analyses

Community Facility Type	Thresholds for Detailed Analyses	Detailed Analysis Required
Public Schools	<i>Elementary/Middle Schools</i> 50 or more students based on # of residential DUs OR Direct Effect	Yes
	<i>High Schools</i> 150 or more students based on # of residential DUs OR Direct Effect	No
Group Child Care and Head Start Centers (publicly funded)	20 or more eligible children under age 6 based on number of low or low/moderate income DUs OR Direct Effect	Yes
Libraries	More than 5% increase in ratio of DUs to library branches OR Direct Effect	No
Police/Fire Services and Health Care Facilities	Introduction of Sizeable New Neighborhood (e.g., Hunters' Point South) OR Direct Effect	No

Source: *CEQR Technical Manual*

IV. PRELIMINARY ASSESSMENT

Public Schools

Indirect Effects

The *CEQR Technical Manual* defines the thresholds for a detailed assessment of the impact of a project on public schools to be the addition of 50 or more students for elementary and middle schools, and an addition of 150 or more students for high schools. Based on student generation rates for public elementary, middle, and high schools for the Bronx CD 11, as provided by the SCA, the incremental increase of approximately 329 DUs generated by the Proposed Project would result in an addition of approximately 78 elementary school students, 35 middle school students, and 43 high school students (see **Table D- 2: Public School Threshold Calculations**). Consistent with *CEQR Technical Manual* guidelines, this projected number of students warrants a detailed assessment of the potential impact of the Proposed Project on elementary and middle schools since the total number of students generated by the Proposed Project would be greater than 50. The number of high school students generated by the Proposed Project would be below the threshold of 150 students, and consequently a detailed analysis of the potential impact of the Proposed Project on public high schools is not warranted.

¹ NYCHPD, "Housing New York Map".

<https://hpd.maps.arcgis.com/apps/webappviewer/index.html?id=192d198f84e04b8896e6b9cad8760f22>

Table D- 2: Public School Threshold Calculations

	Incremental Increase in DUs from Proposed Project	Multiplier (Students/Unit in Bronx CSD 11)	Additional Students from Proposed Project	Threshold for Detailed Analysis
Elementary School Students	329	0.237461213	78	50 (combined)
Middle School Students		0.106351091	35	
High School Students		0.13	43	150

Source: SCA, Projected Public School Ratio 2019

Publicly Funded Group Child Care and Head Start Centers

Indirect Effects

The *CEQR Technical Manual* threshold for determining the need for a detailed assessment for publicly-funded child care and Head Start centers is an addition of 20 or more eligible children under the age of six based on the number of low- or low/moderate-income DUs that would be created with a project. Based on the generation rates for the Bronx in the *CEQR Technical Manual*, the approximately 329 affordable DUs with the Proposed Project would generate approximately 46 eligible children (**See Table D- 3: Child Care Threshold Calculations**). Consequently, a detailed assessment of the impact of the Proposed Project on publicly funded group childcare and Head State centers is warranted.

Table D- 3: Child Care Threshold Calculations

	Incremental Increase in Affordable DUs from Proposed Project	Multiplier (Children Under the Age of Six/Unit for Bronx)	Additional Children Eligible for Publicly Funded Child Care + Head Start from Proposed Project	Threshold for Detailed Analysis (Bronx)
Group Child Care and Head Start (publicly funded)	329	0.139	46	20

Source: CEQR Technical Manual

V. DETAILED ASSESSMENT – Public Schools

Analysis Approach

Study Area

In conformance to *CEQR Technical Manual* guidelines, the study area for the analysis of elementary and middle schools is the “sub-district” of the school district in which the project is located. The Project Site is located entirely within Sub-district 1 of Bronx CSD 11 (See **Figure D-1: Public Elementary and Middle Schools**). CD 11 Sub-district 1 contains sixteen public elementary schools and ten middle schools.

Methodology

In conformance with *CEQR Technical Manual* guidelines, the public-school analysis is based on the most recent DOE data on school capacity, enrollment, and utilization rates for elementary and middle schools in

the sub-district study area and projections of future enrollment by the SCA. Specifically, the existing conditions analysis used data provided in the “Utilization Profiles: Enrollment, Capacity, and Utilization Report 2019-2020, released by DOE.”

New Projected Public School Ratios data was released by the SCA in 2019. According to this data, multipliers for primary and middle schools have been refined to reflect how many pupils are generated by new housing at the school district level (multipliers for high schools have been maintained at the borough level).

Future conditions were then predicted based on SCA enrollment projections and data obtained from SCA Capital Planning Division on the number of new housing units and students expected at the sub-district and borough levels. The future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the schools’ study area to DOE projected enrollment and then comparing that number with projected school capacity.

DOE does not include charter school enrollment in its projections. DOE enrollment projections for years 2020 through 2029, the most recent data currently available, is posted on the SCA website. The latest available enrollment projections to 2027 have been used in this analysis to project student enrollment to 2026. These enrollment projections are based on broad demographic trends and do not explicitly account for discrete new residential development projects expected to be completed within the study area. Therefore, the estimated student population from other new development projects expected to be completed within the study area have been obtained from the SCA Capital Planning Division and are added to the projected enrollment to provide a more conservative prediction of future enrollment and utilization.

According to *CEQR Technical Manual* guidelines, a significant adverse impact on public schools may occur if a proposed action would result in both of the following conditions:

1. A utilization rate of the elementary or middle schools that is equal to or greater than 100% in the With-Action condition; and
2. 100 or more new students generated from the proposed development past the 100% utilization rate.

Existing Conditions

Schools within Study Area, Enrollment, and Capacity

Table D- 4: Public Elementary and Middle School Enrollment, Capacity, and Utilization for Existing Conditions, School District 11, Sub-district 1 Study Area, identifies the name, location, current enrollment, target capacity, number of available seats, utilization rate, and grades served by each school in Sub-district 1.

Elementary Schools

Sub-district 1 has sixteen elementary schools within the study area for the Proposed Project with a target capacity of 10,081 seats (excluding transportable school and mini-school capacity) and an enrollment of 10,945 students, resulting in a shortfall of 864 seats and a utilization rate of 108.6%.

Middle Schools

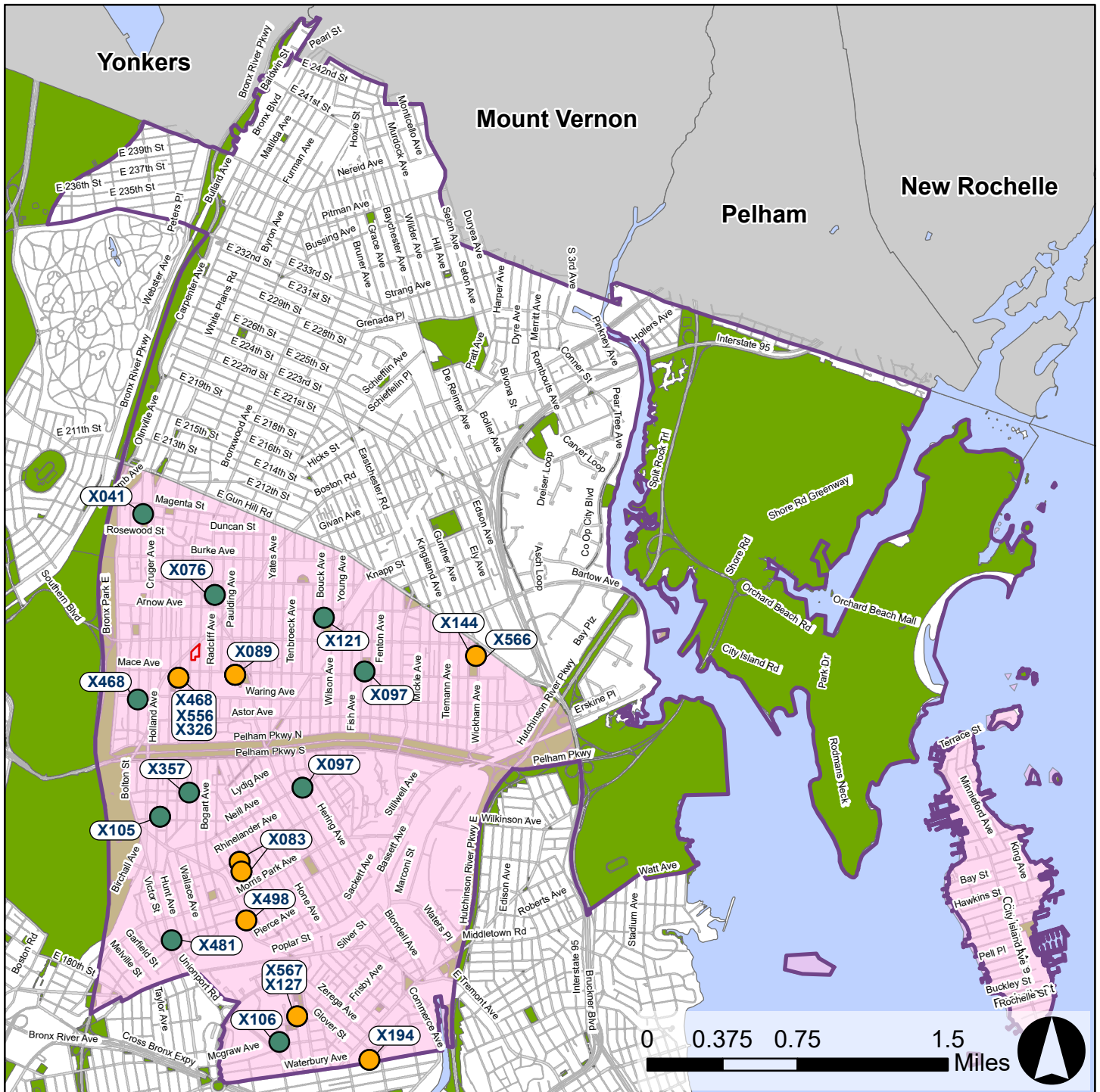
Sub-district 1 has ten middle schools within the study area for the Proposed Project with a target capacity of 5,072 seats and an enrollment of 5,019 students, resulting in a deficit of 53 seats and a utilization rate of 99%.

Table D- 4: Public Elementary and Middle School Enrollment, Capacity, and Utilization for Existing Conditions, School District 11, Sub-district 1 Study Area

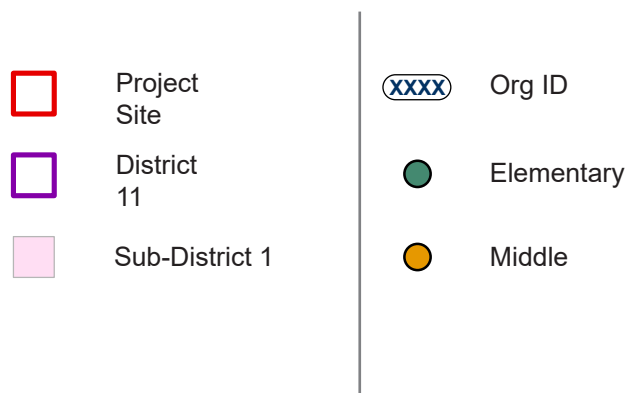
Org. ID	School Name	Address	Enrollment	Target Capacity	Available Seats	Utilization (%)
Elementary Schools						
X041	P.S. 041 Gun Hill Road	3352 Olinville Avenue	816	685	-131	119%
X076	P.S. 076 The Bennington School	900 Adee Avenue	642	663	21	97%
X076	P.S. 76 Temp. C.R. Bldg. - X	900 Adee Avenue	197	173	-24	114%
X083	P.S. 083 Donald Hertz ²	950 Rhinelander Avenue	949	889	-60	107%
X089	P.S. 089 Bronx ²	980 Mace Avenue	891	883	-8	101%
X096	P.S. 096 Richard Rodgers	2385 Olinville Avenue	848	868	20	98%
X097	P.S. 097 Bronx	1375 Mace Avenue	483	333	-150	145%
X097	P.S. 97 Temp. C.R. Bldg. - X	1375 Mace Avenue	113	157	44	72%
X105	P.S. 105 Sen Abraham Bernstein	725 Brady Avenue	747	1008	261	74%
X105	P.S. 105 Temp. C.R. Bldg. - X	725 Brady Avenue	225	288	63	78%
X106	P.S. 106 Parkchester	1514 Olmstead Avenue	1067	1020	-47	105%
X108	P.S. 108 Philip J. Abinanti	1166 Neill Avenue	570	352	-218	162%
X108	P.S. 108 Transportable - X ¹	1166 Neill Avenue	201	0	-201	0%
X121	P.S. 121 Throop	2750 Throop Avenue	782	779	-3	100%
X121	P.S. 121 Temp. C.R. Bldg. - X	2750 Throop Avenue	0	168	168	0%
X175	P.S. 175 City Island	200 City Island Avenue	199	168	-31	118%
X194	P.S./M.S. 194 ²	2365 Waterbury Avenue	753	591	-162	127%
X357	Young Voices Academy of the Bronx	800 Lydig Avenue	430	288	-142	149%
X481	The STEAM Bridge School	1684 White Plains Road	267	217	-50	123%
X498	P.S./M.S. 11X498 - Van Nest Academy ²	1640 Bronxdale Ave	377	253	-124	149%
X567	Linden Tree Elementary School	1560 Purdy Street	388	298	-90	130%
Totals (District 11 - Subdistrict 1)			10,945	10,081	-864	108.6%
Intermediate Schools						
X083	P.S. 083 Donald Hertz ²	950 Rhinelander Avenue	687	644	-43	107%
X089	P.S. 089 Bronx ²	980 Mace Avenue	562	522	-40	108%
X175	P.S. 175 City Island	200 City Island Avenue	98	83	-15	118%
X127	J.H.S. 127 The Castle Hill	1560 Purdy Street	814	779	-35	104%
X144	J.H.S. 144 Michelangelo ⁸	2545 Gunther Avenue	447	695	248	64%
X194	P.S./M.S. 194 ²	2365 Waterbury Avenue	520	407	-113	128%
X326	Bronx Green Middle School	2441 Wallace Avenue	415	375	-40	111%
X468	Pelham Academy of Academics and Community Engagement	2441 Wallace Avenue	351	244	-107	144%
X498	P.S./M.S. 11X498 - Van Nest Academy ²	1640 Bronxdale Ave	282	189	-93	149%
X556	Bronx Park Middle School	2441 Wallace Avenue	408	580	172	70%
X566	Pelham Gardens Middle School	2545 Gunther Avenue	435	554	119	79%
Totals (District 11 - Subdistrict 1)			5,019	5,072	53	99%

¹ Utilization calculated based on enrollment including students in Transportable Classroom Units (TCUs). Capacity of TCUs excluded.

²Source: Blue Book 2019-2020, <https://data.nysed.gov/enrollment.php?year=2020&instid=800000057117>. The enrollment for P.S. 83, P.S. 89, P.S./M.S. 194, P.S. 175 and P.S./M.S. 498 were obtained from the New York State Education Department. The total enrollment from NYSED matches the blue book, but provides a more detailed breakdown and therefore was used to determine PS and IS enrollment. For P.S. and I.S. Capacity, the Blue Book was used.



Source: 2020 PLUTO, DCP



PUBLIC SCHOOLS SCHOOL DISTRICT 11, SUB-DISTRICT 1

Figure D-1

Future without the Proposed Actions (No-Action Condition)

Project Site

Without the Proposed Actions in place, the Project Site would remain as under existing conditions. Lot 16 would continue to be occupied with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 would continue to be occupied with an approximately 8,193 gsf, two-story building with approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf residential uses with 4 DUs. Lot 32 would continue to be occupied with an approximately 1,050 gsf, one-story commercial building.

Enrollment and Capacity Changes

In conformance with *CEQR Technical Manual* guidelines, the assessment of No-Action conditions was based on SCA enrollment projections. SCA provides future enrollment projections by district for up to 10 years. In conformance to guidance from DCP, the latest available enrollment projections from 2026-2027 were used to project student enrollment to 2026 (see **Table D-5: SCA Enrollment Projections, 2026**).

According to those projections, CSD 11 would have an enrollment of approximately 19,067 elementary school-level students and 7,236 middle school-level students in the 2027 school year. According to the enrollment projects provided by the SCA, CSD 11, Sub-district 1 would have an elementary school enrollment of 54.64% which is approximately 10,417 elementary school students and a middle school enrollment of 51.63 %, which is approximately 3,736 middle school students by the 2026 analysis year.

Table D- 5: SCA Enrollment Projections, 2026

	Elementary	Middle
2026 Projected Enrollment for CSD 11 Sub-district 1¹	10,417	3,736

Source:

¹percent enrollment in sub-district 1 as per DCP data

As per the *CEQR Technical Manual*, in addition to enrollment projections, the projected changes that may affect the school capacity within the study area should include plans for changes in utilization, new programs, capital projects for new schools and additions, in determining the utilization rates in the No-Action condition. According to Section 6: Capacity Projects in Process of SCA's Capital Plan Reports and Data, P.S 108 at 1166 Neill Avenue is undergoing construction to include an additional 555 seats by June 2024. The additional capacity of 555 seats has been included in the projected school capacity for the No-Action Condition.

SCA enrollment projections focus on the growth of the City's student population through births and grade retention and do not account for future residential developments planned for the sub-district study areas (No-Action projects). Therefore, future utilization rates for school facilities are calculated by adding the estimated enrollment from proposed residential developments in the school study areas (as provided by the SCA Capital Planning Division) to SCA's projected enrollment, and then comparing that number with projected school capacity (see **Table D-6: Additional No-Action Enrollment, 2026**).

Table D- 6: Additional No-Action Enrollment, 2026

No-Action Enrollment	Elementary	Middle
Students Introduced by No Action Residential Development	507	174

Source: NYCSCA, Section 2 and Section 5, <http://www.nycsca.org/Community/Capital-Plan-Reports-Data#Local-Law-167-Reports-352>

Analysis Summary

Elementary Schools

As shown in **Table D-7: School Enrollment, Capacity, and Utilization for No-Action Condition, 2026**, elementary schools in CSD 11, Sub-District 1 would operate at overcapacity in the 2026 No-Action condition. The sub-district would operate with a utilization rate of 102.7% and a deficit of 289 seats.

Middle Schools

As shown in **Table D-7**, middle schools in CSD 11, Sub-District 1 would operate within capacity in the 2026 No-Action condition. The sub-district would operate with a utilization rate of approximately 77% and a surplus of 1,163 seats.

Table D- 7: School Enrollment, Capacity, and Utilization for No-Action Condition, 2026

	SCA Projected Enrollment	Students Introduced by No Action Residential Development	Total No-Action Enrollment	Capacity	Available Seats	Utilization
Elementary Schools						
CSD 11, Sub-District 1	10,417	507	10,925	10,636	-289	102.7%
Middle Schools						
CSD 11, Sub-District 1	3,736	174	3,909	5,072	1,163	77%

Future with the Proposed Actions (With-Action Condition)

Project Site

As described in Attachment A, "Project Description," in the future with the Proposed Project, the Project Site would be rezoned from R6 and C8-1 zoning designations to an R7-2 zoning district with a C2-4 commercial zoning overlay. The Proposed Project would result in an approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use, and approximately 56,554 gsf for parking.

Enrollment and Capacity Changes

The Proposed Project would generate an incremental increase of approximately 329 DUs on the Project Site, which would all be affordable. This would generate an increment of approximately 78 public elementary school students and 35 middle school students, estimated using the multipliers of 0.237461213 elementary school students per household and 0.106351091 middle students per household, respectively, as provided in Section 5: Projected Public School Ratio of SCA's Capital Plan Reports and Data.

Elementary Schools

As shown in **Table D-8: School Enrollment, Capacity, and Utilization for With-Action Condition, 2026**, the total number of public elementary school students in Sub-district 1 would be approximately 11,003 students. The Sub-district would have a utilization rate of 103.45% and a deficit of 367 seats.

The Proposed Project would not generate 100 or more new students past the 100 % utilization rate in the With-Action Condition. Therefore, the Proposed Project would not result in a significant adverse impact on elementary schools.

Middle Schools

In the With-Action condition, there would be approximately 3,944 students in public middle school students in Sub-district 1 by the year 2026. This would result in a utilization rate of 77.8% and a surplus of 1,128 seats in Sub-district 1.

The collective utilization rate for public middle schools in the With-Action Condition would not be greater than 100%, nor would the Proposed Project generate 100 or more new students past the 100 % utilization rate. Therefore, the Proposed Project would not result in a significant adverse impact on middle schools.

Table D- 8: School Enrollment, Capacity, and Utilization for With-Action Condition, 2026

	No-Action Enrollment 2026	Students Introduced by Proposed Project	Total With- Action Enrollment	Capacity	Available Seats	Utilization
<i>Elementary Schools</i>						
CSD 11, Sub-District 1	10,925	78	11,003	10,636	-367	103.45%
<i>Middle Schools</i>						
CSD 11, Sub-District 1	3,909	35	3,944	5,072	1,128	77.8%

VI. DETAILED ASSESSMENT – Publicly-Funded Group Child Care and Head Start Centers

Existing Conditions

Study Area

In conformance to *CEQR Technical Manual* guidelines, the study area for the analysis of publicly funded group childcare and Head Start centers is an area approximately 1.5 miles from the boundary of the Project Site (See **Figure D- 2: Child Care and Head Start Centers within 1.5 Miles of Project Site**).

Publicly Funded Group Child Care and Head Start Centers in the Study Area

Publicly funded childcare centers are overseen by the DOE to provide care for children of income-eligible households that are under five years old. Families eligible for Early Childhood Program subsidized seats must meet financial and social eligibility criteria as established by DOE. In general, children in families that have incomes at or below 200% Federal Poverty Level (FPL), depending on family size, are financially eligible. Since family incomes at or below 200% FPL fall under 80% AMI, for the purposes of CEQR analysis, the number of housing units expected to be subsidized and targeted for incomes of 80% AMI or below should be used as a proxy for eligibility. The existing publicly funded Early Childhood Programs within the study area were obtained from DOE. There are 71 publicly-funded group day care and Head Start centers within the 1.5-mile study area. These facilities have a total capacity of approximately 778 seats and enrollment of 84 seats within 2020-2021 (**Table D-9: Child Care and Head Start Centers within 1.5 Miles of Project Site**).

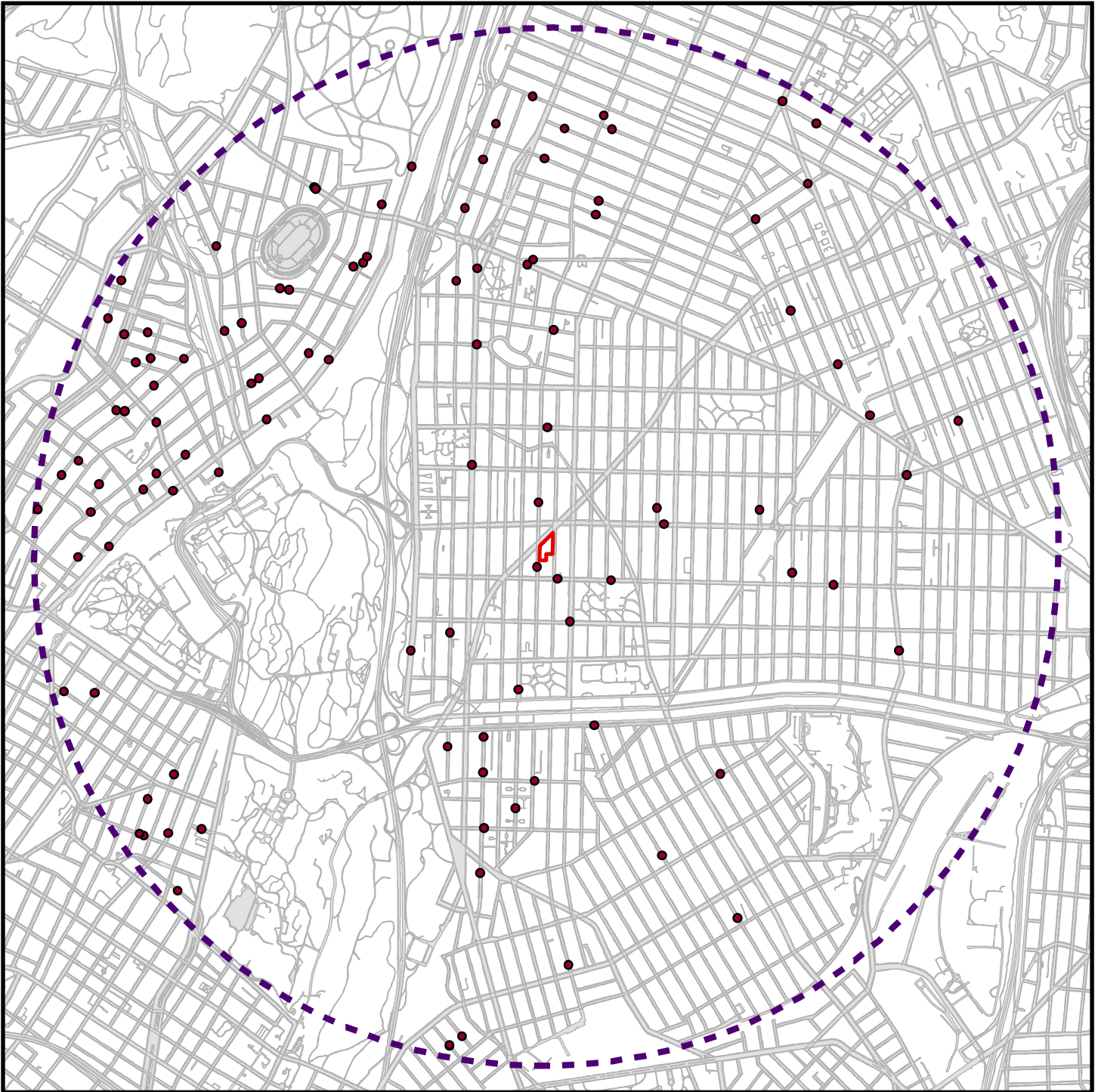
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Table D- 9: Child Care and Head Start Centers within 1.5 Miles of Project Site

Program Name	Address	Total Capacity*	Enrollment*
Osmerly'S Daycare Llc At 2921 Briggs Avenue	2921 Briggs Avenue	8	0
Claybee At 221 East 201St Street	221 East 201St Street	5	0
Growing With Grace Family Daycare At 2732 Marion Avenue	2732 Marion Avenue	4	0
Ada'S Group Family Daycare At 2780 Pond Place	2780 Pond Place	4	0
Marcia'S Group Daycare At 311 Bedford Park Blvd	311 Bedford Park Blvd	4	0
Sandragroup Chil Care At 2921 Briggs Ave	2921 Briggs Ave	4	0
Chachito Group Family Day Care At 2417 Beaumont Av	2417 Beaumont Av	2	0
Deborah Johnson At 2995 Botanical Square	2995 Botanical Square	3	0
Bienvi Group Day Care At 3010 Valentine Avenue	3010 Valentine Avenue	5	0
Fe'S Group Family Day Care At 2822 Decatur Avenue	2822 Decatur Avenue	5	0
Miriam's Rosario De Rodriguez At 2657 Decatur Avenue	2657 Decatur Avenue	3	0
Zoila Group Family Day Care At 271 East 197 Street	271 East 197 Street	4	0
Cardinal Mccloskey Family Child Care At 246 East 199Th Street	246 East 199Th Street	3	0
Wonderland Day Care At 227 East 203 Street	227 East 203 Street	6	0
Beteldaycare At 3010 Valentine Avenue	3010 Valentine Avenue	5	0
Fatou Family Daycare At 2695 Briggs Avenue	2695 Briggs Avenue	7	0
Skybluedaycare At 375 East 199 Street	375 East 199 Street	4	0
Pickaboo Daycare Corp At 2969B Decatur Avenue	2969B Decatur Avenue	5	0
Luz E García At 480 East 188Th Street	480 East 188Th Street	3	0
Airón Group Family Day Care At 685 East 183Rd Street	685 East 183Rd Street	8	0
Happy Trails Group Daycare At 3010 Valentine Avenue	3010 Valentine Avenue	2	0
Littlefoots Day Care At 2979 Briggs Avenue	2979 Briggs Avenue	5	0
Jelson Group Family Day Care At 2303 Crotona Avenue	2303 Crotona Avenue	6	0
Belmont Community Day Care Center, Inc.	2340 Cambreleng Avenue	66	13
Marc Academy And Family Center, Inc.	2863 Webster Avenue	124	21
Milagros Encarnacion'S Daycare At 775 E 185Th St	775 E 185Th St	3	0
Elizabeth Group Family Day Care At 780 Garden Street	780 Garden Street	7	0
Tiny Fingers Tiny Toes Gfdc Inc At 1729 Fillmore Street	1729 Fillmore Street	5	0
Maria Tejada/ Jubilee Chilcare At 1731 Garfield Street	1731 Garfield Street	6	0
Little Rockers Group Family Daycare At 1732 Garfield Street	1732 Garfield Street	4	0
America Abreu At 2009 Cruger Avenue	2009 Cruger Avenue	5	0
Abc Group Family Daycare At 2140 Cruger Avenue	2140 Cruger Avenue	6	0
Isbely'S Group Family Daycare At 2185 Bolton St.	2185 Bolton St.	4	0
Peanut Butter And Jelly Daycare At 2199 Cruger Avenue	2199 Cruger Avenue	4	0
Playful Discoveries, Cdc	1802 Matthews Avenue	10	0
Rite Choice Early Learning Child Care At 1162 E. 224 Street	1162 E. 224 Street	6	0
Laconia Daycare Center & Infant Care Inc.	3950 Laconia Avenue	39	0
Rosa Peralta Gfd At 344 East 209Th Street	344 East 209Th Street	4	0

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Program Name	Address	Total Capacity*	Enrollment*
Laboy'S Daycare At 245 East Gunhill Road	245 East Gunhill Road	4	0
Laura Group Daycare Llc At 3165 Decatur Avenue	3165 Decatur Avenue	6	0
Juana'S Group Family Day Care At 3309 Decatur Avenue	3309 Decatur Avenue	4	0
Family Day Care At 239 E. Mosholu Pkwy North	239 E. Mosholu Pkwy North	2	0
Alianny Family Group Child Care At 3525 Decatur Avenue	3525 Decatur Avenue	5	0
Leonor Perez Day Care At 3525 Decatur Avenue	3525 Decatur Avenue	6	0
Jaede Corp At 250 East Gunhill Road	250 East Gunhill Road	4	0
Shary Rodriguez At 250 East Gunhill Road	250 East Gunhill Road	3	0
Genius Group Family Daycare At 2515 Barnes Avenue	2515 Barnes Avenue	3	0
Auria S Day Care At 245 East 207Th Street	245 East 207Th Street	4	0
Maria Del Cera At 250 East Gunhill Road	250 East Gunhill Road	3	0
Family Daycare At 3039 Hull Ave	3039 Hull Ave	3	0
Dependable Daycare Inc. At 3721 Olinville Avenue	3721 Olinville Avenue	6	0
Cmcs. At 3665 Olinville Avenue	3665 Olinville Avenue	4	0
Mamakelly Family Day Care At 3555 Olinville Avenue	3555 Olinville Avenue	5	0
Bright Abc Inc At 2766 Barnes Avenue	2766 Barnes Avenue	4	0
Tender Hands At 738 East 218Th Street	738 East 218Th Street	6	0
Elisa Heavenly Garden Daycare At 721 Tilden Street	721 Tilden Street	6	0
Odaro'S Kiddie Town Daycare At 810 East 219 Street	810 East 219 Street	4	0
Children'S Academy At 2320 Bronx Park East	2320 Bronx Park East	4	0
Little Giants Group Family Daycare At 851 East 214Th Street	851 East 214Th Street	5	0
A Safe Haven Daycare At 808 Adee Avenue	808 Adee Avenue	3	0
City Of Victory Family Daycare At 3813 Barnes Avenue	3813 Barnes Avenue	5	0
Albania S Pena At 849 East 215 Street	849 East 215 Street	6	0
Williamsbridge Naacp E.C.E.C. Inc	670-680 East 219 Street	150	0
Susan Wagner Victory Day Care Center - Nbdcc	3440 White Plains Road	54	26
Marc Academy At 3152 Villa Ave	3152 Villa Ave	5	0
Adi Daycare Inc. At 3090 Villa Ave.	3090 Villa Ave.	7	0
Tessy Tenderlings Daycare At 3062 Fenton Avenue	3062 Fenton Avenue	6	0
Nery Uceta At 2749 Lurting Ave	2749 Lurting Ave	6	0
Aunty Vs Daycare Inc At 2987 Tiemann Avenue	2987 Tiemann Avenue	6	0
Dare 2 Dream Daycare, Llc At 3342 Fish Avenue	3342 Fish Avenue	8	0
Amazing Kids Corp	2331 Eastchester Road	33	0
Total		778	60
* Early Childcare data provided by DCP, May 2022 Numbers in Bold: Some facilities may not be reporting enrollment data for this year at this time			



Source: DOE, November 2021

-  Project Site
-  1.5-mile Study Area
-  Public Child Care and Head Start Centers

PUBLIC CHILD CARE AND HEAD START CENTERS

Figure D-2

2560 Boston Road Rezoning EAS

Future without the Proposed Actions (No-Action Condition)

Project Site

Without the Proposed Actions, the Project Site would remain as under existing conditions. Lot 16 would continue to be occupied with an approximately 13,800 gsf, one-story development with an accessory 65-space parking lot and loading dock. Lot 30 would continue to be occupied with an approximately 3,972 gsf, two-story building with approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf of residential uses with approximately 4 DUs on the second floor. Lot 32 would continue to be occupied with approximately 1,050 gsf, one-story commercial building.

Enrollment and Capacity Changes

The study area would have a utilization rate of 23.58% and an availability of 595 seats (**Table D-10: Public Child Care Capacity and Utilization No-Action and With-Action Conditions, 2026**).

Future with the Proposed Actions (With-Action Condition)

Project Site

The Proposed Actions would generate an incremental increase of 329 DUs, which would all be affordable, between the No-Action and With-Action conditions. These DUs would generate approximately 46 students eligible for publicly funded childcare or Head Start programs, based on the multiplier of 0.139 children per household provided for the Bronx in Table 6-1b of the *CEQR Technical Manual*.

Enrollment and Capacity Changes

With the addition of the 46 children that would be generated by the Proposed Project, the total number of eligible children for publicly funded childcare and Head Start within 1.5 miles of the Project Site would be approximately 229 students in the With-Action condition (in addition to the existing public childcare/Head Start enrollment and No-Action projects). It is assumed that the capacity of publicly funded childcare and Head Start centers in the study area would not increase between the No-Action and With-Action conditions. The study area would have a utilization rate of 29.46% in the With-Action condition. The collective utilization rate would increase from 23.58% utilization in the No-Action condition to 29.46% in the With-Action condition, representing a collective utilization increase of 5.88%. Since the collective utilization rate would remain below 100% under the With-Action condition, no significant adverse impact on early childhood programs would occur.

Table D- 10: Public Child Care Capacity and Utilization No-Action and With-Action Conditions, 2026

Build Year	Capacity	Current Enrollment	Enrollment Generated by No Action Projects*	Enrollment Generated by the Proposed Project	2026, Enrollment	Available Seats	2026 Utilization
2026 No-Action	778	60	123	0	183	595	23.58%
2026 With-Action	778	60	123	46	229	549	29.46%
Increment	0	0	0	46	46	-46	5.88%

Notes: *Affordable housing developments reported by HPD

Attachment E: Open Space

I. INTRODUCTION

This attachment assesses the potential impact of the Proposed Project on open space resources. Open space is defined in the *2021 City Environmental Quality Review (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. *CEQR Technical Manual* guidelines indicate that an 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 demand on an area's open spaces.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate the development of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The Proposed Project is expected to be completed by 2026. Currently, the Project Site is occupied by a one-story Fine Fare Supermarket constructed circa 1965 with an accessory 50-space parking lot and loading dock. Lot 30 is improved with a one-family, two-story residential dwelling constructed circa 1935, and Lot 32 is improved with a one-story commercial building constructed circa 1934 and occupied by Classico Corp., a building maintenance company.

The *CEQR Technical Manual* states that an open space assessment should be conducted for projects that would generate more than 200 additional residents or more than 500 non-residents, such as workers. Since the Proposed Project would generate more than 200 residents, an open space assessment was warranted.

III. METHODOLOGY

Direct Effects

As described in the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it encroaches on, or causes a loss of, open space. This includes change in the use of an open space so that it no longer serves the same user population, limitation on public access to an open space, or increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. Since the Proposed Actions would not directly displace any public open space, nor change the usefulness of or access to any public open space an assessment of direct effects on open space resources is not warranted.

Indirect Effects

Following the methodology in the *CEQR Technical Manual*, indirect open space effects may occur when a Proposed Project would add enough population, either residential or non-residential (such as workers) or a similar number of other non-residential users (such as new university or college related population), to noticeably diminish the capacity of open space in the area to serve the future population. Typically, an assessment of indirect effects is conducted when a proposed project would introduce more than 200 residents or more than 500 non-residents.

The With-Action condition would generate 333 DUs and 19,281 gsf of commercial use, 6,752 gsf of commercial use and 117 parking spaces which would generate approximately 892 residents¹ and 28 workers.² According to the *CEQR Technical Manual*, an open space assessment should be conducted if that project would generate more than 200 residents or 500 employees. Since the 892 residents generated by the Proposed Actions would exceed the associated residential analysis threshold of 200 residents an impact assessment of open space is warranted. Although the With-Action condition would generate less than 500 employees, the preliminary assessment methodology for projects that would result in an increase in residential population requires assessment of open space for non-residential population if the Proposed Project would occur in an area with an existing substantial non-residential population. While the *CEQR Technical Manual* does not define what is considered a substantial non-residential population, the preliminary assessment was conducted for both the anticipated resident and non-resident (worker) population's effect on open space conservatively.

Study Area

In conformance to *CEQR Technical Manual* guidelines, the first step in assessing potential open space impacts is to establish the appropriate study area(s) for the new residential and/or non-residential population(s) that would be added by the Proposed Project. According to the *CEQR Technical Manual*, the open space study areas is based on the distance a person is assumed to walk to reach a neighborhood open space. These distances usually differ by user group. Workers typically use passive open spaces within a short walking distance of their workplaces whereas residents are more likely to travel farther to reach parks and recreational facilities and use both passive and active open spaces. Workers are assumed to walk up to a 0.25-mile distance to reach neighborhood open spaces, while residents are assumed to walk up to a 0.5-mile distance.

The residential study area for the open space assessment was based on a 0.5-mile distance from the Project Site and the non-residential study area was based on a 0.25-mile distance from the Project Site, which includes all the census tracts with at least 50% of their area within these respective boundaries. As shown in **Figure D-1: Existing Open Space Map**, the 0.5-mile residential study area is defined by Bronx census tracts 324, 326, 328, 330, 332.01, 332.02, 336.01, 336.02, 338.01, 338.02, 340, 342 and 344 of which the 0.25-mile non-residential study area is defined by Bronx census tracts 328, 330, and 340. Additionally, due to the proximity of Bronx Park and Pelham Parkway, portions of those open space resources within the 0.5-mile radius of the Project Site were included in conformance to Section 330 of the *CEQR Technical Manual* guidelines. For projects where the open space ratio is marginally above the percentage change guideline, as shown in Table E-1, the presence of a nearby regional park or other substantial open space resources is an alleviating factor for an increase in open space demand expected as a result of the project. As such, the preliminary assessment considered the availability of these larger-scale parks within the generalized project study area, including the relative distance from the project site, the total acreage of open space offered and the passive and active resources available.

¹ (Increment of 329 DUs) x (2.71 multiplier for average household size of Bronx CD 11 (2020 Census Data) = 892 residents (conservatively rounded up).

² (Increment of 4,431 gsf commercial uses) x (.003 worker multiplier) = 14 workers, (Increment of 5,229 gsf medical office) x (.002 worker multiplier) = 11 workers (conservatively rounded up) and (Increment of 117 parking spaces) x (0.2 worker multiplier) = 28 workers. Multipliers per "Gowanus Neighborhood Plan EAS" (CEQR No. 19DCP157K).

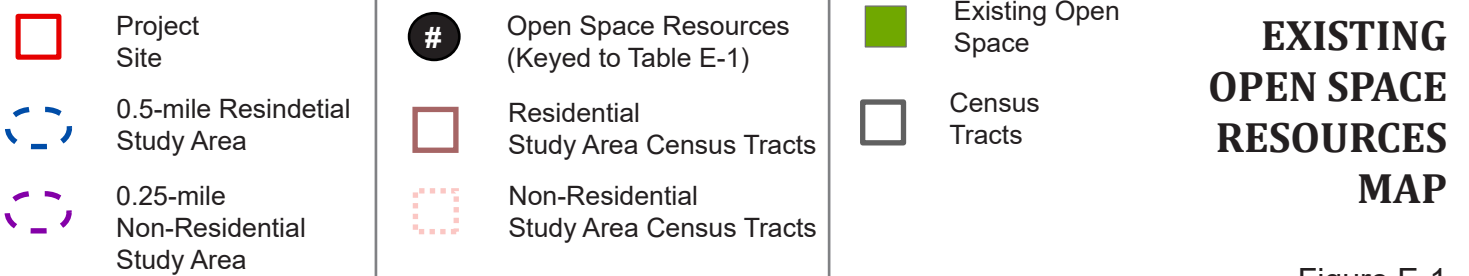


Figure E-1

Level of Assessment

According to the *CEQR Technical Manual*, a preliminary open space assessment describes the conditions within the study area and degree to which the open space would be affected by the Proposed Project. If this assessment indicates the need for further analysis, a detailed analysis would be performed. In this initial assessment, the Open Space Ratio (OSR) is calculated by comparing the amount of open space acreage per 1,000 residents for existing user population and the total open space acreage within the study area. The OSR in the future No-Action condition includes any increase in population expected by other projects to be completed by the Proposed Project's build year, 2026 and changes in the acreage of open space in the study area. The OSR for future the With-Action condition is then calculated with the population generated by the Proposed Project, and any changes in the acreage of open space. If the OSR in the With-Action condition is to remain the same or increase compared to the No-Action condition, a detailed analysis is not warranted. If, however, there is a decrease in OSR due to the Proposed Project, Table 7-1 of the *CEQR Technical Manual* identifies threshold for percentage change in OSR for residential population that may generally be tolerated before considering the need for a more detailed analysis (**Table E-1**). The non-residential population's use of open space would consider the need for a detailed analysis if the OSR is less than the optimal ratio of 0.15 acreage of passive space per 1,000 non-residents. When determining the need for a detailed analysis, regional parks or other substantial open space resources located within or just outside of the 0.5-mile and/or 0.25-mile study area may be included.

Table E-1: Preliminary Assessment – Guidance for Percentage Change in Open Space Ratio

Open Space Ratio Range	Percentage Change in Open Space Ratio
2.01 to 2.50* or greater	5%
1.51 to 2.00	4%
1.01 to 1.50	3%
0.51 to 1.00	2%
0.50 or less	1%
*2.5 OSR is the planning goal in NYC	

Source: Table 7-1, 2021 *CEQR Technical Manual*

New York City, as part of the *OneNYC 2050 Building a Strong and Fair City* plan, has put forth a goal for 85% of New York City residents to live within walking distance of a park by 2030, which includes NYC Parks' "Walk to a Park" program. As part of the preliminary assessment, if the Project Site is not located within a Walk to a Park Service Area, per the map linked in Section 331 of the *CEQR Technical Manual*, a detailed analysis would be warranted.

A detailed open space analysis typically sorts study area population by age group and details the amount and quality of various types of open space to assess the availability of the types of open space for particular age groups. In conducting this assessment, the analysis focuses on where shortfalls in open space exist now (or in the future) and to identify whether the shortfalls are a result of the Proposed Project. If an area supports a substantial non-residential population, such as workers, college students, or visitors, data on the size of population should be obtained using the following sources:

- Data for daytime worker population from DCP³,
- Contacting administrative offices of colleges and other post-secondary educational institutions in the study area for student population, and
- Estimating the visitor population using information from visitor attractions and major shopping attractions for visitor population.

³ <https://www1.nyc.gov/site/planning/planning-level/nyc-population/nyc-population.page>

The open spaces within the study area should then be identified and described through data collection and site visits to determine types of facilities, utilization levels, accessibility, and conditions. Regional parks or other substantial open space resources located within or just outside of the 0.5-mile and/or 0.25-mile study area may be included. Using the data gathered, the detailed assessment would provide an evaluation of the existing open space conditions relative to the open space needs of the study area users both quantitative and qualitatively using the guidance provided in the *CEQR Technical Manual*. This assessment is then continued in a similar manner for the future No-Action and With-Action conditions.

Impact Significance

The determination of significant adverse impacts is based on both qualitative and quantitative factors, as compared to the No-Action condition. According to the *CEQR Technical Manual*, proposed projects that would directly displace/alter existing open space within the study area, reduce the OSR by more than the general guidelines for the open space percentage change presented in Table 7-5 of the *CEQR Technical Manual*, or reduce the open space ratio for a non-residential population to less than the optimal ratio of 0.15 acres of passive space per 1,000 non-resident population, may result in a significant adverse impact. When assessing the effects of a change in the OSR, the balance of passive and active open space appropriate to support the affected population should be considered and assessed relative to the City's open space planning goals as mentioned above. The thresholds of Table 7-5 are not absolute and projects that may result in significant quantitative impacts on open space are typically further assessed qualitatively to determine the overall significance of the impact. Projects that may result in a significant physical effect on existing open space by increasing shadow, noise, air pollutant emissions, or odors compared to the future No-Action condition, may be a considered significant adverse impact requiring mitigation. Furthermore, projects located in an identified walk gap of the City, as defined by NYC Parks' "Walk to a Park" program should be further assessed for qualitative impacts.

Table E-2: Detailed Assessment – Percentage Change Guidance to determine possible Open Space Impact

Total Open Space Ratio Range	Active Open Space Ration Range	Passive Open Space Ratio Range	Percentage Change in Open Space Ratio Signifying a Possible Adverse Open Space Impact
2.01 to 2.50* Or greater	1.61 to 2.0* Or greater	0.41 to 0.50* Or greater	5%
1.51 to 2.00	1.21 to 1.60	0.31 to 0.40	4%
1.01 to 1.50	0.81 to 1.20	0.21 to 0.30	3%
0.51 to 1.00	0.41 to 0.80	0.11 to 0.20	2%
0.50 or less	0.01 to 0.40	0.01 to 0.10	1%
*2.5 OSR is the planning goal in NYC, with optimal distribution goal of 2.0 Active OSR and 0.5 Passive OSR			

Source: Table 7-5, 2021 *CEQR Technical Manual*

Assessment Methodology

Characteristics of the two open space user groups (residents and workers/daytime users) are determined using US Census data for Census Tracts comprising the non-residential and residential open space study areas. The acreage, conditions, and utilization of existing active and passive open spaces within the residential and non-residential open space study areas are inventoried and mapped based on City data and map files, and field visits. Large public open spaces, such as state parks, which are located within the study area and beyond, are inventoried based on only the portions that fall within the study area. Based on the inventory of facilities and study area populations, active and passive OSRs are calculated for the existing residential and worker populations. OSRs are expressed as the amount of open space acreage (total, active, and passive) per 1,000 users.

Expected changes in future levels of open space supply and demand in the 2026 analysis year are assessed based on other planned development projects within the open space study areas as well as known capital improvements to open space or recreational facilities. OSRs are calculated for the No-Action condition and compared with existing OSRs to determine changes in future levels of adequacy. Characteristics of residents and workers are estimated for the residential and non-residential study areas in the No-Action condition.

The assessment considers the effects of increased resident and worker populations associated with a proposed project on open space supply and demand in the study areas. The assessment also considers any new accessory open space facilities included in a proposed project. Characteristics of residents and workers are estimated for the residential and non-residential study areas in the With-Action condition. A qualitative analysis is performed to assess whether the study areas are sufficiently served by open space, which also considers open space resources outside of the defined study areas that would be available to the residential populations.

IV. OPEN SPACE ASSESSMENT

Existing Condition

Study Area Residential Population

2020 Decennial Census Data was compiled for the census tracts within the residential study area to identify the residential population served by existing open space resources. The residential study area is comprised of the census tracts listed in **Table E-3: Existing Study Area Residential Population**.

Table E-3: Existing Study Area Residential Population

Census Tract	Residential Population
324	3,113
326	3,494
328	4,133
330	5,837
332.01	4,103
332.02	4,204
336.01	4,306
336.02	1,555
338.01	2,337
338.02	1,737
340	4,858
342	1,732
344	1,930
Total	43,339

Source: U.S. Census Bureau, 2020

Study Area Non-Residential Population

Data from the *OnTheMap*, a service of the U.S. Census, was compiled for the census tracts comprising the 0.25-mile non-residential study area to assess the non-residential population served by existing passive open space resources. Data from 2019 show that the non-residential study area had a worker population of approximately 2,166 workers.

Table E-4: Existing Study Area Non-Residential Population

Census Tract	Worker Population
328	666
330	872
340	628
Total	2,166

Source: OnTheMap, 2019

Inventory of Publicly Accessible Open Space

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Public open space is defined as facilities that are open to the public at designated hours on a regular basis and should be assessed for impacts in conformance to the *CEQR Technical Manual*. The *CEQR Technical Manual* indicates that private open space not accessible to the public on a regular basis should only be considered qualitatively.

Publicly accessible open space resources within the study area were identified by name and size based on information available from the NYC Department of Parks & Recreation (“NYC Parks”). (**Table E-5: Inventory of Existing Open Space**). The geographic locations of these open spaces are shown on **Figure E-1: Existing Open Space Map** and are keyed to **Table E-5**.

Mazzei Playground

Mazzei playground is bounded by Williamsburg Road and Mace Avenue. The approximately 1.6-acre park offers a variety of amenities including basketball courts, handball courts, playgrounds, and spray showers. This playground is operated under NYC Parks.

P.S 76 School Yard

The approximately 0.8-acre P.S 76 school yard is located on Adeo Avenue and Bronxwood Avenue. The P.S. 76 school yard is part of NYC Parks School Yards to Playgrounds Program where more than hundreds of schoolyards within NYC have been renovated and open to the public during non-school hours (Monday – Friday: School close until dusk and Saturday, Sunday, & holidays: 8:00 A.M. until dusk).

I.S 135 Playground

The approximately 0.7-acre I.S. 135 playground is located south of Mace Avenue between Wallace and Holland Avenues. The playground offers a variety of amenities including basketball courts, spray showers, a playground, a soccer field and a skate park and is part of NYC Parks School yards to Playground Program.

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Parkside Playground

Parkside Playground is located between White Plains Road and Bronx Park East and is located on Arnow Avenue. The 0.82-acre playground offers a variety of amenities including basketball courts, handball courts, playgrounds, and spray showers. Parkside Playground is operated under NYC Parks.

Zimmerman Playground

Zimmerman Playground is an approximately 1.0-acre park located on Bronx Park East. Several benches are located on the interior perimeter and a paved open area occupies most of the center of the playground. The playground operated by NYC Parks.

Pelham Parkway Greenway

The Pelham Parkway greenway is bound by Pelham Parkway North and Pelham Parkway South. While the greenway has a total area of 108.91 acres including all portions within and beyond the residential study area, only approximately 16.92 acres of the greenway is located within the residential study area. According to the *CEQR Technical Manual*, greenways are 100% active.

Bronx Park

Bronx Park is a flagship park best known to being home to the Bronx Zoo, New York Botanical Garden and many recreation areas. Of the approximate 718.37 acres of parkland, approximately 31.36 acres is located within the residential study area. It includes the Skate Park, Waring Playground, and hiking trails.

Table E-5: Inventory of Existing Open Space

Map No.	Park Name	Location	Owner/Agency	Amenities	Total Acreage	Active		Passive		Condition
						Acres	%	Acres	%	
1	Mazzei Playground	Mace Ave. bet. Pauldings Ave. and Williamsbridge Rd.	NYC Parks	Basketball courts, handball courts, playgrounds, spray showers	1.59	1.27	80%	0.3	20%	Acceptable
2	P.S 76 (Schoolyards to Playground)	900 Adele Ave,	NYC Parks/ NYC BOE	Playground	0.79	0.79	100%	0	0%	Acceptable
3	I.S 135 (Schoolyards to Playground)	2401 Wallace Avenue	NYC Parks/ NYC BOE	Basketball courts, tennis courts, playgrounds	0.70	0.70	100%	0	0%	Acceptable
Total, 0.25-Mile Non-Residential Study Area Totals					3.08	2.76	89.7%	0.32	10.3%	
4	Parkside Playground	Arnold Avenue & White Plains Road	NYC Parks	Basketball courts, handball courts, playgrounds, spray showers	0.82	0.82	100%	0	0%	Acceptable
5	Zimmerman Playground	650 Britton Street	NYC Parks	Basketball courts, handball courts, playgrounds, spray showers	0.97	0.87	90%	0.1	10%	Acceptable
6	Pelham Parkway	Bronx Park, Hutch. River Pkwy. bet. Pelham Pkwy North and South	NYC Parks	Greenway	16.92	0	0%	16.9	100%	Acceptable
7	Bronx Park	Southern Blvd, Webster, Burke Aves, Bronx Pk E, 180 St	NYC Parks	Skate Park, Waring Playground, hiking trails	31.36	31.36	100%	0	0%	Acceptable
Total, 0.5-Mile Residential Study Area Totals					53.15	35.8	67.4%	17.33	32.6%	

Source: NYCParks

Assessment of the Adequacy of Open Space Resources

The *CEQR Technical Manual* indicates that the adequacy of an open space resources in an area is assessed by evaluating the ratio of open space acreage to user population. The residential study area contains a total of 53.15 acres of usable publicly-accessible open space, serving approximately 43,339 residents in the residential study area, yielding an OSR of 1.23 acres of improved open space per 1,000 residents (**Table E-6: Adequacy of Open Space Resources, Existing Condition**). The active OSR is 0.83 acres of active open space per 1,000 residents, and the passive OSR is 0.40 acres of passive open space per 1,000 residents.

The non-residential study area contains a total of 0.32 acres of passive public open space, serving approximately 2,166 workers in the non-residential study area, yielding an OSR of 0.15 acres of improved passive open space per 1,000 workers.

Table E-6: Adequacy of Open Space Resources, Existing Condition

Population	Existing Acreage			Existing OSR		
	Total	Active	Passive	Total	Active	Passive
Residential (0.5-Mile) Study Area						
Residents 43,339	53.15	35.81	17.33	1.23	0.83	0.40
Non-Residential (0.25-Mile) Study Area						
Workers 2,166	3.08	2.76	0.32	N/A	N/A	0.15

No-Action Condition

Study Area Residential and Non-Residential Population

Without the Proposed Actions, the Project Site would remain as existing conditions. In addition, nine new developments were identified in the census tract study areas that together would consist of approximately 312 residential DUs within the residential study area and approximately 12,548 sf of commercial space and 27,534 sf of community facility space to the non-residential study area (**Table E-7: No-Action Population Increase in the Study Area**). The 312 residential DUs would result in an increase in population of approximately 846 residents and the commercial and community facility space would introduce approximately 66 workers.

Table E-7: No-Action Population Increase in the Study Area

Street Address	Block	Lot	Development Program	Residential (DU)	Commercial (sqft)	Community Facility (sqft)
695 Thwaites Place	4342	46	The 62-foot tall structure will be approximately 35,040 sf, 1,725 sf dedicated to medical facility use, 5,160 sf for commercial-retail use, and 24,420 sf of residential use	36	5,160	1,725

Street Address	Block	Lot	Development Program	Residential (DU)	Commercial (sqft)	Community Facility (sqft)
2278 Bronx Park East	4340	8	8-story residential development	33		
2434 Bronx Park East	4424	20	8-story, 45,263 sf residential apartment building	57		
2439 Barker Avenue	4424	40	4-story, 6,949 sf residential development	12		
2500 Barker Avenue	4428	7	7 story mixed-use building with 35,992 sf of residential use and 12,460 sf of commercial use.	53	12,460	
2545 Cruger Ave	4433	45	4-story, 13,997 sf residential building	15		
2761 Bronxwood Avenue*	4514	30	The 70-foot tall structure will be approximately 41,500 square feet, with 18,820 sf residential use and 6,150 sf ground floor healthcare facility	32		6,150
3013 Barker Ave*	4543	43	7-story, 22,744 sf residential building	31		
790 Allerton Avenue*	4439	81	7-story, approximately 86,660 sf mixed-use building with 52,727 sf of residential use, 21,384 sf of community facility use (daycare), and 12,548 sf of commercial use (retail)	43	12,548	21,384
Total (DUs), Residential Study Area				312		
Total (sf), Non-Residential Study Area*					12,548	27,534
Multipliers**				2.71	0.003	.001
Population (residents), Residential Study Area				846		
Population (workers), Non-Residential Study Area					38	28

Source: NYC Department of Building's Active Major Construction Tool, NYC Department of Building's: Buildings on My Block; accessed

Notes:

*Within the 0.25-mile non-residential study area

**Average household size of Bronx CD 11 (2020 Census Data) where the Project Site is located is 2.71. Commercial and Community Facility Multipliers from Gowanus Neighborhood Rezoning EIS, CEQR No. 19DCP157K

Table E-8: Study Area Population, No-Action Condition

<i>Residential (0.5-Mile) Study Area</i>			
Existing Residential Population	No-Action Developments Residential Population Increase	Project Site As-of-Right Residential Population Increase	Total No-Action Residential Population
43,339	846	0	44,185
<i>Non-Residential (0.25-Mile) Study Area</i>			
Existing Worker Population	No-Action Developments Worker Population Increase	Project Site As-of-Right Worker Population Increase	Total No-Action Worker Population
2,166	66	0	2,232

Assessment of Open Space Adequacy

Without the Proposed Project, the Project Site would remain as under existing conditions. Lot 16 would continue to be occupied with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 would continue to be occupied with an approximately 8,193 gsf, two-story building with approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf residential uses with 4 dwelling units. Lot 32 would continue to be occupied with an approximately 1,050 gsf, one-story commercial building.

The residential study area contains a total of 53.15 acres of publicly accessible open space, which would serve approximately 44,185 residents in the residential study area in 2026. Therefore, the OSR in the No-Action condition would be 1.20 acres of open space per 1,000 residents. The active OSR in the No-Action condition would be 0.81 acres of active open space per 1,000 residents, and the passive OSR would be 0.39 acres of passive open space per 1,000 residents (**Table E-9: Adequacy of Open Space Resources, No-Action Condition**).

In the No-Action condition, the non-residential study area would contain a total of 0.32 acres of usable public passive open space. The worker population would increase by seven workers through the No-Action development in the study area for a total of approximately 2,232 workers in the non-residential study area, which would yield an OSR of 0.14 acres of improved open space per 1,000 workers.

Table E-9: Adequacy of Open Space Resources, No-Action Condition

Population	No-Action Acreage			No-Action OSR		
	Total	Active	Passive	Total	Active	Passive
Residential (0.5-Mile) Study Area						
Residents 44,185	53.15	35.81	17.33	1.20	0.81	0.39
Non-Residential (0.25-Mile) Study Area						
Workers 2,232	3.08	2.76	0.32	N/A	N/A	0.14

With-Action Condition

Study Area Residential and Non-Residential Population

In the With-Action condition, the Proposed Actions would result in the rezoning of the Project Site from R6, C8-1 zoning designations to an R7-2 zoning district with a C2-4 commercial zoning overlay. The Proposed Project would result in an approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, 19,281 gsf of commercial use, 6,752 gsf of community facility use, and approximately 56,554 gsf of parking. This would generate approximately 892 residents⁴ and 28 workers.⁵

⁴ (Increment of 329 DUs) x (2.71 multiplier for average household size of Bronx CD 11 (2020 Census Data) = 892 residents (conservatively rounded up).

⁵ (Increment of 4,431 gsf commercial uses) x (.003 worker multiplier) = 14 workers, (Increment of 5,229 gsf medical office) x (.002 worker multiplier) = 11 workers (conservatively rounded up) and (Increment of 117 parking spaces) x (0.2 worker multiplier) = 28 workers. Multipliers per "Gowanus Neighborhood Plan EAS" (CEQR No. 19DCP157K).

Table E-10: Study Area Population, With-Action Condition

<i>Residential (0.5-Mile) Study Area</i>		
Total No-Action Residential Population	Project Site Incremental Residential Population Increase	Total With-Action Residential Population
44,185	892	45,077
<i>Non-Residential (0.25-Mile) Study Area</i>		
Total No-Action Worker Population	Project Site Incremental Worker Population Increase	Total With-Action Worker Population
2,232	28	2,260

Assessment of Open Space Adequacy

It is not anticipated that there would be an increase in open space resources in the residential study area or the non-residential study area by the 2026 analysis year. The residential study area contains a total of 52.62 acres of publicly accessible open space, serving approximately 45,077 residents in the With-Action condition, yielding a total OSR of 1.18 acres of open space per 1,000 residents. The With-Action active OSR is 0.79 acres of active open space per 1,000 residents and passive OSR is 0.38. The With-Action non-residential study area passive OSR is 0.14 (**Table E-11: Adequacy of Open Space Resources, With-Action Condition**).

Table E-11: Adequacy of Open Space Resources, With-Action Condition

Population	With-Action Acreage			With-Action OSR		
	Total	Active	Passive	Total	Active	Passive
<i>Residential (0.5-Mile) Study Area</i>						
Residents 45,077	53.15	35.81	17.33	1.18	0.79	0.38
<i>Non-Residential (0.25-Mile) Study Area</i>						
Workers 2,260	3.08	2.76	0.32	N/A	N/A	0.14

The decrease in the total, as well as active and passive, residential OSR between the No-Action and the With-Action Conditions would be approximately 2%, which is less than the percentage change in OSR signifying a possible adverse open space impact for areas with a total OSR between 1.01 and 1.5, as identified in *CEQR Technical Manual* (Table 7-5). The decrease in the passive non-residential OSR between the No-Action and the With-Action Conditions would be approximately 1.2%, which would also be below the significant impact threshold for open space resources and would not trigger a detailed analysis.

Table E-12: Open Space Ratios Summary

	Percentage Change in Open Space Ratio Signifying a Possible Adverse Open Space Impact	Open Space Ratio (acres per 1,000 persons)			Percent Change (Between No-Action condition and With-Action Conditions)
		Existing	No-Action	With-Action	
Residential Total	3%	1.23	1.20	1.18	-2.0%
Residential - Active	2%	0.83	0.81	0.79	-2.0%
Residential - Passive	4%	0.40	0.39	0.38	-2.0%
Non-Residential- Passive	2%	0.15	0.14	0.14	-1.2%

Additionally, the Project Site is located within a Walk to a Park Service Area, as defined in *OneNYC 2050 Building a Strong and Fair City* plan. Therefore, a detailed analysis is not required, and no significant adverse open space impact would occur.

Attachment F: Shadows

I. INTRODUCTION

This attachment assesses the potential for significant adverse impacts due to shadows created by the Proposed Project on sunlight-sensitive resources. Section 200 of Chapter 8 of the *2020 City Environmental Quality Review (CEQR) Technical Manual* states that a shadows assessment is necessary for projects that would either result in new structures (or additions to existing structures) of 50 feet in height 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 and include public open spaces, historic architectural resources, and natural resources.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate the development of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The Proposed Project would be operational in 2026.

METHODOLOGY

The shadows assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. Sunlight-sensitive resources of concern, as defined by CEQR, are those resources that depend on sunlight or require direct sunlight to maintain their usability or architectural integrity. The following are sunlight-sensitive resources as defined in the *CEQR Technical Manual*:

- **Public open space** (e.g., parks, beaches, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The uses and vegetation in an open space establish its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather-dependent features like wading pools and sand boxes, or vegetation that could be affected by loss of sunlight during the growing season (i.e., March through October); and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include passive uses, such as sitting or sunning; active uses, such as playfields or paved courts; as well as such activities as gardening, or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is a minimum requirement for healthy growth and maintenance.
- **Features of historic architectural resources that depend on sunlight for their enjoyment by the public.** When evaluating the impact on historic architectural resources, only the sunlight-sensitive features of these resources are considered, as opposed to the entire architectural resource. Sunlight-sensitive features include design elements that are part of a recognized architectural style that depend on the contrast between light and dark (e.g., deep recesses or voids such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication); elaborate, highly carved ornamentation; stained-glass windows; exterior building

materials and colors that depend on direct sunlight for visual character (e.g., the polychrome (multicolored) features found on Victorian Gothic Revival or Art Deco façades); and historic landscapes, such as scenic landmarks including vegetation recognized as an historic feature of the landscape; and structural features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as an historic landmark.

- **Natural resources where the introduction of shadows could alter the resource's condition or microclimate.** Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.
- **Other Resources:** Greenstreets (planted areas within unused portions of roadbeds that are part of the Greenstreets program).

The preliminary screening assessment was completed in conformance with a tiered assessment process prescribed in the *CEQR Technical Manual*. Major steps in this process included:

- **Base Map.** Development of a base map that illustrates the proposed site location in relationship to the sunlight-sensitive resources.
- **Tier 1 Screening Assessment.** Development of the longest shadow area. The longest shadow study area encompasses the site of the proposed project and a perimeter around the site's boundary with a radius equal to the longest shadow. According to the *CEQR Technical Manual*, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. The purpose of the Tier 1 Screening Assessment is to determine whether the sunlight-sensitive resources are located within the longest shadow study area.
- **Tier 2 Screening Assessment.** If any portion of a sunlight-sensitive resource lies within the longest study area, a Tier 2 Screening Assessment is warranted. Due to the path of the sun across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north. The purpose of the Tier 2 Screening Assessment is to determine whether the sunlight-sensitive resources identified in the Tier 1 Screening Assessment are located within portions of the longest shadow study area that can receive shadows from a proposed project.
- **Tier 3 Screening Assessment.** According to the *CEQR Technical Manual*, a Tier 3 Screening Assessment should be performed to determine if, in the absence of intervening buildings, shadows resulting from a proposed project can reach a sunlight-sensitive resource, thereby warranting a detailed shadow analysis. The Tier 3 Screening Assessment is used to determine if shadows resulting from a proposed project can reach a sunlight-sensitive resource at any time between 1.5 hours after sunrise and 1.5 hours before sunset on representative analysis dates.

For the New York City area, the months of interest for an open space resource encompass the growing season (March through October) and one month between November and February (usually December) representing a cold-weather month. Representative days for the growing season are generally the March 21st vernal equinox (or September 21st autumnal equinox), the June 21st summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes such as May 6th or August 6th (which are approximately the same). As the sun rises in the east and travels across the southern part of the sky to set in the west, a project's earliest shadows would be cast in a westward direction. Throughout the day, the shadows would shift clockwise (moving northwest, then north, then northeast) until sunset. Therefore, a project's earliest shadow on a sunlight-sensitive resource would occur in a similar pattern, depending on the location of the resource in relation to the site.

If the preliminary screening analyses described above do not rule out the possibility that project-generated shadows would reach any sunlight-sensitive resource, then a detailed shadows analysis is warranted. The

detailed shadows analysis establishes a baseline condition (the “No-Action” condition) that is compared to the future condition resulting from the proposed project (the “With-Action” condition) to illustrate the shadows cast by existing or future buildings and to distinguish the additional (incremental) shadow cast by the project.

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

II. EXISTING CONDITIONS

Base Map and Sunlight-Sensitive Resources of Concern

A base map was developed that identified the study area in relationship to resources of concern (**Figure F-1: Tier 1 Shadows Assessment Base Map**). As shown on **Figure F-1**, there are two potential open space resources of concern are near the Project Site within the longest shadow study area boundary.

III. Tier 1 Screening Assessment

In conformance with guidance in Section 312 of Chapter 8 of the *CEQR Technical Manual*, a Tier 1 Screening Assessment was completed that identified the longest shadow that could be cast by the Proposed Project, which is 4.3 times the height of the structure. The Proposed Project would rise to approximately 127 feet and could cast a shadow to a maximum radius of approximately 547 feet from the Project Site. As shown in **Figure F-2: Tier 1 Shadow Screening Assessment Map** there are no open space resource and no architectural resources of concern are near the Project Site within the longest shadow study area boundary.

IV. CONCLUSION

There are no sunlight sensitive resources within the longest shadow study area boundary. Therefore, the Proposed Project would not result in a significant adverse impact from project-generated incremental shadows on sunlight-sensitive resources.



Source: 2020 PLUTO, DCP

0 250 500 1,000 Feet

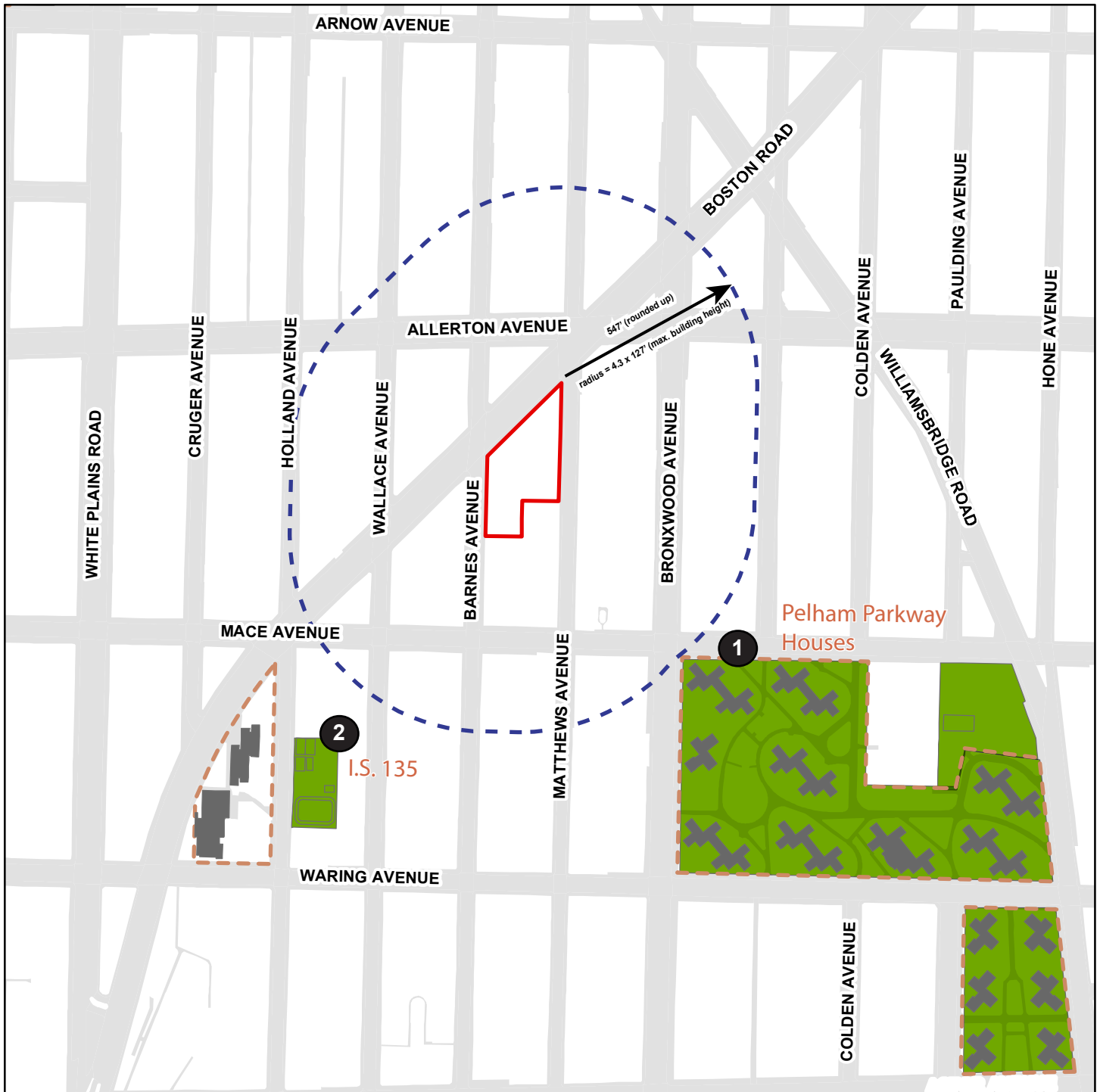


- Project Site
- ⋯ Longest Shadow Study Area Boundary
- ⋯ NYCHA Developments

Potential Sunlight-Sensitive Resources

SHADOWS ASSESSMENT BASE MAP

Figure F-1



Source: 2020 PLUTO, DCP

0 250 500 1,000 Feet



- Project Site
- - - Longest Shadow Study Area Boundary
- - - NYCHA Developments

Potential Sunlight-Sensitive Resources

TIER 1 SHADOW SCREENING ASSESSMENT MAP

Figure F-2

2560 Boston Road Rezoning EAS

Attachment G: Urban Design and Visual Resources

I. INTRODUCTION

This attachment assesses the potential impact of the Proposed Project 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 2020 edition of the *City Environmental Quality Review (CEQR) Technical Manual*, the urban design and visual resources assessment evaluates whether the Proposed Project may have effects on one or more of these elements of pedestrian experience.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate the development of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The Proposed Project would be operational in 2026.

The Proposed Site would be mapped with an R7-2 zoning district with a C2-4 commercial zoning overlay with a maximum FAR of 4.60, which is greater than the maximum 2.43 FAR allowed under the existing R6/C8-1 zoning designation. Therefore, a preliminary urban design assessment is prepared.

II. METHODOLOGY

CEQR Technical Manual guidelines define urban design as the totality of components that may affect a pedestrian's experience of public space and that 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, streetlights, fire hydrants, curb cuts, or newsstands are critical to making a successful streetscape.
2. **Buildings.** Buildings support streets. A building's street walls are 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 purposes 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.

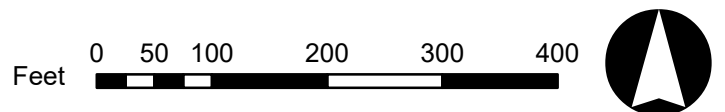
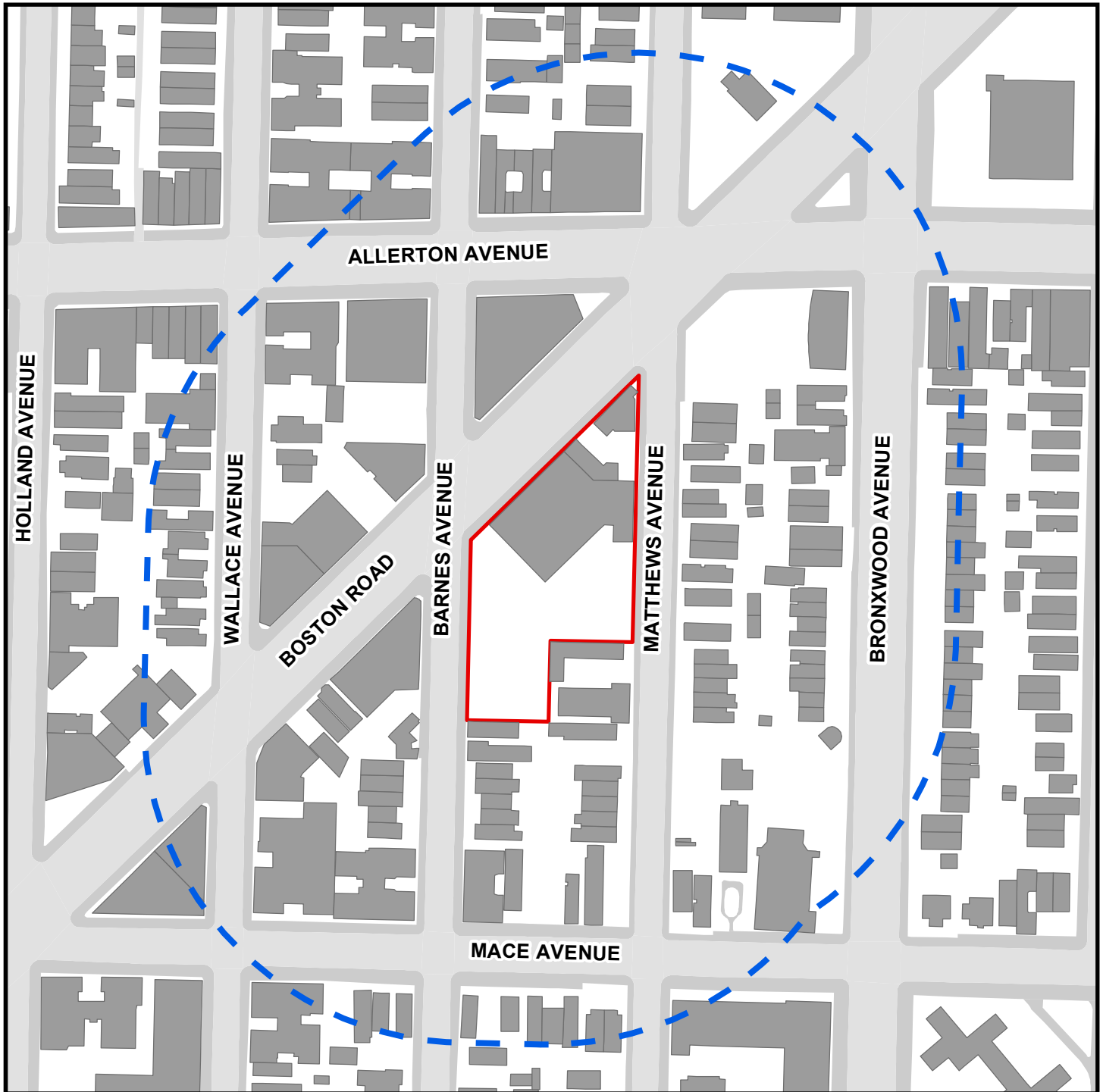
An urban design and visual resources assessment is necessary when a project may affect one or more of the defined elements that contribute to the pedestrian experience. According to *CEQR Technical Manual* guidelines, a preliminary assessment for urban design is appropriate when there is the potential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

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

The Proposed Actions would facilitate development that would have the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. Consequently, a preliminary assessment was completed to determine what, if any, potential impact of the Proposed Project would have on urban design and visual resources.

The preliminary assessment describes existing urban design features and visual resources within 400 feet of the Project Site (Study Area), and future (2022) urban design features and visual resources in the Study Area in the No-Action and With-Action conditions (**Figure G-1: Urban Design and Visual Resources Study Area Map**). In conformance to guidance in the *CEQR Technical Manual*, changes that would occur between the No-Action and With-Action conditions are disclosed.

In addition, *CEQR Technical Manual* guidelines state that the construction of projects involving multiple tall buildings at or near waterfront sites may result in exacerbation of wind conditions due to "channelization" or "downwash" that may affect pedestrian comfort and safety. Since the Proposed Actions would not facilitate the construction of a large building at a location along the waterfront nor include multiple tall buildings, a pedestrian wind assessment is not warranted.



-  Projected Development Site
-  400-foot Study Area

URBAN DESIGN AND VISUAL RESOURCES STUDY AREA

Figure G-1
2560 Boston Road Rezoning EAS

III. EXISTING CONDITIONS

Project Site

The Project Site is comprised of Block 4440, Lots 16, 30 and 32 and along Boston Road between Matthews and Barnes Avenue. Lot 16 is currently improved with an approximately 13,800 gsf, one-story supermarket constructed circa 1965 with an accessory 65-space parking lot and loading dock. Lot 30 is improved with an approximately 3,972 gsf, two-story building constructed circa 1935 with an approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf residential uses with 4 dwelling units. Lot 32 is improved with an approximately 1,050 gsf, one-story commercial building constructed circa 1934 and occupied by Classico Corp., a building maintenance company.

Study Area

According to the *CEQR Technical Manual*, the study area for the urban design and visual resources assessment is the area where the project may influence land use patterns and the built environment and is consistent with that used for the land use analysis. Consequently, the study area for the assessment of potential impacts of the Proposed Actions on urban design and visual resources is the same as the land use study area, i.e., the area within a 400-foot radius of the Project Site.

Streets

Streets in the study area follow a north-east grid pattern, which is cut by Boston Road diagonally. Boston Road is a major arterial road, Matthews Avenue is a one-way road, and Barnes Avenue is a two-way road. The Project Site has a street frontage of approximately 221 feet along Barnes Avenue, and a street frontage of 326.31 feet along Matthews Avenue and approximately 286.31 feet along Boston Road.

Streetscape elements within the study area include sidewalks lined with trees without tree guards. Street furniture includes standard street signs, bus stop signs, fire hydrants, cobra head lampposts, chain-link fencing, wrought-iron fencing, wooden electrical poles, and mailboxes. All rights-of-way in the study area include sidewalks of varying widths and conditions ranging from adequate to poor. Vehicles are parked mostly on-street and driveways.

Views along Matthews Avenue include mostly one- and two-family buildings. Boston Road is primarily comprised of commercial buildings. South of the Project Site on Mace Avenue is the Church of St. Lucy, with St. Lucy's School located across the street.

Buildings

The study area is characterized by a mixture of low and medium residential uses and occasional commercial uses. Building heights range in height between one-and size-stories (**Figure G-2: Existing Building Heights**); FARs range between up to 6.1. (**Figure G-3: Existing Density**).

The residential homes along Matthews Avenue are mostly one- and two-family homes whereas homes along Allerton Avenue are mixed commercial and residential.

The one- and two-family homes located within the study area are typically of brick construction with flat roofs and wrought iron fencing. Single-family homes have vinyl siding with low-gabled roofs stoops, small front yard gardens, and awnings. Multi-family elevator buildings in the study area have rectangular floorplates, red or tan brick exteriors, flat roofs, and fire balconies. Mixed-use buildings ranging from one to three stories on Allerton Avenue typically have neighborhood retail on the ground floor and use awning-

2560 Boston Road Rezoning EAS
CEQR No: 22DCP184X
ULURP No(s): 220283ZMX, N22084ZRX

style signage and occasionally use posters in the storefront windows. Boston Road storefronts are typically one story tall, occupying a majority of the blockfront.

Open Space

The study area does not contain any publicly accessible open space resources.

Natural Resources

The study area does not contain any significant natural features as defined in the *CEQR Technical Manual*, and is substantially void of vegetation or geologic, topographic, and aquatic features, including rock outcroppings, steep slopes or varied ground elevation, beaches, or wetlands.

Visual Resources

The study area does not contain visual resources of concern, as defined in the *CEQR Technical Manual*.



Source: 2020 PLUTO, DCP

Feet 0 50 100 200 300 400



 Projected Development Site

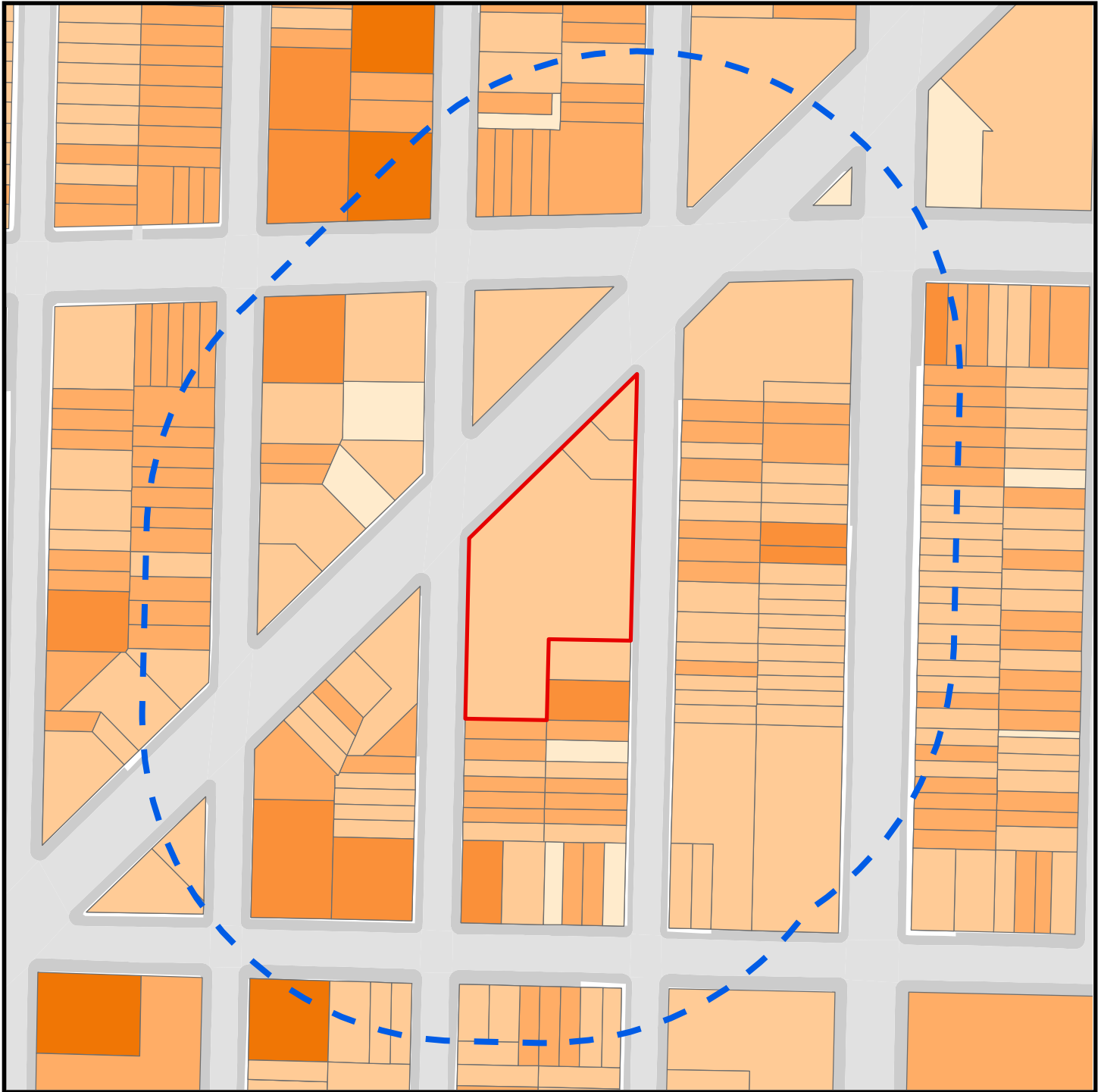
 400-foot Study Area

 0 Floors
 1 - 2 Floors
 3 - 4 Floors
 5 - 6 Floors

EXISTING BUILDING HEIGHTS

Figure G-2

2560 Boston Road Rezoning EAS



Source: 2020 PLUTO, DCP

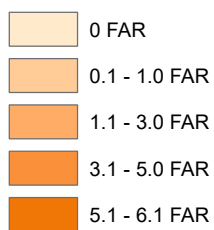
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Projected
Development Site



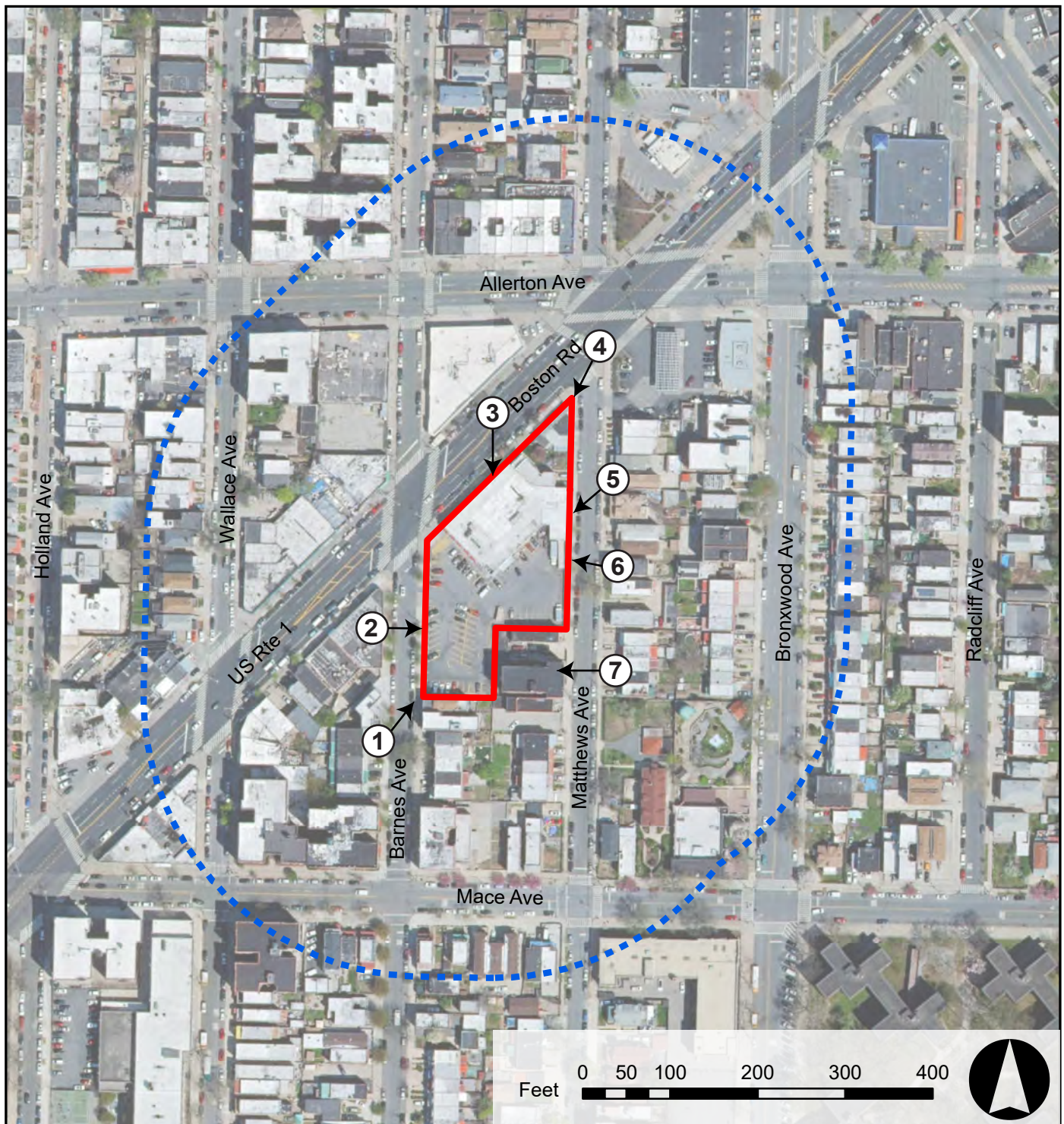
400-foot
Study Area



**EXISTING
DENSITY
(BUILT FAR)**

Figure G-3

2560 Boston Road Rezoning EAS



- Projected Development Site
- ⋯ 400-foot Study Area

Keyed Photograph

AERIAL

Figure G-4
 2560 Boston Road Rezoning EAS

Photograph 1: View of Project Site, looking east from Barnes Avenue.



Photograph 2: View of Project Site, looking east from Barnes Avenue.



Note: All photographs taken on October 17, 2019

Photograph 3: View of the Project Site, looking south from Boston Road



Photograph 4: View of the Project Site, looking southwest from Boston Road.



Photograph 5: View of the Project Site, looking southwest along Matthews Avenue.



Photograph 6: View of the Project Site, looking west along Matthews Avenue.



Photograph 7: View of the Project Site, looking northeast from Matthews Avenue.



IV. FUTURE WITHOUT PROPOSED ACTIONS (NO-ACTION CONDITION)

Project Site

Without the Proposed Actions in place the Project Site would remain as under existing conditions. Lot 16 would continue to be occupied with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 would continue to be occupied with an approximately 8,193 gsf, two-story building with approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf residential uses with 4 DUs. Lot 32 would continue to be improved with approximately 1,050 gsf, one-story commercial building. Lot 16 would continue to be mapped with R6 and C8-1 zoning districts, while Lots 30 and 32 would continue to be mapped with a C8-1 zoning district.

Study Area

Based on a review of information from CEQR Access and the Department of Buildings (DOB), nine proposed developments were identified within the urban design study area with anticipated build completion dates in 2026 or earlier within 0.5 mile of the Project Site.

Table G-1: No-Action Development Projects

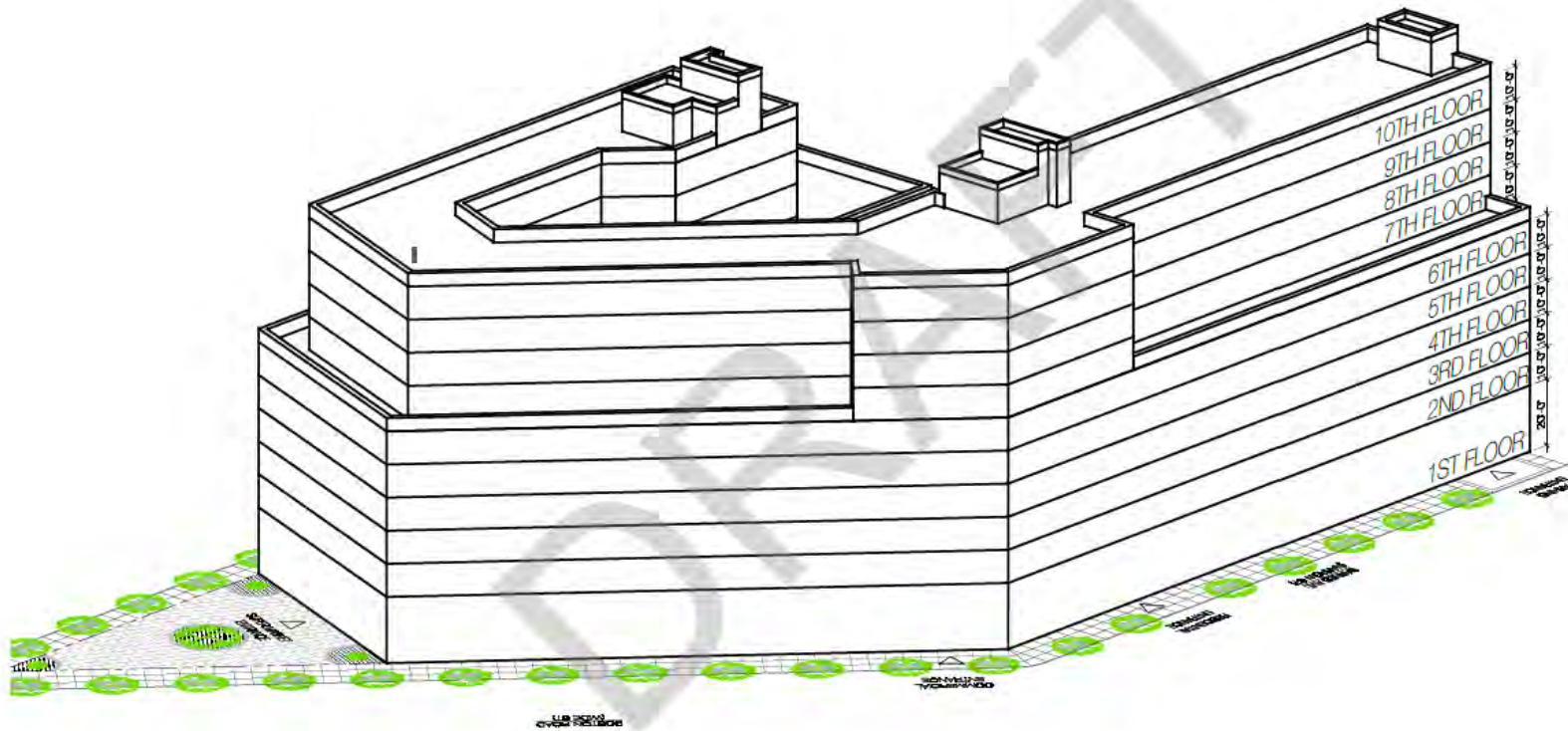
Map No.	Project Name	Description	Block	Lot	DUs
1	695 Thwaites Place	The 62-foot-tall structure will be approximately 35,040 sf, 1,725 sf dedicated to medical facility use, 5,160 sf for commercial-retail use, and 36 apartments DUs (24,420 sf)	4342	46	36
2	2278 Bronx Park East	8-story residential development with 33 DUs	4340	8	33
3	2434 Bronx Park East	8-story, 45,263 sf residential apartment building	4424	20	57
4	2439 Barker Avenue	4-story, 6,949 sf residential development with 12 DUs	4424	40	12
5	2500 Barker Avenue	7 story mixed use building with 35,992 sf of residential use and 12,460 sf of commercial use.	4428	7	53
6	2545 Cruger Ave	4-story, 13,997 masonry building with 15 dwelling units	4433	45	15
7	2761 Bronxwood Avenue	The 70-foot-tall structure will be approximately 41,500 square feet, with 18,820 sf residential use and 6,150 sf to ground floor healthcare facility and 32 DUs	4514	30	32
8	3013 Barker Ave	7-story, 22,744 sf residential building	4543	43	31
9	790 Allerton Avenue	7-story, approximately 86,660 sf mixed-use building with 52,727 sf of residential use, 21,384 sf of community facility use (daycare), and 12,548 sf of commercial use (retail)	4439	81	43

V. FUTURE WITH PROPOSED ACTIONS (WITH-ACTION CONDITION)

In the future with the Proposed Actions, the Project Site would be rezoned from R6 and C8-1 zoning designation to a R7-2 zoning district with a C2-4 commercial zoning overlay. The Proposed Project would comprise of an approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use, and approximately 56,554 gsf for parking.

No significant adverse impact on urban design or visual resources would occur. The Proposed Project would include an approximately 4,233 square feet landscaped pedestrian plaza at the corner of Boston Road and Matthews Avenue, linking the two sidewalks to better promote pedestrian activity and visual access to adjoining businesses. Access to the proposed supermarket would be located off of the plaza as well. The Proposed Project would not alter the arrangement or orientation of streets within the study area. The streetscape within the study area is characterized by wide sidewalks lined with trees and a variety of street furniture. The Proposed Project would maintain similar streetscape conditions around and near the Project Site, while activating the sidewalks of all three street frontages by providing access to new residential, commercial, and community facility spaces. Access to proposed residential use would be provided from both Barnes and Matthews Avenues, akin to current condition of these streets which are lined with residential homes. The proposed community facility space on the Project Site would be accessed from Matthews Avenue, replacing the existing solid wall condition. The additional commercial use besides the proposed supermarket, would be accessed from Boston Road, a major traffic artery lined with commercial uses as well.

The proposed building would rise to an initial base height of 70 feet (six-stories) before setting back 15 feet on the narrow street frontages of Barnes and Matthews Avenues and 10 feet on the wide street frontage of Boston Road. The required 15- and 10-foot building setback at the six-story level would provide adequate light and air along the sidewalks, which would help provide a more spacious atmosphere at the street level, enhancing the pedestrian experience and preserving the existing character of the streets. The base building height is consistent with buildings that currently exist in the 400 feet study area, which range from one to seven stories. An approximately 57.5 feet setback would also be provided at the six-story level from the lot line on Matthews Avenue, which would preserve light and air for the neighboring buildings. The proposed building would then rise to a maximum building height of 110 feet (10 stories). Although the proposed height is taller than the buildings found under existing conditions, it would be well below the permitted height threshold of 135 feet (13 stories) for the proposed zoning district of R7-2. The Project Site is ideal for a building of this scale as it is a corner lot located at an intersection of multiple wide streets with wide sidewalks along Boston Road and Allerton Avenue, both major traffic arteries. The proposed pedestrian plaza on the Project Site at the corner of Boston Road and Matthews Avenue would provide additional street wall relief at the pedestrian level.



Source: Aufgang Architects
 Note: For Illustrative Purposes Only

WITH-ACTION MASSING DIAGRAM

Figure G-5

View 1: View looking North from Matthews Avenue.

No-Action Scenario



Source: Aufgang Architects

With-Action Scenario



Source: Aufgang Architects

Figure G-6: Urban Design Views

View 2: View looking South from Matthews Avenue.

No-Action Scenario



Source: Aufgang Architects

With-Action Scenario



Source: Aufgang Architects

Figure G-6: Urban Design Viewsa

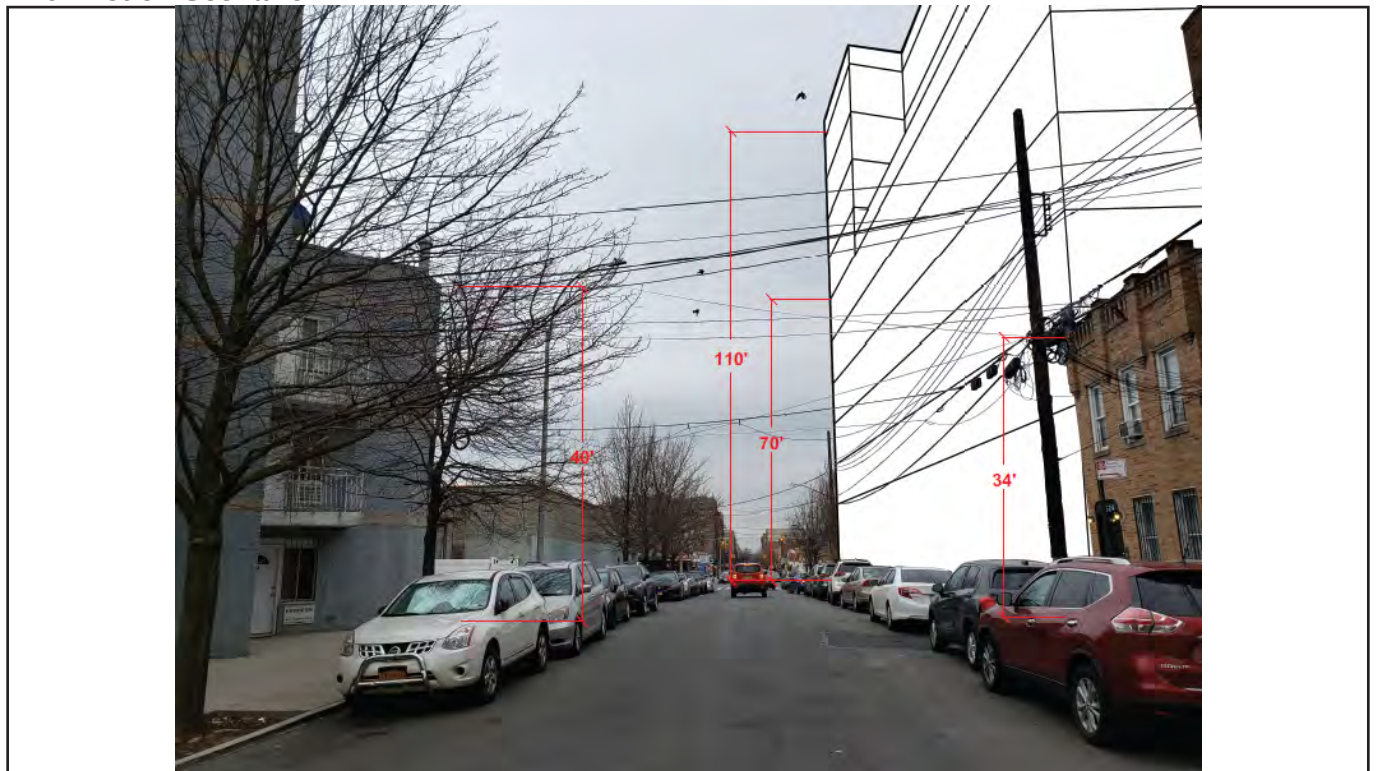
View 3: View looking North from Barnes Avenue.

No-Action Scenario



Source: Aufgang Architects

With-Action Scenario



Source: Aufgang Architects

Figure G-6: Urban Design Viewsa

View 4: View looking South from Barnes Avenue.

No-Action Scenario



Source: Aufgang Architects

With-Action Scenario



Source: Aufgang Architects

Figure G-6: Urban Design Viewsa

Attachment H: Hazardous Materials

I. INTRODUCTION

This attachment assesses the potential for the presence of hazardous materials in soil, groundwater, and/or soil vapor, and further evaluates the potential for hazardous materials impacts resulting from the Proposed Project. According to *City Environmental Quality Review (CEQR) Technical Manual* guidelines, a hazardous materials assessment may be necessary when a proposed action could lead to increased exposure of people or the environment to hazardous materials, or whether increased exposure would lead to significant public health impacts or environmental damage.

As described in Attachment A, “Project Description,” the Proposed Actions would facilitate the development of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area (“Proposed Project”) on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The Proposed Project would be operational in 2026.

II. METHODOLOGY

The presence or likely presence of any hazardous substance or petroleum products on a site under conditions that indicate an existing release, past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property is known as a Recognized Environmental Condition (REC), as defined by the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments (ESAs): Phase I ESA Process (ASTM E-1527). An REC should be disclosed under CEQR. A Phase I ESA, dated December 2020, was prepared in conformance to ASTM International Standard Practice E-1527-13, and served as the basis of the hazardous materials assessment.

III. EXISTING CONDITIONS

Phase I ESA

The Phase I ESA identified RECs related to the Project Site. As noted in the Phase I ESA, two open spills were found in the adjoining property to the north across Boston Road. An additional spill occurred at the BP gasoline station located 120-feet northeast of the Project Site. This spill identified soil and groundwater contamination migrating in the direction of the Project Site. The soil, groundwater and soil vapor beneath the Project Site may have been adversely impacted as a result of these spills and hazardous waste activity at surrounding properties.

The Project Site was historically operated as an auto sales yard in the 1950’s and 1960’s as evidenced by aerial photographs and Sanborn Maps for this time period. Auto sales yards have historically maintained gasoline underground storage tanks (USTs) and involve shipment and movement of vehicles which contain petroleum products and hazardous materials, the release of which may adversely impact the Project Site. The Phase I ESA did not identify any Controlled RECs (CRECs) or Historical RECs (HRECs) in connection with the Project Site.

IV. FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITION)

Without the Proposed Actions in place, the Project Site would remain as under existing conditions. Lot 16 would continue to be occupied with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 would continue to be occupied with an approximately 8,193 gsf, two-story building with approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf residential uses with 4 DUs. Lot 32 would continue to be improved with approximately 1,050 gsf, one-story commercial building.

V. FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

In the future with the Proposed Actions, the Project Site, would be rezoned from R6, C8-1 to R7-2, C2-4. The Proposed Project would result in an approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use, and approximately 56,554 gsf for parking.

Based on the findings of a Phase I ESA, the Applicant intends to file an application to the New York State Department of Environmental Conservation (NYSDEC) to enter the Project Site into the Brownfield Cleanup Program (BCP). If the Project Site is accepted into the BCP, remedial actions performed in conjunction with the Proposed Project would be subject to approval and oversight by NYSDEC and compliance with the requirements of the BCP, which will prevent significant adverse impacts from hazardous materials in connection with the Proposed Project. The BCP is a comprehensive program that includes or surpasses requirements of the City's hazardous materials (E) designation program. Should the application to enroll the Project Site in the BCP not be accepted, a Remedial Action Plan (RAP) and site-specific Construction Health and Safety Plan (CHASP) will be submitted to the Mayor's Office of Environmental Remediation (OER) for review and approval pursuant to an (E) designation to ensure that the environmental commitments to remediate the Project Site are retained regardless of BCP participation. The RAP and CHASP will be prepared to establish procedures to be followed throughout all periods of construction and disturbance at the Project Site. Construction management, site-specific controls, and monitoring procedures established therein would be submitted to the OER for review and approval. Documentation of the RAP is required prior to the issuance of NYC building permits to allow building occupancy on the Project Site.

The following (E) designation related to hazardous materials pursuant to Section 11-15 of the New York City Zoning Resolution for the subject property , **E-694**, will be mapped for the Project Site:

Task 1 – Sampling Protocol

A Phase I Environmental Site Assessment must be submitted to the New York City Mayor's Office of Environmental Remediation (OER). If required based on Phase I ESA conclusions, a soil, groundwater and soil vapor testing protocol must also be submitted, including a description of methods and a site map with all sampling locations clearly and precisely represented.

If subsurface 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 be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination will be 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 needed, a proposed remediation plan must be submitted to OER for review and approval. Such remediation must be completed as determined necessary by OER. Appropriate documentation indicating that the work has been satisfactorily completed must be provided.

A Construction Health and Safety Plan (CHASP) 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 CHASP will be submitted to OER prior to implementation.

Through the provisions of the NYSDEC BCP and mapping of the (E) designation on the Project Site as an assurance towards maintaining environmental commitments, no significant adverse impacts from hazardous materials would occur, and no further analysis is warranted.

Attachment I: Transportation

I. INTRODUCTION

This attachment examines the potential traffic, transit, pedestrian, parking, and safety impacts associated with the proposed redevelopment of a site located at 2560 Boston Road (Block 4440, Lots 16, 30, and 32) in Bronx Community District 11 (CD 11) (the “Project Site”). As described in Attachment A, “Project Description,” the Proposed Actions would facilitate the development of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area (“Proposed Project”) on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The Proposed Project would be operational in 2026. The Proposed Site is shown on **Figure I-1**.

Four peak hours were considered for the transportation analysis:

- Weekday AM (7:45 AM to 8:45 AM)
- Weekday Midday (MD) (2:00 PM to 3:00 PM)
- Weekday PM (4:30 PM to 5:30 PM)
- Saturday MD (3:15 PM to 4:15 PM)

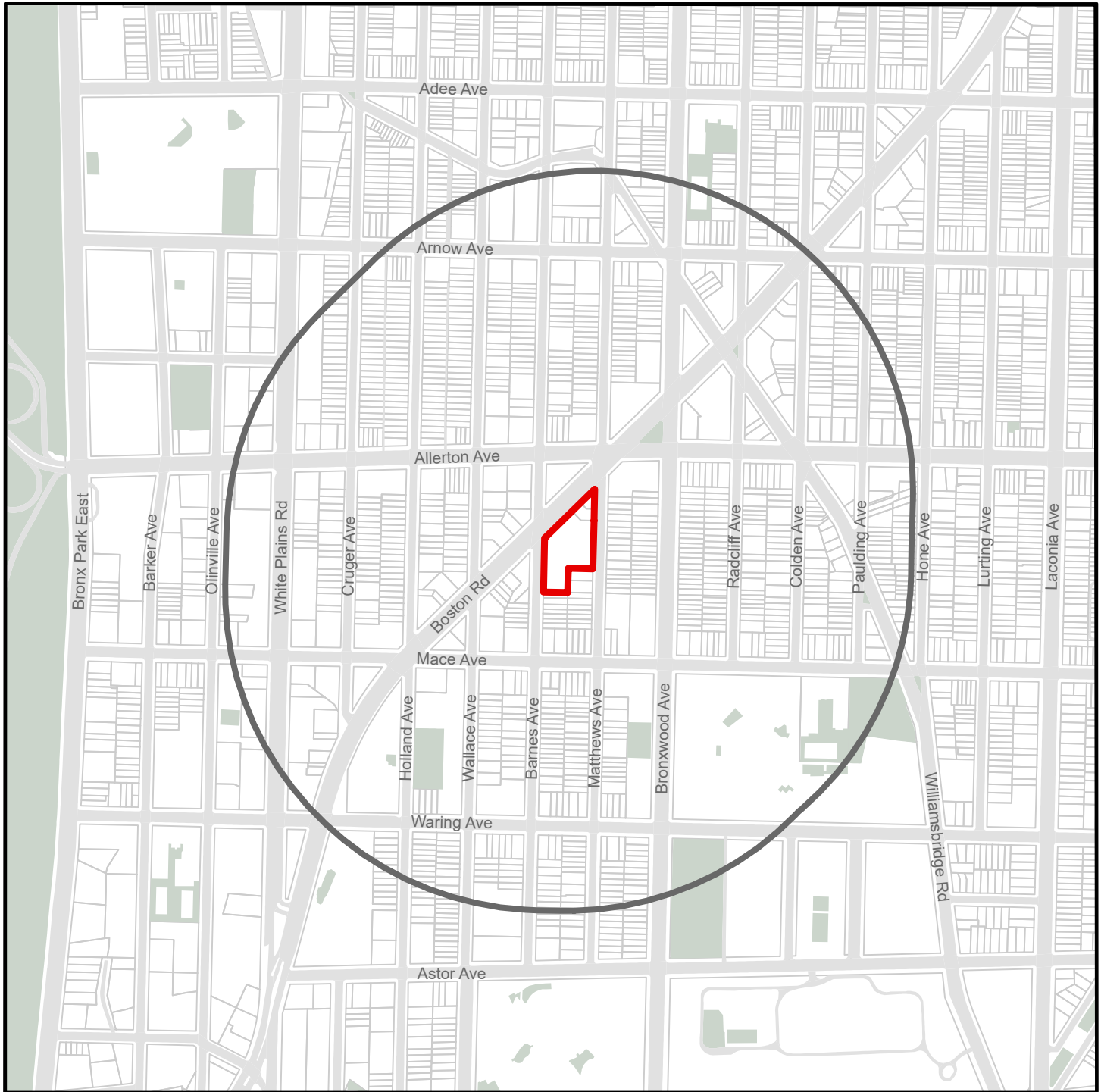
II. SCREENING METHODOLOGY

Transportation impact analysis methodologies for proposed projects in New York City are defined in the *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 Project 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 project during an individual peak hour, based on the results of the vehicle trip assignment. It was determined that individual intersections would exceed this threshold during the following four critical peak hours:

- Weekday AM (7:45 AM to 8:45 AM)
- Weekday MD (2:00 PM to 3:00 PM)
- Weekday PM (4:30 PM to 5:30 PM)
- Saturday MD (3:15 PM to 4:15 PM)



Source: PLUTO 2020

0 0.125 0.25 Miles



 Project Site

 0.25-Mile Radius

PROJECT AREA MAP

Figure I-1

Detailed intersection analyses were conducted for all four peak hours at three study intersections within the study area that exceeded the 50 new vehicle trip criteria specified in the *CEQR Technical Manual*.

Access Management

The access management principles specified in the *CEQR Technical Manual* and established by NYCDOT include limiting direct access to major streets, limiting and separating the number of curb cuts, preserving the functional area of intersections, and using non-traversable medians. The principles were used to achieve benefits such as improved safety, enhanced traffic operations, streamlined business operations, preserved value of the City's investment in the transportation system, and reduced environmental impacts. The Proposed Project would not add any new curb cuts or vehicle access points on the major street of Boston Road or increase the total number of curb cuts in the area; therefore, the access management principles will be upheld.

Transit

The transit criteria specified in the *CEQR Technical Manual* thresholds established by New York City Transit/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 project 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 project 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 Development would not exceed the *CEQR Technical Manual* 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 Project would not exceed the *CEQR Technical Manual* 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 intersection corner, crosswalk, or sidewalk would be considered a location with the potential for significant impacts and would require a detailed analysis. The Proposed Project would not generate more than 200 pedestrian trips at any critical pedestrian elements (corners, crosswalks, and sidewalks) during at least one of the study peak hours. Therefore, a detailed pedestrian analysis was not conducted.

Parking Conditions

According to the *CEQR Technical Manual*, if the threshold for a detailed traffic analysis is met, it is likely that a parking assessment is warranted. As the Proposed Project is expected to generate more than 50 new vehicle trips at an individual intersection during any of the peak hours, a detailed traffic analysis was conducted, and, as such, a parking assessment was also conducted.

A parking assessment identifies the extent to which on-street and off-street parking is available and utilized under the existing, No-Action, and With-Action conditions. Typically, this assessment encompasses a study area within a 0.25-mile of the Proposed Project. If the assessment identifies a shortfall in parking in the 0.25-mile study area, the study area could be extended to 0.5-mile to identify additional parking supply. The assessment, 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-crash locations as specified in the *CEQR Technical Manual*. These locations are defined as being located along a Vision Zero corridor/intersection or with 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 at these locations or whether existing unsafe conditions could adversely impact the flow of the projected new vehicular or pedestrian/bicycle trips.

III. STUDY AREA

To assess the potential transportation impacts associated with the Proposed Project, the study area was defined based on principal access routes to and from the Project Site, traffic conditions in the surrounding area, and key intersections likely to be affected by trips generated by the Proposed Project. In total, three signalized intersections were selected for vehicular analysis, as shown in **Figure I-2**. The safety assessment was conducted for all intersections included in the vehicular analysis.

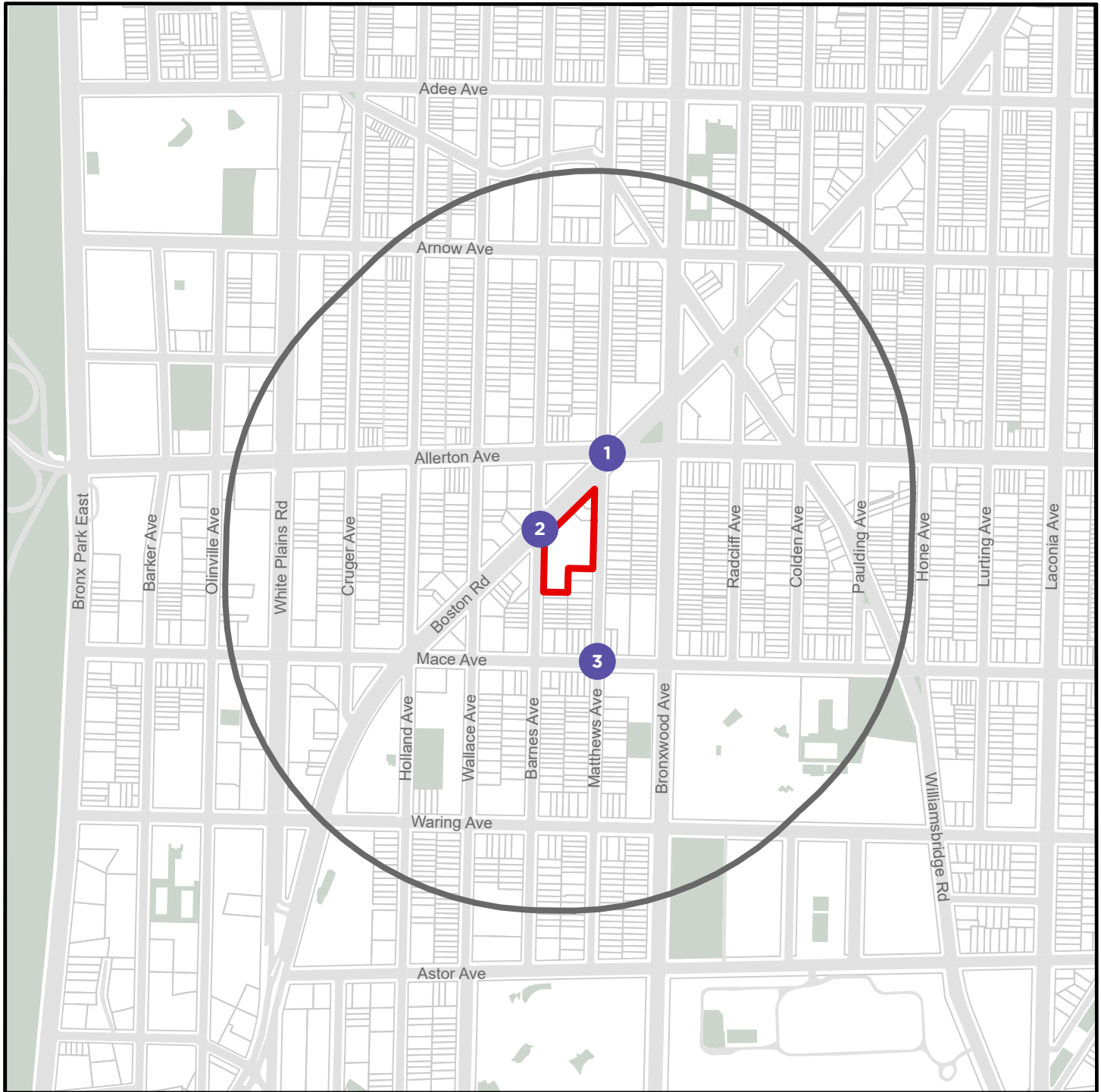
Study Area Intersection and Roadway Characteristics

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

1. Allerton Avenue/Matthews Avenue and Boston Road
2. Barnes Avenue and Boston Road
3. Matthews Avenue and Mace Avenue

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

- Allerton Avenue is a two-way, east-west roadway that operates with two travel lanes in each direction. Curbside parking is generally permitted on both sides of the street.
- Boston Road is a two-way northeastbound-southwestbound roadway that operates with two travel lanes in each direction. Curbside parking is generally permitted on both sides of the street.



Source: PLUTO 2020

0 0.125 0.25 Miles



 Project Site

 Study Location

 0.25-Mile Radius

PROPOSED PROJECT VEHICULAR STUDY LOCATIONS

Figure I-2

2560 Boston Road EAS C
EQR No: 22DCP184X
ULURP No(s): 220283ZMX, N22084ZRX

- Matthews Avenue, north of Boston Road, is a one-way northbound roadway that operates with one travel lane and curbside parking on both sides of the street. Matthews Avenue, south of Boston Road, is a one-way southbound roadway that operates with one travel lane and curbside parking on both sides of the street.
- Barnes Avenue, north of Boston Road, is a one-way southbound roadway that operates with one travel lane and curbside parking on both sides of the street. Barnes Avenue, south of Boston Road, is a two-way, north-south roadway that operates with one lane in each direction and curbside parking on both sides of the street.
- Mace Avenue is a two-way, east-west roadway that operates with one travel lane in each direction. Curbside parking is permitted on both sides of the street.

Study Area Transit Service

Transit service within a 0.25-mile from the Proposed Project includes two subway lines and seven bus routes, as shown on **Figure I-3**.

Subway Lines

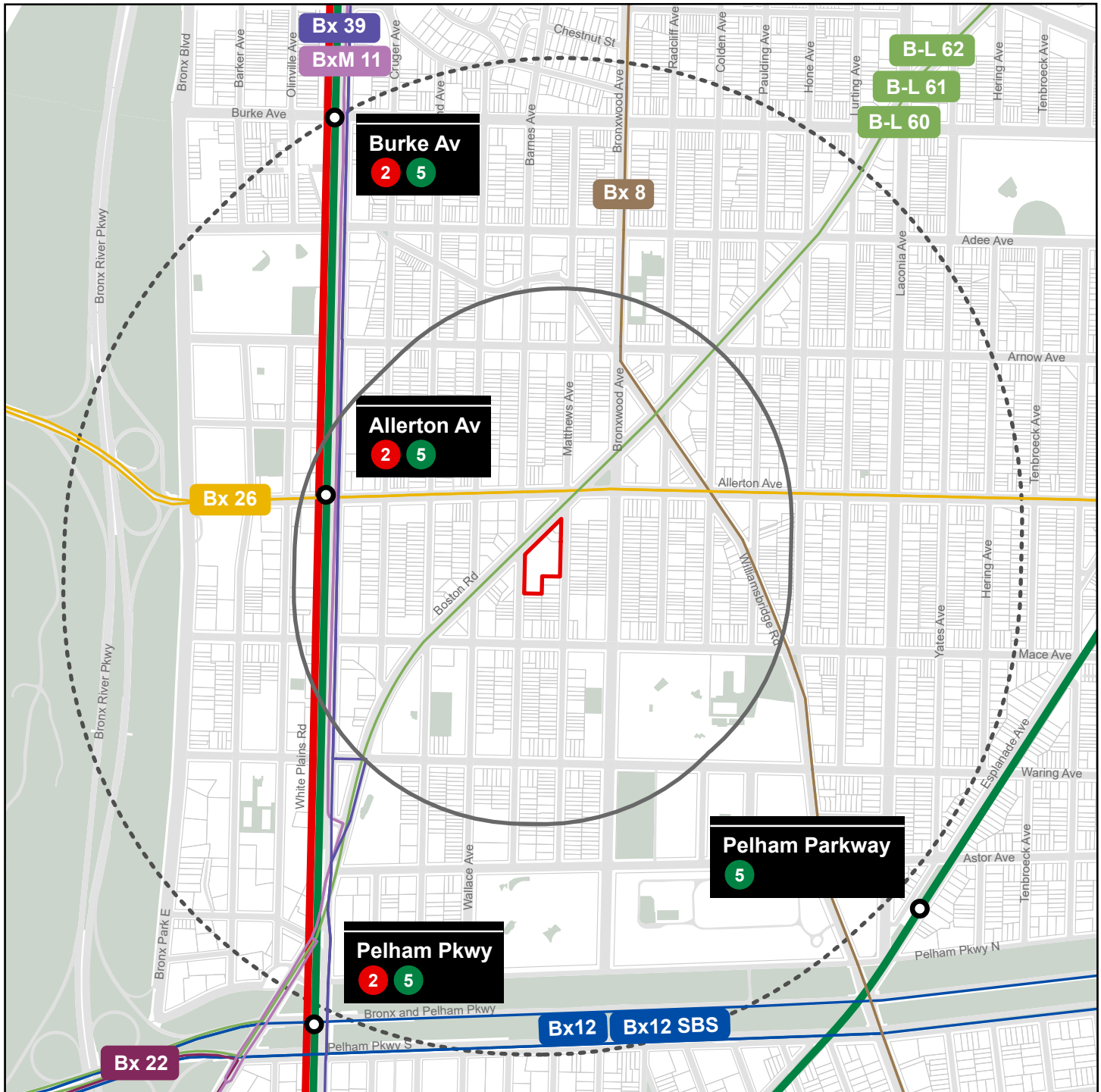
The No. 2 and 5 subway lines operate within the study area and serve the Allerton Avenue subway station, which is located within a 0.25-mile from the Proposed Project.

Bus Routes

Four NYCT/MTA local bus routes provide regular bus service within a 0.25-mile from the Proposed Project and include the following:

- Bx8
- BxM11
- Bx26
- Bx39

Additionally, three Westchester County buses provide service within the study area: Bee-Line 60, 61, and 62. The bus routes closest to the Proposed Project are summarized in **Table I-1**.



Source: PLUTO 2020

0 0.0625 0.125 0.25 Miles



 Project Site

01 Bus Route #

TRANSIT MAP

 0.25-Mile Radius

 Subway Station

 0.5-Mile Radius

Figure I-3

2560 Boston Road Rezoning EAS

2560 Boston Road EAS
CEQR No: 22DCP184X
ULURP No(s): 220283ZMX, N22084ZRX

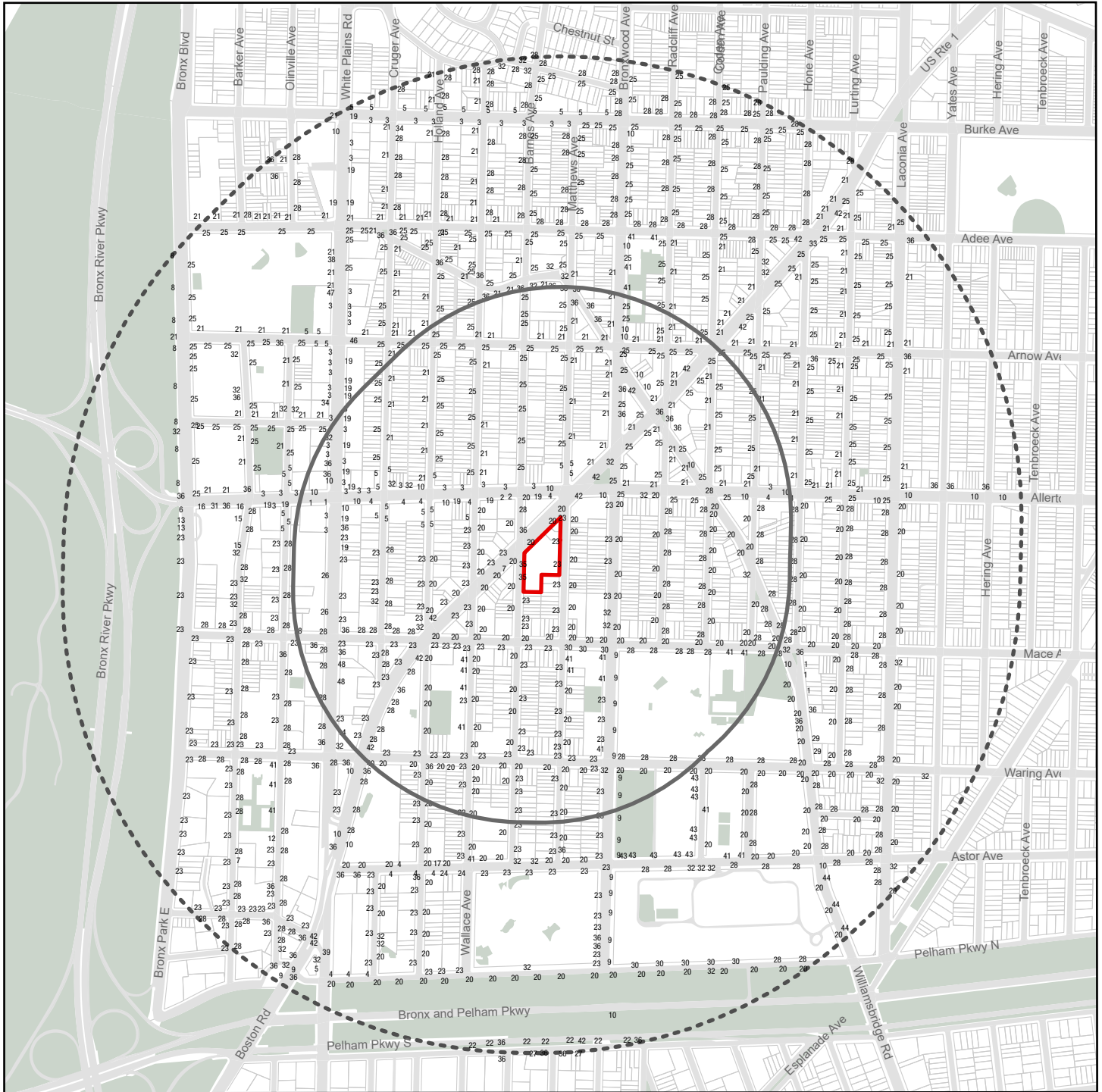
Table I-1: Existing Bus Transit Service

Route	Route Type	Direction	Route Start Point	Route End Point	Operating Hours	Peak Period Headway (mins)			
						AM	MD	PM	Sat MD
Bx8	Local	NB	Locust Point	Williamsbridge	Weekdays: 5:30 AM - 10:30 PM Weekend: 6:00 AM - 10:45 PM	10	10	20	30
	Local	SB	Williamsbridge	Locust Point	Weekdays: 6:00 AM - 11:00 PM Weekends: 6:30 AM - 11:20 PM	10	12	20	30
BxM11	Express	NB	Midtown	Wakefield	Weekdays: 6:45 AM - 1:15 AM Saturdays: 8:30 AM - 1:30 AM Sundays: 9:30 AM - 12:30 AM	60	30	15	30
	Express	SB	Wakefield	Midtown	Weekdays: 5:30 AM - 12:00 AM Saturdays: 6:30 AM - 12:00 AM Sundays: 8:00 AM - 11:00 PM	12	30	30	20
Bx26	Local	NB	Bedford Park	Co-op City	Weekdays: 6:20 AM - 12:00 AM Weekends: 6:40 AM - 12:00 AM	9	12	9	15
	Local	SB	Co-op City	Bedford Park	Weekdays: 5:30 AM - 11:00 PM Weekends: 5:50 AM - 11:15 PM	8	8	20	12
Bx39	Local	NB	Clasons Point	Wakefield	24/7	10	15	10	12
	Local	SB	Wakefield	Clasons Point	24/7	10	10	10	12
Bee-Line 60	Local	NB	Bronx	Port Chester	Weekdays: 5:30 AM - 9:20 PM Saturdays: 6:00 AM - 9:00 PM Sundays: 7:30 AM - 7:00 PM	30	30	60	20
	Local	SB	Port Chester	Bronx	Weekdays: 6:00 AM - 10:30 PM Saturdays: 6:00 AM - 11:30 PM Sundays: 9:20 AM - 9:10 PM	60	30	30	30
Bee-Line 61	Local	NB	Bronx	White Plains	Weekdays: 6:00 AM - 8:00 PM Saturdays: 7:00 AM - 6:10 PM	30	30	30	60
	Local	SB	White Plains	Bronx	Weekdays: 6:10 AM - 8:00 PM Saturdays: 7:30 AM - 7:15 PM	30	60	30	60
Bee-Line 62	Express	NB	Bronx	White Plains	Weekdays: 6:15 AM - 9:30 AM	25	-	-	-
	Express	SB	White Plains	Bronx	Weekdays: 4:10 PM - 7:00 PM	-	-	30	-

The Bx26 bus route stops in the eastbound and westbound directions on Allerton Avenue, east and west of Boston Road. The Bee-Line 60, 61, and 62 bus routes stop in the northeastbound and southwestbound directions on Boston Road, north of Allerton Avenue.

Parking Supply and Inventory

Existing study area parking conditions for on- and off-street parking were evaluated through field visits. On-street parking regulations are shown on **Figure I-4** and summarized in **Table I-2**. Parking utilization surveys were first conducted for on- and off-street parking facilities within a 0.25-mile radius of the Project Site; however, as the survey data indicated that on-street parking was close to capacity during the weekday and Saturday overnight peak periods (utilization rates of 99% and 98%, respectively), the study area was extended to a 0.5-mile radius of the Project Site. There is one off-street parking facility located within a 0.5-mile radius of the Project Site, as shown on **Figure I-5**.



Source: PLUTO 2020

0 0.0625 0.125 0.25 Miles

- Project Site
- 0.25-Mile Radius
- 0.5-Mile Radius

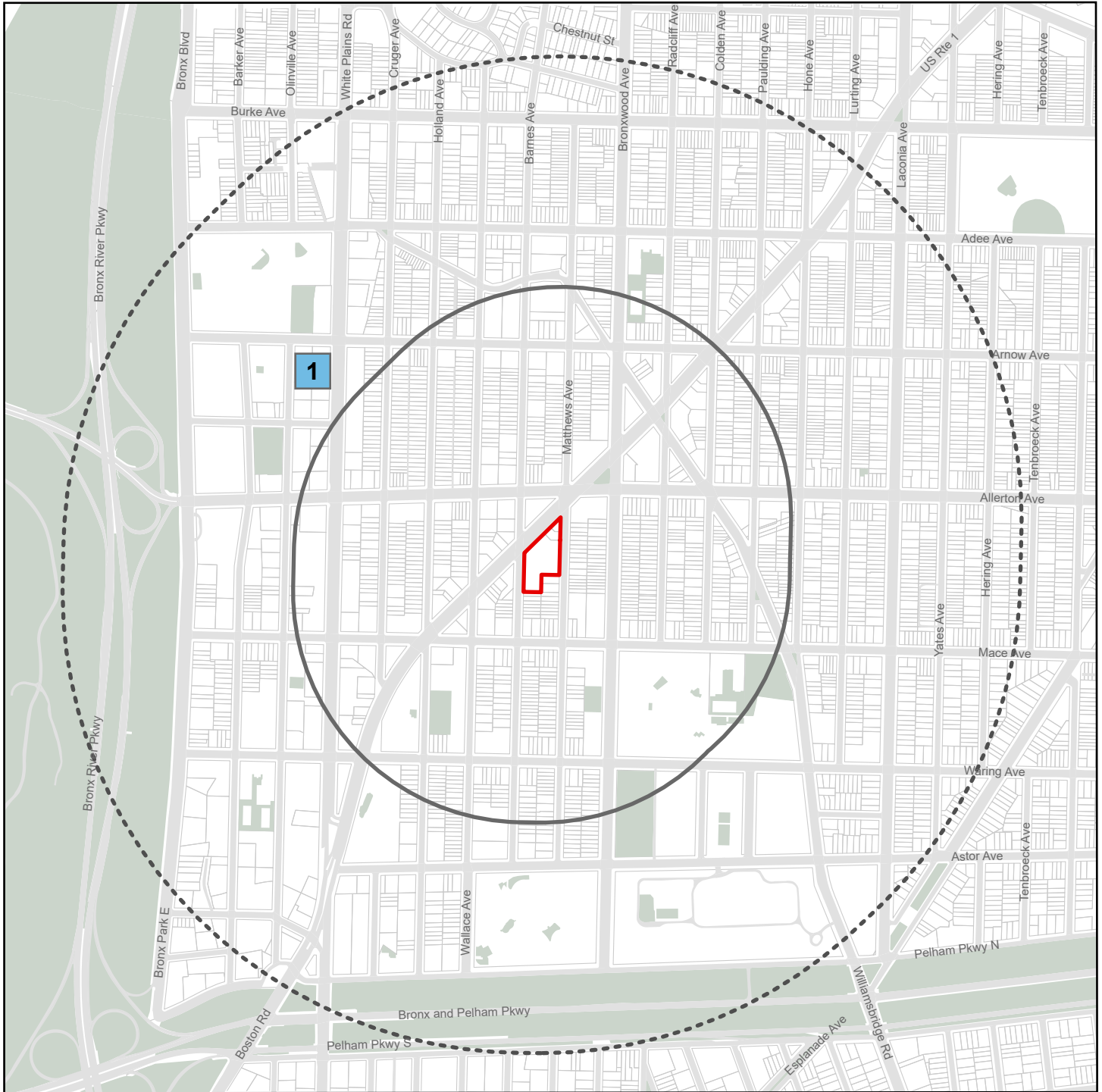
01 Sign ID

ON-STREET PARKING REGULATIONS

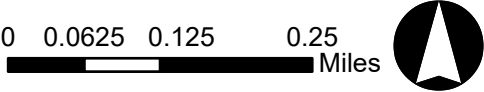
Figure I-4

Table I-2: On-Street Parking Regulations Legend

Map ID #	Parking Regulations
1	1 HOUR METERED PARKING 8:30AM-7PM EXCEPT SUNDAY
2	1 HOUR METERED PARKING 8AM-7PM EXCEPT SUNDAY
3	2 HOUR METERED PARKING 8:30AM-7PM EXCEPT SUNDAY
4	2 HOUR METERED PARKING 8AM-7PM EXCEPT SUNDAY
5	2 HOUR METERED PARKING 9AM-7PM EXCEPT SUNDAY
6	ACCESS A RIDE BUS STOP PANEL
7	AMBULETTE
8	BACK IN 90 DEG PARKING ONLY
9	BACK IN ANGLE PARKING ONLY
10	BUS STOP SIGN (BUS & HANDICAP SYMBOLS) NO STANDING
12	CROSS (SYMBOL) AMBULETTE ONLY 7AM-5PM ALL DAYS
13	CROSS (SYMBOL) AMBULETTE ONLY 8AM-7PM ALL DAYS
14	CROSS (SYMBOL) AMBULETTE ONLY MONDAY-FRIDAY 8AM-6PM
15	CROSS (SYMBOL) DOCTOR LICENSE PLATES ONLY
16	CROSS (SYMBOL) DOCTOR LICENSE PLATES ONLY MONDAY-FRIDAY 8AM-6PM
17	NO PARKING (SANITATION BROOM SYMBOL) 7:30AM-8AM EXCEPT SUNDAY
18	NO PARKING (SANITATION BROOM SYMBOL) 8:30AM-9AM EXCEPT SUNDAY
19	NO PARKING (SANITATION BROOM SYMBOL) 8AM-8:30AM EXCEPT SUNDAY
20	NO PARKING (SANITATION BROOM SYMBOL) 11:30AM TO 1 PM FRI
21	NO PARKING (SANITATION BROOM SYMBOL) 11:30AM TO 1PM MON
22	NO PARKING (SANITATION BROOM SYMBOL) MONDAY THURSDAY 8:30AM-10AM
23	NO PARKING (SANITATION BROOM SYMBOL) 11:30AM TO 1PM THURS
24	NO PARKING (SANITATION BROOM SYMBOL) THURSDAY 7:30AM-8AM
25	NO PARKING (SANITATION BROOM SYMBOL) 11:30AM TO 1PM TUES
26	NO PARKING (SANITATION BROOM SYMBOL) TUESDAY 8AM-8:30AM
27	NO PARKING (SANITATION BROOM SYMBOL) TUESDAY FRIDAY 8:30AM-10AM
28	NO PARKING (SANITATION BROOM SYMBOL) 11:30AM TO 1PM WED
29	NO PARKING (SANITATION BROOM SYMBOL) WEDNESDAY 8AM-8:30AM
30	NO PARKING 7AM-4PM SCHOOL DAYS
31	NO PARKING 7AM-7PM EXCEPT SUNDAY
32	NO PARKING ANYTIME
33	NO PARKING ANYTIME CONSTRUCTION
34	NO PARKING MONDAY-FRIDAY 8AM-6PM
35	NO STANDING 8AM-MIDNIGHT ALL DAYS
36	NO STANDING ANYTIME
37	NO STANDING EXCEPT AUTHORIZED VEHICLES 8AM-6PM MON THRU FRI
38	NO STANDING FIRE ZONE
39	NO STANDING MONDAY-FRIDAY 7AM-9AM
40	NO STANDING MONDAY-FRIDAY 8AM-6PM
41	NO STANDING SCHOOL DAYS 7AM-4PM
42	NO STANDING(SINGLE ARROW)HANDICAP BUS(SYMBOL)W/4 ROUTES
43	STAR (SYMBOL) AVO DEPT OF EDUCATION SCHOOL DAYS 7AM-4PM
44	STAR (SYMBOL) AVO SCHOOL FACULTY SCHOOL DAYS 7AM-4PM (PRIVATE SCHOOL SIGN)
45	TRUCK (SYMBOL) TRUCK LOADING ONLY 7AM-7PM EXCEPT SUNDAY
46	TRUCK (SYMBOL) TRUCK LOADING ONLY 8AM-6PM EXCEPT SUNDAY
47	TRUCK (SYMBOL) TRUCK LOADING ONLY MONDAY-FRIDAY 8AM-4PM
48	TRUCK (SYMBOL) TRUCK LOADING ONLY MONDAY-FRIDAY 8AM-6PM



Source: PLUTO 2020



-  Project Site
-  0.25-Mile Radius
-  0.5-Mile Radius

 Off-Street Parking Facility

OFF-STREET PARKING FACILITY MAP

Figure I-5

2560 Boston Road Rezoning EAS

IV. OPERATIONAL ANALYSIS METHODOLOGY

The following sections summarize the operational analysis methodologies and significant impact criteria in accordance with the *CEQR Technical Manual* guidelines.

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 Synchro 11. 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 D (less than 55 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 I-3: LOS Criteria for Signalized Intersections**.

Table I-3: LOS Criteria for Signalized Intersections

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

Source: Transportation Research Board. *Highway Capacity Manual*, 2000.

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 D up to a maximum average control delay of 55.0 seconds/vehicle is not considered significant. However, if a lane group under the No-Action condition is within LOS A, B, C or D, then deterioration under the With-Action condition to worse than LOS D (delay greater than 55.0 seconds/vehicle) is considered a significant impact.

For lane groups operating at LOS 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 E under the No-Action condition, an increase in projected average control delay of five 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 four or more seconds when compared with the With-Action condition.

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 crashes), type of intersection control, and any discernible patterns of crashes. 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 being located along a Vision Zero corridor/intersection or with 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.

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.

V. EXISTING CONDITION

Once the project characteristics have been defined, baseline conditions (the “existing condition”) are established for traffic, parking, and safety.

Traffic Conditions

Existing study area traffic volumes were based on traffic data collected in November 2020 during peak periods when background traffic is typically greatest and/or when the Proposed Project is projected to generate the greatest number of trips that would be added to the roadway network. The field programs included Miovision video turning movement 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, and traffic volumes were balanced between intersections where appropriate.

While the turning movement counts were conducted on Saturday from 11:00 AM to 2:00 PM, the Automatic Traffic Recorder (ATR) data indicated that Saturday traffic volumes continued to increase after 2:00 PM and were highest from 3:15 PM to 4:15 PM. Therefore, an adjustment factor of 1.09 was calculated based on comparing the ATR data from 1:00-2:00 PM to 3:15-4:15 PM and was applied to the 1:00-2:00 PM turning movement counts to represent the Saturday MD peak hour of 3:15 PM to 4:15 PM.

Further, since current traffic volumes are atypical due to the pandemic, a comparison of current traffic levels to pre-pandemic traffic levels was conducted to evaluate how traffic volumes taken in current conditions may change as traffic returns to pre-pandemic levels. To serve as a pre-pandemic baseline, historical ATR traffic data was obtained from the NYCDOT Traffic Information Management System (TIMS) database for Boston Road between Allerton Avenue and Barnes Avenue in both directions for the average weekday

(Tuesday, Wednesday, and Thursday) from May 2016 (the “control location”). As part of the November 2020 data collection, new ATR data was collected for the average weekday at this same control location concurrently with the Miovision video turning movement counts. An adjustment factor was calculated per peak hour by comparing the historical pre-pandemic data from May 2016 (adjusted to reflect 2020 “pre-pandemic” levels using an annual background growth rate of 0.25% per the *CEQR Technical Manual*) to the current data collected in November 2020 at the control location.

Table I-4 presents a comparison of the pre-pandemic and pandemic (November 2020) peak hour traffic volumes on Boston Road between Allerton Avenue and Barnes Avenue with both directions combined, as well as the calculated adjustment factors.

Table I-4: Adjustment Factors to Account for Data Collected During Pandemic

Peak Hour	Pre-Pandemic Traffic Volume	Pandemic Traffic Volume	Adjustment Factor
Weekday AM	978	763	1.28
Weekday MD	1,031	949	1.09
Weekday PM	1,172	1,034	1.13
Saturday MD	1,174	1,036	1.13

Note: Data collected on Boston Road between Allerton Avenue and Barnes Avenue in both directions. Pre-pandemic data from May 2016 was adjusted to reflect 2020 “pre-pandemic” levels using an annual background growth rate of 0.25% per the *CEQR Technical Manual*.

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 I-6 through I-9 show the adjusted existing condition traffic volumes for the Weekday AM, Weekday MD, Weekday PM, and Saturday MD peak hours. The representative peak hours of background traffic in the study area were determined to be:

- Weekday AM (7:45 AM to 8:45 AM)
- Weekday MD (2:00 PM to 3:00 PM)
- Weekday PM (4:30 PM to 5:30 PM)
- Saturday MD (3:15 PM to 4:15 PM)

Level of Service

Table I-5 represents the capacity analysis results for the intersections included in the study area. The majority of the analyzed intersection approaches and lane groups operate at an acceptable level of LOS D or better (55.0 seconds of delay for signalized intersections) during the four analysis peak hours.

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Table I-5: Existing Condition Level of Service Analysis

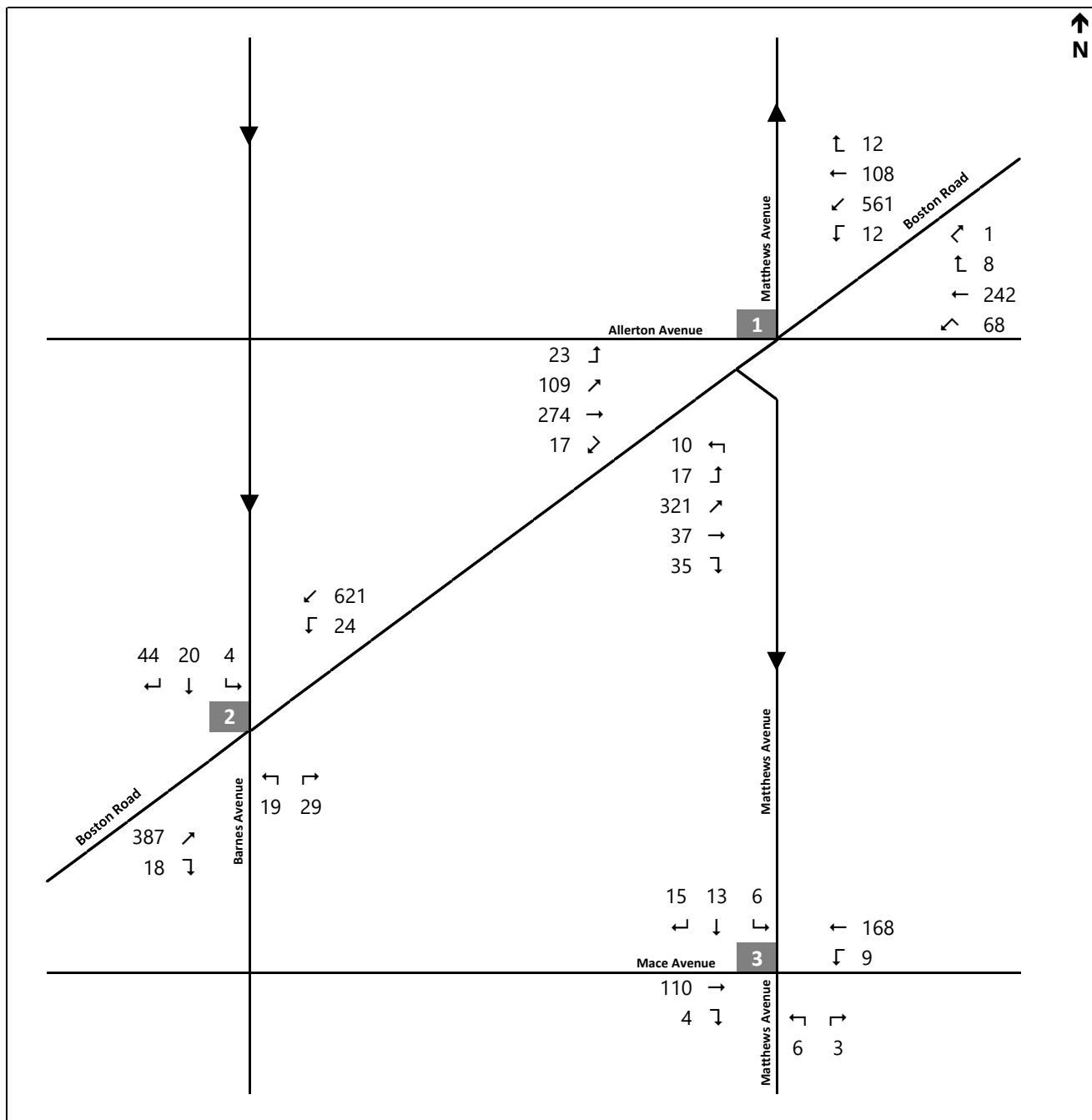
#	Intersection & Approach	Weekday AM Peak Hour					Weekday MD Peak Hour					Weekday PM Peak Hour					Saturday Peak Hour				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)
1	Allerton Avenue/Matthews Avenue & Boston Road																				
	Eastbound	LT	0.90	63.6	E	255	LT	0.86	58.2	E	223	LT	1.05dl	66.2	E	283	LT	1.05dl	61.7	E	316
	Westbound	L	0.65	63.7	E	113	L	0.40	47.5	D	66	L	0.65	64.3	E	113	L	0.69	70.9	E	137
		TR	0.69	49.0	D	149	TR	0.67	46.8	D	174	TR	0.61	43.2	D	182	TR	0.82	54.9	D	225
	Northeastbound	L	0.38	40.9	D	29	L	0.30	28.5	C	28	L	0.41	33.2	C	51	L	1.04	143.1	F	154
		TR	0.54	29.8	C	123	TR	0.69	29.0	C	135	TR	0.73	31.4	C	326	TR	0.70	31.0	C	157
	Southwestbound	L	0.08	31.8	C	23	L	0.09	32.5	C	22	L	0.22	37.2	D	39	L	0.16	34.8	C	29
		TR	0.85	50.4	D	390	TR	0.70	42.2	D	283	TR	0.76	44.3	D	325	TR	0.91	56.1	E	377
	Intersection			49.0	D		Intersection		42.4	D		Intersection		45.6	D		Intersection		54.2	D	
	Barnes Avenue & Boston Road																				
2	Northbound	LTR	0.18	32.3	C	70	LTR	0.28	35.0	D	104	LTR	0.33	35.4	D	118	LTR	0.38	37.6	D	131
	Southbound	LTR	0.18	31.8	C	79	LTR	0.18	32.5	C	75	LTR	0.18	31.8	C	81	LTR	0.30	34.6	C	120
	Northeastbound	TR	0.30	15.1	B	123	TR	0.36	15.4	B	162	TR	0.38	16.1	B	186	TR	0.33	15.0	B	156
	Southwestbound	L	0.08	1.7	A	1	L	0.10	2.2	A	2	L	0.11	7.0	A	6	L	0.13	4.4	A	5
		T	0.37	2.4	A	13	T	0.32	2.0	A	14	T	0.35	7.3	A	51	T	0.39	4.4	A	34
	Intersection			10.4	B		Intersection		12.3	B		Intersection		14.6	B		Intersection		13.4	B	
3	Matthews Avenue & Mace Avenue																				
	Eastbound	TR	0.14	8.3	A	53	TR	0.18	8.7	A	71	TR	0.18	8.7	A	70	TR	0.18	8.6	A	68
	Westbound	LT	0.29	10.0	A	83	LT	0.21	8.9	A	80	LT	0.24	9.2	A	88	LT	0.25	9.3	A	96
	Northbound	LTR	0.03	23.5	C	18	LTR	0.05	23.9	C	21	LTR	0.07	24.2	C	26	LTR	0.04	23.7	C	21
	Southbound	LTR	0.09	24.2	C	38	LTR	0.10	24.3	C	38	LTR	0.14	24.8	C	50	LTR	0.14	24.9	C	50
	Intersection			11.3	B		Intersection		10.9	B		Intersection		11.5	B		Intersection		11.3	B	

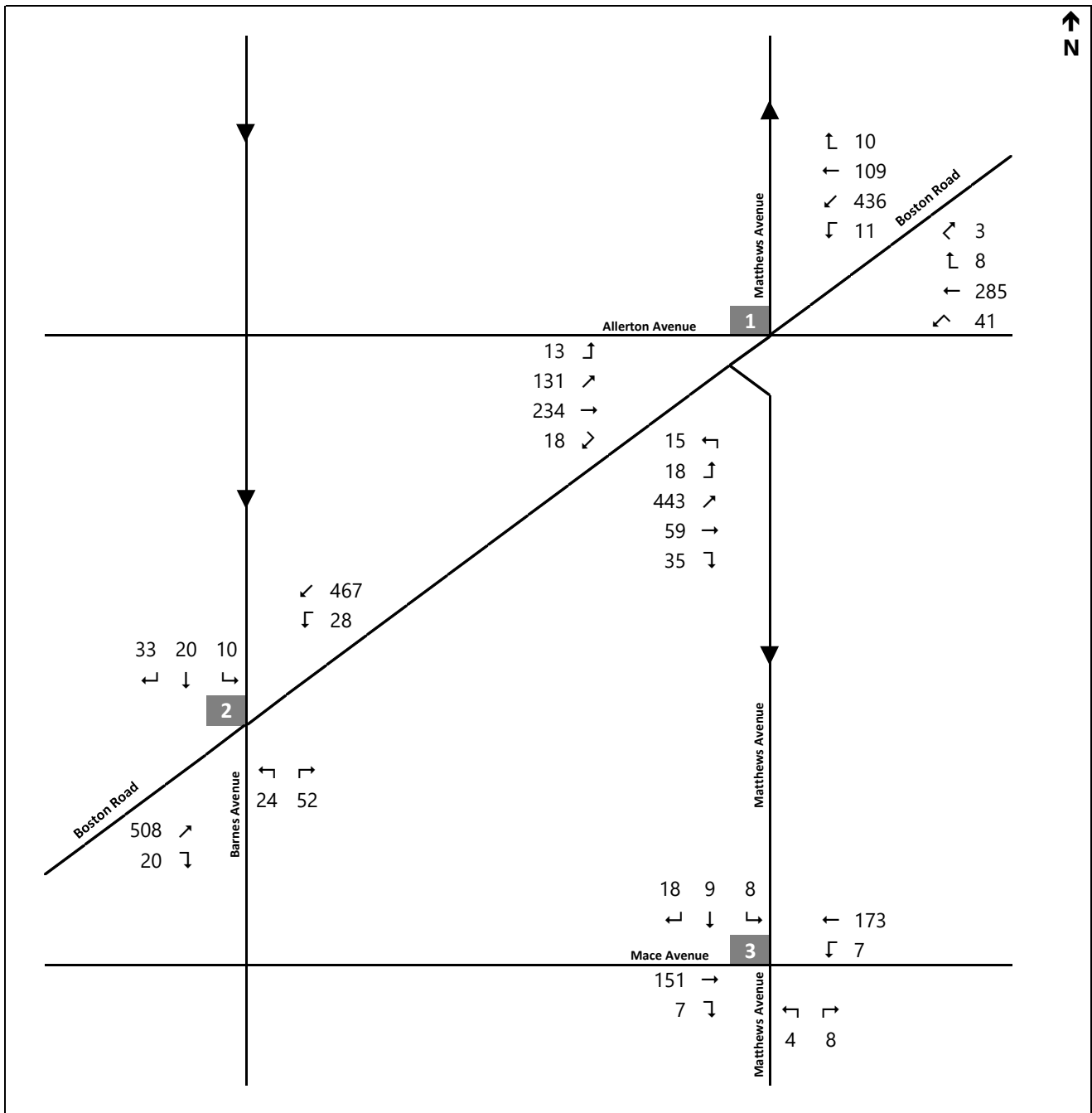
Notes: L = Left Turn, T = Through, R = Right Turn, Defl. = Defacto Left Turn; LOS = Level of Service.

The exceptions are as follows:

Allerton Avenue and Boston Road

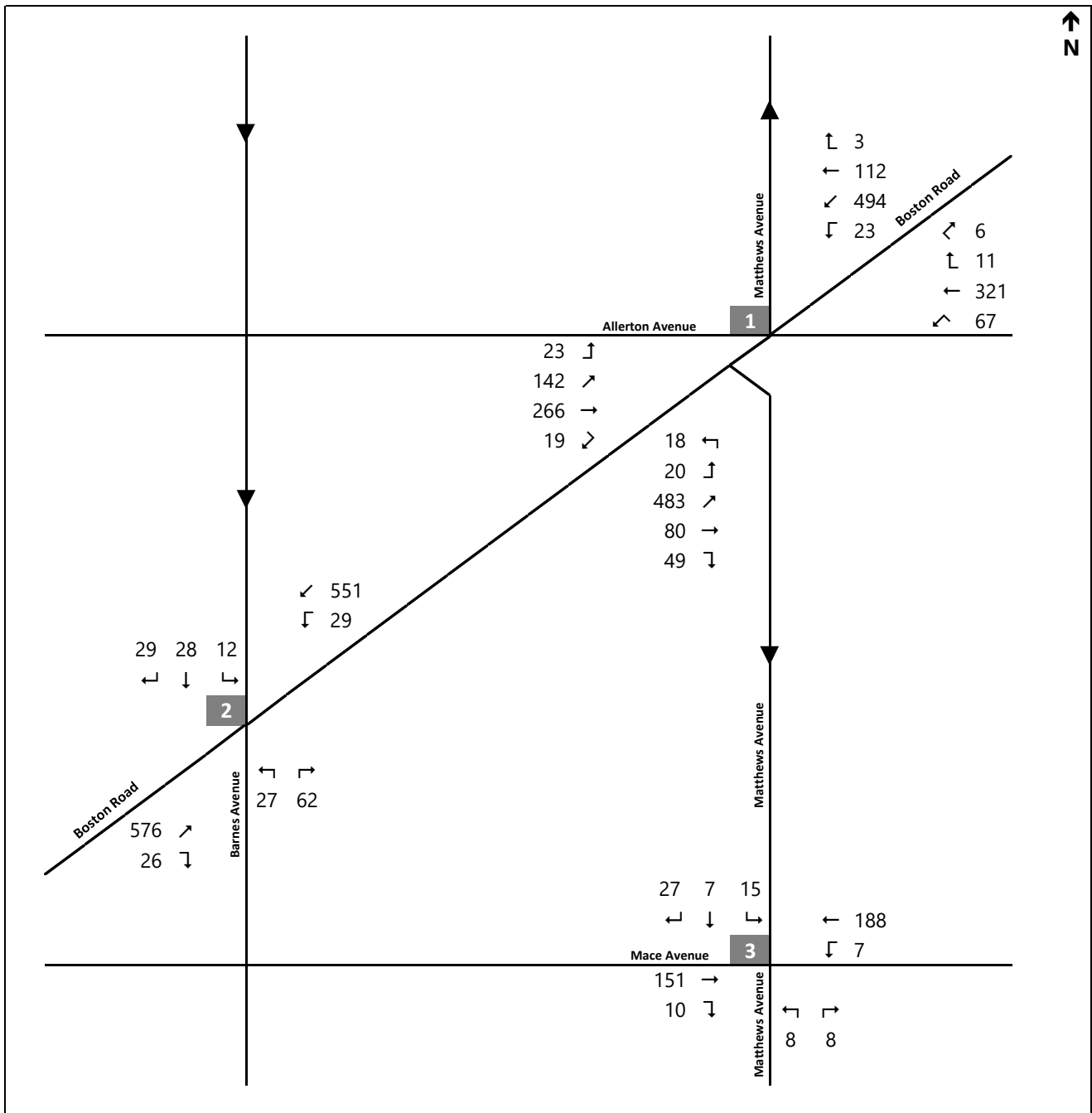
- During the **Weekday AM** peak hour, the eastbound approach operates at LOS E with an average delay of 63.6 seconds and a v/c ratio of 0.90. The westbound left-turn lane group operates at LOS E with an average delay of 63.7 seconds and a v/c ratio of 0.65. The westbound shared through/right lane group operates at LOS D with an average delay of 49.0 seconds and a v/c ratio of 0.69. The southwestbound shared through/right lane group operates at LOS D with an average delay of 50.4 seconds and a v/c ratio of 0.85.
- During the **Weekday MD** peak hour, the eastbound approach operates at LOS E with an average delay of 58.2 seconds and a v/c ratio of 0.86. The westbound left-turn lane group operates at LOS D with an average delay of 47.5 seconds and a v/c ratio of 0.40. The westbound shared through/right lane group operates at LOS D with an average delay of 46.8 seconds and a v/c ratio of 0.67.
- During the **Weekday PM** peak hour, the eastbound approach operates at LOS E with an average delay of 66.2 seconds and a v/c ratio of 1.05. The westbound left-turn lane group operates at LOS E with an average delay of 64.3 seconds and a v/c ratio of 0.65.
- During the **Saturday MD** peak hour, the eastbound approach operates at LOS E with an average delay of 61.7 seconds and a v/c ratio of 1.05. The westbound left-turn lane group operates at LOS E with an average delay of 70.9 seconds and a v/c ratio of 0.69. The westbound shared through/right lane group operates at LOS D with an average delay of 54.9 seconds and a v/c ratio of 0.82. The northeastbound left-turn lane group operates at LOS F with an average delay of 143.1 second and a v/c ratio of 1.04. The southwestbound shared through/right lane group operates at LOS E with an average delay of 56.1 seconds and a v/c ratio of 0.91.

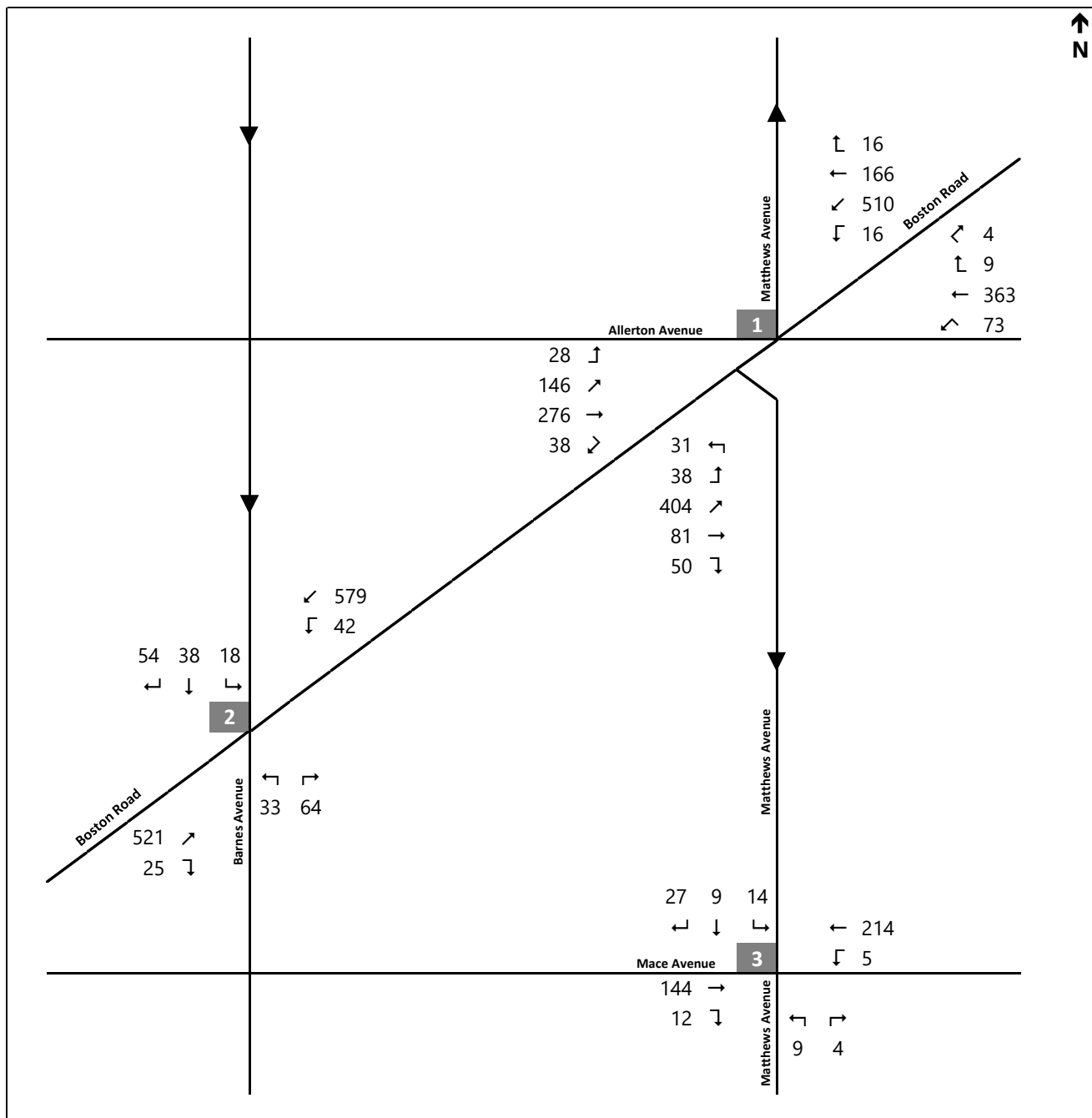




2560 Boston Road

Figure I-7
Weekday MD Peak Hour
Existing Traffic Volumes





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 0.25-mile radius of the Project Site. Parking utilization surveys were conducted in the study area under typical weekday and Saturday conditions on Wednesday, April 7, 2021, and Saturday, April 10, 2021 during the Weekday AM, Weekday MD, Weekday PM, Weekday Overnight, Saturday MD, and Saturday Overnight peak periods in order to capture the time periods when parking demand might peak. Individual street capacities and an hourly assessment of on-street parking utilization were collected for each street in the study area.

The parking utilization data indicated that the on-street parking within a 0.25-mile radius of the Project Site was close to capacity during the weekday and Saturday overnight peak periods, with existing parking utilization rates of 99% and 98%, respectively. As the future parking demand generated by background growth, no-action development sites, and the Proposed Project would likely not all be accommodated on-street within a 0.25-mile radius of the Project Site during the weekday and Saturday overnight peak periods, the parking survey was extended to a 0.5-mile radius of the Project Site. To cover this additional area, supplemental parking utilization surveys were conducted on Saturday, April 12, 2021, and Wednesday, April 16, 2021.

On-street parking regulations within 0.5-mile of the study area are summarized on **Figure I-4** and in **Table I-2**.

Off-Street Parking

Based on a field inventory/survey of public off-street parking facilities within a 0.5-mile radius of the Project Site, there is one parking facility (White Plains Secure Parking LLC) located at 2835 White Plains Road, as shown on **Figure I-5**. The parking facility has an existing licensed capacity of 68 parking spaces (License #2069913-DCA) and is 100% utilized during all analysis peak periods. These results are included in the overall existing conditions parking utilization assessment shown in **Table I-6**.

Table I-6: Existing Conditions Parking Utilization Summary

	2021 Existing	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD	Saturday Overnight
On-Street Parking	Capacity	7,576	7,551	7,692	7,695	7,686	7,693
	Demand	6,908	6,707	6,731	7,359	6,785	7,369
	Available Spaces	668	844	961	336	901	324
	Utilization	91%	89%	88%	96%	88%	96%
Off-Street Parking	Capacity	68	68	68	68	68	68
	Demand	68	68	68	68	68	68
	Available Spaces	0	0	0	0	0	0
	Utilization	100%	100%	100%	100%	100%	100%
Total On- and Off-Street Parking	Capacity	7,644	7,619	7,760	7,763	7,754	7,761
	Demand	6,976	6,775	6,799	7,427	6,853	7,437
	Available Spaces	668	844	961	336	901	324
	Utilization	91%	89%	88%	96%	88%	96%

As shown in **Table I-6**, the overall parking results for existing on- and off-street parking indicate that within a 0.5-mile radius of the Project Site, total parking utilization is 91, 89, 88, 96, 88, and 96% of available

spaces during the Weekday AM, Weekday MD, Weekday PM, Weekday Overnight, Saturday MD, and Saturday Overnight peak periods, respectively.

VI. THE FUTURE WITHOUT THE PROPOSED ACTIONS

The future condition without the Proposed Actions (the “No-Action condition”) builds on the existing condition analysis by incorporating background growth, other nearby projects expected to be completed by the project analysis year (2026), and anticipated changes in the transportation network. The No-Action condition analysis focuses on conditions in 2026, when the Proposed Project 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* (Table 16-4) provides an annual background growth rate for the Bronx of 0.25% for the first five years and 0.125% for the years beyond. Therefore, an annual growth rate of 0.25% was applied over a period of five years, and 0.125% was applied over a period of one year to the 2020 existing condition volumes to develop the No-Action condition background traffic and pedestrian volumes.

In addition to the background growth, the development projects expected to be completed by 2026 located within and adjacent to the 0.25-mile radius of the Proposed Project were considered in the No-Action condition volume forecasts. This includes the following eight development projects shown on **Figure I-10**:

1. 695 Thwaites Place (Block 4342, Lot 46) – The 6-story building will be approximately 35,040 square feet, with 1,725 square feet dedicated to medical facility use, 5,160 square feet for commercial-retail use, and 36 residential DUs.
2. 2278 Bronx Park East (Block 4340, Lot 8) – The 8-story residential building will include 33 residential DUs and 2 on-site parking spaces.
3. 2434 Bronx Park East (Block 4424, Lot 20) – The 8-story residential building will include 57 residential DUs.
4. 2439 Barker Avenue (Block 4424, Lot 40) – The 4-story residential building will include 12 residential DUs.
5. 2500 Barker Avenue (Block 4428, Lot 7) – The 7-story mixed-use building will include 53 residential DUs, 12,460 square feet of commercial use, and 9 on-site parking spaces.
6. 2345 Cruger Avenue (Block 4433, Lot 45) – The 4-story masonry building will include 15 residential DUs and 4 on-site parking spaces.
7. 2761 Bronxwood Avenue (Block 4514, Lot 30) – The 6-story building will be approximately 41,500 square feet, with 32 residential DUs, 6,150 square feet of ground floor healthcare facility, and 16 on-site parking spaces.
8. 3013 Barker Avenue (Block 4543, Lot 43) – The 7-story residential building will include 31 residential DUs.
9. 790 Allerton Avenue (Block 4439, Lot 81) – The 7-story mixed-use building will include 43 residential DUs, 21,384 square feet of community facility (daycare), 12,548 square feet of commercial use (local retail), and 103 on-site parking spaces.

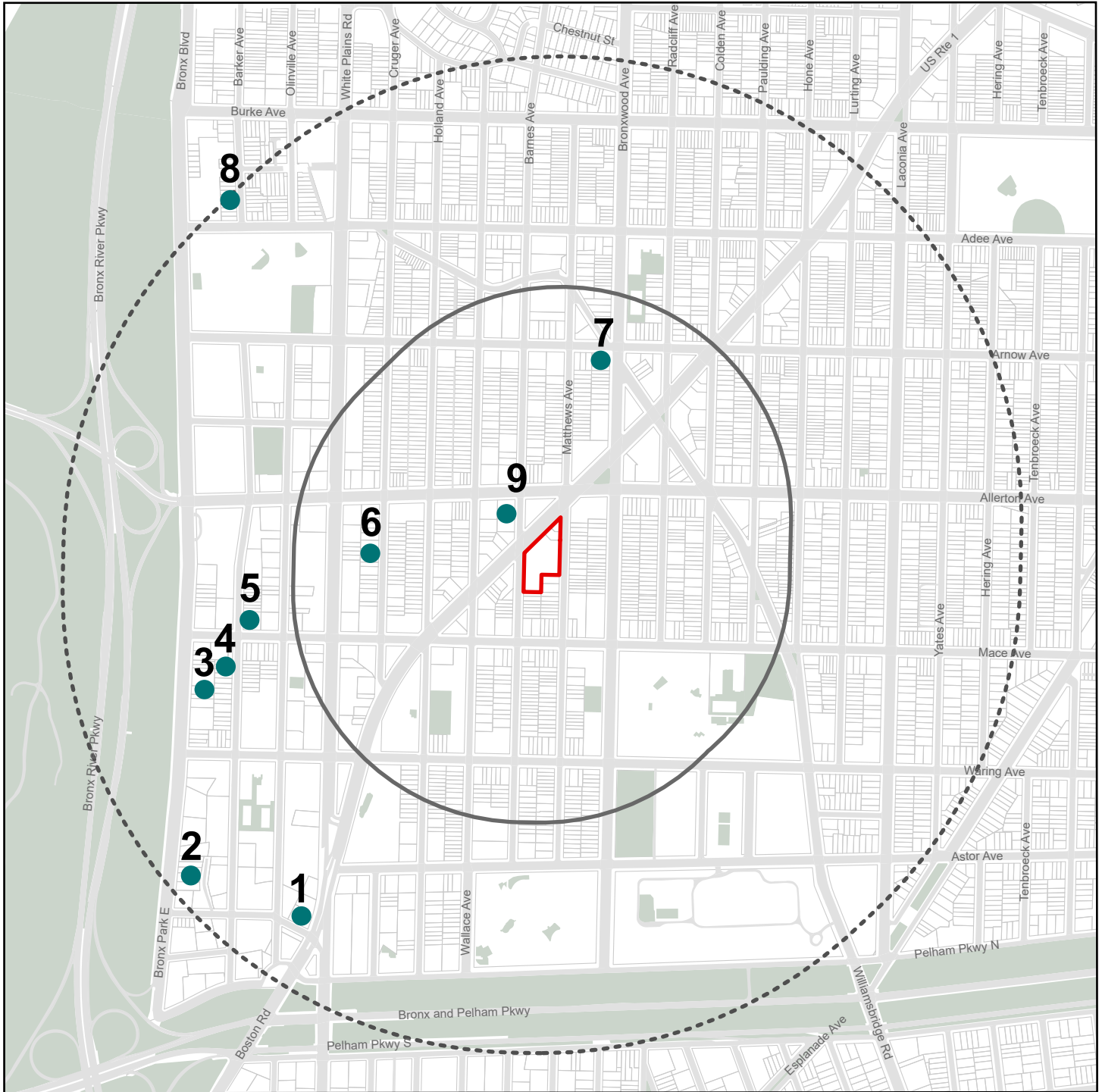
Due to their small size and/or distance from the project site, all the developments listed above were assumed to be included as part of the background growth except for 2761 Bronxwood Avenue and 790 Allerton Avenue. The background growth and trips generated by 2761 Bronxwood Avenue and 790 Allerton Avenue are incorporated into the 2026 No-Action volume projections.

As part of NYCT/MTA’s Bronx Redesign Final Plan to be implemented in 2022, the Bx26 bus stops will be consolidated along Allerton Avenue. Specifically, the Bx26 far-side and near-side bus stops in the

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eastbound and westbound directions, respectively, will be removed at the intersection of Boston Road/Allerton Avenue/Matthews Avenue. These changes have been included in the No-Action and With-Action conditions.

As part of NYCDOT's effort to improve pedestrian safety at intersections, new signal timing at Barnes Avenue/Boston Road was implemented effective February 8, 2022, which lengthens the leading pedestrian interval (LPI) from 7 to 10 seconds during all time periods. This change reduced the lengths of the vehicular phases slightly. The new signal timing for this intersection is reflected in the Synchro modeling for both No-Action and With-Action conditions.



Source: PLUTO 2020



-  Project Site
-  0.25-Mile Radius
-  0.5-Mile Radius

 No-Action Developments

NO-ACTION DEVELOPMENT PROJECTS

Figure I-10

Traffic Conditions

Figures I-11 through I-14 show the No-Action condition traffic volumes for the four peak hours, and Table I-7 presents the No-Action condition capacity analysis results for the study intersections.

Table I-7: No-Action Condition Level of Service Analysis

#	Intersection & Approach	Weekday AM Peak Hour										Weekday MD Peak Hour									
		2020 Existing Condition					2026 No-Action Condition					2020 Existing Condition					2026 No-Action Condition				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)
1	Allerton Avenue/Matthews Avenue & Boston Road																				
	Eastbound	LT	0.90	63.6	E	255	LT	0.93	67.1	E	264	LT	0.86	58.2	E	223	LT	0.91	61.0	E	235
	Westbound	L	0.65	63.7	E	113	L	0.65	63.8	E	113	L	0.40	47.5	D	66	L	0.41	47.7	D	67
		TR	0.69	49.0	D	149	TR	0.69	49.0	D	152	TR	0.67	46.8	D	174	TR	0.67	46.7	D	176
	Northeastbound	L	0.38	40.9	D	29	L	0.43	46.1	D	34	L	0.30	28.5	C	28	L	0.32	29.4	C	29
		TR	0.54	29.8	C	123	TR	0.55	29.6	C	127	TR	0.69	29.0	C	135	TR	0.70	28.9	C	139
	Southwestbound	L	0.08	31.8	C	23	L	0.08	31.8	C	23	L	0.09	32.5	C	22	L	0.10	32.6	C	22
		TR	0.85	50.4	D	390	TR	0.88	52.3	D	407	TR	0.70	42.2	D	283	TR	0.72	42.8	D	290
	Intersection			49.0	D		Intersection		50.5	D		Intersection		42.4	D		Intersection		43.2	D	
	Barnes Avenue & Boston Road																				
2	Northbound	LTR	0.18	32.3	C	70	LTR	0.20	34.3	C	73	LTR	0.28	35.0	D	104	LTR	0.31	37.3	D	108
	Southbound	LTR	0.18	31.8	C	79	LTR	0.27	35.0	D	101	LTR	0.18	32.5	C	75	LTR	0.24	35.2	D	91
	Northeastbound	TR	0.30	15.1	B	123	TR	0.31	15.8	B	128	TR	0.36	15.4	B	162	TR	0.37	16.1	B	168
	Southwestbound	L	0.08	1.7	A	1	L	0.08	2.0	A	1	L	0.10	2.2	A	2	L	0.11	2.9	A	3
		T	0.37	2.4	A	13	T	0.39	2.6	A	15	T	0.32	2.0	A	14	T	0.33	2.6	A	19
	Intersection			10.4	B		Intersection		11.5	B		Intersection		12.3	B		Intersection		13.4	B	
3	Matthews Avenue & Mace Avenue																				
	Eastbound	TR	0.14	8.3	A	53	TR	0.14	8.4	A	54	TR	0.18	8.7	A	71	TR	0.19	8.7	A	72
	Westbound	LT	0.29	10.0	A	83	LT	0.29	10.0	A	84	LT	0.21	8.9	A	80	LT	0.21	8.9	A	81
	Northbound	LTR	0.03	23.5	C	18	LTR	0.04	23.5	C	18	LTR	0.05	23.9	C	21	LTR	0.05	23.9	C	21
	Southbound	LTR	0.09	24.2	C	38	LTR	0.10	24.2	C	38	LTR	0.10	24.3	C	38	LTR	0.10	24.3	C	39
	Intersection			11.3	B		Intersection		11.4	B		Intersection		10.9	B		Intersection		10.9	B	

Notes: L = Left Turn, T = Through, R = Right Turn, Defl. = Defacto Left Turn; LOS = Level of Service.

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Table I-7: No-Action Condition Level of Service Analysis (Cont.)

#	Intersection & Approach	Weekday PM Peak Hour										Saturday MD Peak Hour									
		2020 Existing Condition					2026 No-Action Condition					2020 Existing Condition					2026 No-Action Condition				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)
1	Allerton Avenue/Matthews Avenue & Boston Road																				
	Eastbound	LT	1.05dl	66.2	E	283	LT	1.09dl	70.5	E	293	LT	1.05dl	61.7	E	316	LT	1.10dl	65.5	E	327
	Westbound	L	0.65	64.3	E	113	L	0.66	65.7	E	115	L	0.69	70.9	E	137	L	0.70	72.9	E	142
		TR	0.61	43.2	D	182	TR	0.62	43.3	D	185	TR	0.82	54.9	D	225	TR	0.82	55.2	E	236
	Northeastbound	L	0.41	33.2	C	51	L	0.47	37.0	D	71	L	1.04	143.1	F	154	L	1.13	173.1	F	165
		TR	0.73	31.4	C	326	TR	0.75	31.5	C	336	TR	0.70	31.0	C	157	TR	0.72	30.9	C	157
	Southwestbound	L	0.22	37.2	D	39	L	0.24	37.8	D	40	L	0.16	34.8	C	29	L	0.16	35.0	C	29
		TR	0.76	44.3	D	325	TR	0.78	45.3	D	336	TR	0.91	56.1	E	377	TR	0.93	58.9	E	404
	Intersection		45.6	D		Intersection		46.9	D		Intersection		54.2	D		Intersection		57.0	E		
2	Barnes Avenue & Boston Road																				
	Northbound	LTR	0.33	35.4	D	118	LTR	0.39	38.8	D	128	LTR	0.38	37.6	D	131	LTR	0.43	40.9	D	139
	Southbound	LTR	0.18	31.8	C	81	LTR	0.34	36.3	D	123	LTR	0.30	34.6	C	120	LTR	0.40	38.4	D	146
	Northeastbound	TR	0.38	16.1	B	186	TR	0.39	16.8	B	193	TR	0.33	15.0	B	156	TR	0.34	15.6	B	162
	Southwestbound	L	0.11	7.0	A	6	L	0.11	7.3	A	7	L	0.13	4.4	A	5	L	0.14	4.7	A	6
		T	0.35	7.3	A	51	T	0.36	7.8	A	53	T	0.39	4.4	A	34	T	0.40	4.7	A	35
	Intersection		14.6	B		Intersection		16.3	B		Intersection		13.4	B		Intersection		14.7	B		
3	Matthews Avenue & Mace Avenue																				
	Eastbound	TR	0.18	8.7	A	70	TR	0.19	8.7	A	72	TR	0.18	8.6	A	68	TR	0.19	8.7	A	69
	Westbound	LT	0.24	9.2	A	88	LT	0.24	9.2	A	89	LT	0.25	9.3	A	96	LT	0.25	9.3	A	97
	Northbound	LTR	0.07	24.2	C	26	LTR	0.07	24.3	C	26	LTR	0.04	23.7	C	21	LTR	0.05	23.7	C	21
	Southbound	LTR	0.14	24.8	C	50	LTR	0.15	25.0	C	51	LTR	0.14	24.9	C	50	LTR	0.15	25.0	C	50
		Intersection		11.5	B		Intersection		11.6	B		Intersection		11.3	B		Intersection		11.3	B	
Notes: L = Left Turn, T = Through, R = Right Turn, Defl. = Defacto Left Turn; LOS = Level of Service.																					

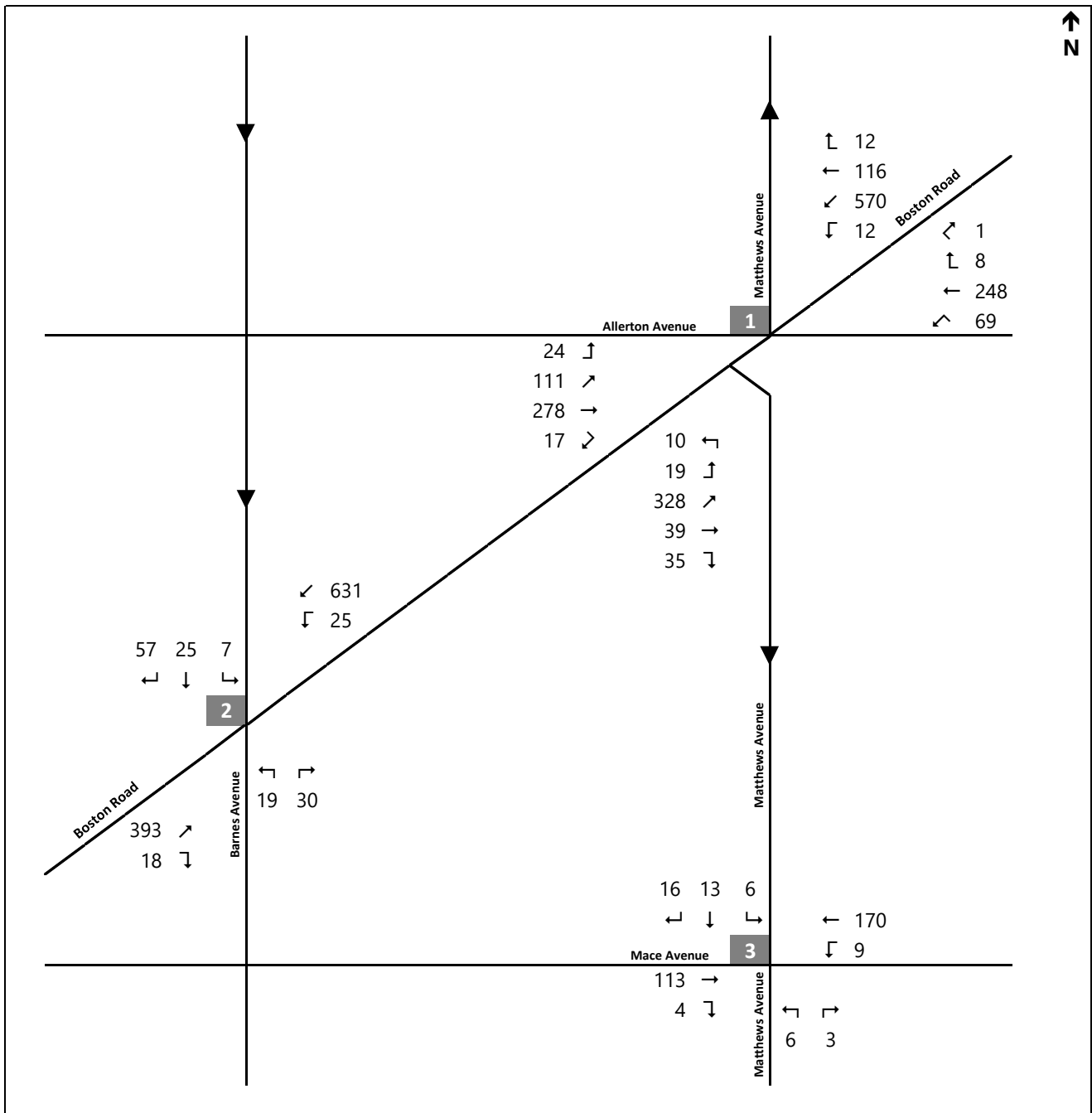
Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service.

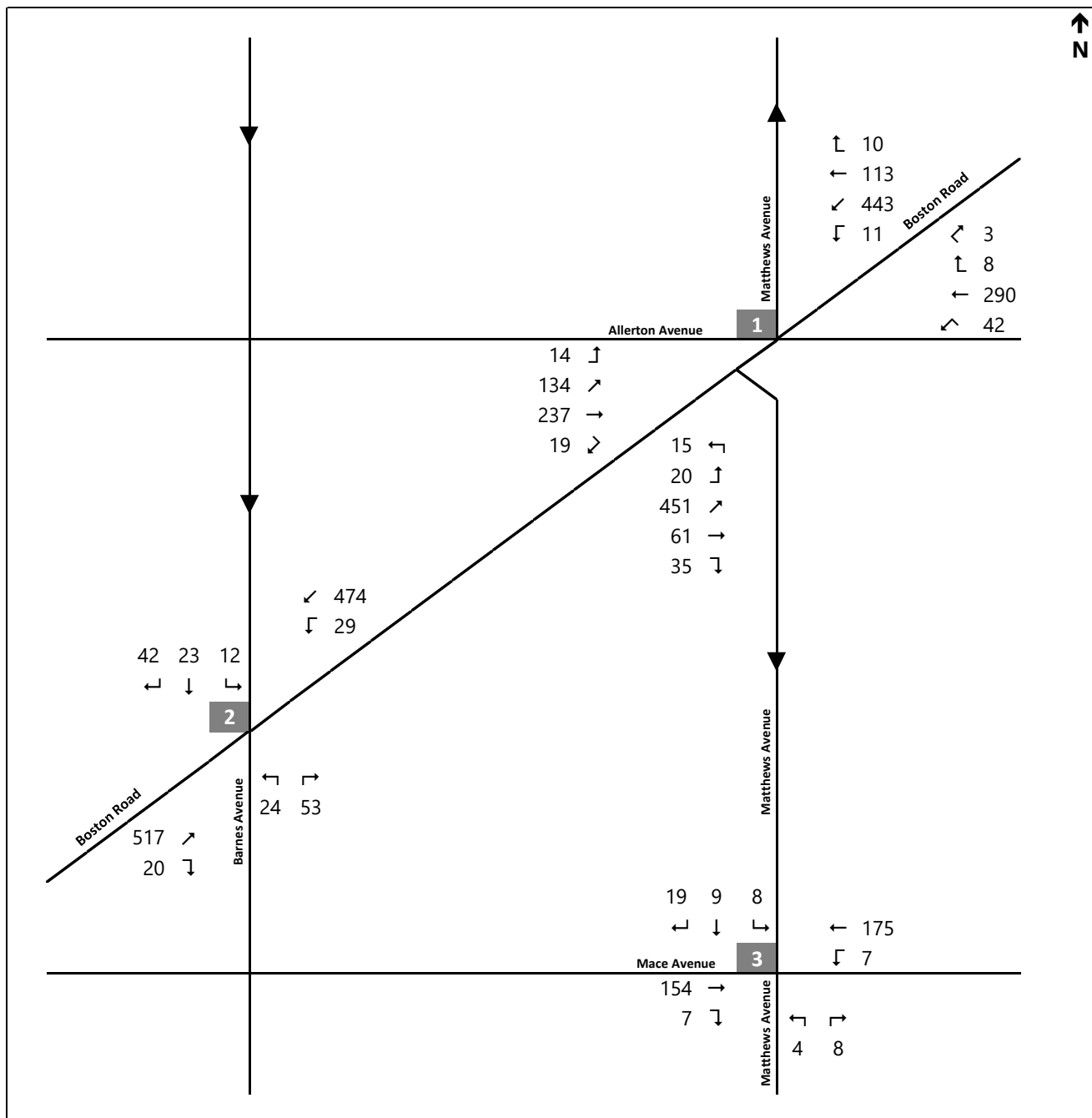
Level of Service

Based on the analysis results, most of the approaches/lane-groups would operate at the same LOS as in the existing condition. At the following location, the addition of No-Action condition traffic would result in changes in LOS beyond LOS D:

Allerton Avenue and Boston Road

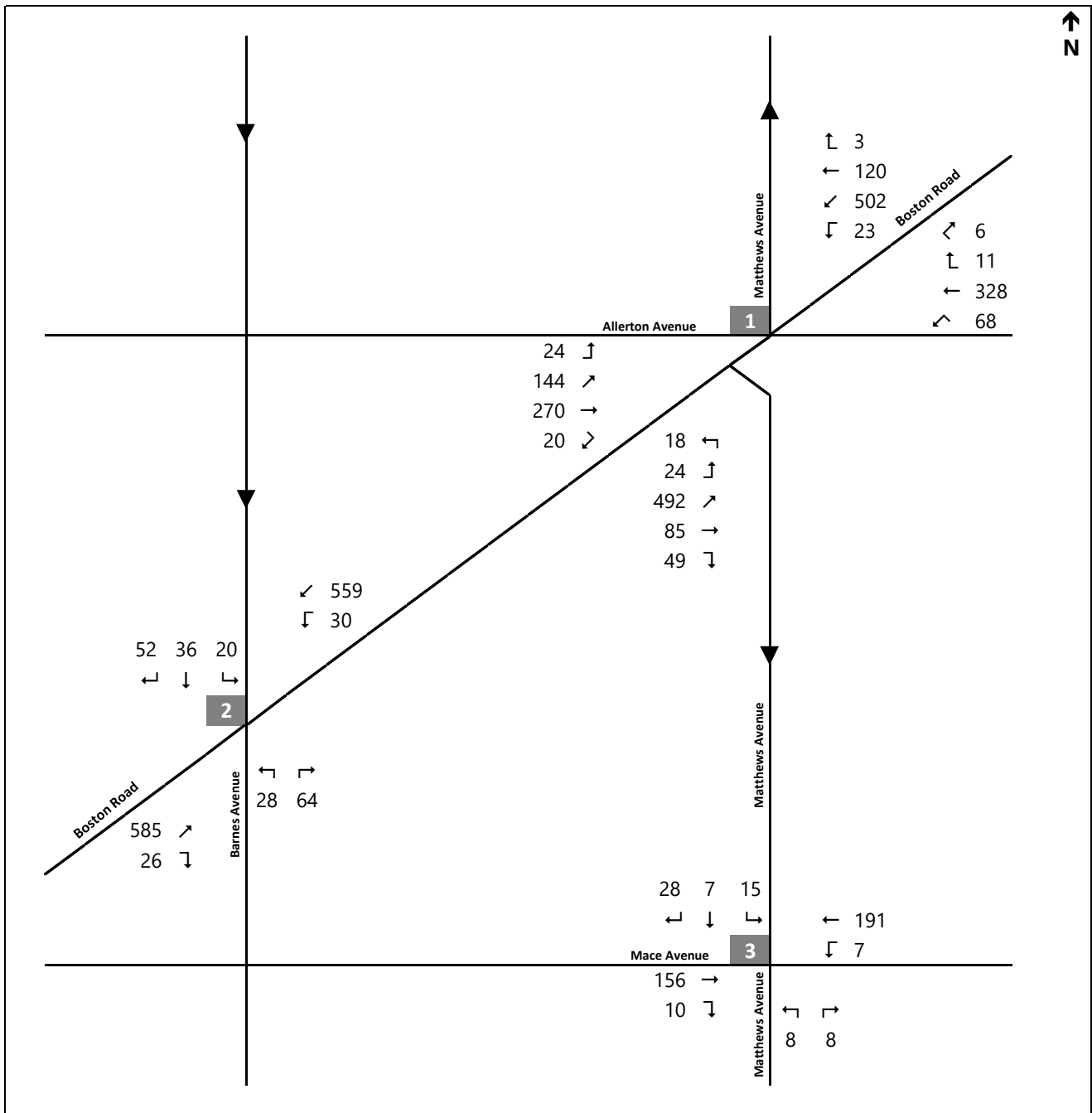
- **Saturday MD peak hour:**
 - o The westbound shared through/right lane group would deteriorate from LOS D with an average delay of 54.9 seconds and a v/c ratio of 0.82 to LOS E with an average delay of 55.2 seconds and a v/c ratio of 0.82.





2560 Boston Road

Figure I-12
Weekday MD Peak Hour
No-Action Traffic Volumes



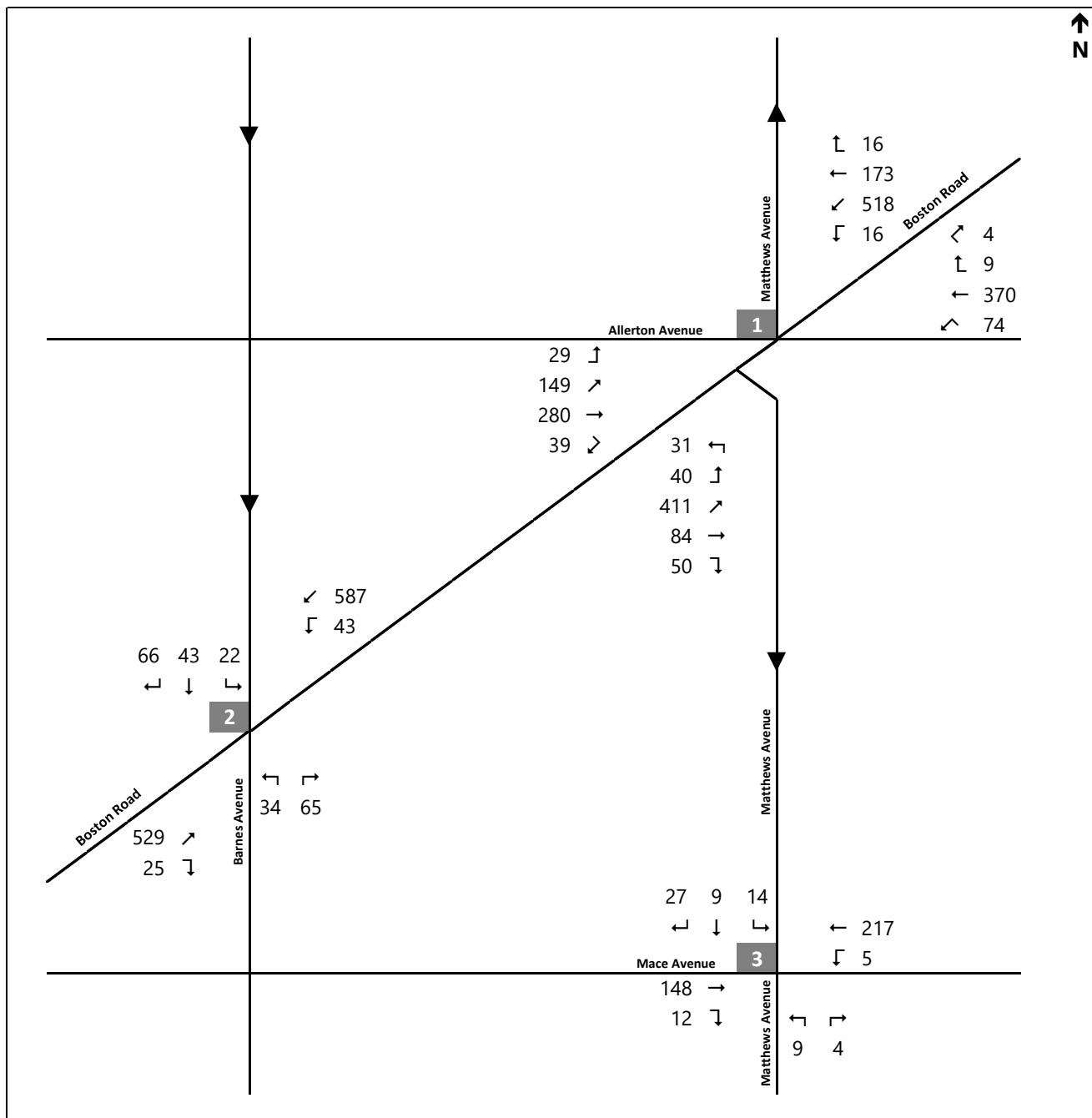


Figure I-14

Saturday MD Peak Hour
No-Action Traffic Volumes

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% from 2021 to 2025 and an annual growth rate of 0.125% from 2025 to 2026. In addition, auto trips generated by the No-Action¹ project (2761 Bronxwood Avenue) that would not be accommodated in the 16 on-site parking spaces provided were assumed to use on-street parking facilities in the study area. The peak hour parking demands for the residential and medical office uses of the No-Action project were estimated based on parking accumulation estimates from NYCDOT, U.S. Census data, and *East 147th Street Rezoning EAS*, and were included as additional demands for on- and off-street parking spaces.

As shown in **Table I-8**, the results indicate that within a 0.5-mile radius of the Project Site, the on- and off-street parking utilization is expected to increase to 92, 90, 89, 97, 90, and 97% during the Weekday AM, Weekday MD, Weekday PM, Weekday Overnight, Saturday MD, and Saturday Overnight peak periods, respectively, in the No-Action condition.

Table I-8: No-Action Condition Parking Utilization Summary

	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD	Saturday Overnight
Capacity						
Existing Capacity	7,644	7,619	7,760	7,763	7,754	7,761
Net Change in No-Action On-Street Parking Supply	-	-	-	-	-	-
Total No-Action Capacity	7,644	7,619	7,760	7,763	7,754	7,761
Demand						
2021 Existing Demand	6,976	6,775	6,799	7,427	6,853	7,437
Background Growth Increment ⁽¹⁾	88	85	85	93	86	93
No-Action Demand from Development Sites ⁽²⁾	0	0	1	2	2	0
Total No-Action Demand	7,064	6,860	6,885	7,522	6,941	7,531
Utilization						
Available Spaces	580	759	875	241	813	230
No-Action Utilization	92%	90%	89%	97%	90%	97%

1. Reflects an annual background growth rate of 0.25 percent for three years (2021 CEQR Technical Manual, Table 16-4).

2. Represents parking demand generated by the No Action site (2761 Bronxwood Avenue) that would not be accommodated on-site.

VII. DESCRIPTION OF THE PROPOSED PROJECT

The Proposed Actions would result in the redevelopment of the Project Site with the Proposed Project. The Project Site is located at 2560 Boston Road on Block 4440, Lots 16, 30, and 32 in the Bronx, as shown on **Figure I-1**.

The Reasonable Worst Case Development Scenario (RWCDs) considers the following uses:

- 333 residential DUs
- 15,000 gsf of supermarket space
- 4,281 gsf of local retail space
- 5,229 gsf of community facility space (assumed to be medical office)

¹ The parking demand generated by 790 Allerton Avenue would be fully accommodated in the 103 on-site parking spaces provided.

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- 1,523 gsf of childcare facility
- 117 parking spaces including:
 - o 67 residential garage parking spaces
 - o 50 commercial surface parking spaces

The existing site consists of:

- 4 residential DUs
- 13,800 gsf of supermarket space
- 1,986 gsf childcare facility
- 1,050 gsf of office space
- 67 surface parking spaces

Therefore, the total increment analyzed for the Proposed Project would include:

- + 329 residential DUs
- + 1,200 gsf of supermarket space
- + 4,281 gsf of local retail space
- + 5,229 gsf of medical office space
- - 463 gsf childcare facility
- - 1,050 gsf of office space
- + 50 parking spaces

The trip generation and assignment estimates were prepared for four peak hours: Weekday AM, Weekday MD, Weekday PM, and Saturday MD.

Trip Generation

The following section describes the assumptions used to develop the trip generation and trip distribution characteristics of the Proposed Project, which are described in greater detail in the Transportation Demand Factors Memo (provided in **Appendix A**).

Residential

The Proposed Project would consist of approximately 333 DUs, for an increment of 329 DUs over the existing site. The daily person trip generation, daily truck trip generation, person temporal distribution, truck temporal distribution, person directional distribution, and truck directional distribution rates were obtained from the 2021 *CEQR Technical Manual*. Modal split and vehicle occupancy were calculated from the 2015-2019 American Community Survey (ACS) 5-year estimates: Sex of Workers by Means of Transportation to Work (Table B08006) for the weighted average of Census Tracts 324, 328, 330, 338, and 340 in Bronx County. The railroad mode share was conservatively reassigned to the bus mode share given the distance of the Project Site from the nearest commuter rail station (Metro North Botanical Garden Station, 1.2-mile walk); those residents traveling on the railroad would likely transfer to the bus to access the Project Site.

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Furthermore, the work-from-home mode share was excluded from the calculations. The same vehicle occupancy was assumed for auto and taxi.

Supermarket

The Proposed Project would consist of approximately 15,000 gsf of supermarket use, for an increment of 1,200 gsf over the existing site. The daily person trip generation, person temporal distribution, modal split, person directional distribution, and truck directional distribution rates were obtained from the *2021 CEQR Technical Manual*. Vehicle occupancy, daily truck trip generation, and truck temporal distribution rates were obtained from the *Lambert Houses Redevelopment Project FEIS (2016)*, Table 12-5, Supermarket land use.

Local Retail

The Proposed Project would consist of approximately 4,281 gsf of local retail space, all of which is part of the analyzed increment. The daily person trip generation, daily truck trip generation, person temporal distribution, truck temporal distribution, modal split, person directional distribution, and truck directional distribution rates were obtained from the *2021 CEQR Technical Manual*. Vehicle occupancy assumptions were provided by NYCDOT in August 2021 based on survey data specific to local retail in a Bronx transit zone.

Community Facility (Medical Office)

The Proposed Project would consist of approximately 5,229 gsf of community facility space (which was assumed to be medical office space as a worst-case scenario from a trip generation standpoint), all of which is part of the analyzed increment. The daily person trip generation rates, person temporal distribution, person directional distribution, and truck directional distribution rates were obtained from the *2021 CEQR Technical Manual*. Vehicle occupancy assumptions were provided by NYCDOT in August 2021 based on survey data specific to medical offices in a Bronx transit zone. Daily truck trip generation and truck temporal distribution rates were obtained from the *Peninsula Hospital Site Redevelopment FEIS (2019)*, Table 12-38, Medical Office land use.

Additional Considerations

Linked trips are those that have multiple destinations within the Project Site and are typical for multi-use sites. A linked trip reduction of 15% was assumed for the local retail use. No trip reduction credit was taken for the existing 1,986 gsf childcare facility proposed to be reduced by 463 gsf, as well as the existing 1,050 gsf office space proposed to be removed from the Project Site.

Trip Generation Results

The results of the estimated trip generation for the four peak hours are summarized in **Table I-9** for the Proposed Project. Complete transportation demand factors are shown in **Table I-10**, with detailed trip generation estimates shown in **Table I-11** for the Proposed Project.

Table I-9: Proposed Project Trip Generation Estimate Summary

Peak Hour	Vehicle (Auto + Taxi + Truck)	Subway	Bus	Walk Only / Other	Total Pedestrians
Weekday AM	90	117	58	90	265
Weekday MD	64	77	41	119	237
Weekday PM	87	111	53	161	325
Saturday MD	92	120	61	180	361

Trip Assignment

Vehicular trips were assigned to the study area along main streets and arterials. Pedestrian and transit trips were assigned to the study area along the main walking routes, particularly the shortest paths to the local subway stations and bus stops. Additional information regarding the Proposed Project trip assignments is provided in the Transportation Demand Factors Memo (provided in **Appendix A**).

Figures I-15 through I-18 show the trips generated by the Proposed Project for each peak hour.

Parking Accumulation

The on-site parking provided by the Proposed Project includes 50 surface parking spaces for the commercial uses (local retail, supermarket, and medical office uses) and 67 garage parking spaces for the residential use. **Tables I-12 and I-13** show the parking accumulation by land use for a typical weekday and a typical Saturday for the Proposed Project.

The total commercial parking demand would not all be accommodated on-site in the 50 surface lot spaces provided. The total commercial parking demand during a typical weekday would peak at 55 spaces from 10:00 AM to 11:00 AM and from 12:00 PM to 1:00 PM, which means that five vehicles would need to be accommodated off site on a weekday. The total commercial parking demand during a typical Saturday would peak at 59 vehicles from 12:00 PM to 2:00 PM, which means that nine vehicles would need to be accommodated off-site on a Saturday.

The total residential parking demand would not all be accommodated on-site in the 67 garage spaces provided. The total residential parking demand during a typical weekday would peak at 180 spaces from 8:00 PM to 9:00 PM, which means that 113 vehicles would need to be accommodated off-site on a weekday. The total residential parking demand during a typical Saturday would peak at 188 spaces from 6:00 AM to 7:00 AM, which means that 121 vehicles would need to be accommodated off-site on a Saturday.

The remainder of the parking demand would be accommodated by available on- and off-street parking and is included in **Table I-15**.

Table I-10: Transportation Demand Factors

Land Use:		Residential		Supermarket		Local Retail		Medical Office	
Program Size	Size	329		1,200		4,281		5,229	
	Unit	dwelling unit		gsf		gsf		gsf	
Daily Person Trip Generation		(2)		(2)		(2)		(2)	
	Weekday	8.180		256.00		329.00		74.60	
	Saturday	9.080		300.00		358.00		37.00	
		per dwelling unit		per 1,000 gsf		per 1,000 gsf		per 1,000 gsf	
Daily Truck Trip Generation		(2)		(4)		(2)		(7)	
	Weekday	0.06		0.35		0.35		0.29	
	Saturday	0.02		0.35		0.04		0.29	
		per dwelling unit		per 1,000 gsf		per 1,000 gsf		per 1,000 gsf	
Modal Split		Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday
		(3)		(2)		(2)		(2)	
	Auto	27.0%	27.0%	30.0%	30.0%	11.0%	11.0%	26.0%	26.0%
	Taxi	1.1%	1.1%	1.0%	1.0%	0.0%	0.0%	10.0%	10.0%
	Bus	18.7%	18.7%	3.0%	3.0%	2.0%	2.0%	23.0%	23.0%
	Subway	43.6%	43.6%	8.0%	5.0%	3.0%	3.0%	14.0%	14.0%
	Walk	9.6%	9.6%	58.0%	61.0%	84.0%	84.0%	27.0%	27.0%
		100%	100%	100%	100%	100%	100%	100%	100%
Vehicle Occupancy		(3)		(4)		(6)		(5)	
	Auto	1.09	1.09	1.12 (AM), 1.34 (PM)	1.32 (WMD/SMD)	2.10	2.10	1.60	1.60
	Taxi	1.09	1.09	1.40 (AM), 1.40 (PM)	1.40 (WMD/SMD)	2.10	2.10	1.60	1.60
Linked Trips		0%	0%	0%	0%	15%	15%	0%	0%
Temporal Distribution		(2)		(2)		(2)		(2)	
	AM	9.3%		4.0%		4.8%		11.0%	
	MD	5.6%		7.0%		8.0%		12.6%	
	PM	8.5%		10.6%		10.9%		8.5%	
Truck Temporal Distribution		(2)		(4)		(2)		(7)	
	AM	12%		8%		8%		3%	
	MD	9%		11%		11%		11%	
	PM	2%		2%		2%		1%	
Directional Distribution		In	Out	In	Out	In	Out	In	Out
		(2)		(2)		(2)		(2)	
	AM	22%	78%	51%	49%	53%	47%	62%	38%
	MD	50%	50%	51%	49%	50%	50%	47%	53%
Truck Directional Distribution	PM	63%	37%	50%	50%	50%	50%	35%	65%
	Sat MD	51%	49%	50%	50%	50%	50%	49%	51%
		(2)		(2)		(2)		(2)	
Truck Directional Distribution	AM	50%	50%	50%	50%	50%	50%	50%	50%
	MD	50%	50%	50%	50%	50%	50%	50%	50%
	PM	50%	50%	50%	50%	50%	50%	50%	50%
	Sat MD	50%	50%	50%	50%	50%	50%	50%	50%

Notes

- (1) Assumes 15% linked trips for local retail.
- (2) 2021 CEQR Technical Manual, Table 16-2.
- (3) U.S. Census Bureau, American Community Survey 2015-2019 5-year estimates for B08006 - Sex of Workers by Means of Transportation to Work. Average of Census Tracts 328, 330, 338, 340, and 324, Bronx County, New York. Re-distributes railroad mode share to bus mode. Not including work from home.
- (4) Lambert Houses Redevelopment Project (2016), Table 12-5. Utilizes supermarket rates. Assumes Saturday MD same as Weekday MD. Shifts 20% of bus mode share to walk-only mode to reflect lower concentration of bus routes in project area compared to the source of mode split data.
- (5) NYCDOT provided data for medical office in a Bronx transit zone on August 16, 2021.
- (6) NYCDOT provided data for local retail in a Bronx transit zone on August 16, 2021.
- (7) Peninsula Hospital Site Redevelopment FEIS (2019), Table 12-38.

Table I-11: Proposed Project Detailed Trip Generation Estimates

Travel Demand Forecast (Person Trips)

		Residential		Supermarket		Local Retail		Medical Office		TOTAL		
Daily Trips	Weekday	2,691		307		1,197		390		4,585		
	Saturday	2,987		360		1,303		193		4,843		
Peak Hour Trips	AM	250		12		57		43		362		
	MD	151		21		96		49		317		
	PM	229		33		130		33		425		
	Sat MD	251		34		152		32		469		
AM	In	Out	In	Out	In	Out	In	Out	In	Out	TOTAL	
	Auto	15	53	2	2	3	3	7	4	27	62	89
	Taxi	1	2	0	0	0	0	3	2	4	4	8
	Bus	10	36	0	0	1	1	6	4	17	41	58
	Subway	24	85	0	0	1	1	4	2	29	88	117
	Walk	5	19	4	3	25	23	7	4	41	49	90
	Total	55	195	6	5	30	28	27	16	118	244	362
MD	Auto	20	20	3	3	5	5	6	7	34	35	69
	Taxi	1	1	0	0	0	0	2	3	3	4	7
	Bus	14	14	0	0	1	1	5	6	20	21	41
	Subway	33	33	1	1	1	1	3	4	38	39	77
	Walk	7	7	6	6	40	40	6	7	59	60	119
	Total	75	75	10	10	47	47	22	27	154	159	313
	PM	Auto	39	23	5	5	7	7	3	6	54	41
Taxi		2	1	0	0	0	0	1	2	3	3	6
Bus		27	16	0	0	1	1	3	5	31	22	53
Subway		63	37	1	1	2	2	2	3	68	43	111
Walk		14	8	10	10	55	55	3	6	82	79	161
Total		145	85	16	16	65	65	12	22	238	188	426
Sat MD		Auto	35	33	5	5	8	8	4	4	52	50
	Taxi	1	1	0	0	0	0	2	2	3	3	6
	Bus	24	23	1	1	2	2	4	4	31	30	61
	Subway	56	54	1	1	2	2	2	2	61	59	120
	Walk	12	12	10	10	64	64	4	4	90	90	180
	Total	128	123	17	17	76	76	16	16	237	232	469

Travel Demand Forecast (Vehicle Trips)

		Residential		Supermarket		Local Retail		Medical Office		TOTAL		TOTAL
Taxi Overlap Rate: 0%		In	Out	In	Out	In	Out	In	Out	In	Out	
AM	Auto	14	49	2	2	1	1	4	3	21	55	76
	Taxi	1	2	0	0	0	0	2	1	3	3	6
	Taxi (Balanced) ¹	3	3	0	0	0	0	3	3	6	6	12
	Truck	1	1	0	0	0	0	0	0	1	1	2
	Total	18	53	2	2	1	1	7	6	28	62	90
MD	Auto	18	18	2	2	2	2	4	4	26	26	52
	Taxi	1	1	0	0	0	0	1	2	2	3	5
	Taxi (Balanced) ¹	2	2	0	0	0	0	3	3	5	5	10
	Truck	1	1	0	0	0	0	0	0	1	1	2
	Total	21	21	2	2	2	2	7	7	32	32	64
PM	Auto	36	21	4	4	3	3	2	4	45	32	77
	Taxi	2	1	0	0	0	0	1	1	3	2	5
	Taxi (Balanced) ¹	3	3	0	0	0	0	2	2	5	5	10
	Truck	0	0	0	0	0	0	0	0	0	0	0
	Total	39	24	4	4	3	3	4	6	50	37	87
Sat MD	Auto	32	30	4	4	4	4	3	3	43	41	84
	Taxi	1	1	0	0	0	0	1	1	2	2	4
	Taxi (Balanced) ¹	2	2	0	0	0	0	2	2	4	4	8
	Truck	0	0	0	0	0	0	0	0	0	0	0
	Total	34	32	4	4	4	4	5	5	47	45	92

Notes

(1) A 0% taxi overlap rate was assumed (i.e., 0% of inbound full taxis are assumed to be available for outbound demand), based on the CEQR 2021 Technical Manual.

Travel Demand Forecast (Total Walk Trips)²

		Residential		Supermarket		Local Retail		Medical Office		TOTAL		TOTAL
		In	Out	In	Out	In	Out	In	Out	In	Out	
AM	AM	39	140	4	3	27	25	17	10	87	178	265
	MD	54	54	7	7	42	42	14	17	117	120	237
	PM	104	61	11	11	58	58	8	14	181	144	325
	Sat MD	92	89	12	12	68	68	10	10	182	179	361

Notes

(2) Total walk trips includes all trips via transit plus walk only trips.

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Table I-12: Proposed Project Weekday Parking Accumulation

Hour	Local Retail			Supermarket			Medical Office			Total Commercial (Local Retail, Supermarket, Medical Office)			Residential			Total		
	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation
Before 12															167	0	0	167
12-1 AM	0	0	0	0	0	0	0	0	0	0	0	0	6	6	167	6	6	167
1-2 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	167	2	2	167
2-3 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	167	1	1	167
3-4 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	167	1	1	167
4-5 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	167	1	1	167
5-6 AM	0	0	0	8	5	2	0	0	0	8	5	2	1	1	167	9	6	169
6-7 AM	0	0	0	16	5	13	0	0	0	16	5	13	1	5	163	17	10	176
7-8 AM	0	0	0	21	13	21	0	0	0	21	13	21	4	21	146	25	33	167
8-9 AM	1	1	0	21	21	21	4	3	1	26	25	22	14	49	112	40	74	133
9-10 AM	2	1	0	39	21	39	3	1	3	44	24	43	10	33	89	55	57	131
10-11 AM	3	2	1	42	31	49	3	2	4	48	36	55	11	13	87	58	48	142
11-12 PM	2	2	1	36	36	49	3	3	4	41	41	54	14	14	87	54	55	141
12-1 PM	2	2	1	31	30	50	4	4	3	38	37	55	19	19	87	56	55	142
1-2 PM	4	3	2	39	48	42	3	2	3	46	54	47	18	18	87	64	72	134
2-3 PM	3	2	3	44	53	33	2	2	3	49	57	38	14	14	87	62	71	125
3-4 PM	2	2	3	39	53	19	3	3	3	45	58	26	14	11	89	58	69	114
4-5 PM	3	3	3	43	41	21	4	4	3	50	49	27	52	22	119	102	71	146
5-6 PM	3	3	3	46	46	21	2	4	0	51	54	24	36	21	135	88	75	159
6-7 PM	1	3	1	21	22	21	2	2	0	25	27	22	45	20	160	70	47	182
7-8 PM	1	2	0	9	13	16	0	0	0	10	16	17	36	20	176	47	35	193
8-9 PM	1	1	0	3	9	11	0	0	0	4	10	12	15	10	180	19	20	192
9-10 PM	0	0	0	0	7	4	0	0	0	0	7	5	5	16	170	6	23	175
10-11 PM	0	0	0	0	4	0	0	0	0	0	4	1	11	12	169	11	16	170
11-12 PM	0	0	0	0	0	0	0	0	0	0	0	1	8	10	167	8	10	168

Note: Individual numbers may not add up to total due to rounding. Based on full build out of the Proposed Project (4,281 gsf of local retail, 15,000 gsf of supermarket, 333 residential DUs, 5,229 gsf of medical office). Peak hour in/out adjusted to match trip generation peak hour in/out.

Sources:

Local Retail Astoria Cove (2014) Table 13-52 and 13-69.

Supermarket Astoria Cove (2014) Table 13-52 and 13-69.

Residential East 147th Street Rezoning EAS (2016), Table J-22 and J-23 (used sum of residential off- and on-street). Overnight parking based on average vehicle ownership in Bronx County Census Tracts 324, 328, 330, 338, and 340.

Medical Office Based on data provided by NYCDOT in 2016. It is assumed that Saturday temporal and directional distribution would be the same as Weekday.

2560 Boston Road EAS
CEQR No: 22DCP184X
ULURP No(s): xxx

Table I-13: Proposed Project Saturday Parking Accumulation

Hour	Local Retail			Supermarket			Medical Office			Total Commercial (Local Retail, Supermarket, Medical Office)			Residential			Total		
	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation
Before 12															167	0	0	167
12-1 AM	0	0	0	0	0	0	0	0	0	0	0	0	11	6	172	11	6	172
1-2 AM	0	0	0	0	0	0	0	0	0	0	0	0	8	5	175	8	5	175
2-3 AM	0	0	0	0	0	0	0	0	0	0	0	0	6	4	177	6	4	177
3-4 AM	0	0	0	0	0	0	0	0	0	0	0	0	5	2	180	5	2	180
4-5 AM	0	0	0	0	0	0	0	0	0	0	0	0	6	1	184	6	1	184
5-6 AM	0	0	0	0	0	0	0	0	0	0	0	0	5	2	187	5	2	187
6-7 AM	0	0	0	5	4	0	0	0	0	5	4	0	9	8	188	13	12	189
7-8 AM	0	0	0	14	5	10	0	0	0	15	5	11	12	13	187	26	17	198
8-9 AM	1	1	0	25	24	11	1	0	1	28	25	13	13	26	174	40	52	187
9-10 AM	1	1	0	30	14	27	1	0	2	32	15	30	18	22	169	49	38	198
10-11 AM	3	2	1	35	19	43	2	1	2	39	22	47	21	22	167	60	45	213
11-12 PM	3	3	1	40	30	52	1	1	2	43	34	56	23	23	167	67	57	223
12-1 PM	4	4	1	48	44	56	1	1	2	52	49	59	20	20	167	72	68	226
1-2 PM	4	4	1	48	48	56	3	3	2	54	55	59	32	31	168	86	86	227
2-3 PM	4	1	3	42	54	44	2	2	3	48	57	50	30	23	175	78	80	225
3-4 PM	3	3	3	45	57	32	3	1	4	50	61	39	26	24	177	77	85	216
4-5 PM	3	3	3	45	60	17	1	1	4	49	64	24	24	21	180	73	86	203
5-6 PM	4	4	3	51	49	19	1	3	2	56	56	24	21	21	180	77	76	204
6-7 PM	2	3	2	40	45	13	0	2	0	42	50	16	20	21	178	61	72	193
7-8 PM	2	3	1	30	24	19	0	0	0	32	27	20	19	20	177	50	47	197
8-9 PM	1	2	0	9	13	15	0	0	0	11	15	15	17	20	174	27	35	189
9-10 PM	1	1	0	5	8	11	0	0	0	5	9	11	14	21	167	19	30	178
10-11 PM	0	0	0	0	8	3	0	0	0	0	8	3	10	10	167	10	18	170
11-12 PM	0	0	0	0	3	0	0	0	0	0	3	0	9	9	167	9	12	167

Note: Individual numbers may not add up to total due to rounding. Based on full build out of the Proposed Project (4,281 gsf of local retail, 15,000 gsf of supermarket, 333 residential DUs, 5,229 gsf of medical office). Peak hour in/out adjusted to match trip generation peak hour in/out.

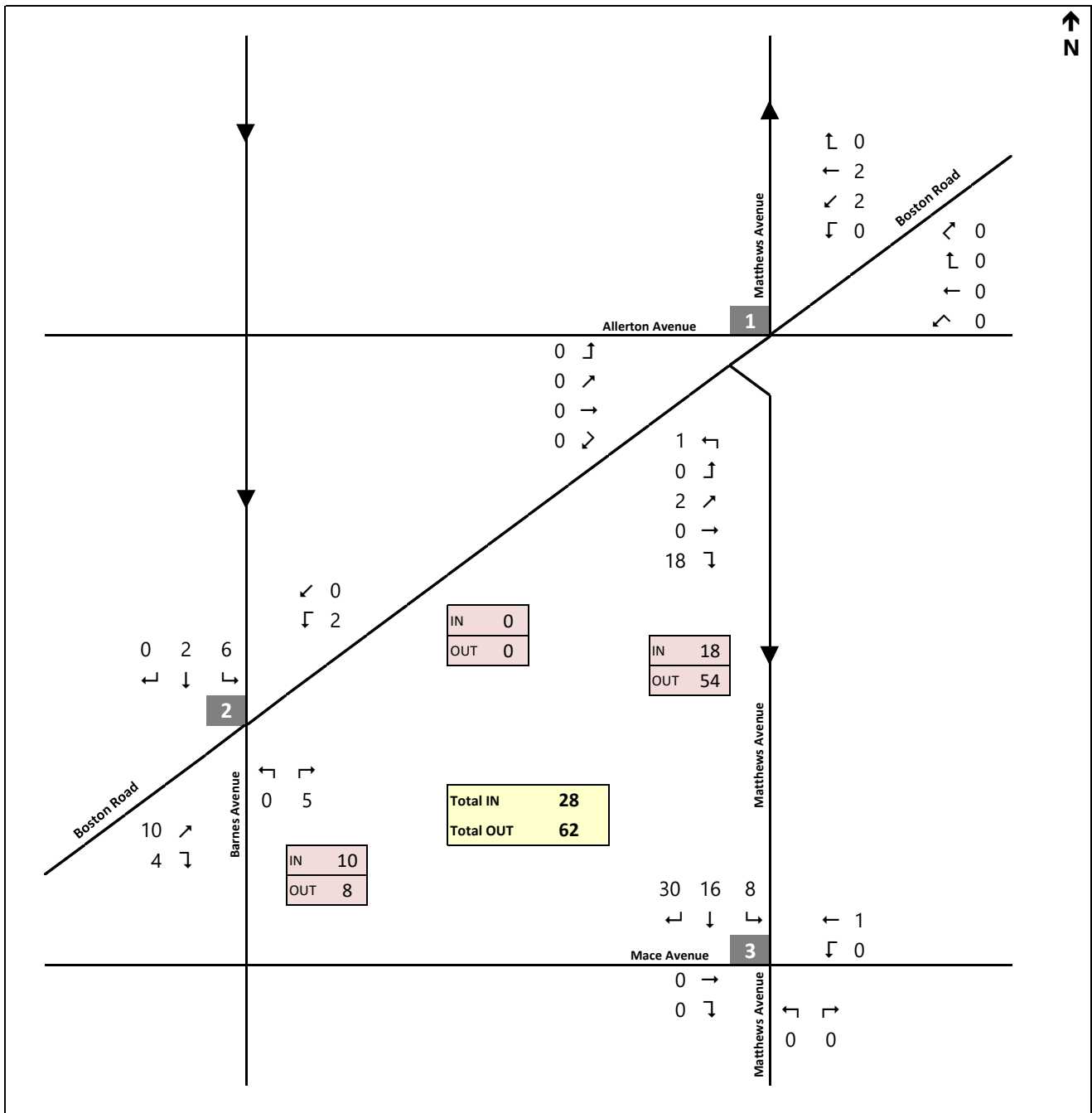
Sources:

Local Retail Astoria Cove (2014) Table 13-52 and 13-69.

Supermarket Astoria Cove (2014) Table 13-52 and 13-69.

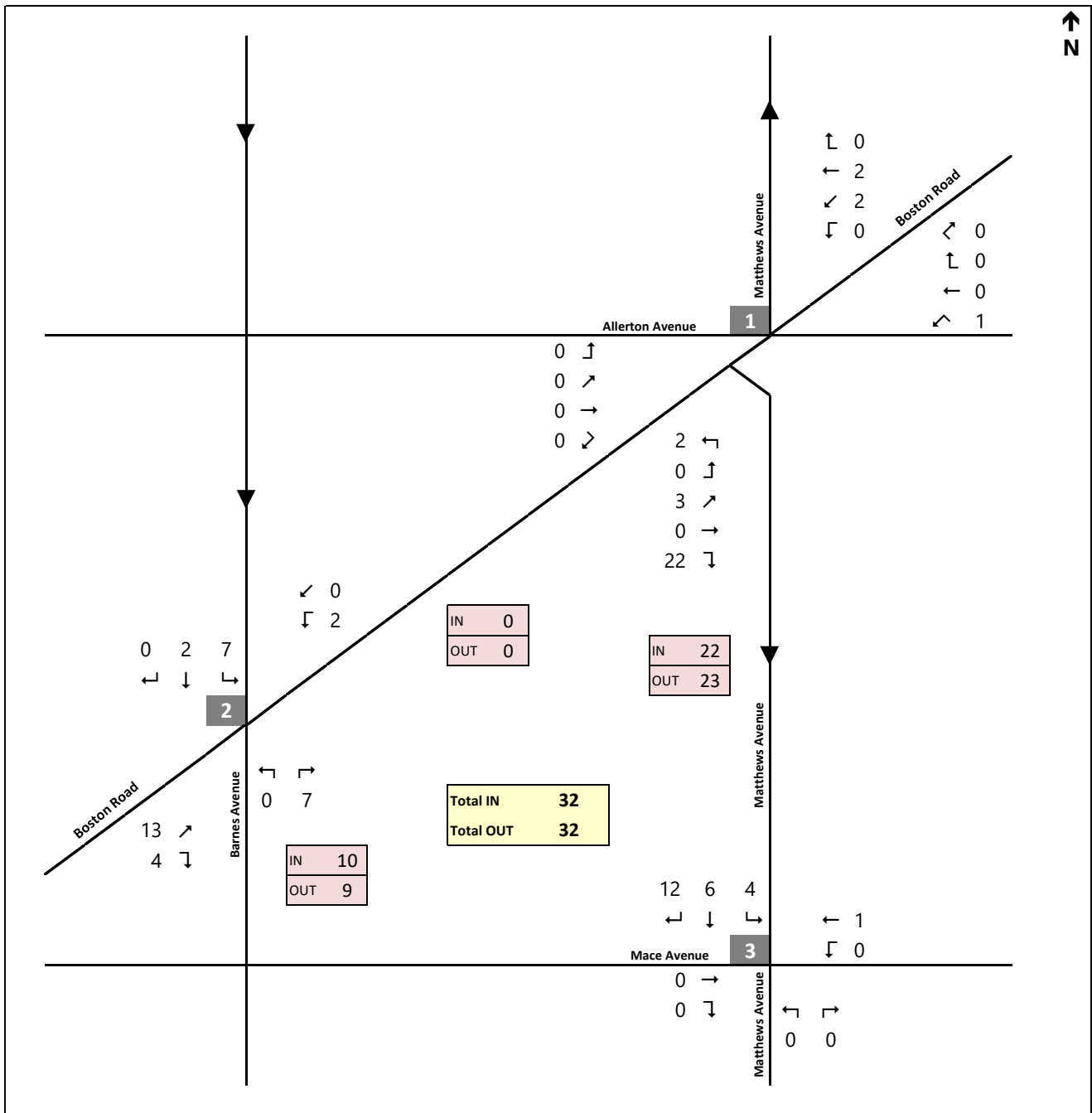
Residential East 147th Street Rezoning EAS (2016), Table J-22 and J-23 (used sum of residential off- and on-street). Overnight parking based on average vehicle ownership in Bronx County Census Tracts 324, 328, 330, 338, and 340.

Medical Office Based on data provided by NYCDOT in 2016. It is assumed that Saturday temporal and directional distribution would be the same as Weekday.



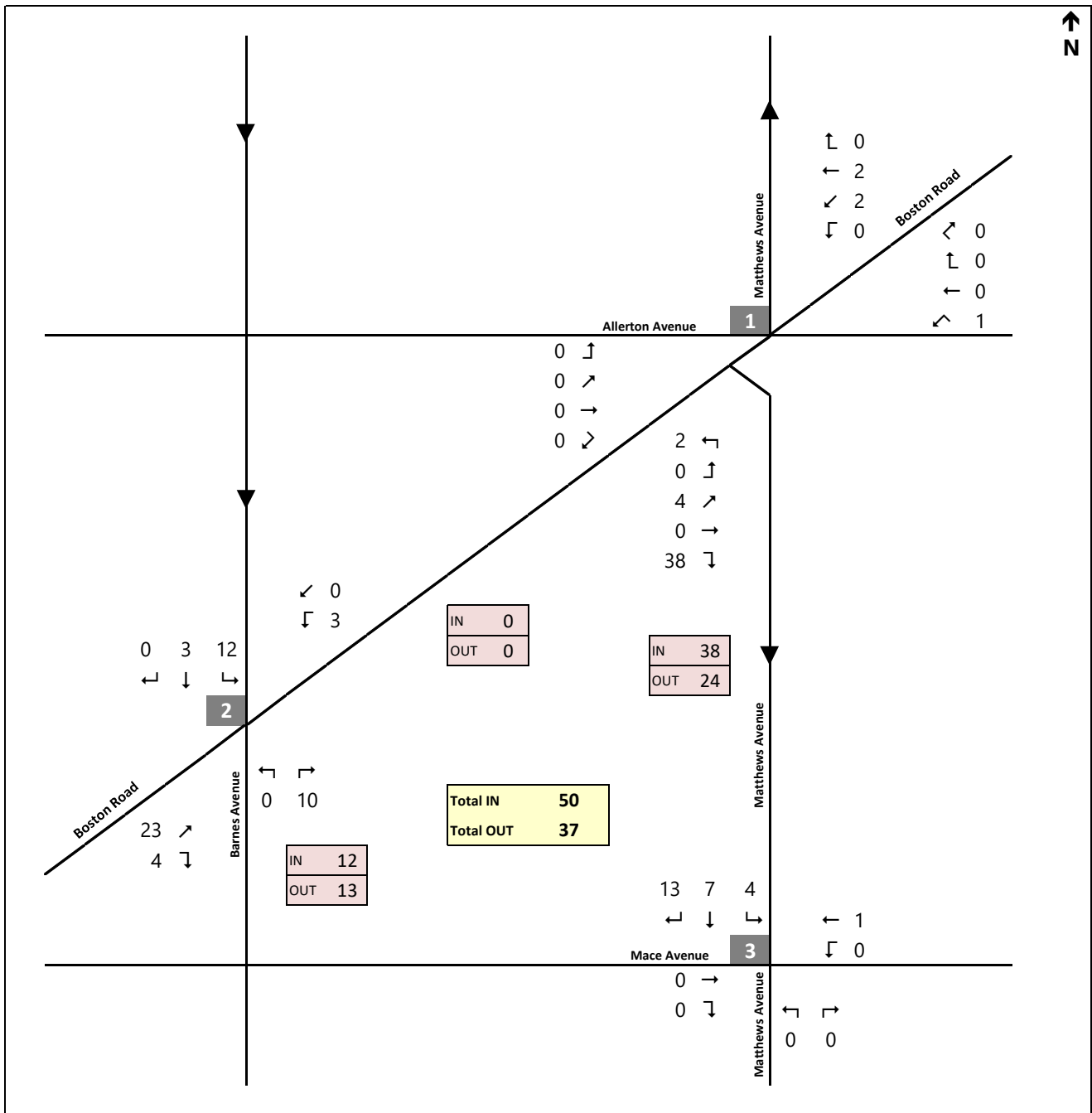
2560 Boston Road

Figure I-15
Weekday AM Peak Hour
Proposed Project Increment



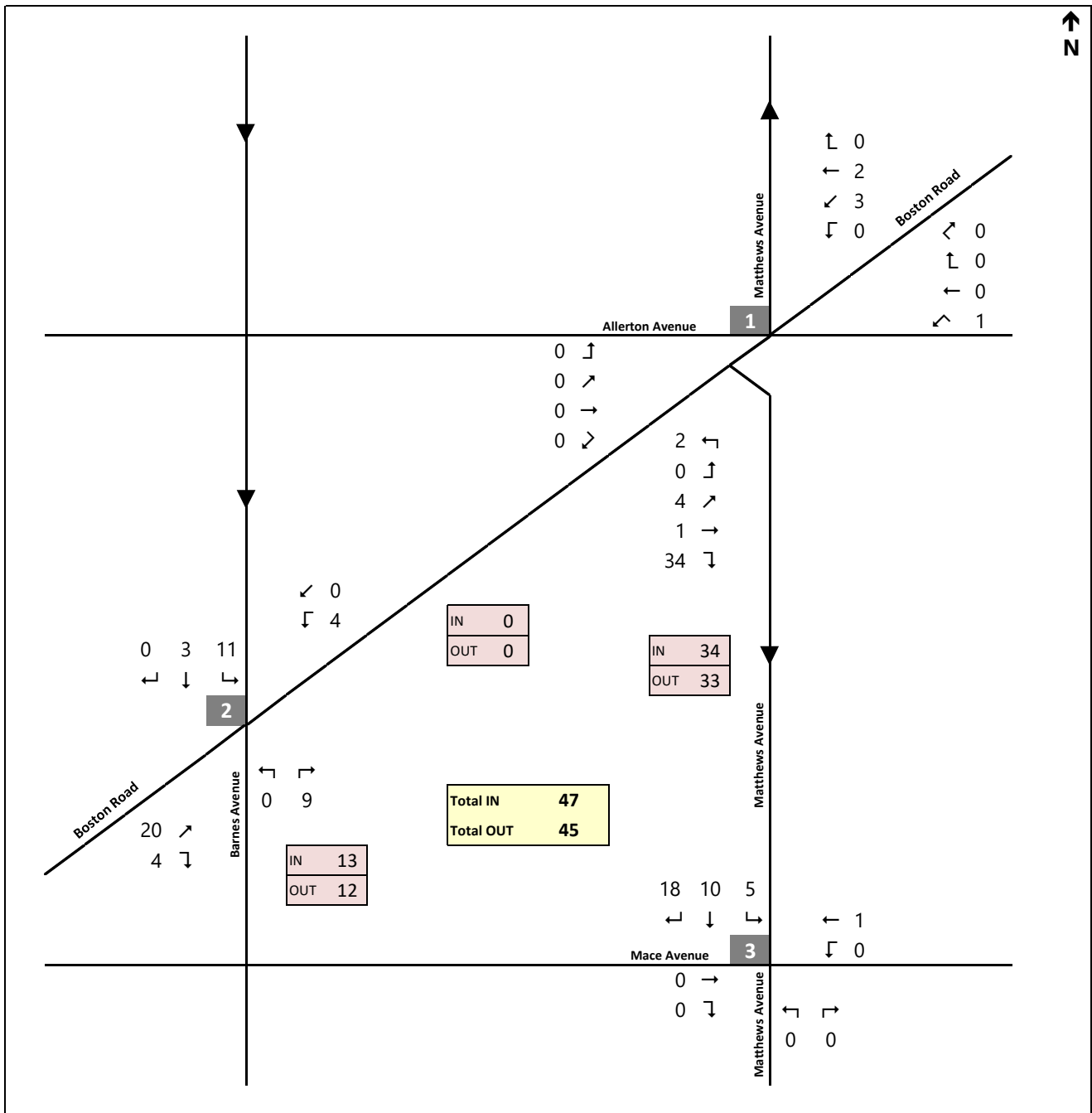
2560 Boston Road

Figure I-16
Weekday MD Peak Hour
Proposed Project Increment



2560 Boston Road

Figure I-17
Weekday PM Peak Hour
Proposed Project Increment



2560 Boston Road

Figure I-18
Saturday MD Peak Hour
Proposed Project Increment

VIII. THE FUTURE WITH THE PROPOSED ACTIONS

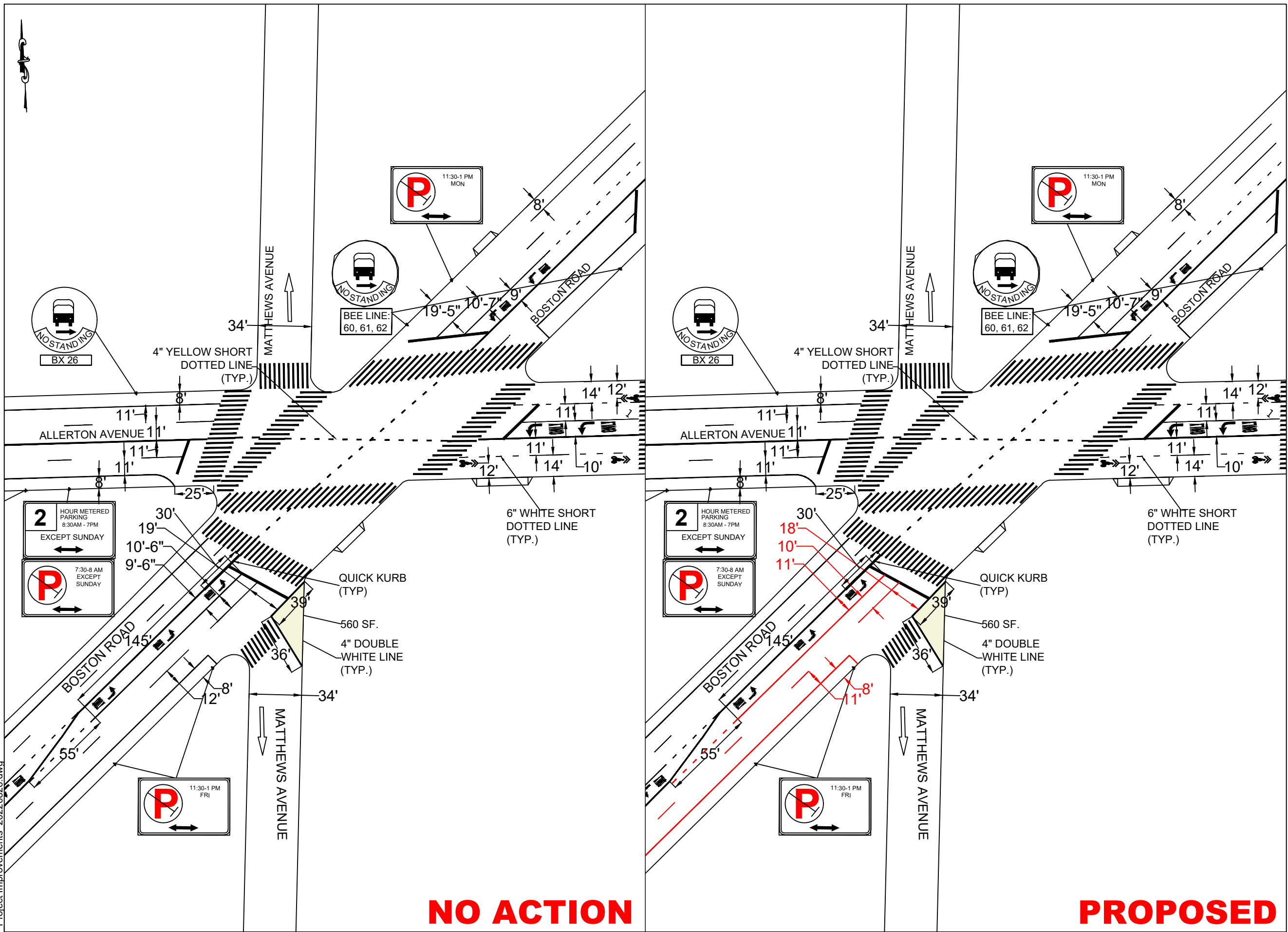
The No-Action condition analysis forms the future baseline to which projected trip increments associated with the Proposed Project are added to generate the future with the Proposed Actions (the “With-Action condition”). The *CEQR Technical Manual* defines how impacts to traffic, parking, and safety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

Project-Related Improvements

The following improvement would be implemented in consultation with NYCDOT:

- Allerton Avenue and Matthews Avenue and Boston Road
 - o Re-stripe the northeast-bound Boston Road approach at Allerton Avenue to widen the left turn lane from 9'-6" to 11'. The two through lanes would be narrowed from 10'-6" and 12' to 10' and 11' respectively. The 8'-wide parking lane would remain the same. The improvement would apply to all time periods and are shown in **Figure I-19**.

\\192.168.16.7\Projects\2020\1 NY\20-01-0430 Boston Road Rezoning EAS\EAS\Attachments\Transportation\Data Collection\Field Data\Sheets\2560 Boston Rd Project Improvements 20220826.dwg



CLIENT:
SLATE PROPERTY GROUP
38 EAST 29TH STREET, 9TH FLOOR
NEW YORK, NY 10016

PREPARED BY:
Sam Schwartz

SEAL:

FOR REVIEW & FILING
NOT FOR CONSTRUCTION

NO:	DATE:	REVISION:	APPROVED:

PROJECT:
2560 BOSTON ROAD

LOCATED AT:
**BOROUGH OF BRONX,
CITY AND STATE OF NEW YORK**

TAX DESIGNATION:
-

BLOCK/LOT:
BLOCK 4440, LOT 16

DRAWING TITLE:
**PROJECT
IMPROVEMENTS: BOSTON
ROAD / ALLERTON
AVENUE / MATTHEWS
AVENUE**

DRAWN BY:
SL

CHECKED BY:
BY

SCALE:
1:60

PROJECT NUMBER:
20-01-0430

DATE:
August 29, 2022

DRAWING NUMBER:
FIGURE I-19

SHEET:
OF:

Traffic Conditions

Figures I-20 through I-23 show the With-Action condition traffic volumes for the four peak hours, and Table I-14 presents a comparison of the No-Action and With-Action condition capacity analysis results for the study intersections.

Level of Service

Capacity analysis results are presented in Table I-14. Based on CEQR Technical Manual guidelines, the Proposed Project would not result in significant adverse traffic impacts.

Table I-14: No-Action and With-Action Condition Level of Service Analysis

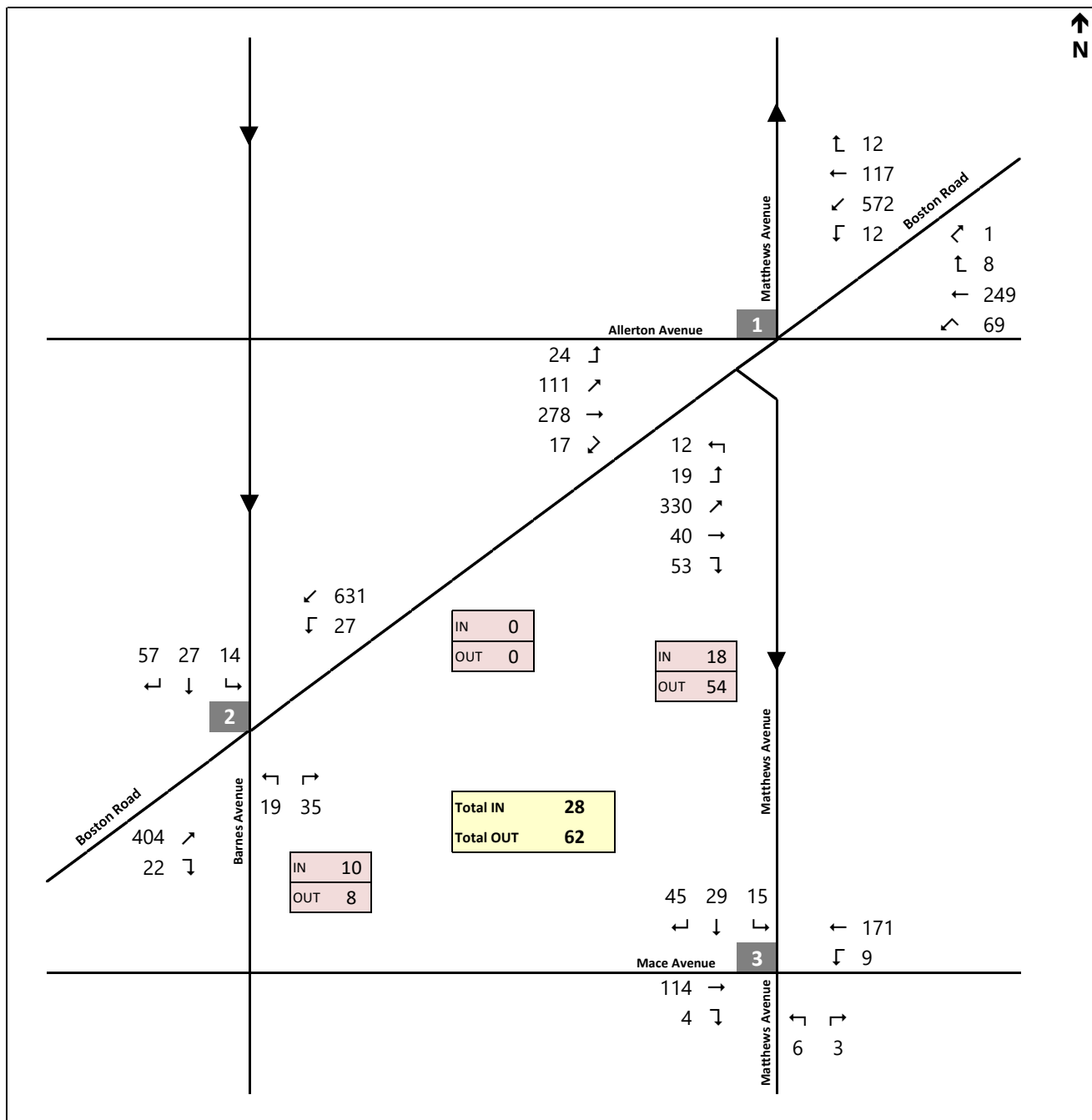
#	Intersection & Approach	Weekday AM Peak Hour										Weekday MD Peak Hour									
		2026 No-Action Condition					2026 With-Action Condition					2026 No-Action Condition					2026 With-Action Condition				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)
1	Allerton Avenue/Matthews Avenue & Boston Road																				
	Eastbound	LT	0.93	67.1	E	264	LT	0.93	67.1	E	264	LT	0.91dl	61.0	E	235	LT	0.91dl	61.0	E	235
	Westbound	L	0.65	63.8	E	113	L	0.65	63.8	E	113	L	0.41	47.7	D	67	L	0.41	47.7	D	67
		TR	0.69	49.0	D	152	TR	0.69	49.1	D	153	TR	0.67	46.7	D	176	TR	0.67	46.7	D	176
	Northeastbound	L	0.43	46.1	D	34	L	0.43	43.6	D	35	L	0.32	29.4	C	29	L	0.32	28.8	C	31
		TR	0.55	29.6	C	127	TR	0.61	30.7	C	141	TR	0.70	28.9	C	139	TR	0.77	31.3	C	150
	Southwestbound	L	0.08	31.8	C	23	L	0.09	32.0	C	23	L	0.10	32.6	C	22	L	0.10	33.0	C	23
		TR	0.88	52.3	D	407	TR	0.88	52.6	D	410	TR	0.72	42.8	D	290	TR	0.72	43.0	D	292
	Intersection			50.5	D		Intersection		50.6	D		Intersection		43.2	D		Intersection		43.8	D	
	Barnes Avenue & Boston Road																				
2	Northbound	LTR	0.20	34.3	C	73	LTR	0.25	35.6	D	81	LTR	0.31	37.3	D	108	LTR	0.37	39.2	D	119
	Southbound	LTR	0.27	35.0	D	101	LTR	0.32	36.0	D	113	LTR	0.24	35.2	D	91	LTR	0.29	36.1	D	103
	Westbound	TR	0.31	15.8	B	128	TR	0.32	15.9	B	133	TR	0.37	16.1	B	168	TR	0.38	16.2	B	175
	Southwestbound	L	0.08	2.0	A	1	L	0.09	2.0	A	2	L	0.11	2.9	A	3	L	0.12	2.9	A	3
		T	0.39	2.6	A	15	T	0.39	2.6	A	15	T	0.33	2.6	A	19	T	0.33	2.6	A	19
	Intersection			11.5	B		Intersection		12.1	B		Intersection		13.4	B		Intersection		14.0	B	
3	Matthews Avenue & Mace Avenue																				
	Eastbound	TR	0.14	8.4	A	54	TR	0.14	8.4	A	54	TR	0.19	8.7	A	72	TR	0.19	8.7	A	72
	Westbound	LT	0.29	10.0	A	84	LT	0.29	10.0	B	85	LT	0.21	8.9	A	81	LT	0.21	9.0	A	81
	Northbound	LTR	0.04	23.5	C	18	LTR	0.04	23.6	C	18	LTR	0.05	23.9	C	21	LTR	0.05	23.9	C	21
	Southbound	LTR	0.10	24.2	C	38	LTR	0.25	26.4	C	80	LTR	0.10	24.3	C	39	LTR	0.17	25.2	C	57
	Intersection			11.4	B		Intersection		13.7	B		Intersection		10.9	B		Intersection		11.8	B	

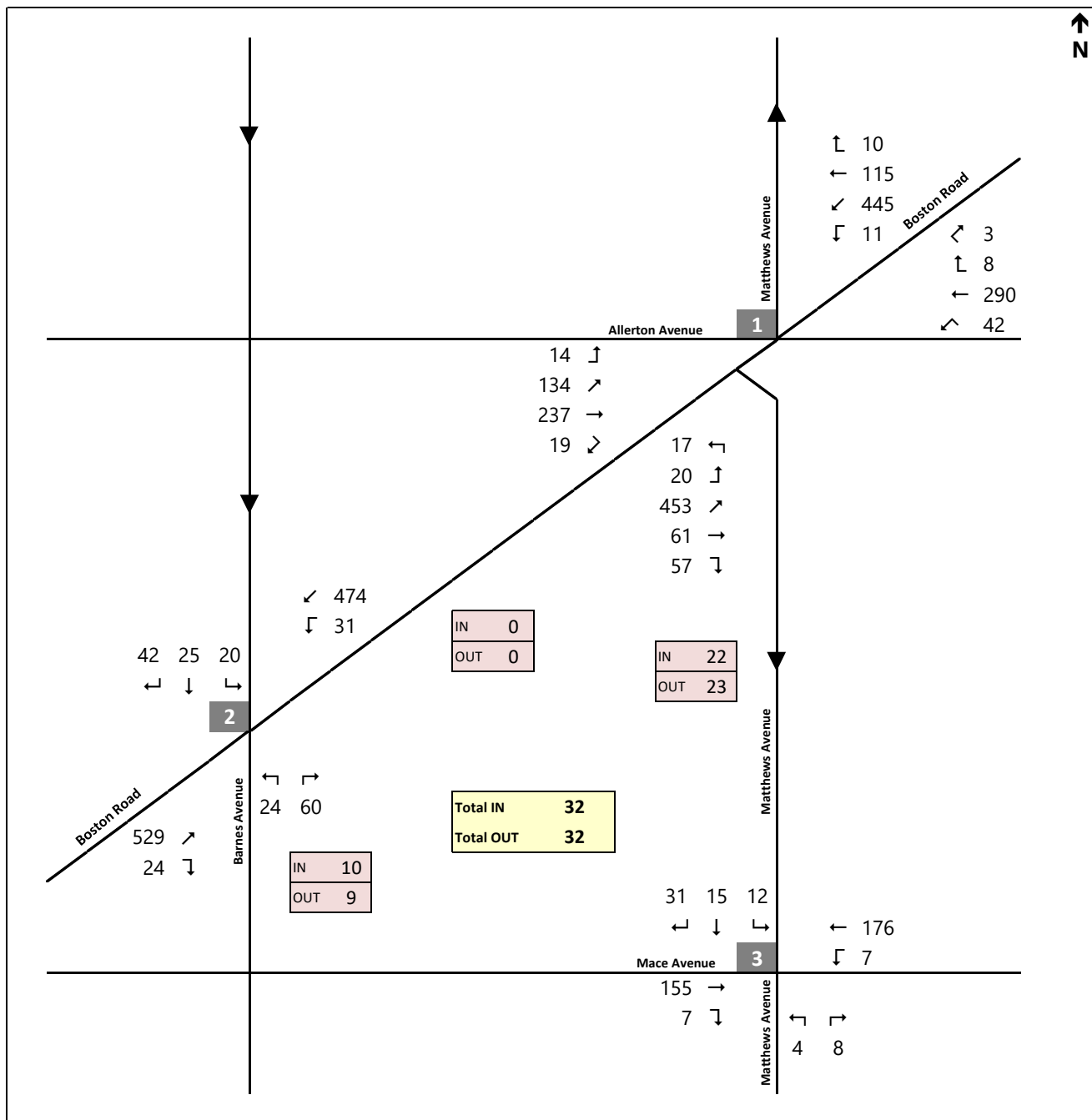
Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service.

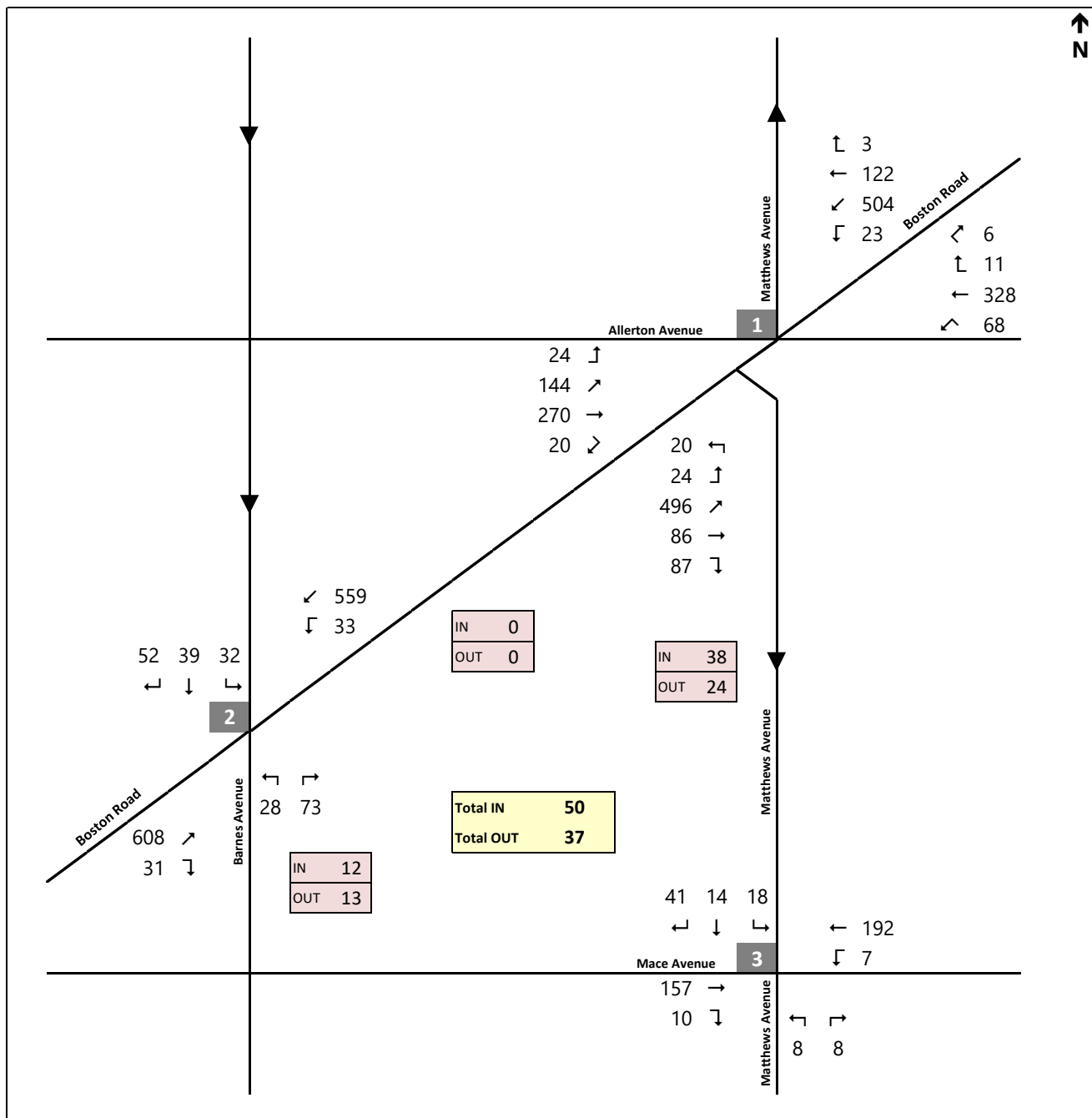
Table I-14: No-Action and With-Action Condition Level of Service Analysis (Cont.)

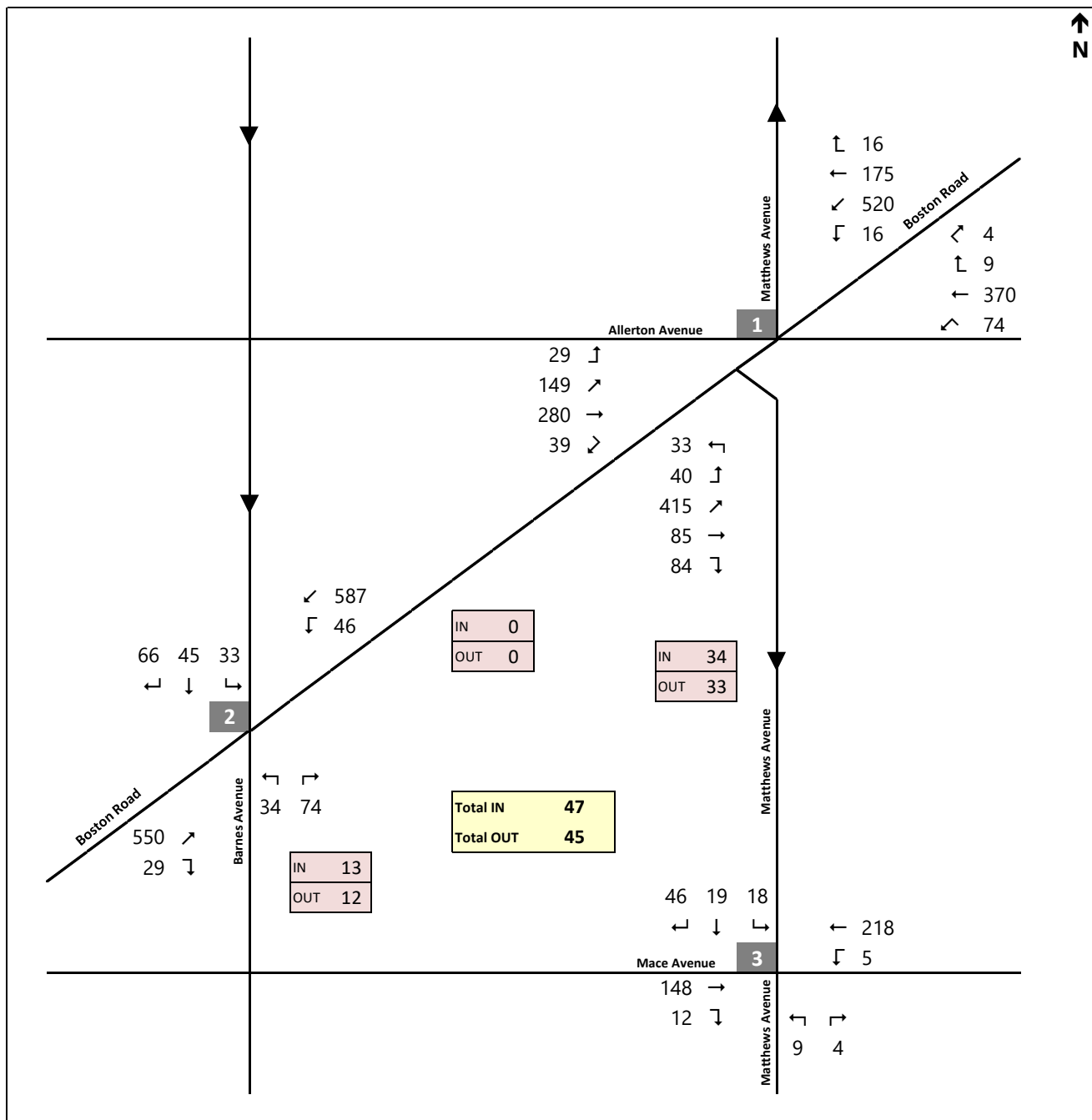
#	Intersection & Approach	Weekday PM Peak Hour										Saturday MD Peak Hour									
		2026 No-Action Condition					2026 With-Action Condition					2026 No-Action Condition					2026 With-Action Condition				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)
1	Allerton Avenue/Matthews Avenue & Boston Road																				
	Eastbound	LT	1.09dl	70.5	E	293	LT	1.09dl	70.5	E	293	LT	1.10dl	65.5	E	327	LT	1.10dl	65.5	E	327
	Westbound	L	0.66	65.7	E	115	L	0.66	65.7	E	115	L	0.70	72.9	E	142	L	0.70	72.9	E	142
		TR	0.62	43.3	D	185	TR	0.62	43.3	D	185	TR	0.82	55.2	E	236	TR	0.82	55.2	E	236
	Northeastbound	L	0.47	37.0	D	71	L	0.46	35.6	D	67	L	1.13	173.1	F	165	L	1.11	164.0	F	166
		TR	0.75	31.5	C	336	TR	0.84	37.5	D	377	TR	0.72	30.9	C	157	TR	0.81	35.4	D	173
	Southwestbound	L	0.24	37.8	D	40	L	0.27	40.4	D	41	L	0.16	35.0	C	29	L	0.18	36.3	D	30
		TR	0.78	45.3	D	336	TR	0.78	45.6	D	338	TR	0.93	58.9	E	404	TR	0.94	59.6	E	407
	Intersection			46.9	D		Intersection		48.4	D		Intersection		57.0	E		Intersection		57.7	E	
	Barnes Avenue & Boston Road																				
2	Northbound	LTR	0.39	38.8	D	128	LTR	0.48	42.3	D	144	LTR	0.43	40.9	D	139	LTR	0.53	45.3	D	156
	Southbound	LTR	0.34	36.3	D	123	LTR	0.41	38.4	D	140	LTR	0.40	38.4	D	146	LTR	0.47	40.6	D	162
	Northeastbound	TR	0.39	16.8	B	193	TR	0.41	17.2	B	204	TR	0.34	15.6	B	162	TR	0.35	15.8	B	171
	Southwestbound	L	0.11	7.3	A	7	L	0.13	7.4	A	7	L	0.14	4.7	A	6	L	0.16	4.8	A	6
		T	0.36	7.8	A	53	T	0.36	7.8	A	53	T	0.40	4.7	A	35	T	0.40	4.8	A	35
	Intersection			16.3	B		Intersection		17.2	B		Intersection		14.7	B		Intersection		15.8	B	
3	Matthews Avenue & Mace Avenue																				
	Eastbound	TR	0.19	8.7	A	72	TR	0.19	8.7	A	73	TR	0.19	8.7	A	69	TR	0.19	8.7	A	69
	Westbound	LT	0.24	9.2	A	89	LT	0.24	9.2	A	90	LT	0.25	9.3	A	97	LT	0.25	9.3	A	99
	Northbound	LTR	0.07	24.3	C	26	LTR	0.07	24.4	C	26	LTR	0.05	23.7	C	21	LTR	0.05	23.8	C	21
	Southbound	LTR	0.15	25.0	C	51	LTR	0.22	26.1	C	69	LTR	0.15	25.0	C	50	LTR	0.25	26.5	C	76
	Intersection			11.6	B		Intersection		12.5	B		Intersection		11.3	B		Intersection		12.6	B	

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service.









2560 Boston Road

Figure I-23
Saturday MD Peak Hour
With-Action Traffic Volumes

Parking Occupancy and Utilization

There would be 50 commercial surface parking spaces and 67 residential garage parking spaces provided on-site as part of the Proposed Project. Project-generated auto trips were assigned to the on-site parking spaces provided and the remainder of the parking demand that would not be accommodated on-site was assigned to on-street parking spaces within a 0.5-mile radius of the Project Site. 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 Project that would not be fully accommodated by the proposed on-site parking supply. **Table I-15** shows the With-Action condition parking utilization analysis.

As a result of the Proposed Project, the following on-street parking spaces would be lost:

- Due to the Proposed Project's entrances to the residential parking garage and loading dock on the west side of Matthews Avenue, three non-metered on-street parking spaces would be lost during all analysis peak periods.

This results in a net loss of three on-street parking spaces during all peak periods.

The on- and off-street parking spaces within a 0.5-mile radius of the Project Site would have sufficient capacity to accommodate the project generated demand, with the parking utilization increasing to 93, 90, 90, 98, 91, and 98% during the Weekday AM, Weekday MD, Weekday PM, Weekday Overnight, Saturday MD, and Saturday Overnight peak periods, respectively. Since there would be sufficient available on- and off-street parking to accommodate the Proposed Project, there would be no significant adverse parking-related impacts.

Table I-15: With-Action Condition On-Street Parking Utilization Summary

	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD	Saturday Overnight
Capacity						
No-Action Capacity	7,644	7,619	7,760	7,763	7,754	7,761
Net Change in With-Action On-Street Parking Supply ⁽¹⁾	-3	-3	-3	-3	-3	-3
Total With-Action Capacity	7,641	7,616	7,757	7,760	7,751	7,758
Demand						
Total No-Action Demand (On-Street)	7,064	6,860	6,885	7,522	6,941	7,531
With-Action Demand (On-Street) ⁽²⁾	45	25	68	113	110	107
Total With-Action Demand	7,108	6,885	6,953	7,635	7,051	7,637
Utilization						
Available Spaces	533	731	804	125	700	121
With-Action Utilization	93%	90%	90%	98%	91%	98%

1. Includes a loss of 3 on-street parking spaces on the west curb of Matthews Avenue was identified due to the Proposed Project's entrances to the residential on-site parking and loading dock during all analysis peak periods, a loss of 1 on-street parking space on the north curb of Allerton Avenue east of Bronxwood Avenue due to the project improvement of restricting parking during the Saturday MD peak period, and a loss of 3 on-street parking spaces on the south curb of Allerton Avenue west of Boston Road due to the project improvement of restricting parking during the Saturday MD peak period.

2. Project generated parking demand that would not be accommodated on-site in the 50 commercial surface parking spaces and 67 residential garage parking spaces. It was conservatively assumed that residents would not park in empty commercial parking spaces (no shared parking on-site). Reflects the Weekday AM, Weekday MD, Weekday PM, Weekday Overnight, Saturday MD, and Saturday Overnight parking accumulation peak hours of 8-9AM, 12-1PM, 5-6PM, 8-9PM, 1-2PM, and 8-9PM, respectively.

IX. SAFETY ASSESSMENT

Crash data for the study area intersections were obtained from NYCDOT for the most recent three-year time period available—between January 1, 2017, and December 31, 2019—to 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 defined as a location identified along a Vision Zero corridor/intersection or with five or more pedestrian/bicycle injury crashes during any consecutive 12 months of the most recent three-year period for which data is available.

Table I-16 summarizes total crashes for each of the three study intersections during the three-year period, as well as a breakdown of pedestrian- and bicycle-related crashes by year and location. During this three-year period, 38 total crashes, six of which were pedestrian-related or bicycle-related, occurred at the study area intersections.

Table I-16: Crash Data

Intersection	Total Crashes			Pedestrian			Bicycle			Combined Ped/Bike		
	2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
Barnes Avenue and Boston Road	3	6	5	0	0	0	1	1	1	1	1	1
Mace Avenue and Matthews Avenue	0	1	0	0	0	0	0	0	0	0	0	0
Allerton Avenue/Matthews Avenue and Boston Road	5	10	8	0	2	1	0	0	0	0	2	1
Total	8	17	13	0	2	1	1	1	1	1	3	2
Grand Total	38			3			3			6		

While none of the study intersections exceeded the *CEQR Technical Manual* crash data thresholds from 2017 to 2019, the two study intersections on Boston Road at Barnes Avenue and Allerton Avenue/Matthews Avenue would be classified as high-crash locations because Boston Road has been identified as a Vision Zero priority corridor by NYCDOT per the latest Vision Zero update in 2019².

While the addition of pedestrian and vehicle trips at high-crash locations could exacerbate unsafe conditions, NYCDOT has recently implemented safety improvements at each of these two locations as described below. Therefore, no further safety improvements are recommended at this time.

Barnes Avenue and Boston Road

In January 2020, the signal timing plan at Barnes Avenue and Boston Road was modified to include a 7-second leading pedestrian interval (LPI) for pedestrians in the east and west crosswalks. An LPI provides pedestrians in the crosswalks a head start before vehicles on the adjacent approach receive a green light, which helps minimize the overall number of pedestrian-vehicle conflicts and improve safety conditions.

Allerton Avenue/Matthews Avenue and Boston Road

In 2018, a curb extension was installed on the southeast corner of Matthews Avenue and Boston Road to shorten the pedestrian crossing distance and discourage unsafe, illegal vehicle turning movements onto Matthews Avenue southbound. In addition, new crosswalks were installed to better accommodate pedestrian desire lines at the intersection.

² <https://www1.nyc.gov/html/dot/downloads/pdf/vz-2019-update-city-hall.pdf>

Attachment J: Air Quality

I. INTRODUCTION

This chapter examines the potential for the Proposed Project to result in a significant adverse impact on air quality. The Proposed Project presents the potential to affect air quality at sensitive receptors due to additional traffic, parking facilities, and emissions from boiler stacks. Existing sources of traffic, heating, or industrial activities could also affect the Project Site. The air quality analysis was prepared in conformance to the 2021 edition of the *City Environmental Quality Review (CEQR) Technical Manual*. The results were used to determine the potential for the Proposed Project to cause exceedances of ambient air quality standards, *de minimis* values, or health-related guideline values.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate the development of a 10-story (110') building, comprised of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 sf of community facility use, and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The commercial parking entrance would be on Barnes Avenue while the residential parking garage entrance and the supermarket loading dock entrance would be along Matthews Avenue. The Proposed Project would be operational in 2026.

II. METHODOLOGY

Standards and Guidelines

National Ambient Air Quality Standards

National Ambient Air Quality Standards (NAAQS) have been promulgated by the U.S. Environmental Protection Agency (EPA) for six major pollutants, deemed criteria pollutants. They consist of primary ambient air quality standards, established to protect public health, and secondary ambient air quality standards, established to protect plants and animals and to prevent economic damage. The six criteria 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 (NO₂), which is formed by chemical conversion from nitric oxide (NO), which is emitted primarily by industrial furnaces, power plants, and motor vehicles.
- Ozone (O₃), 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 (PM₁₀/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 PM₁₀ 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 (SO₂) are heavy gases primarily associated with the combustion of sulfur-containing fuels such as coal and oil.

Table J-1 National and New York State Ambient Air Quality Standards shows the New York and NAAQS, as well as monitored concentrations at stations closest to the Project Site.

Table J-1: National and New York State Ambient Air Quality Standards

Pollutant	Averaging Period	Standard	2020 Concentrations	Monitoring Station
Sulfur Dioxide	1-hour average ^e	197 µg/m ³ (75 ppb)	5.43 ppb	IS 52
	Annual average	30 ppb	0.42 ppb	IS 52
Inhalable Particulates (PM ₁₀)	24-hour average ^a	150 µg/m ³	31 µg/m ³	IS 52
Inhalable Particulates (PM _{2.5})	3-yr average annual mean	12 µg/m ³	7.3 µg/m ³	IS 52
	3-yr average of 24-hr ^c	35 µg/m ³	19.7 µg/m ³	IS 52
Ozone	8-hr average ^b	0.069 ppm	0.070 ppm	CCNY
Carbon Monoxide	8-hour average ^a	9 ppm	1.3 ppm	Pfizer Lab
	1-hour average ^a	35 ppm	1.9 ppm	Pfizer Lab
Nitrogen Dioxide	12-month arithmetic mean	100 µg/m ³ (53 ppb)	15.22 ppb	IS 52
	1-hr average ^d	188 µg/m ³ (100 ppb)	56.6 ppb	IS 52
Lead	Quarterly mean	0.15 µg/m ³	0.0027 µg/m ³	IS 52

Notes: ppm = parts per million; µ/m³ = micrograms per cubic meter.

a. Not to be exceeded more than once a year.

b. Three-year average of the annual fourth highest daily 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 (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: NYSDEC; New York State Ambient Air Quality Development Report, 2020

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, and

- An increase of more than half the difference between the baseline (i.e., No-Action condition) concentrations and the 8-hour standard, where No-Action condition 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/m³ at ground-level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately one square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations), or
- Predicted annual average PM_{2.5} concentration increments greater than 0.3 µg/m³ at a discrete or ground-level receptor location.
- Based on the most recent New York State Department of Environmental Conservation's (NYSDEC's) annual air quality report (2020), which lists a 24-hour background value of 19.7 µg/m³ for PM_{2.5} for IS 52 station in the Bronx, the *de minimis* criterion for the 24-hour concentration of PM_{2.5} would be 7.7 µg/m³. An incremental change in the 24-hour concentration of PM_{2.5} greater than 7.7 ug/m³ due to the Proposed Project would be considered a significant air quality impact.

New York State Short-Term and Annual Guideline Concentrations

The NYSDEC has established Short-Term Guideline Concentrations (SGCs) and Annual Guideline Concentrations (AGCs) for certain toxic or carcinogenic non-criteria pollutants for which EPA has no established standards. They are maximum allowable 1-hour and AGCs, 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, the New York City Department of Environmental Protection (DEP) considers that, for pollutants for which the NYSDEC-established AGC is based on a health risk criterion (i.e., a one in a million cancer risk), impacts less than ten 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 ten as an added safety measure. In determining potential impacts, therefore, DEP considers concentrations within ten times the AGC to be acceptable. Pollutants with no known acute effects have no SGC criteria but do have AGC criteria. NYSDEC DAR-1 (February 12, 2021) contains the most recent compilation of the SGC and AGC guideline concentrations.

No NAAQs, SGCs, or AGCs exist for emissions of pollutants that are grouped together such as total solid particulates, total hydrocarbons, or total organic solvents. Therefore, as recommended by DEP, all solid particulates are assumed to be PM₁₀. For total organic solvents or total hydrocarbons, the SGCs and AGCs for specific compounds should be obtained and used in an analysis.

Background Concentrations

For SO₂, NO₂, and PM₁₀, the background concentrations were obtained from the NYSDEC annual air quality monitoring report for 2020, as shown in **Table J-2**. They are identical to the ambient concentrations shown in **Table J-1** except that the value for PM₁₀ in **Table J-2** is the second highest whereas the maximum value was shown in **Table J-1**. Also, the background values for CO are based on the second highest values

during the past five years. For the purposes of comparison with the results of AERMOD modeling, they are presented in micrograms per cubic meter.

Table J-2: Background Concentrations

Pollutant	Averaging Period	Background Concentrations ($\mu\text{g}/\text{m}^3$)	Monitoring Station
SO ₂	1-Hour	14.2	IS 52
SO ₂	Annual	1.1	IS 52
NO ₂	Annual	28.6	IS 52
NO ₂	1-Hour	106.4	IS 52
PM ₁₀	24-Hour ^b	31	IS 52
PM _{2.5}	24-Hour	19.7	IS 52
PM _{2.5}	Annual	7.3	IS 52
CO	1-Hour ^a	2280	Pfizer
CO	8-Hour ^a	1482	Pfizer

Notes:

a. Based on second highest value from past five years (2016-2020)

b. Second highest during past year

Mobile Source Screening

Localized increases in pollutant levels may result from increased vehicular traffic volumes and modified traffic patterns in the study area due to the Proposed Project. The mobile source analysis guidelines outlined in the *CEQR Technical Manual* address such actions to determine whether they may have significant adverse air quality impacts. The first step is a screening analysis for CO and PM_{2.5} based on traffic volume.

As identified in the *CEQR Technical Manual*, the threshold volume for a more detailed CO analysis is an increment of 170 vehicles through an intersection during a peak traffic hour. Since the project-generated volumes would be less than the 170-vehicle threshold, a detailed analysis of intersections for CO is not required.

The threshold to determine whether an analysis of PM_{2.5} is warranted is based on the exhaust emissions of heavy-duty diesel vehicles (or equivalent volume of mixed traffic). It is calculated using spreadsheets derived from the *CEQR Technical Manual*. These spreadsheet formulas indicate that the threshold is the equivalent of 12 additional heavy-duty diesel vehicles (HDDV) on roads with <5,000 vehicles per day, 19 or more additional HDDV on collectors, or 23 or more additional HDDV on arterials, expressways, and limited access roads. Boston Road is classified by the New York State Department of Transportation as an arterial road.¹ Matthews, Barnes, and Mace Avenues are classified as local roads. Based on these roadway classifications and the Proposed Actions, PM_{2.5} modeling is warranted because project-generated volumes exceed the equivalent of 23 HDDVs at the intersections of Mace and Matthews Avenues and Mace and Barnes Avenues.

Mobile Source Modeling

Modeling with MOVES14b for emission factors and AERMOD for dispersion concentrations conformed to the methods outlined in the *CEQR Technical Manual*. Speeds, volumes, and vehicular classifications were

¹ New York State Department of Transportation Functional Class Viewer

obtained from the traffic study. The pollutants of interest, based on the screening analysis above, were PM₁₀ and PM_{2.5}.

EPA's MOVES2014b model was used to obtain pollutant emission factors for roadway links in grams/hour for the intersections of interest. The vehicular mix and speeds used in MOVES2014b were based on the Project traffic studies summarized in Chapter I, "Transportation". Inputs pertaining to age distribution inspection/maintenance, anti-tampering programs, fuel usage, etc., were obtained from NYSDEC. The pollutant processes included running exhaust and crankcase running exhaust for PM₁₀ and PM_{2.5}, as well as brake and tire wear.

MOVES2014b was run for January 1st for the 2024 analysis year for the weekday AM peak period. Post-processing was carried out to obtain emission factors for use in a Tier I analysis with AERMOD. A Tier I analysis assumes that the worst-case peak-hour traffic is the same for every hour of the day. The use of the same traffic conditions for all hours of the day is very conservative since traffic volumes would be less and vehicle speeds greater during off-peak hours.

Fugitive dust from re-entrainment of dust was calculated using the formulas given in Section 13.2.1-3 of the EPA Compilation of Emissions Factors document "AP-42". The formulas were based on an average fleet weight that varied according to the vehicular mix for a given roadway link and a silt loading factor of 0.4 g/m² for paved roads with fewer than 5,000 average daily traffic volumes (ADT), 0.16 g/m² for collector type roadways, and 0.10 g/m² for arterials, as recommended by the *CEQR Technical Manual*. The resulting fugitive dust emissions for PM₁₀ and PM_{2.5} were added to the emission factors calculated by MOVES2014b for use in modeling the 24-hour periods.

For those intersections selected for further analysis, the AMS/EPA Regulatory Model (AERMOD) model was used to determine future (2024) PM₁₀ and PM_{2.5} concentrations from vehicular traffic. AERMOD is a steady-state Gaussian plume model that can compute pollutant impacts in both flat and complex terrain. A steady-state plume model applies to source releases and meteorological conditions that are assumed to be steady over individual modeling periods (typically one hour or less). AERMOD can model emissions from point, line, area, and volume sources. It is run with five years of meteorological data that include surface mixing height, wind speed, temperature, and wind direction. Inputs to the model include coordinates for receptors and roadway links, as well as vehicular emission factors for each roadway link.

The roadway links to be modeled extended for a distance of 1,000-feet from the modeled intersection in each direction. The mixing zone for each link was equal to the width of the travel way plus an additional ten feet (three meters) on each side of the travel lanes. Idle times were incorporated into the calculated average speeds, which included vehicle delay.

Receptor points (places where people live, work, or congregate) were modeled on the corners of the intersections of interest, and at ten-meter intervals along both sides of each intersection leg. Receptors for the 24-hour averaging periods of PM₁₀ and PM_{2.5} were placed at mid-sidewalk and outside the air quality mixing zone. In conformance to standard modeling protocol, receptors for PM_{2.5} for the annual period were "neighborhood" receptors that were placed outside the air quality mixing zone and at least 15 meters from the roadway.

The modeled results were added to background concentrations and compared with the NAAQS. For PM₁₀, the highest of the 6th high modeled values over the five-year meteorological period was used. For PM_{2.5}, the 8th highest 24-hour concentrations were averaged for the five-year meteorological period were used to approximate the three-year average of the 98th percentile. The highest of the modeled multi-year averages of annual concentrations at each receptor were used for the PM_{2.5} annual period, which is an approximation of the 3-year average of the 98th percentile. The differences between the modeled No-Action and With-Action concentrations for PM_{2.5} were also compared with the NYC *de minimis* criteria.

Parking Facilities

The current site plan, dated 4/12/21, provides parking for approximately 117 vehicles on the Project Site.

Under the No-Action condition, the existing surface parking lot facility would continue to accommodate 67 commercial parking spaces. Under the With-Action condition, the surface parking lot facility would accommodate 50 commercial parking spaces and an additional cellar parking garage facility would accommodate 67 residential parking spaces. Access to the surface parking lot facility is provided from Barnes Avenue under both No-Action and With-Action conditions. Access to the cellar parking garage facility would be provided from Matthews Avenue. The net increment between No-Action and With-Action conditions is 50 spaces, which is not enough to trigger an air quality analysis. Therefore, the parking facilities screen out and no further analysis is required.

Heat and Hot Water

Consistent with *CEQR Technical Manual* guidelines, the first step in the assessment of heat and hot water systems for the Proposed Project is to determine the potential for significant adverse impacts on existing and proposed buildings. The Proposed Project would be approximately 120 feet high. The nearest existing or planned future building of a similar or greater height to that of the Proposed Project was used to conservatively assess the potential air quality impact of emissions from the Proposed Project's heat and hot water system. **Figure 17-3 Stationary Source Screen – Heat and Hot Water System** in the Air Quality **Chapter** of the *CEQR Technical Manual* was used to complete a worst-case assessment of potential impacts based on the use of No. 2 oil.

The nearest existing or planned future building of a similar or greater height is located at 2440 Boston Road (Block 4431, Lot 1). The distance between the proposed building and 2440 Boston Road would be approximately 675 feet and would screen out (see **Figure J-1**). Therefore, the Proposed Project would not result in a significant adverse air quality impact due to boiler emissions with certain restrictions. The restrictions for the Proposed Project are specified in the Air Quality E-Designation that would be placed on the Development Site. The E-Designation language related to the heating and hot water systems is as follows:

E-Designation (E-694):

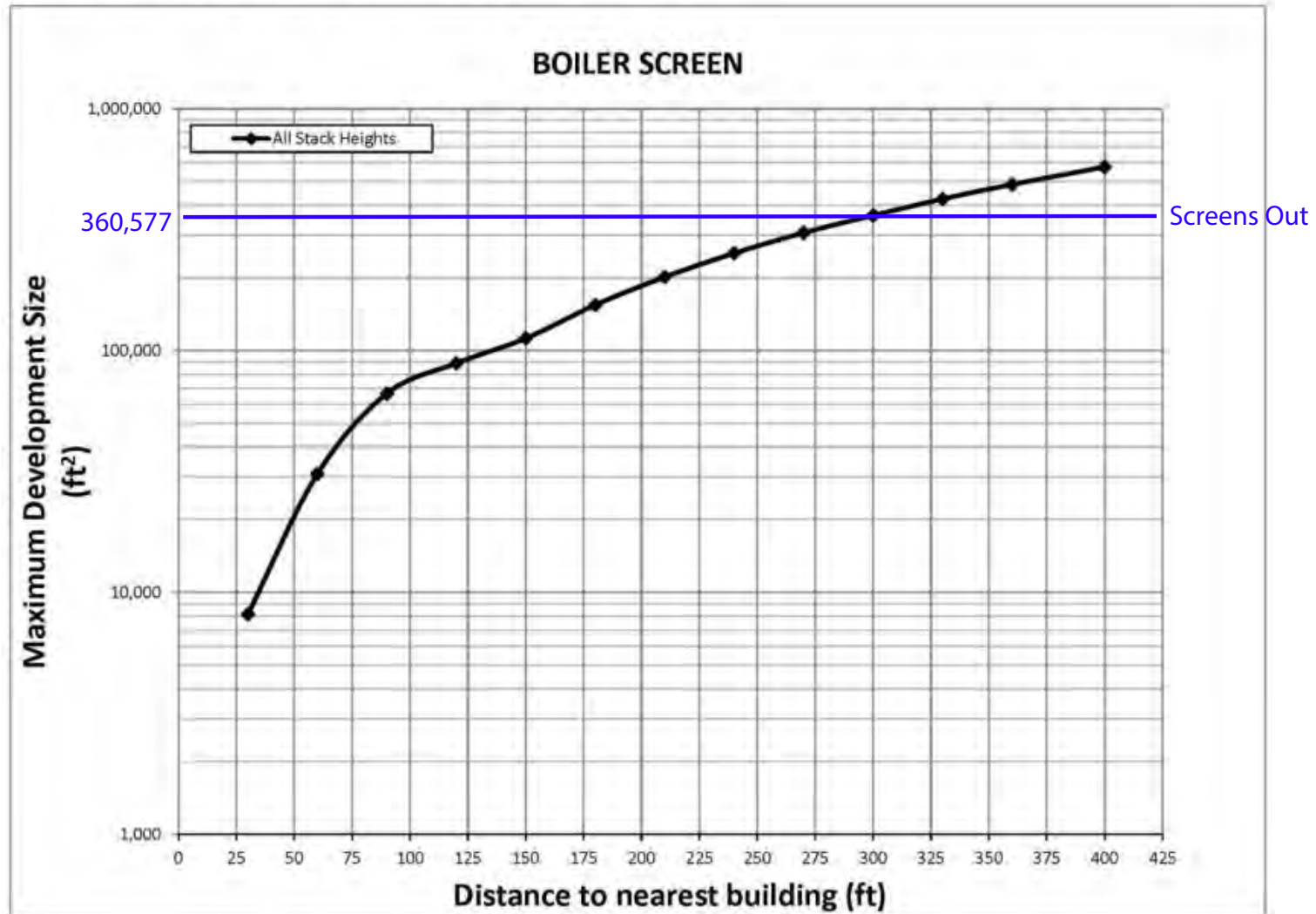
Block 4440, Lots 16, 30, and 32 (Projected Development Site): Any new residential, commercial and/or community facility development on the above-referenced property must use natural gas as the type of fuel for the heating, ventilating, and air conditioning (HVAC) systems and hot water equipment and ensure the HVAC systems and hot water equipment stack is located at the highest tier and at least 120 feet above grade to avoid any potential significant adverse air quality impacts.

Large or Major Sources

Existing land uses within 1,000 feet of the Project Site were reviewed to identify large or major sources. Based on the *CEQR Technical Manual*, major/large emission sources include solid waste or medical waste incinerators, cogeneration facilities, asphalt and concrete plants, or power generating plants. The DEP CATS database was reviewed for information on registered boilers. In addition, online permit information from the New York State Department of Environmental Conservation (NYSDEC) State Facility Register were reviewed. A review of this available information indicates that no large or major sources are within 1,000 feet of the Project Site, and, consequently, an assessment of major sources is not warranted.

Gross Area: 360,577; Stack height: 120'
Distance to nearest building of similar or greater height: 675', 2440 Boston Road
Screens Out: Yes

Figure 17-3
Stationary Source Screen- Heat and Hot Water System



HVAC SCREENING NOMOGRAPH

Figure J-1

Boston Road Rezoning EAS

Air Toxics and Odors

A manufacturing survey for potential toxic air emissions within 400 feet of the Project Site was completed in conformance to the guidelines in the *CEQR Technical Manual*. Existing facilities with the potential to cause adverse air quality impacts are those that would require permitting under City, state, and federal regulations. The following types of uses are a source of concern for air toxics:

- Manufacturing or processing facilities, or medical, chemical, or research labs within 400 feet; and
- Major or large emission sources, or significant odor producing facilities within 1,000 feet.

A review of the NYSDEC Air Permit Facilities Registry, the USEPA Facility Registry System for permitted facilities, New York City Department of Buildings (DOB) online data, and the NYC Open Accessibly Space Information System (OASIS) permit registries identified five sites of interest within 400 feet of the Project Site. They are summarized in **Table J-3: Sites of Interest for Air Toxics within 400 feet of the Project Site**.

Table J-3: Sites of Interest for Air Toxics within 400 feet of the Project Site.

ID	Address	Block	Lot	Land Use Code	Occupant	Comments
1	2500 Boston Rd.	4435	5	G1-Parking garage	Personal Touch Auto Body Repair	One industrial permit found: PB033410 for auto body spray painting
2	2527 Boston Rd.	4435	54	K2-Store Building	Affinity Auto Tires & Wheels;	No industrial permits found
3	800 Allerton Ave.	4440	71	G9- Garage/Gas Station	Reda Cleaners, closed business August 31, 2020	One expired industrial permit found
4	787 Allerton Ave.	4512	1	C-7 Walk Up Apartment	Pride Cleaners	No industrial permits found
5	2702 Barnes Ave.	4513	1	S9-Residence	Bronx Laundromat	No industrial permits found

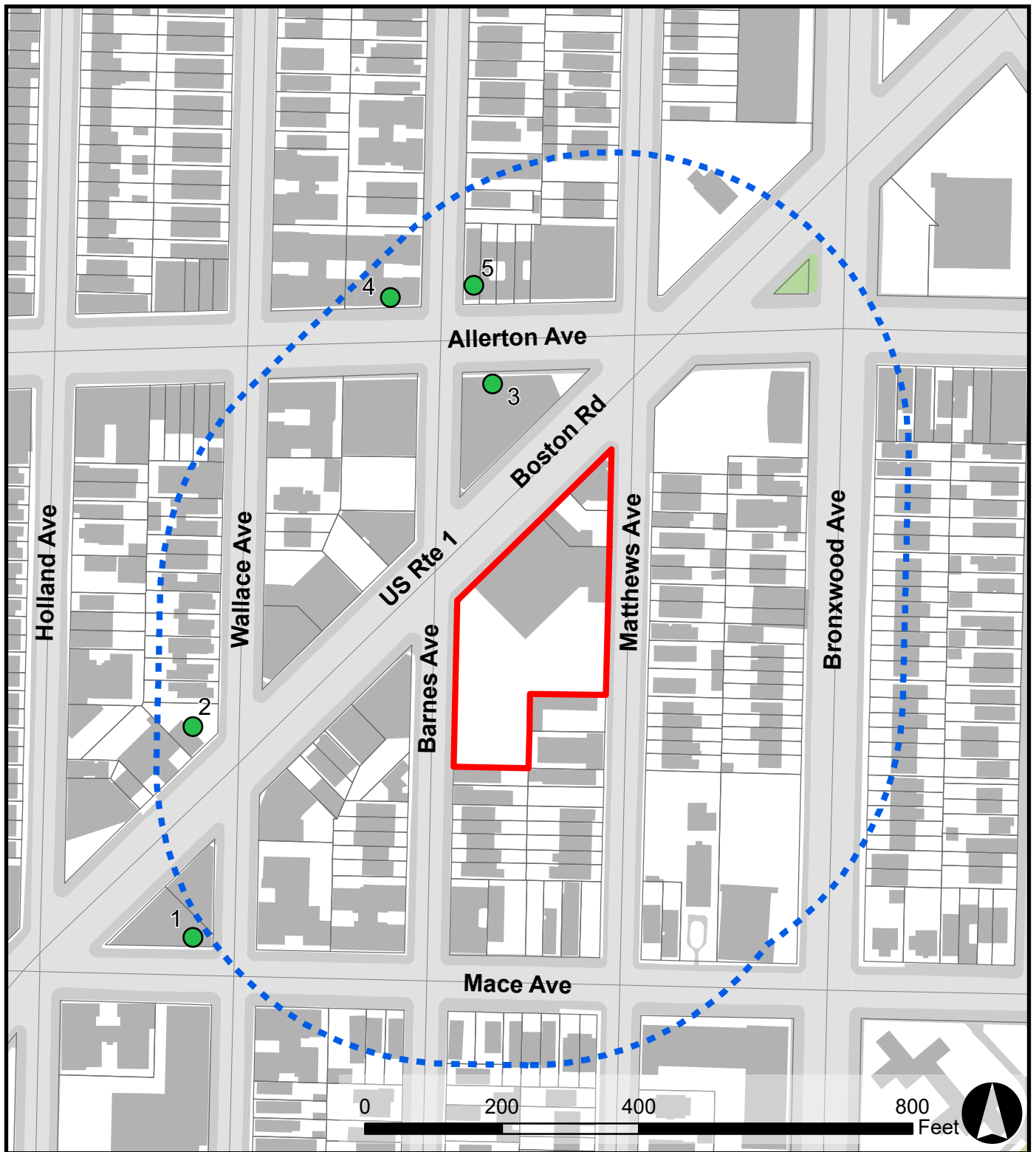
Personal Touch Auto Body repair at 2500 Boston Road (Block 4435, Lot 5) does auto body painting, and one active industrial permit was found for an auto painting spray booth at this facility. The nearest stack on the roof is over 400 feet from the Project Site. Consequently, the emissions stack for Personal Touch Auto Body falls outside the 400-foot radius, and a quantitative analysis for air toxics is not required for this facility.

The address for Affinity Tires and Wheels is 2527 Boston Road (Block 4435, Lot 54). No industrial permits were found for this location. Therefore, no additional analysis was performed.

Three cleaners were found. Reda at 800 Allerton Avenue is listed online as a drycleaner and had one industrial permit (PA034885) that expired on 1/10/19. However, the owners closed their business on August 31, 2020, due to lack of customers during the pandemic. Therefore, no further analysis was performed.

The address for Pride Cleaners is 787 Allerton Avenue. No industrial permits for dry-cleaning at this site were found in the DEP CATS database. Therefore, no further analysis was performed.

For the third cleaner, at 2702 Barnes Avenue, online images from GoogleEarth and Bing indicate that this facility is a laundromat and not a drycleaner. Therefore, no further analysis was performed.



Source: 2020 PLUTO, DCP

- Project Site
- Sites of Interest
- ⋯ 400-foot Study Area

SITES OF INTEREST WITHIN 400 FEET

2560 Boston Road Rezoning EAS

V. EXISTING CONDITIONS

The Project Site is located in Bronx CD 11 on Block 4440, Lots 16, 30, and 32. Block 4440 is bounded by Barnes Avenue on the west, Matthews Avenue on the east, and Boston Road northeast of the Project Site. Boston Road is a major arterial road, Matthews Avenue is a one-way road southbound, and Barnes Avenue is a two-way road. Land uses within a half-mile radius of the Project Site include residential, commercial, institutional, and auto-oriented uses and some manufacturing uses. Bronx River Park is located approximately 0.5 miles east of the Project Site. Within the surrounding area, the Project Site is located on Boston Road (US Route 1) which is a principal arterial and a commercial street retail corridor generally developed with one-story auto-oriented and general retail uses. Boston Road is a two-way wide street and runs irregular relative to the street grid at a southwest/northeast diagonal in this section of the Bronx.

VI. FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITIONS)

Without the Proposed Actions in place the Project Site would remain as under existing conditions. Lot 16 would continue to be occupied with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 would continue to be improved with an approximately 8,193 gsf, two-story building with approximately 1,986 gsf day care on the first floor and approximately 6,206 gsf of residential uses with 4 dwelling units. Lot 32 would continue to be improved with an approximately 1,050 gsf, one-story commercial building.

Based on a review of recent building permits through the New York City Department of Buildings (DOB), nine ongoing projects that would potentially be completed by or before the 2024 analysis year were identified within 0.5 miles the Project Site. Traffic from these developments was incorporated into the traffic volumes used for the air quality analysis. The projected developments would range in height from four to eight stories. They would not be of similar or greater height compared to the Proposed Project.

Mobile Source Air Quality

Mobile source air quality impacts for PM₁₀ and PM_{2.5} were analyzed for the No-Action condition to establish a baseline against which the impacts of the Proposed Actions can be assessed. The EPA MOVES2014b mobile source emissions model was used to obtain emission factors, and AERMOD was used to estimate pollutant concentrations as described in the Methodology section.

Table J-4: Mobile Source PM₁₀ (µg/m³), 2024 No-Action Condition summarizes the results for PM₁₀. All concentrations are within the NAAQS.

Table J-4: Mobile Source PM₁₀ (µg/m³), 2024 No-Action Condition

Intersection	24-Hour Modeled Value (µg/m³)	Background (µg/m³)	Total (µg/m³)	NAAQS (µg/m³)
Barnes Avenue/Mace Avenue	21.2	31	52.2	150
Matthews Avenue/Mace Avenue	18.1	31	49.1	150

Note: Modeled value is highest 6th high value over five years.

Table J-5: Mobile Source PM_{2.5} (µg/m³), 2024 No-Action Condition shows the modeled results for PM_{2.5}. All concentrations are within the NAAQS.

Table J-5: Mobile Source PM_{2.5} (µg/m³), 2024 No-Action Condition

Time Period	Intersection	Modeled Average (µg/m³)	Background (µg/m³)	Total (µg/m³)	NAAQS (µg/m³)
24-Hour	Barnes Avenue/Mace Avenue	4.3	19.7	24	35
Annual		0.13	7.3	7.43	12
24-Hour	Matthews Avenue/Mace Avenue	3.7	19.7	23.4	35
Annual		0.11	7.3	7.41	12

Note: Modeled 24-hour PM_{2.5} value is highest 8th high value over five years.

VII. FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

In the future with the Proposed Actions, the Project Site would be rezoned from R6, C8-1 to R7-2, C2-4. The Proposed Project would result in an approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use, and approximately 56,554 sf for parking.

Mobile Source Air Quality

As described in Section III, "Methodology," mobile source air quality modeling was completed using the MOVES2014b mobile source emissions model and AERMOD air quality dispersion model. **Table J-6: Mobile Source PM₁₀ (ug/m³), 2024 With-Action Condition** shows the results for PM₁₀ and PM_{2.5}, respectively. For PM₁₀, the 24-hour modeling results represent the highest value for the 6th high results for each year. They were added to background concentrations and compared to the PM₁₀ NAAQS of 150 ug/m³. The total is below the NAAQS of 150 ug/m³, and no significant adverse impacts would occur.

Table J-6: Mobile Source PM₁₀ (µg/m³), 2024 With-Action Condition

Intersection	24-Hour Modeled Value (µg/m³)	Background (µg/m³)	Total (µg/m³)	NAAQS (µg/m³)
Barnes Avenue/Mace Avenue	22.1	31	53.1	150
Matthews Avenue/Mace Avenue	19.2	31	50.2	150

For PM_{2.5}, the incremental changes in PM_{2.5} concentrations were also compared to the NYC *de minimis* criteria of 7.7 µg/m³ for the 24-hour averaging period and 0.3 for the annual period. For the annual period, the comparison is made between the highest five-year average for the No-Action condition and the highest five-year average for the With-Action condition. The maximum predicted PM_{2.5} concentrations at the two modeled intersections would not exceed the NAAQS or the *de minimis* and would not result in a significant adverse air quality impact.

Table J-7: Mobile Source PM_{2.5} (µg/m³), 2025 With-Action Condition

Time Period	Intersection	Modeled Average (µg/m³)	Background (µg/m³)	Total (µg/m³)	NAAQS (µg/m³)	Increment	De Minimis
24-Hour	Barnes Avenue/Mace Avenue	4.5	19.7	24.2	35	0.2	7.7
Annual		0.13	7.3	7.43	12	0.00	0.3
24-Hour	Matthews Avenue/Mace Avenue	3.9	19.7	23.6	35	0.2	7.7
Annual		0.12	7.3	7.42	12	0.01	0.3

Attachment K: Noise

I. INTRODUCTION

This attachment assesses the potential for the Proposed Project to result in a significant adverse noise impact. Noise, in its simplest definition, is unwanted sound. While high noise levels may cause hearing loss, the noise levels associated with projects reviewed under the *CEQR Technical Manual* are generally below this hazardous range. However, noise levels that are not considered hazardous may cause stress-related illnesses, disrupt sleep, and interrupt activities requiring concentration. This attachment assesses the potential for the Proposed Actions to result in significant noise impacts. As described in Section 200 of Chapter 19 of the *CEQR Technical Manual*, the noise assessment defines technical terms, identifies evaluation methods and criteria used to assess the potential for noise impacts, discloses the impacts of the Proposed Actions, and, where significant adverse noise impacts are anticipated, identifies measures to avoid or mitigate potential impacts. Included are assessments of the impact of the Proposed Project on sensitive noise receptors and of the potential effects of ambient noise levels on sensitive noise uses introduced by the Proposed Project.

As described in Attachment A, "Project Description," the Proposed Actions would facilitate the development of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use and 54,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area ("Proposed Project") on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The commercial parking entrance would be on Barnes Avenue while the residential parking garage entrance and the supermarket loading dock entrance would be along Matthews Avenue. The Proposed Project would be operational in 2026.

II. METHODOLOGY

Scope of Analysis

In conformance to guidance in the *CEQR Technical Manual*, the goal of the noise analysis is to determine:

- 1) the effect of the Proposed Project on sensitive noise receptors, including the effects on noise levels within residential, commercial, and institutional facilities, and at open spaces; and,
- 2) the effects of ambient noise levels on new sensitive uses introduced by the Proposed Project.

The Proposed Project would introduce new residential, and community facility uses to the Project Site. The major sources of existing noise at the Project Site are vehicular traffic on Boston Road, north of the Project Site, Barnes Avenue on the west and Matthews Avenue on the east. No new schools or playgrounds are proposed as part of the Proposed Project. No industrial noise sources are within 400 feet of the Project Site. Based on these factors, the scope of noise assessment included:

- Obtain existing traffic noise levels and vehicular mix at receptor location subject to project-generated traffic;
- Adjust existing noise measurements based on the difference between the vehicle counts conducted during noise measurement and the existing vehicle counts collected and summarized in Attachment I, "Transportation";
- Project existing traffic noise levels into the future analysis year;
- Determine whether the relative increase in future traffic noise levels would exceed the thresholds identified under the discussion on Evaluation Criteria;

- Identify new sensitive receptors on the Project Site as part of the Proposed Project that would need protection from ambient noise levels; and,
- Identify the needed noise attenuation to provide for acceptable interior noise levels at sensitive receptors on the Project Site.

Analysis Year

The assessment of noise was completed for the year 2026, the year in which the Proposed Project would be complete.

Noise Fundamentals

Noise Descriptors

Noise is measured on the basis of 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 since it most closely approximates the response of the human ear to noise. On this scale, the threshold of discomfort is 120 dBA, and the threshold of pain is about 140 dBA.

Table K-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 sources. Because the scale is logarithmic, a relative increase of 10 decibels represents an acoustic energy that is 10 times higher than base levels. Humans perceive a 10 dBA increase in noise levels as twice as loud. The following are typical human responses to relative changes in noise level:

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

Table K-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	Quiet	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 U.S. HUD, Office of Research and Technology, Washington, D.C., undated; Sandstone Environmental Associates, Inc.; Highway Noise Fundamentals, prepared by the Federal Highway Administration, U.S. Department of Transportation, September 1980; Handbook of Environmental Acoustics, by James P. Cowan, Van Nostrand Reinhold, 1994.

The SPL 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 SPLs 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} for time periods that have an especially wide range of noise levels.
- L_{10} is the SPL exceeded 10% of the time. Similar descriptors are the L_1 , 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. DNL is based on average values of L_{dn} over a year period.

Noise Attenuation

Noise levels from a given source reduce with distance. Noise from a “line” source (e.g., roadways) typically attenuates at the rate of 3 dBA per distance doubling, based on a reference distance of 50 feet, for noise traveling through air or over a hard surface, and 4.5 dBA per doubling of distance for noise traveling over a soft surface. Noise from a stationary source attenuates at a rate of 6 dBA when traveling through air or over a hard surface and up to 7 or 8 dBA when traveling over a soft surface.

Passenger Car Equivalent Values

Noise impacts from vehicular traffic are based on “Passenger Car Equivalents” (PCEs). PCEs are the number of autos that would generate the same noise level as the observed mix of autos, medium trucks (trucks with a gross weight between 9,900 and 26,400 pounds), heavy trucks (trucks with a gross weight of more than 26,400 pounds), and buses (capable of carrying more than nine passengers). As identified in the *CEQR Technical Manual*:

- One auto or light truck = One PCE
- One medium truck = 13 PCEs
- One heavy truck = 47 PCEs
- One bus = 18 PCEs

Motorcycles are considered to be equivalent to medium trucks¹. 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 *CEQR Technical Manual*, typically are used to project incremental changes in traffic noise levels. Using this technique, the prediction of representative existing and future noise levels (where traffic is the dominant noise source) is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine Existing, No-Build, and Build noise levels. The change in future noise levels is calculated using the following equation:

$FNL = ENL + 10 \times \log_{10} (FPCE/EPCE)$ where:

FNL= Future Noise Level

ENL= Existing Noise Level

FPCE= Future PCEs

EPCE= Existing PCEs

Existing noise measurements were adjusted based on the difference between the vehicle counts conducted during noise measurement and the existing vehicle counts collected and summarized in Attachment I,

¹As per the Federal Highway Administration’s *Traffic Noise Model 3.1 Technical Manual*, the A-weighted noise emissions of motorcycles fall between autos and medium trucks, up to speeds of approximately 40 mph vehicle speed and closely resembling medium truck noise emissions at higher speeds (Appx. B, Fig. 26). Therefore, when calculating PCE noise levels for vehicles on NYC local streets with a speed limit of less than 40 mph, motorcycles are included with medium trucks.

“Transportation.” Since sound levels use a logarithmic scale, this model proportions logarithmically with traffic change ratios. For example, assuming that traffic is the dominant noise source at a location, if the existing traffic volume on a street is 100 PCEs, and the future traffic volume were increased by 50 PCEs to a total of 150 PCEs, the noise level would increase by 1.8 dBA above the exiting noise level. Similarly, if future traffic increased by 100 PCEs, (i.e., doubled to a total of 200 PCEs), the noise level would increase by 3.0 dBA above the existing noise level.

Window/Wall Attenuation Ratings

The attenuation of noise for 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. Typically, a building facade is composed of the wall, glazing, and any vents or louvers for heating, ventilation, and air conditioning (HVAC) systems in various ratios of area. All new facades would need to provide composite Outdoor-Indoor Transmission Class (OITC) ratings greater than or equal to the attenuation needed to provide interior noise levels of 45 dBA or less, depending on the dominant noise source. 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 to design a building facade 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. It is designed to evaluate building elements by their ability to reduce the overall loudness of ground and air transportation noise. Higher OITC values reflect greater efficiencies to block airborne sound.

Noise Standards and Guidelines

CEQR Guidelines

In 1983, the New York City (NYC) Department of Environmental Protection (DEP) adopted City Environmental Protection Order - CEQR noise standards for exterior noise levels. These standards are used to classify noise exposure into four categories: Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable (see **Table K-2: CEQR Noise Exposure Guidelines for Use in City Environmental Impact Review**).

Table K-3: Required Attenuation Values to Achieve Acceptable Interior Noise Levels shows the required attenuation for sensitive uses for marginally unacceptable and clearly unacceptable noise exposure categories listed in **Table K-2**, which contains four different noise exposure categories. For example, an L_{10} may approach 80 dBA provided buildings are constructed of materials that reduce exterior to interior noise levels by at least 35 dBA to achieve an interior L_{10} noise level of 45 dBA for residential and community facility uses.

Table K-2: CEQR Noise Exposure Guidelines for Use in City Environmental Impact Review¹

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	DNL ≤ 60 dBA		60 < DNL ≤ 65 dBA		(i) 65 < DNL ≤ 75 dBA		75 dBA < DNL
2. Hospital, Nursing Home		$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 65$ dBA		$65 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
3. Residence, residential hotel, or motel	7 am to 10 pm	$L_{10} \leq 65$ dBA		$65 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	10 pm to 7 am	$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
4. School, museum, library, court house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM- 10 PM)		Same as Residential Day (7 AM –10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM –10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only ⁴	Note 4	Note 4		Note 4		Note 4		Note 4	

Source: DEP (adopted policy, 1983).

Notes:

(i) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;

¹ Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.

² Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and senior 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 Integrated Noise Model (INM) Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

⁴ External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the NYC 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 K-3: Required Attenuation Values to Achieve Acceptable Interior Noise Levels

Noise Level with Proposed Project	Marginally Unacceptable				Clearly Unacceptable
	$70 < L_{10} \leq 73$	$73 < L_{10} \leq 76$	$76 < L_{10} \leq 78$	$78 < L_{10} \leq 80$	$80 < L_{10}$
Attenuation ^A	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	$36 + (L_{10} - 80)^B$ dB(A)

Notes: ^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: DEP, 2020 CEQR Technical Manual, Table 19-3.

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. Single-glazed windows provide a minimum noise attenuation of 25 dBA when closed. Double-glazed windows typically provide at least 28 dBA of noise attenuation when closed.

Based on the foregoing, the *CEQR Technical Manual* 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 60 dBA $L_{eq(1)}$ or less, 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 62 dBA $L_{eq(1)}$ or more, 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 K-2** are followed for this purpose. If a project is within an area where the projected 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. For this project, a potential impact would be identified if the Proposed Project would place new residential and community facility uses in an area with an exterior L_{10} noise level of 70 dBA or more.

If noise levels would exceed the marginally acceptable levels, a significant impact would occur unless the building design as proposed provides a composite building attenuation that would be sufficient to reduce these levels to an acceptable interior noise level based on Table 19-3 of *CEQR Technical Manual*.

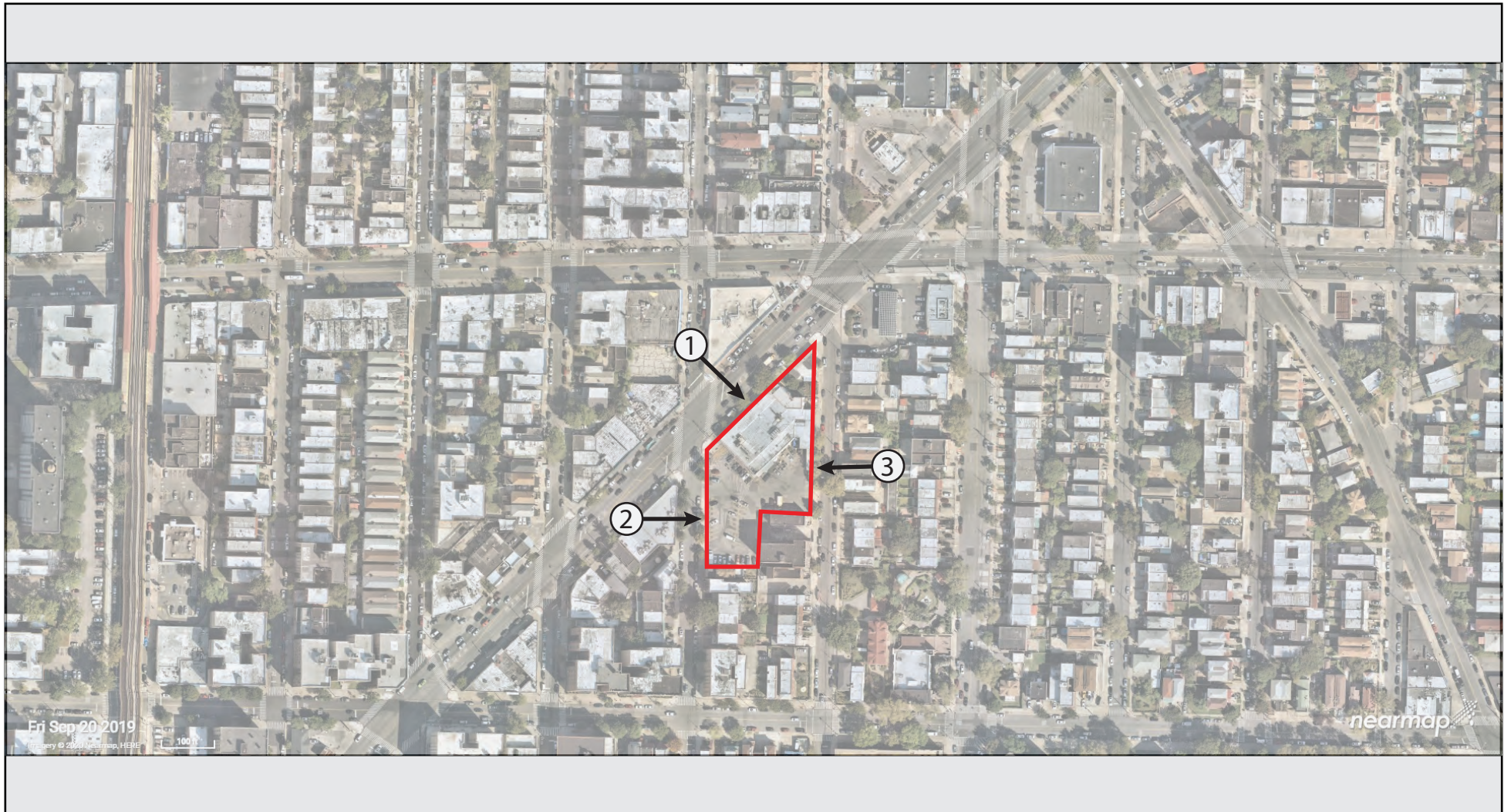
III. EXISTING CONDITIONS

Existing noise levels were estimated based on on-site monitoring and adjusted based on the difference between the vehicle counts conducted during noise measurement and the existing vehicle counts collected and summarized in Attachment I, "Transportation." Ambient noise levels were monitored on Wednesday, June 10th, 2021. Noise monitoring was completed during the peak AM, Midday, School Midday and PM weekday traffic periods at three locations. The Saturday Midday readings were done on June 12th, 2021. The noise monitoring locations are indicated below and shown in **Figure K-1: Noise Monitoring Locations**.

1. Site frontage along Boston Road
2. Site frontage along Barnes Avenue, and
3. Site frontage along Matthews Avenue.

Noise monitoring identified the traffic as the dominant noise source. Monitoring was carried out for a duration of one hour during peak periods along Boston Road and Barnes Avenue. Monitoring was carried out for a duration of 20 minutes along Matthews Avenue. Traffic volumes by vehicle classification were counted concurrently during the noise monitoring periods:

- Passenger cars and light duty trucks (including small gasoline school buses)
- Medium trucks (two axles, six tires)
- Heavy duty trucks (three or more axles)
- Buses
- Motorcycles (counted as equivalent to medium trucks)



Source: Imagery @ 2020 Nearmap, HERE



-  Project Site
-  Noise Monitoring Locations

NOISE MONITORING LOCATIONS

Figure K-1
2560 Boston Road Rezoning EAS

Table K-4: Observed Noise Levels (dBA) summarizes monitored noise levels. Sources of noise at the monitoring locations included traffic on Boston Road, Barnes Avenue, Matthews Avenue, and the traffic on Boston Road/Allerton Avenue/Matthews Avenue junction. The rail passbys from the elevated MTA line over 1,000 feet west of the Project Site were not audible or visible at any of the monitoring locations due to distance attenuation and the presence of intervening buildings.

Boston Road had the highest noise levels, partly due to its volume and vehicular mix and partly due to numerous sources of non-traffic noise. Non-traffic sources of noise during the AM peak included opening of store shutters. Noise from Tony's Car Wash across from the site was constant throughout the weekday and Saturday monitoring periods. During the Midday, School Peak and PM peaks, several unusually loud sources of noise included a street sweeper, a car alarm (Midday Peak), boom car, electric screwdriver from Mavis Discount Tire, and loud music from Boston Auto Sound (School Peak and PM peak). The unusually high L_{eq} noise level for the Saturday peak period was due to a truck idling nearby and a car with a faulty muffler passing by, which was considered an outlier. As a result of these unusual noise sources, the L_{eq} noise levels for the Boston Road location were higher than the L_{10} noise levels for most of the monitoring periods. These high L_{eq} noise levels were considered atypical, and therefore, Project Site's attenuation requirement was determined based on the highest L_{10} noise levels.

At the Barnes Avenue location, non-traffic sources of noise that were generally constant included loading docks and idling trucks by the supermarket. Noise from back-up beepers at the loading docks and from shopping carts being wheeled past the noise monitor occurred intermittently. Otherwise, Barnes Avenue was relatively quiet because the supermarket entrance was close to the intersection with Boston Road, and no heavy trucks traveled past the location of the noise monitor. However, six school buses passed by during the peak AM period, and one school bus passed by during the 2 to 3 pm period.

Matthews Avenue, which is one-way southbound, had the lowest traffic volumes and the lowest noise levels. No heavy trucks or buses traveled on Mathews Avenue, and it was not subject to non-traffic or anomalous noise sources.

The purpose of monitoring noise levels between 2:00 and 3:30 pm was to determine whether buses leaving from nearby schools would contribute to noise levels on the site and affect the window/wall attenuation needed to ensure that new residential buildings constructed on the site would have an L_{10} interior noise level of 45 dBA or less. Observations indicated this would not be an issue since school bus traffic was minimal on Barnes Avenue, absent on Matthew Avenue, and lower than the peak AM period on Boston Road. In addition, the Proposed Project would not contribute a significant volume of traffic during this period. Therefore, it was not further analyzed for existing and future conditions.

Table K-4: Observed Noise Levels (dBA)

Site ID	Location	Date and Time		L _{eq}	L ₁₀	L _{min}	L _{max}	L ₁	L ₉₀
1	Boston Road	6/10/21	7:16 am - 8:16 am*	66.9	69.9	52.4	82.5	76.4	56.9
			12:00 pm - 1:00 pm	72.8	70.4	55.3	102.9	79.2	59.4
			2:01 pm - 3:01 pm	71.5	70.8	55.7	102.2	78.7	60.1
			4:00 pm - 5:04 pm	71.5	69.8	53.5	101.8	77.3	60.2
		6/12/2021	12:29pm - 1:29pm	77.2	69.4	54.2	109.1	76.8	58.9
2	Barnes Avenue**	6/10/21	7:16 am - 8:16 am	61.4	63.5	53.4	79.7	69.9	55.2
			12:00 pm - 1:00 pm	62.8	65.2	54.4	81	71.6	57.5
			2:00 pm - 3:00 pm	59.4	62.1	51.6	77.9	68.3	53.8
			3:59 pm - 4:59 pm	58.8	60.7	50.4	76.5	67.8	53.6
		6/12/2021	12:30 pm- 1:30 pm	60.9	62.5	51.7	85.3	69.6	54.3
3	Matthews Avenue	6/10/21	8:28 am -8:48 am*	58.7	59.9	52.9	76.6	64.7	54.4
			1:06 pm - 1:26 pm	61.8	63.2	55.4	81.4	70.7	56.7
			3:09 pm - 3:29 pm	58.3	59.8	54.3	71.9	64.1	55.9
			5:11pm -5:33pm	58.3	59.6	53.8	71	66.8	55.3
		6/12/2021	12:00 pm - 12:20 pm	58.7	59.5	51.7	77.2	69.2	53.5

* Monitor clock was inadvertently set back an hour for the monitor used at Boston Road and Matthews Avenue. Fixed after the AM peak.

** Monitor Clock was inadvertently set back 14 minutes for the monitor used at Barnes Avenue for all the peaks.

Note: 1) L_{eq} for Boston Road was higher than the L₁₀ for the MD, School MD, PM, and Sat MD peaks due to unusual noise sources during the monitoring duration, which is considered atypical. Highest L₁₀ was used to determine the potential for impacts.

2) Numbers in bold type are the highest for that site.

Traffic volumes continue to be lower than before the pandemic. Therefore, adjustments were made to the observed volumes as part of the transportation analysis, and the noise levels observed during noise monitoring were adjusted to match the traffic volumes provided by the transportation analysis. **Table K-5: Peak Hour Noise Levels (dBA), Traffic Volumes, Existing Conditions** summarizes the adjusted noise levels, traffic volumes and equivalent PCEs for the three monitoring locations. As discussed previously, the unusually high L_{eq} noise levels on Boston Road were due to sources unrelated to traffic volume, which were considered atypical.

Table K-5: Peak Hour Noise Levels (dBA) and Traffic Volumes, Existing Conditions

Site ID	Location	Peak period	L _{eq}	L ₁₀	Auto	Medium Trucks	Heavy Trucks	Bus	Total	PCEs
1	Boston Road	AM	66.7	69.7	991	38	3	34	1066	2216
		MD	73.4	71.0	1,004	34	3	24	1066	2035
		PM	72.2	70.5	1,179	40	0	11	1,231	1,906
		Sat MIDDAY	78.4	70.6	1169	41	1	13	1224	1993
2	Barnes Avenue	AM	61.5	63.6	82	5	0	4	91	218
		MD	64.1	66.5	104	8	0	1	113	223
		PM	58.1	60.0	128	2	0	0	130	158
		Sat MIDDAY	64.8	66.4	150	5	0	0	155	214
3	Matthews Avenue	AM	60.0	61.2	33	0	0	1	35	56
		MD	60.7	62.1	33	2	0	0	35	61
		PM	65.6	66.9	49	0	0	0	49	49
		Sat MIDDAY	60.2	61.0	46	4	0	0	49	94

Note: Numbers in bold type are the highest for that site.

IV. FUTURE WITHOUT PROPOSED ACTION (NO-ACTION CONDITION)

Without the Proposed Actions in place, the Project Site would remain as under existing conditions. Lot 16 would continue to be improved with an approximately 13,800 gsf, one-story supermarket with an accessory 67-space parking lot and loading dock. Lot 30 would continue to be improved with an approximately 8,193 gsf, two-story building with approximately 1,986 gsf day care on the first floor and an approximately 6,207 gsf residential uses with 4 DUs. Lot 32 would continue to be improved with approximately 1,050 gsf, one-story commercial building.

Table K-6: 2026 Traffic Volumes and Noise Levels (dBA), No-Action Conditions summarizes the future one-hour traffic volumes and noise levels for the three noise monitoring locations without the Proposed Action. Future traffic volumes were obtained from the traffic analysis. Adjustments to the noise levels were made using the proportionality equation for the existing condition volumes and the volumes for the No-Action traffic. The adjustments were 0.1 dBA for Boston Road and Matthews Avenue and ranged from 0.2 to 0.3 dBA for Barnes Avenue. Noise levels would be highest on Boston Road. The high L_{eq} at Boston Road (Monitoring Location 1) is considered atypical outlier. As mentioned above, L₁₀ noise level at Boston Road was used to determine attenuation requirement, which would be in the Marginally Unacceptable I category. The Barnes and Matthews Avenues monitoring locations would be in the Marginally Acceptable categories.

Table K-6: 2026 Traffic Volumes and Noise Levels (dBA), No-Action Conditions

ID	Location	Time Period	Existing				No-Action					CEQR Category ¹
			Volumes	PCEs	L _{eq}	L ₁₀	Volumes	PCEs	Noise Increase	L _{eq}	L ₁₀	
1	Boston Road	AM	1,066	2,216	66.7	69.7	1,087	2,261	0.1	66.8	69.8	MA
		MD	1,066	2035	73.4	71.0	1,086	2,073	0.1	73.5	71.1	MU I
		PM	1,231	1906	72.2	70.5	1,258	1,947	0.1	72.3	70.6	MU I
		SAT	1,224	1993	78.4	70.6	1,247	2,031	0.1	78.4	70.6	MU I
2	Barnes Avenue	AM	91	218	61.5	63.6	97	231	0.3	61.7	63.8	Acceptable
		MD	113	223	64.1	66.5	118	235	0.2	64.3	66.7	MA
		PM	130	158	58.1	60.0	140	168	0.3	58.4	60.3	Acceptable
		SAT	155	214	64.8	66.4	162	222	0.2	65.0	66.6	MA
3	Matthews Avenue	AM	35	56	60.0	61.2	35	57	0.1	60.0	61.2	Acceptable
		MD	35	61	60.7	62.1	35	62	0.1	60.8	62.2	Acceptable
		PM	49	49	65.6	66.9	49	49	0.1	65.7	67.0	MA
		SAT	49	94	60.2	61.0	50	95	0.1	60.3	61.1	Acceptable

Note: 1. MA = Marginally Acceptable; MU I = Marginally Unacceptable I; MU II = Marginally Unacceptable II; MU III = Marginally Unacceptable III; MU IV = Marginally Unacceptable IV

V. FUTURE WITH THE PROPOSED ACTION (WITH-ACTION CONDITION)

In the future with the Proposed Actions, the Rezoning Area, including the Project Site, would be rezoned from R6, C8-1 to R7-2, C2-4. The Proposed Project would result in an increase over the No-Action condition of approximately 360,577 gsf building, with approximately 277,990 gsf of residential use generating 333 DUs, approximately 19,281 gsf of commercial use, approximately 6,752 gsf of community facility use, and approximately 56,554 gsf for parking. Any stationary noise sources associated with the proposed project (i.e., mechanical equipment) would be designed to meet all applicable noise regulations and would not generate any significant increase in ambient noise levels. The Proposed Project is depicted on **Figure K-2: With-Action Massing Diagram**.

Traffic Noise

To calculate future traffic volumes, the incremental increases in traffic were added to No-Action traffic volumes. Incremental changes in traffic between the No-Action and With-Action conditions were assumed to be autos and passenger vehicles and 1 medium truck. **Table K-7: Peak Hour Traffic Volumes and Noise Levels (dBA) 2026, With-Action Condition** summarizes the future one-hour traffic volumes and noise levels for the three noise monitoring locations. As discussed previously, the high Leq at Boston Road (Monitoring Location 1) is considered an atypical outlier. Therefore, L₁₀ noise level at Boston Road was used to determine attenuation requirement, which would be in the Marginally Unacceptable I category. The sites on Barnes and Matthews Avenues are all within the Acceptable or Marginally Acceptable categories.

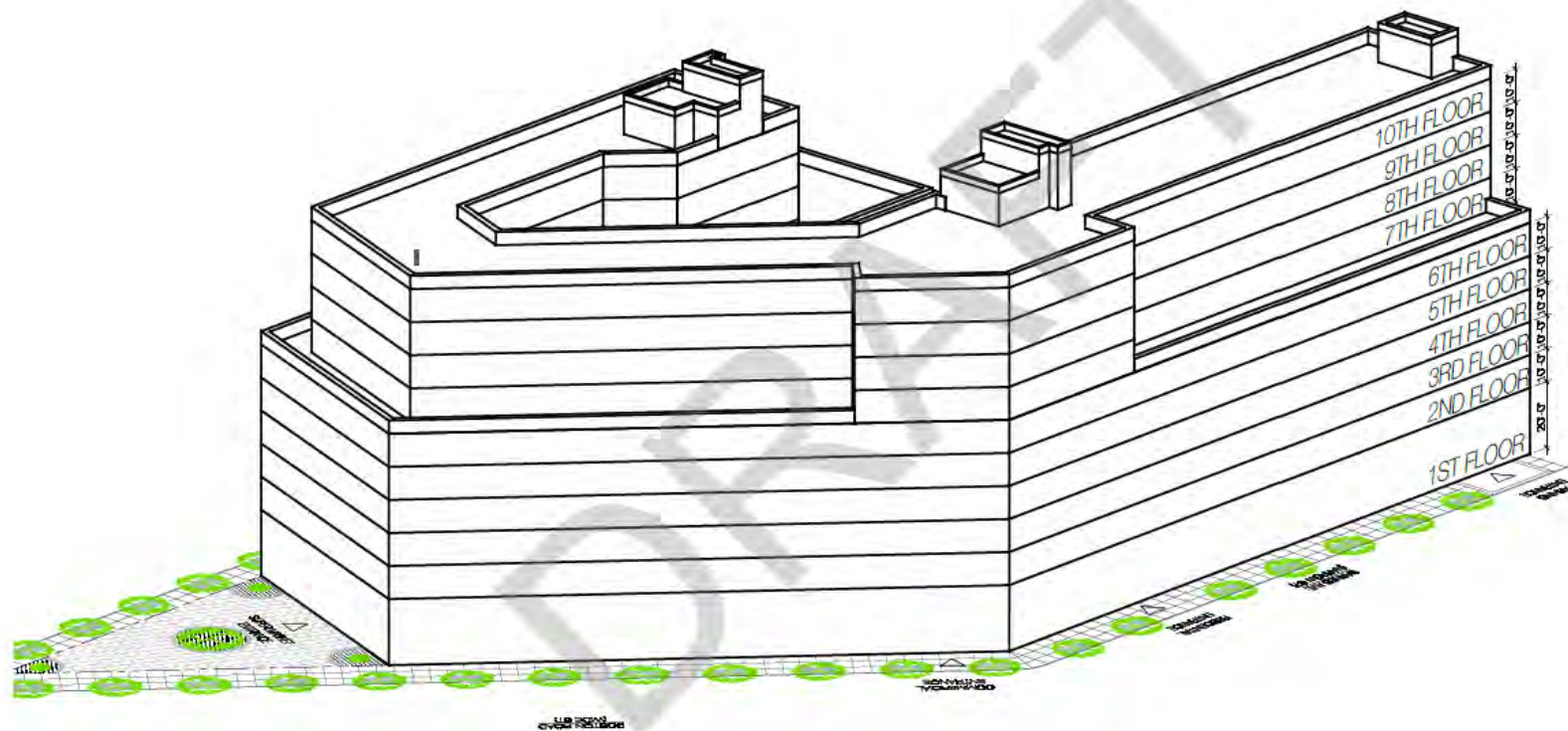
Estimated incremental changes in noise levels With-Action and No-Action conditions, ranged between 0.1 and 4.4 dBA, with the highest increment change of 4.4 and 3.3 induced by project generated traffic at Matthews Avenue during AM and Midday peak hours, respectively. While project generated traffic induced increment would be over 3 dBA at Matthews Avenue, the impact threshold for Matthews Avenue is

considered to be 5 dBA and 4.2 dBA above the No-Action condition for AM and Midday peak periods, respectively, based on Section 410 of Chapter 19 of the *CEQR Technical Manual*. Therefore, these increases would not be considered significant adverse noise impact due to the Proposed Actions.

Table K-7: Peak Hour Traffic Volumes and Noise Levels (dBA) 2026, With-Action Condition

ID	Location	Time Period	No Action				Action					CEQR Category ¹
			Volumes	PCEs	L _{eq}	L ₁₀	Volumes	PCEs	Noise Increase	L _{eq}	L ₁₀	
1	Boston Road	AM	1,087	2,261	66.8	69.8	1,110	2,330	0.1	67.0	70.0	MU I
		MD	1,086	2073	73.5	71.1	1,115	2,148	0.2	73.6	71.2	MU I
		PM	1,258	1947	72.3	70.6	1,305	1,995	0.1	72.4	70.7	MU I
		SAT	1,247	2031	78.4	70.6	1,291	2,074	0.1	78.5	70.7	MU I
2	Barnes Avenue	AM	97	231	61.7	63.8	106	241	0.2	61.9	64.0	Acceptable
		MD	118	235	64.3	66.7	129	246	0.2	64.5	66.9	MA
		PM	140	168	58.4	60.3	156	184	0.4	58.8	60.7	Acceptable
		SAT	162	222	65.0	66.6	177	237	0.3	65.2	66.8	MA
3	Matthews Avenue	AM	35	57	60.0	61.2	89	157	4.4	64.4	65.6	MA
		MD	35	62	60.8	62.2	58	131	3.3	64.0	65.4	MA
		PM	49	49	65.7	67.0	74	74	1.7	67.4	68.7	MA
		SAT	50	95	60.3	61.1	83	128	1.3	61.6	62.4	Acceptable

Note: 1. MA = Marginally Acceptable; MU I = Marginally Unacceptable I; MU II = Marginally Unacceptable II; MU III = Marginally Unacceptable III; MU IV = Marginally Unacceptable IV



Source: Aufgang Architects
 Note: For Illustrative Purposes Only

WITH-ACTION MASSING DIAGRAM

Figure K-2

Window/Wall Attenuation

Because the Proposed Project would place sensitive receptors in an area with L_{10} noise levels that exceed 70 dBA, a potential significant adverse impact would occur unless the Proposed 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 office uses). Accordingly, the Project Site will be mapped with (E) Designations for the proposed buildings in order not to have a significant adverse noise impact. This also requires alternate means of ventilation, such as air conditioning, so that windows may remain closed during warm weather conditions. The minimum required attenuation for the Proposed Project buildings was shown in **Table K-8: Required Attenuation for Proposed Project**. The table shows the required attenuation for the new building.

Table K-8: Required Attenuation for Proposed Project

Façades Facing	Elevation	Proposed Use	Highest With-Action		CEQR Category ¹	Minimum Required Attenuation ³
			L_{eq}	L_{10}		
Boston Road	Ground	Supermarket	78.5 ²	71.2	MU I	None
	Floors 2-11	Residential	78.5 ²	71.2	MU I	28
Barnes Avenue within 50 feet of Boston Road	Ground	Retail, Parking, Lobby	78.5 ²	71.2	MU I	None
	Floors 2-11	Residential	78.5 ²	71.2	MU I	28
Barnes Avenue beyond 50 feet of Boston Road	Ground	Retail, Parking, Lobby	65.2	66.9	MA	None
	Floors 2-11	Residential	65.2	66.9	MA	None
Matthews Avenue within 50 feet of Boston Road	Ground	Retail, Lobby, Community Facility	78.5 ²	71.2	MU I	28
	Floors 2-11	Residential	78.5 ²	71.2	MU I	28
Matthews Avenue beyond 50 feet of Boston Road	Ground	Retail, Lobby, Community Facility	67.4	68.7	MA	None
	Floors 2-11	Residential	67.4	68.7	MA	None
Mace Avenue	Ground	Retail, Lobby, Parking, Community Facility	67.4	68.7	MA	None
	Floors 2-11	Residential	67.4	68.7	MA	None

Note: 1. MA = Marginally Acceptable; MU I = Marginally Unacceptable I; MU II = Marginally Unacceptable II; MU III = Marginally Unacceptable III; MU IV = Marginally Unacceptable IV

2. High L_{eq} at Monitoring Location 1 is considered atypical outlier and that L_{10} noise level at Monitoring Location 1 would be used for attenuation purposes.

3. Attenuation requirement for Commercial Office would be 5 dBA less in order to maintain an interior noise level not greater than 50 dBA.

Noise E-Designations

The analysis determined that the eastern and western façades within 50 feet of Boston Road on the north and all northern facades would require an (E) Designation that would specify the amount of noise attenuation to be provided by the building's windows and walls. The following (E) Designation, **E-694**, will be mapped on the Project Site:

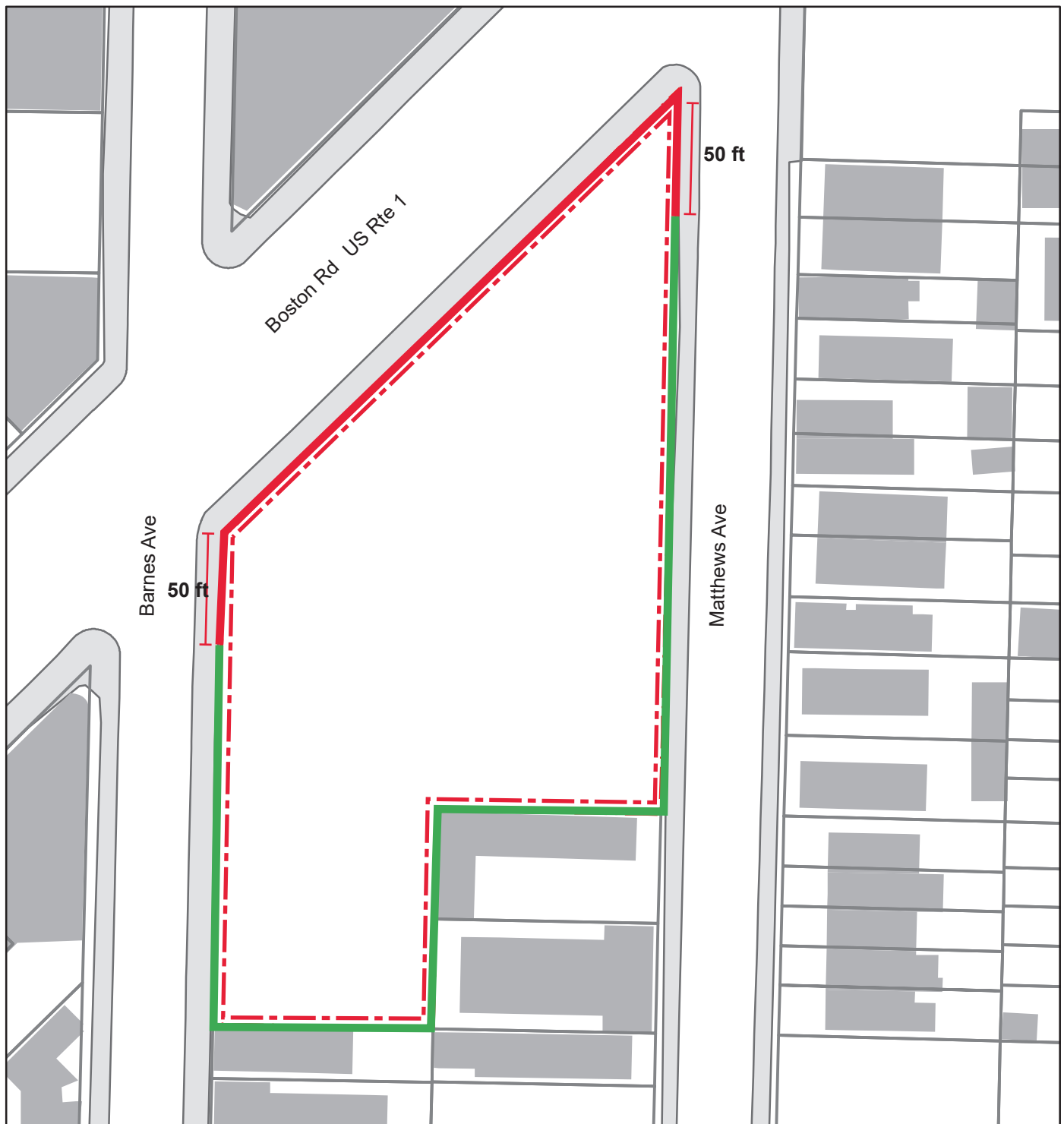
Block 4440, Lots 16, 30 and 32: In order to ensure an acceptable interior noise environment, future residential/commercial office/community facility uses must provide a closed-window

condition with a minimum of 28 dBA window/wall attenuation on the facades facing Boston Road and the facades facing Barnes Avenue within 50 feet of Boston Road and the facades facing Matthews Avenue within 50 feet of Boston Road in order to maintain an interior noise level not greater than 45 dBA for residential and community facility or not greater than 50 dBA for commercial office uses as illustrated in the EAS. 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.

With the (E) designation in place, the Proposed Project would not result in a significant adverse noise impact.

VI. STATIONARY SOURCES

The design and specifications for mechanical equipment – such as heating, ventilation, and air conditioning – would incorporate sufficient noise reduction to comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code, Subchapter 5, §24-227, the New York City Department of Building Code. This would ensure that mechanical equipment does not result in any significant increase in noise levels, either by itself or cumulatively with other project noise sources.



Legend

- Development Site
- Existing Building Footprints

Attenuation Requirement

- 28 dBA =
- N/A =

*Attenuation requirement for commercial office uses would be 5 dBA less.

50 25 0 50 Feet



WINDOW/WALL ATTENUATION BY LOT LINE

Figure K-3

2560 Boston Road Rezoning EAS

Attachment L: Construction

I. INTRODUCTION

This chapter assesses the potential impacts of the activities required to construct the Proposed Project. Construction impacts, although temporary, can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. As stated in the City Environmental Quality Review (CEQR) *Technical Manual*, 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, the integrity of historic resources, community noise patterns, and air quality conditions.

As described in Attachment A, “Project Description,” the Proposed Actions would facilitate the development of a 10-story (110') building, comprised of approximately 277,990 gsf of residential use or up to 333 dwelling units (DUs), approximately 19,281 gsf of commercial use, approximately 6,752 sf of community facility use, and 56,554 gsf of accessory parking, comprising a total of 360,577 gsf of floor area (“Proposed Project”) on the Project Site. Parking for approximately 117 vehicles, which includes 67 required residential parking spaces and 50 permitted commercial parking spaces under the proposed zoning, would be provided on the Project Site. The commercial parking entrance would be on Barnes Avenue while the residential parking garage entrance and the supermarket loading dock entrance would be along Matthews Avenue. The Proposed Project would be operational in 2026.

The anticipated construction period for the Proposed Project is 33 months. Since the construction period is not considered short-term (less than 24 months), a targeted construction period assessment was prepared for transportation, air quality, and noise. Construction-related activities are not expected to result in any significant adverse impacts to traffic, air quality, and noise levels during peak construction periods.

II. REGULATORY FRAMEWORK

Governmental Coordination and Oversight

The governmental oversight of construction in New York City (NYC) is extensive and involves several City, state, and federal agencies. The primary responsibilities lie with NYC agencies. The NYC Department of Buildings (DOB) 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, DOB 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 NYC 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 NYC Fire Department (FDNY) has primary oversight for compliance with the Fire Code and for the installation of tanks containing flammable materials. The NYC Department of Transportation (NYCDOT) reviews and approves any traffic lane and sidewalk closures. No travel lane and/or sidewalk closures are expected during the construction of the Proposed Project. 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 U.S. 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 U.S. Occupational Safety and Health Administration (OSHA) sets standards for work site safety and the construction equipment.

As a result of existing governmental regulations and coordination over construction activities in NYC, construction-related activities resulting from the Proposed Actions is not anticipated to impact archaeological/historical resources, or hazardous materials conditions.

Construction Noise

Construction noise is regulated by the requirements of the NYC Noise Control Code (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 EPA noise emission standards. These local and Federal requirements mandate that specific construction equipment and motor vehicles meet specified noise standards; that construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 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 NYC Noise Control Code. In addition, EPA requirements mandate that certain classifications of construction equipment meet specified noise emission standards.

III. CONSTRUCTION SCHEDULE AND ACTIVITIES

Conceptual Construction Schedule

The anticipated construction schedule is presented in the table below and reflects a reasonable assumption for construction activities on the Project Site. It is assumed that full build out of the Proposed Project would occur over a period of 33 months.

The construction activities typically associated with higher potential levels of environmental disturbance (i.e., excavation, foundation, and superstructure) would occur over a period of 15 months.

2560 Boston Road Rezoning EAS
 CEQR No: 22DCP184X
 ULURP No(s): 220283ZMX, N22084ZRX

Table L-1: Anticipated Construction Sequencing

Year	2023		2024				2025				2026
Quarter	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st
Excavation and Foundations											
Superstructure											
Exterior and Interiors											
Landscaping, BPP, Punchlist											

Construction Phases

Excavation and Foundation

Excavation and foundation work would include installation of foundations and below-grade elements. Any soil to be excavated from the Project Site would be loaded onto dump trucks for transport to a licensed disposal facility or reused on site consistent with all environmental regulations and RAWP/RAP or the SMP. Site utilities (electric, water, and sewer lines) would also be installed. Equipment typically used during this period would include jackhammers, hoe rams, excavators, crane, drill rigs, pumps, vibrating hopper, dump trucks, backhoe loaders, bobcats, forklift/lull, concrete saws, generators, compressors, and various power tools. Concrete pump trucks and mixer trucks will also be used.

Excavation and foundation work is anticipated to occur over a total of 6 months.

Superstructure

Construction of the core and shell involves construction of the building's framework and core. The superstructure is the building's framework (beams and columns) and floor decks. Construction of the core, or interior structure, includes construction of the building's elevator shafts; vertical risers for mechanical, electrical, and plumbing systems; electrical and mechanical equipment rooms; core stairs; and restroom areas. The superstructure would be built utilizing block-and-plank construction, which is typical for residential buildings in New York City. Equipment during this construction phase would typically include bobcats, forklift/lull, backhoe loaders, cranes, hoists, manlifts, circular and concrete saws, concrete finishers, delivery trucks, dump trucks, generators, compressors, welders, and various power tools.

Superstructure work is anticipated to take a total of approximately 9 months.

Exterior and Interior Buildout

Construction of the exterior involves the installation of the façade (exterior walls, windows, and cladding and the roof). Interior buildout activities include the construction of interior partitions, installation of lighting fixtures and interior finishes (i.e., flooring, painting, etc.), and mechanical and electrical work such as the installation of elevators, and lobby finishes. Interior buildout is typically the quietest work type and does not generate fugitive dust since it occurs within the building interiors after the building facades have been substantially completed. Equipment typically used during this period would include, hoists, bobcats, forklifts, and asphalt pavers and rollers, as well as various power tools.

Exterior and interior buildout is anticipated to take a total of approximately 15 months.

Landscaping, BPP, Punchlist

This phase of construction would include site work for the final finishing of the building and grounds, including landscaping activities and other exterior finishing work. Additionally, the removal of construction protection measures (fencing, sidewalk enclosures, bridges, remaining scaffolding, etc.) from the construction site would occur. Final cleanup and touchup of the proposed buildings and final building systems testing (i.e., electrical system, fire alarm, plumbing, etc.) and inspections would be part of this stage of construction. Equipment typically used during this period does not include noisy equipment that could cause significant impacts.

This phase of construction is anticipated to take approximately three months.

Estimate of Construction Period Trucks and Construction Workers

Average daily construction worker and truck activities by quarter were projected for the entire construction period, as shown in **Table L-2: Average Number of Daily Construction Workers and Trucks by Quarter Weekday**.

Table L-2: Average Number of Daily Construction Workers and Trucks by Quarter Weekday

Year	2023		2024				2025				2026
Quarter	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
Total Worker Trips (In + Out) ¹	70	70	100	100	100	100	104	110	104	90	64
Vehicle ²	35	35	50	50	50	50	52	55	52	45	32
Transit	31	31	45	45	45	45	47	49	47	40	29
Walk	0	0	0	0	0	0	0	0	0	0	0
Total Truck Trips (In + Out, in PCE) ³	5	8	32	32	32	32	32	24	24	24	24
Total Vehicle Trips (in PCE)	40	43	82	82	82	82	84	79	76	69	56
1. Each construction worker and each truck delivery to the site results in two daily trips (arrival and departure). 2. Vehicle trips are shown in total number of <i>vehicles</i>, which is less than the total number of workers traveling by vehicle due to average vehicle occupancy being greater than 1.0. 3. Each truck has a passenger car equivalent (PCE) factor of 2.0.											

Peak construction vehicle traffic is expected to take place during the first quarter of 2025, based on a combination of average daily construction workers and construction-related truck volumes in passenger car equivalents (PCEs).

Anticipated Construction Hours

New York City regulates the hours of construction work through the New York City Noise Control Code, as amended in December 2005 and effective July 1, 2007. Construction is limited to weekdays between the hours of 7:00 AM and 3:00 PM, and noise limits are set for certain specific pieces of construction equipment. The City may permit work outside of these hours to accommodate: (1) emergency conditions; (2) public safety; (3) construction projects by or on behalf of City agencies; (4) construction activities with minimal noise impacts; and (5) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts, and/or financial considerations. The DOB issues these work permits, and in some instances, approval of a noise mitigation plan from the DEP under the City's Noise Code is also required.

In New York City, construction work typically occurs on weekdays and begins at 7:00 AM, with most workers arriving between 6:00 AM and 7:00 AM. Work typically ends at 3:00 PM, with some exceptions when certain critical tasks (e.g., finishing a concrete pour for a floor deck, completing the drilling of piles, or completing the bolting of a steel frame erected that day) require that the workday be extended beyond normal work hours. Any extended workdays generally last until approximately 5:30 PM or 6:00 PM and do not include all construction workers on-site, but only those involved in the specific task requiring additional work time. For work outside of normal construction hours, work permits are obtained from DOB prior to such work commencing. The numbers of workers and pieces of equipment in operation for work outside normal hours is generally limited to those needed to complete the particular authorized task. Overall, the level of activity for any work outside of normal construction hours is less than a normal workday.

IV. PRELIMINARY ASSESSMENT

In accordance with the guidelines of the *CEQR Technical Manual*, a preliminary assessment was completed to evaluate the potential construction period impacts of the Proposed Actions, including impacts on transportation, air quality, and noise.

Transportation

Traffic

Peak construction vehicle traffic is expected to take place during the first quarter of 2025, based on a combination of average daily construction workers and construction-related truck volumes in passenger car equivalents (PCEs). To provide an assessment of the reasonable worst-case impacts on transportation during construction, the daily workforce and truck trip projections during this period were used as the basis for estimating peak hour construction trips. It is expected that construction activities would generate the highest number of daily trips during this quarter, as shown in **Table L-2: Average Number of Daily Construction Workers and Trucks by Quarter Weekday**.

Worker and truck trip projections were refined to account for worker modal splits and vehicle occupancy based on the 2000 Census reverse-journey-to-work data for the construction and excavation industry for Census Tract 324, 328, 330, 338, 340 in Bronx County, New York. Approximately 55.2% of the construction workers would be expected to travel to the Project Site by private autos at an average occupancy of 1.10 persons per vehicle. The remaining 44.8% would use public transportation (13.8% by subway, 31.0% by bus). Worker and truck trip projections were also refined to account for arrival and departure distribution and PCE factors for construction truck traffic.

Peak Hour Construction Worker Vehicle and Truck Trips

The construction activity would occur on weekdays between 7:00 AM and 3:00 PM. Construction truck trips would occur between 6:00 AM and 9:00 AM. Most trucks would remain in the area for only short durations. However, construction workers would typically commute during the hours before and after their work shift. For analysis purposes, it was assumed that each worker vehicle would arrive in the morning and depart in the afternoon or early evening. Each truck delivery was assumed to result in two truck trips during the same hour (one “in” and one “out”). Furthermore, in accordance with guidance in the *CEQR Technical Manual*, the traffic analysis assumed that each truck has a PCE factor of 2.0.

The estimated daily vehicle trips were distributed throughout the workday based on projected work shift allocations and conventional arrival/departure patterns of construction workers and trucks. For construction workers, 100% of the arrival and departure trips would take place during the hour immediately before and after each shift. For construction trucks, deliveries would occur between 6:00 AM and 9:00 AM. Construction truck deliveries typically peak during the early morning of 6:00 AM to 7:00 AM (approximately 50% of daily trucks), which overlaps with construction worker arrival traffic. The hourly construction trip projections for the peak construction quarter during the weekday shifts are summarized in **L-3: Q1 2025 Peak Weekday Incremental Construction Vehicle Trip Projections (in PCEs)**.

Table L-3: Q1 2025 Peak Weekday Incremental Construction Vehicle Trip Projections (in PCEs)

Hour	Auto Trips					Truck Trips					Total Vehicle Trips		
	In		Out		Total	In		Out		Total			
	%	#	%	#		%	#	%	#		In	Out	Total
5 AM - 6 AM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
6 AM - 7 AM	100%	26	0%	0	26	50%	8	50%	8	16	34	8	42
7 AM - 8 AM	0%	0	0%	0	0	25%	4	25%	4	8	4	4	8
8 AM - 9 AM	0%	0	0%	0	0	25%	4	25%	4	8	4	4	8
9 AM - 10 AM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
10 AM - 11 AM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
11 AM - 12 PM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
12 PM - 1 PM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
1 PM - 2 PM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
2 PM - 3 PM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
3 PM - 4 PM	0%	0	100%	26	26	0%	0	0%	0	0	0	26	26
4 PM - 5 PM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
5 PM - 6 PM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
6 PM - 7 PM	0%	0	0%	0	0	0%	0	0%	0	0	0	0	0
Daily Total	100%	26	100%	26	52	100%	16	100%	16	32	42	42	84
Notes:													
1. Hourly construction worker and truck trips were derived from an estimated average number of construction workers and truck deliveries per day, for the peak quarter, with each construction worker and each truck delivery resulting in two daily trips (arrival and departure).													
2. Columns labeled as "%" represent the temporal distribution of the construction trips.													
3. Sum of in and out trips may not match due to rounding.													

During the first quarter of 2025, the peak construction activities would result in 42 PCE trips between 6:00 and 7:00 AM on weekdays. As the Proposed Project would generate fewer than 50 PCE vehicle trips in any peak hour, no further analysis would be needed in accordance with the *CEQR Technical Manual*.

According to the *CEQR Technical Manual*, if the threshold for a detailed traffic analysis is not met, it is unlikely that a parking assessment is warranted and, as such, a parking assessment would not be needed.

Transit

Approximately 44.8% (13.8% by subway, 31.0% by bus) of construction workers were projected to travel to the Project Site via public transit. Most of these trips would be made during hours outside of the typical commuter peak periods.

While the construction activities would peak during the first quarter of 2025 for the purposes of the vehicular analyses, the peak number of construction workers is projected to occur during the second quarter of 2025. Therefore, the second quarter of 2025 would have the greatest number of transit trips. During this quarter, the 44.8% travel-by-transit distribution would represent approximately 25 daily workers traveling by transit on weekdays. With 100% of these workers arriving during the construction peak hour from 6:00 AM to 7:00 AM and 100% departing during the construction peak hour from 3:00 PM to 4:00 PM, the total estimated numbers of peak hour transit trips would be approximately 25 trips during the AM peak hour (8 subway, 17 bus) and 25 trips during the PM peak hour (8 subway, 16 bus). The second quarter of 2025 construction worker transit trips are compared to transit trips generated by the Proposed Project (i.e., operational trips) in **Table L-4: Transit Construction Trips – Q2 2025**.

A detailed transit analysis was not required as the trips generated by the Proposed Project were less than CEQR thresholds (i.e., 200 subway and 50 bus trips on a route in a single direction), and as shown in **Table L-4: Transit Construction Trips – Q2 2025**, the number of transit trips generated during the second quarter of 2025 construction peak hours would be fewer than those generated during operation of the

Proposed Project. Therefore, no significant adverse transit impacts would be expected during construction of the Proposed Project.

Table L-4: Transit Construction Trips – Q2 2025

Hour	2025 (Q2) Construction Trips			2022 Operational Trips		
	Subway	Bus	Total Transit	Subway	Bus	Total Transit
6:00 AM to 7:00 AM	8	17	25	-	-	-
8:00 AM to 9:00 AM	-	-	-	117	58	175
12:00 PM to 1:00 PM	-	-	-	77	41	118
3:00 PM to 4:00 PM	8	17	25	-	-	-
5:00 PM to 6:00 PM	-	-	-	111	53	164

Pedestrians

Construction workers would arrive or depart during the construction peak hours via various modes of transportation. Construction workers traveling by auto would park on-street near the Project Site. Construction workers traveling by subway or bus would also walk between the transit stops and the Project Site.

Based on the Census data, there would be no construction workers walking to the Project Site. Therefore, the total number of pedestrian trips generated by construction activities would be the same as the construction transit trips, which would peak during the second quarter of 2025.

The second quarter of 2025 construction worker pedestrian trips are compared to pedestrian trips generated by the Proposed Project (i.e., operational trips) in **Table L-5: Pedestrian Construction Trips – Q2 2025**.

Table L-5: Pedestrian Construction Trips – Q2 2025

Hour	2025 (Q2) Construction Trips	2022 Operational Trips
6:00 AM to 7:00 AM	25	-
8:00 AM to 9:00 AM	-	265
12:00 PM to 1:00 PM	-	237
3:00 PM to 4:00 PM	25	-
5:00 PM to 6:00 PM	-	325

A detailed pedestrian analysis was not required as the trips generated by the Proposed Project were less than CEQR thresholds (i.e., 200 pedestrians at a crosswalk, corner, or sidewalk), and as shown in **Table L-5: Pedestrian Construction Trips – Q2 2025**, the number of pedestrian trips generated during the second quarter of 2025 construction peak hours would be fewer than those generated during operation of the Proposed Project. Consequently, no significant adverse pedestrian impacts would be expected during construction of the Proposed Project.

Air Quality

To evaluate whether analysis of a project's construction activities is needed for air quality and noise, the *CEQR Technical Manual* asks the following questions and notes that if a project meets one or more of the criteria, a preliminary air quality or noise assessment is not automatically required. Instead, various factors

should be considered, such as the types of construction equipment, the nature and extent of any commitment to use 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 initial screening questions are as follows:

- Are the project's construction activities considered short-term (less than two years)?
- Are the project's construction activities located near sensitive receptors?
- Does the project involve construction of multiple buildings where due to staged project completion, there is a potential for on-site receptors occupying buildings completed before the final build-out?

According to Section 200 of the Construction chapter of the *CEQR Technical Manual*, air quality impacts on sensitive receptors from construction activities are unlikely at distances beyond 1,500 feet. Sensitive receptors within 1,500 feet of the Project Site are identified below:

- Residential use: Residential uses occur as single-, two-, or multi-family buildings located on the southern portion of the same block as the Project Site, within 200 feet, as well as adjacent blocks across Barnes and Matthews Avenues.
- Public facilities: Closest public facility is a church located at 831 Mace Avenue, approximately 300 feet from the Project Site. Other public facilities include an elementary, middle, and a high school, all within 1,500 feet of the Project Site.
- Open space: Mazzei Playground is the only public open space located approximately 1,200 feet southeast of the Project Site.

As identified in the Construction Schedule and Hours, while total construction activities are anticipated to take approximately 33 months, construction activities typically associated with higher potential levels of environmental disturbance (i.e., excavation, foundation, and superstructure) would be temporary and transient. Construction would usually be limited to weekdays between the hours of 7:00 AM and 6:00 PM. The Proposed Project would adhere to best practices as it relates to air emissions, including the use of ULSD fuel, restrictions on vehicle idling, and use of DPF filters for Tier 3 equipment for 100 hp to 600 hp. As such these measures, if implemented, would reduce air pollutant emissions associated with construction activities.

The Proposed Project does not involve the construction of multiple buildings where there is the potential for on-site receptors to occupy buildings before final build out.

Based on the foregoing, further analysis of construction-period air quality impacts from the Proposed Project's construction activities are not warranted. Construction air emissions are not anticipated to affect any sensitive receptor over a long period of time. Construction activities typically associated with higher potential levels of environmental disturbance (i.e., excavation, foundation, and superstructure) would occur over less than two years. Furthermore, the Proposed Project would adhere to the air emission reduction requirements set forth in the New York City Air Pollution Control Code.

Air Emission Reduction Measures

The laws, regulations, and building codes in place that focus on reducing air pollutant emissions associated with construction include:

- Clean Fuel: Ultra-low sulfur diesel (ULSD) is required in New York City for diesel engines used on construction sites.¹

¹ The Environmental Protection Agency (EPA) required a major reduction in the sulfur content of diesel fuel intended for use in locomotive, marine, and non-road engines, and equipment, including construction equipment. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be ULSD fuel. Sulfur levels in non-road diesel fuel are limited to a maximum of 15 parts per million.

- **Dust Control:** The New York City Air Pollution Control Code regulates construction-related dust emissions and requires that fugitive dust control plans be developed and implemented as part of contract specifications. Plans include requirements to establish stabilized truck exit areas for washing off the wheels of all trucks that exit a construction site; to water truck routes within a site as needed to avoid the re-suspension of dust; to equip all trucks hauling loose material with tight fitting tailgates and to securely cover their loads prior to leaving a site.
- **Restrictions on Vehicle Idling:** Vehicles are not allowed to idle more than three minutes in accordance with New York City Administrative Code §24-163.²

In addition, federal standards for nonroad diesel engines have become more stringent over time. Federal standards for nonroad diesel engines were first adopted in 1994 for engines over 50 hp and were phased in from 1996 to 2000 (Tier 1 standards). Subsequently, more stringent regulations were adopted (Tier 1-3 standards) and phased in from 2000 to 2008 and most recently, Tier 4 standards were adopted and phased in from 2008 to 2015. These regulations address emissions of particulate matter (PM) and nitrogen oxide (NOx). It is expected that air emissions associated with such engines is reduced. Given the construction timeframe (2023-2025), equipment meeting Tier 4 standards for diesel engines (model years 2011/12 and beyond) would be expected to be in wide use and comprise the majority of contractors' fleets. If contractors choose to use older diesel equipment; the use of diesel particulate filters (DPF) in Tier 3 emission standard for diesel engines (model years 2006-2011 for engine sizes between 100 and 600 hp) would be implemented. Tier 3 with DPF achieves the same emission reductions as a newer Tier 4 emission standard for diesel engines. The combination of Tier 4 and Tier 3 engines with DPF would achieve DPM reductions of approximately 90 percent when compared to older uncontrolled engines.

Noise

Potential impacts on surrounding noise levels during construction of the Proposed Project could result from the operation of construction equipment and from construction vehicles and delivery vehicles traveling to and from the Project Site. Noise levels at a given location are dependent on the type and number of construction equipment being operated, the utilization factor of the equipment (i.e., the percentage of time a piece of equipment is operating at full power), the distance between the Project Site and noise-sensitive land uses, and any shielding effects from intervening structures such as buildings, walls, or barriers. Noise levels caused by construction activities would vary widely, depending on the phase of construction (i.e., excavation, superstructure, interior fit-outs, etc.) and the location of the construction activities relative to noise-sensitive receptor locations.

The *CEQR Technical Manual* states that significant noise impact due to construction would occur based on several factors, including location and setting of the project in relation to other uses and intensity and duration of construction activities. Based on the *CEQR Technical Manual* and subsequent protocols established by NYCDCP, a construction noise impact may occur if sensitive receptors would experience the following:

- noise level increment of 15 dBA or more for prolonged period of 12 months;
- noise level increment of 20 dBA or more for prolonged period of 3 months or more; and
- consideration of the intensity and duration of calculated interior noise levels above the acceptable range (i.e., L_{10} of 45 dBA for residential and community facility uses and L_{10} of 50 dBA for commercial office uses).

In conformance to guidance in the *CEQR Technical Manual*, construction noise levels are added to noise levels from the anticipated construction commencement year of 2023 to determine cumulative noise levels during construction periods. Construction commencement year noise levels were calculated from existing

² Exceptions are made for vehicles that are using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing trucks).

noise levels of 2021, as defined in Table K-5 of Attachment K, Noise, using annual background growth rate of 0.25% from Table 16-4 of the Transportation chapter in the *CEQR Technical Manual*. The peak period AM noise levels are used, as this period typically has more total truck and equipment activity than the peak Midday and PM periods. A conservative screening analysis was conducted by calculating the total noise energy created by the daily equipment used during each construction quarter, then converting it to dBA. This analysis showed the potential for significant increases in noise levels when compared to noise levels in 2023. Therefore, a detailed analysis of on-site construction noise is warranted.

V. DETAILED ASSESSEMENT

Noise

Methodology

Off-Site Mobile Sources

An estimated 26 workers would arrive at the construction site between 6:00 AM and 7:00 AM. Eight truck trips would occur during the same hour (four in and four out), resulting in a total of 34 vehicular trips (see Table L-3: **Q1 2025 Peak Weekday Incremental Construction Vehicle Trip Projections (in PCEs)**)³. This represents the worst-case period of the day for the noise analysis. Consistent with *CEQR Technical Manual* guidelines, the assessment of the impact of construction vehicles traveling to and from the Project Site was based on noise PCEs as summarized below:

- autos and light trucks = 1 passenger car
- medium trucks = 13 passenger cars
- heavy trucks = 47 passenger cars
- buses = 18 passenger cars

The total vehicular trips during the worst-case period of the day for noise analysis would be equivalent to 402 PCEs⁴, which would not exceed the number of PCEs on Boston Road under baseline conditions and generate an increase in noise levels by more than 3 dBA. Consequently, a detailed off-site mobile source noise assessment is not needed.

On-Site Mobile and Stationary Sources

The CadnaA (Computer Aided Noise Abatement) model was used to assess the noise impact of on-site construction equipment. The model assesses the noise impact of industrial and construction noise sources using the International Environmental Noise Directive and ISO guidelines to accurately describe ambient noise in community environments. CadnaA has the ability to:

- Incorporate reflections from building surfaces in the calculations;
- Account for refractive noise over barriers;
- Accurately calculate noise levels at the higher stories of a building;
- Provide spectral data for calculating the effects of barriers made from different types of material; and,

³ Trucks in Table L-3 are calculated as equivalent passenger car equivalents (PCEs), trucks representing the equivalent of two passenger cars. Consequently, for the purposes of the noise analysis, the number of PCEs in Table L-3 was divided by two to estimate the number of trucks.

⁴ 26 auto trips = 26 Noise PCEs (1 noise PCE/automobile or light truck); 8 truck trips = 376 PCEs (47 noise PCE/heavy truck)

- Accurately calculate the cumulative noise levels from a site with multiple dispersed sources and boundary walls at different heights.

Equipment utilization factors obtained from the *CEQR Technical Manual*, Federal Transit Administration (FTA) “2018 Transit Noise and Vibration Impact Assessment Manual,” and the project construction manager and noise levels at a reference distance of 50 feet were used as inputs to the CadnaA model. **Table L-6: Construction Equipment Noise Emission Levels at 50 Feet (L_{max} in dBA)**, summarizes the typical noise levels for the construction equipment used in the analysis. The Applicant’s commitment of the methods to be implemented to achieve the noise levels shown in **Table L-6** will be included for the Proposed Project.

Table L-6: Construction Equipment Noise Emission Levels at 50 Feet (L_{max} in dBA)

Equipment	DEP & FHWA Typical L_{max} Noise Levels	Applicant-Committed Noise Levels
<i>Stationary Equipment</i>		
Air Compressor (< 350 cfm)	75-80	67 ¹
Concrete Finisher	76 ³	76
Circular Saw	76 ³	76
Concrete Saw	90	75 ¹
Crane	85	75 ¹
Crane (Manitowac:999)	85	77 ¹
Drill Rig	85	74 ¹
Cut-Off Saw	76 ³	76
Electric Hoist	N.L. ²	70 ¹
Generator	70-82	77 ⁴
Jackhammer	85	72 ¹
Mounted Impact Hammer	90	90
Electric Manlift, scissors lift	85	63 ¹
Pump	77	77
Vibrating Hopper	85	80 ¹
Welder/Torch	73	73
<i>Mobile Equipment</i>		
Bobcat	N.L. ²	75 ¹
Concrete Mixer Truck	85	85
Backhoe Loader	80	77 ¹
Forklift / Lull Lift	N.L. ²	80 ¹
Concrete Pump Truck	82	72 ¹
Delivery Truck	N.L. ²	84
Dump Truck	84	84
Excavator	85	77 ¹
Paver (asphalt)	85	85
Roller (asphalt)	85	85

Notes:

¹ Noise levels achieved by using quieter equipment, better engine mufflers, refinements in fan design, and improved hydraulic systems will be incorporated into a Restrictive Declaration.

² N.L. - not listed by DEP or in RCNM

³ FTA Report No 0123, September 2018, Table 7-1 Construction Equipment Noise Emission Levels.

⁴ Assumes implementation of portable noise barrier.

Noise barriers, comprised of an eight-foot solid fence, would be erected around the perimeter of the construction areas where construction activities are taking place to minimize construction noise, consistent with reasonable construction procedures. Additional path controls in the form of portable noise barriers would be implemented for generators. These portable barriers would be composed of material with a Sound Transmission Class (STC) rating of 30 or greater. Such barriers generally provide a 5 dBA insertion loss. Concrete operations including pumps and trucks would occur within a 12-foot plywood enclosure along Barnes and Matthews Avenues.

Calculation of Noise Levels

The calculation of noise levels is based on changes in L_{eq} . The L_{max} values presented in **Table L-6** were converted to L_{eq} using the following equation:⁵

$$L_{max} + 10 \times \log (\% \text{ acoustical usage factor, i.e., percentage of time operating at full power})$$

For example, if the equipment has an L_{max} of 85 dBA at 50 feet, and it operates 40% of the time at full power over a one-hour period, then the $L_{eq(1)}$ at 50 feet would be about four decibels less, or $85 - 4 = 81$ dBA. Beyond 50 feet, the noise level would attenuate at a rate of 6 dBA per distance doubling. Thus, at 100 feet, the L_{eq} would be 75 dBA ($81 - 6 = 75$).

The total noise energy for each three-month construction quarter was calculated to determine the quarter with the highest potential construction noise levels, which was established as the 2nd construction quarter in 2023. This quarter along with the 1st construction quarter in 2023 and 1st construction quarter in 2024 were further evaluated with the CadnaA model as follows.

Based on the initial screening analysis using estimated total daily noise energy, all buildings within an area bounded by Bronxwood Avenue on the east, Mace Avenue on the south, Wallace Avenue on the west, and Allerton Avenue on the north were identified and assigned an ID number. They were placed into the CadnaA model as three-dimensional buildings. An eight-foot-high construction fence bordering the Project Site was included in the model as a barrier. The fence was not placed along sections where the Proposed Project would share a "party wall" with an adjacent building. Equipment for construction Quarter 2, the projected worst-case quarter, was placed at appropriate locations on the Project Site in the CadnaA model. All equipment was within the construction fence. The concrete pump trucks and concrete mixer trucks, which were placed on Matthews and Barnes Avenues, would be operated within an enclosure as a part of the commitment to reduce construction noise levels. During peak periods of construction activity, this included one concrete pump truck and two concrete mixer trucks on each street.

Noise contours were modeled using a grid of 10X10 meters. The height of the grid was 4.1 meters, which is equivalent to a second floor. Due to the barrier effect of construction fencing, the second-floor receptors had higher noise levels. The resulting highest L_{eq} noise levels at the modeled sensitive receptors, described below, were then logarithmically added to the existing noise levels in order to calculate total cumulative noise levels and then compared to existing noise levels to determine the noise increment at each sensitive receptor during each of the analyzed construction time periods.

Summary of Detailed Analysis and Evaluation Procedures

The construction analysis analyzed potential for significant adverse impacts to existing sensitive receptors in the vicinity of the site. In accordance with the *CEQR Technical Manual*, the analysis considered receptors that would be within 1,500 feet of construction equipment for a period of two or more years. For conservative analysis purposes, existing noise levels during the peak AM period were used as the baseline noise levels for determining construction-generated noise level increases. This is because the AM period would have

⁵ *Noise and Vibration Control Engineering: Principles and Applications*, edited by Leo L. Beranek and Istvan L. Ver, John Wiley & Sons, 1992, p. 652.

the highest volume of construction-generated traffic. The Midday period would not include traffic from workers, and the PM period would not include construction activity, which typically ends at 3pm.

The evaluation was based on the quarterly construction periods. First, the sizes, types, and numbers of construction equipment on the Project Site during each construction quarter were obtained from the construction activity schedule provided by the construction manager. Construction Quarters 1 and 2 are the Excavation and Foundation phase, Quarters 3 through 5 are the Building Superstructure phase, and the subsequent quarters incorporate the “Exterior and Interiors” and “Landscaping, BPP, Punchlist” phases.

Based on the anticipated construction schedule, the worst-case construction periods were identified. To identify these worst-case periods, equipment utilization factors and noise levels from the individual pieces of equipment at a reference distance of 50 feet were obtained from Table 22-1 (“ L_{max} @ 50 Feet”) of the *CEQR Technical Manual*. A spreadsheet-based procedure calculated potential total daily noise energy for each quarter. The quarters with the highest daily noise energy were selected for detailed modeling and analysis. Quarters 1, 2, and 3 through 5 stood out as having higher daily noise energy than the other quarters.

Quarters 1, 2, and 3 were analyzed using DataKustik’s CadnaA noise model. For the modeling, concrete pump and mixer trucks and on-site equipment were placed at typical worst-case locations within or around the construction site. Receptor points were placed at windows on all facades of nearby existing buildings. For Quarter 2, separate runs were conducted for days when the concrete pump and mixer trucks would be active and for days when they would not be active. Rock drills and concrete saws are modeled for days when concrete operations would not be active. Table L-9 shows construction noise impact during Quarter 2 based on days with concrete operation, which demonstrated more conservative results. For Quarter 3, Superstructure phase would be constructed using block-and-plank method and no concrete mixer or pump would be operated for Superstructure phase.

Measures to avoid noise impacts were incorporated into the CadnaA runs. This included portable wraps or enclosures for the generators that would reduce noise levels by 5 dBA, use of equipment with noise levels quieter than those of typical construction equipment and locating noisy equipment in a manner that minimizes impacts. Compressors and generators were placed at least 50 feet from the eastern, western, and southern boundaries of the site, which are adjacent to sensitive receptors. The resulting CadnaA analysis showed the total noise levels at each receptor as well as the contributing noise levels from each item of equipment.

The noise levels from the CadnaA runs for each receptor were added to background levels, and the incremental noise levels for each quarter were compared to the evaluation criteria of 20 dBA for three months and 15 dBA for 12 months.

Additional discussion of the methods and analyses are presented in the subsections that follow.

Sensitive Receptors

The CEQR Technical Manual indicates that a noise-sensitive “receptor” is usually defined as an area where human activity may be adversely affected when noise levels exceed predefined thresholds of acceptability or when noise levels increase by an amount exceeding predefined thresholds of change. Receptors can either currently exist or would be introduced by a project. These locations may be indoors or outdoors. Indoor receptors include, but are not limited to, residences, hotels, motels, health care facilities, nursing homes, schools, houses of worship, court houses, public meeting facilities, museums, libraries, and theaters. Outdoor receptors include, but are not limited to, parks, outdoor theaters, golf courses, zoos, campgrounds, and beaches.

A more detailed analysis was then performed on any building that fell within a 65 dBA contour by adding receptor points for all floors and facades and then running calculations for noise levels. The buildings modeled were two- to three-story multifamily residential buildings and low-rise apartment buildings on Matthews Avenue and Barnes Avenue. Sensitive receptors beyond the 65 dBA contour were not included as worst-case receptors since they are not likely to experience noise level increments. However, the results were evaluated to ensure that modeled receptors within the 65 dBA contour would not be subject to potential significant impacts. The modeled receptor locations used for the detailed noise analysis are listed below and shown in **Figure L-1: Worst-Case Noise Receptor Locations**. The list includes some commercial retail and manufacturing locations that were included for the purposes of identifying the extent of high construction noise levels. However, only the sensitive receptors are presented in the results.

Table L-7: Worst-Case Noise Receptor Locations

ID	Address	Street	Block	Lot	Use
1	2560	Matthews	4441	31	Residential
2	2558	Matthews	4441	30	Residential
3	2554	Matthews	4441	28	Residential
4	2552	Matthews	4441	127	Residential
5	2550	Matthews	4441	27	Residential
6	2548	Matthews	4441	26	Residential
7	2546	Matthews	4441	25	Residential
8	2544	Matthews	4441	24	Residential
9	2540	Matthews	4441	23	Residential
10	2538	Matthews	4441	22	Residential
11	2536	Matthews	4441	20	Residential
12	2534	Matthews	4441	19	Residential
13	2532	Matthews	4441	118	Residential
14	2530	Matthews	4441	18	Residential
15	2528	Matthews	4441	17	Residential
16	2526	Matthews	4441	16	Residential
17	2535	Matthews	4440	43	Residential
18	2529	Matthews	4440	45	Residential
19	2527	Matthews	4440	47	Residential
20	2519	Matthews	4440	49	Residential
25	2524	Barnes	4440	15	Residential
26	2522	Barnes	4440	14	Residential
27	2520	Barnes	4440	13	Residential
32	2523	Barnes	4439	25	Residential
33	2521	Barnes	4439	27	Residential
34	2519	Barnes	4439	28	Residential
35	2517	Barnes	4439	29	Residential
36	2515	Barnes	4439	30	Residential
40	2550	Boston	4439	20	Comm/Ofc
41	2542	Boston	4439	18	Adult daycare
42	2538	Boston	4439	17	Residential
59	2541	Bronxwood	4441	53	One- & Two-Family Buildings
74	2545	Boston	4439	61	Tile & marble supply



Project Site



Worst-Case Receptor Locations



Construction Equipment Locations

WORST-CASE NOISE RECEPTOR LOCATIONS

Figure L-1

Noise Control Measures

Construction of the Proposed Project would conform to the NYC Noise Control Code (Chapter 24) and NYCDEP's Citywide Construction Noise Mitigation (Chapter 28). Specific noise control measures (including measures beyond what are required by the New York City Noise Code) would be incorporated. These measures would include a variety of source and path controls.

Path Controls

Path controls are placed between the equipment and the sensitive receptors to block noise. Greater noise attenuation occurs when the path controls are placed as close as possible to the noise source. Path controls listed below are included under New York regulations and would be implemented accordingly:

- Noise barriers, comprised of an eight feet high solid fence, would be erected around the perimeter of the construction areas where construction activities are occurring to minimize construction noise consistent with reasonable construction procedures.
- Where feasible, noisy equipment, such as cranes, concrete pumps, concrete trucks, and delivery trucks, would be located away from sensitive receptors.

In addition, path controls listed below would be implemented as PCREs beyond New York regulations for the construction of the Proposed Project:

- Concrete operations including pumps and trucks would occur within a 12-foot plywood enclosure along Barnes and Matthews Avenues.
- Path noise control measures (e.g., portable noise barriers, panels, enclosures, and acoustical tents) for generators would be implemented. The details to construct portable noise barriers, enclosures, tents, etc., are noted in DEP's *Rules for Citywide Construction Noise Mitigation*.

Source Controls

Source controls, shown in **Table L-6**, reduce noise levels at the source of the noise. Equipment noise levels quieter than typical noise levels generated by construction equipment could be achieved through a range of source controls including better engine mufflers, refinements in fan design, improved hydraulic systems, and/or newer equipment with specific manufacture noise levels. The following source controls included under New York regulations would be implemented:

- Where feasible and practicable, equipment would be properly installed and, where practicable, quality mufflers must be installed and maintained.
- Where feasible and practicable, construction sites would be configured to minimize back-up alarm noise. In addition, all trucks would not be allowed to idle more than three minutes per Title 24, Chapter 1, Subchapter 7, Section 24-163 of the NYC Administrative Code.

In addition, source controls listed below would be implemented as PCREs beyond New York regulations for the construction of the Proposed Project:

- Table L-6 shows the noise levels for typical construction equipment and the mandated noise levels for the equipment that would be used for construction under the Proposed Actions. Table L-6 identifies construction equipment for which noise levels achieved by using quieter equipment, better engine mufflers, refinements in fan design, and improved hydraulic systems.⁶

⁶ Each equipment with commitment to lower noise levels will be specified in the RD.

- Pile installation and foundation elements shall be constructed by drilling rather than impact pile driving.
- Concrete pump and mixer trucks would not be used during superstructure construction.

On-Site Equipment Noise

The analysis was based on the application of the Applicant-committed source controls (construction equipment with noise levels quieter than typical noise levels for such equipment) shown in **Table L-6**, as well as path controls (construction fencing) placed between the noise-generating construction equipment and sensitive receptors. The construction area would have an 8-foot-high plywood fence along the site boundaries that would provide noise attenuation for the first floors of affected sensitive receptors. Implementation of additional noise path control measures, including the committed use of portable noise barriers for generators and operation of concrete pump and trucks within enclosure along Barnes and Matthews Avenues, would further avoid or minimize increases in noise levels at sensitive receptors in the surrounding areas.

Construction Period Noise Levels

The noise levels observed during noise monitoring in 2021 were adjusted by adapting observed traffic volumes to match existing traffic volumes provided by the transportation analysis. Anticipated construction commencement year of 2023 noise levels were calculated from the adjusted existing noise levels, as defined in Table K-5 of Attachment K, "Noise," using annual background growth rate of 0.25% from Table 16-4 of the Transportation chapter in the *CEQR Technical Manual*. **Table L-8: Peak Hour Noise Levels (dBA) and Traffic Volumes, 2023** summarizes the adjusted noise levels, traffic volumes and equivalent PCEs for the three monitoring locations.

Table L-8: Peak Hour Noise Levels (dBA) and Traffic Volumes, 2023

Site ID	Location	Period	2023 Traffic Volumes					2023 PCEs	Noise Adj.	Existing Noise Levels		2023 Noise Levels	
			Autos	Medium Trucks	Heavy Trucks	Buses	Total			Leq	L10	Leq	L10
1	Boston Road	AM	996	38	3	34	1,071	2,227	0.022	66.7	69.7	66.8	69.8
		MD	1,009	34	3	24	1,071	2,046	0.022	73.4	71.0	73.4	71.0
		PM	1,185	40	0	12	1,237	1,916	0.022	72.2	70.5	72.2	70.6
		Saturday	1,174	42	1	13	1,230	2,003	0.022	78.4	70.6	78.4	70.6
2	Barnes Avenue	AM	82	5	0	4	91	219	0.033	61.5	63.6	61.5	63.6
		MD	105	8	0	1	114	224	0.033	64.1	66.5	64.1	66.5
		PM	129	2	0	0	131	158	0.033	58.1	60.0	58.1	60.0
		Saturday	151	5	0	0	156	215	0.033	64.8	66.4	64.8	66.4
3	Matthews Avenue	AM	33	0	0	1	35	57	0.022	60.0	61.2	60.0	61.2
		MD	33	2	0	0	35	61	0.022	60.7	62.1	60.7	62.1
		PM	49	0	0	0	49	49	0.022	65.6	66.9	65.7	67.0
		Saturday	46	4	0	0	49	94	0.022	60.2	61.0	60.2	61.0

Cumulative Noise Levels

As shown in Table L-1, construction phasing over the 33-month period shows four clearly defined development periods. For each construction quarter over the 33-month construction period, the total noise energy was calculated based on the power level of the equipment in use on the Project Site, the equipment utilization, and the number of pieces of equipment in operation during an average construction day during that quarter. Representative quarters with high noise energy were selected for further analysis. These include: 1) 1st construction quarter of 2023, 2) 2nd construction quarter of 2023, and 3) 1st construction quarter of 2024. Construction noise levels in the initial years of construction would have the greatest effect

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on sensitive receptors surrounding the Project Site. These include buildings along the southern lot boundary of the Project Site, Matthews Avenue, Barnes Avenue, Boston Road, and rear yard of buildings on Bronxwood Avenue.

The resulting noise levels from CadnaA analysis were logarithmically added to and compared to existing noise levels at each receptor as summarized in **Table L-9: Construction Noise Levels and Increments**.

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Table L-9: Construction Noise Levels and Increments

Building ID	Address	Block	Lot	Existing AM Leq	Quarter 1 (dBA)			Quarter 2 (dBA)			Quarter 3 (dBA)			> 20 dBA for 3 months	>15 dBA for 12 months	Impact?
					CadnaA	Total	Increment	CadnaA	Total	Increment	CadnaA	Total	Increment			
1	2560 Matthews	4441	31	60.0	67.3	68.0	8.0	67	67.8	7.8	62.4	64.4	4.4	NO	NO	NO
2	2558 Matthews	4441	30	60.0	67.4	68.1	8.1	67.3	68.0	8.0	62.9	64.7	4.7	NO	NO	NO
3	2554 Matthews	4441	28	60.0	72.9	73.1	13.1	71.2	71.5	11.5	68.1	68.7	8.7	NO	NO	NO
4	2552 Matthews	4441	127	60.0	71.9	72.2	12.2	70.7	71.1	11.1	67.7	68.4	8.4	NO	NO	NO
5	2550 Matthews	4441	27	60.0	71.7	72.0	12.0	70	70.4	10.4	66.4	67.3	7.3	NO	NO	NO
6	2548 Matthews	4441	26	60.0	71.8	72.1	12.1	70.2	70.6	10.6	66.6	67.5	7.5	NO	NO	NO
7	2546 Matthews	4441	25	60.0	71.5	71.8	11.8	70.9	71.2	11.2	67.5	68.2	8.2	NO	NO	NO
8	2544 Matthews	4441	24	60.0	71.6	71.9	11.9	71.3	71.6	11.6	67.9	68.6	8.6	NO	NO	NO
9	2540 Matthews	4441	23	60.0	70.4	70.8	10.8	70.1	70.5	10.5	67.5	68.2	8.2	NO	NO	NO
10	2538 Matthews	4441	22	60.0	71.2	71.5	11.5	71.4	71.7	11.7	68.2	68.8	8.8	NO	NO	NO
11	2536 Matthews	4441	20	60.0	70.2	70.6	10.6	70.9	71.2	11.2	66.9	67.7	7.7	NO	NO	NO
12	2534 Matthews	4441	19	60.0	68.9	69.4	9.4	68.8	69.3	9.3	65.1	66.3	6.3	NO	NO	NO
13	2532 Matthews	4441	118	60.0	68.6	69.2	9.2	67.7	68.4	8.4	64	65.5	5.5	NO	NO	NO
14	2530 Matthews	4441	18	60.0	67.7	68.4	8.4	67.1	67.9	7.9	63	64.8	4.8	NO	NO	NO
15	2528 Matthews	4441	17	60.0	67.3	68.0	8.0	67.3	68.0	8.0	62.6	64.5	4.5	NO	NO	NO
16	2526 Matthews	4441	16	60.0	66.3	67.2	7.2	65.3	66.4	6.4	60.8	63.4	3.4	NO	NO	NO
17	2535 Matthews	4440	43	60.0	75.1	75.2	15.2	76.3	76.4	16.4	74	74.2	14.2	NO	NO	NO
18	2529 Matthews	4440	45	60.0	73.4	73.6	13.6	76.1	76.2	16.2	72.8	73.0	13.0	NO	NO	NO
19	2527 Matthews	4440	47	60.0	69.5	70.0	10.0	71.9	72.2	12.2	68.6	69.2	9.2	NO	NO	NO
25	2524 Barnes	4440	15	61.5	77.1	77.2	15.7	78.9	79.0	17.5	74	74.2	12.7	NO	NO	NO
26	2532 Barnes	4440	14	61.5	69.9	70.5	9.0	75	75.2	13.7	69.8	70.4	8.9	NO	NO	NO
27	2520 Barnes	4440	13	61.5	60.0	63.8	2.3	68.4	69.2	7.7	58.6	63.3	1.8	NO	NO	NO
32	2523 Barnes	4439	25	61.5	70.7	71.2	9.7	72.9	73.2	11.7	69.3	70.0	8.5	NO	NO	NO
33	2521 Barnes	4439	27	61.5	60.1	63.9	2.4	67.9	68.8	7.3	61.3	64.4	2.9	NO	NO	NO

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Building ID	Address	Block	Lot	Existing AM Leq	Quarter 1 (dBA)			Quarter 2 (dBA)			Quarter 3 (dBA)			> 20 dBA for 3 months	>15 dBA for 12 months	Impact?
					CadnaA	Total	Increment	CadnaA	Total	Increment	CadnaA	Total	Increment			
34	2519 Barnes	4439	28	61.5	65.2	66.7	5.3	69.6	70.2	8.7	63.3	65.5	4.0	NO	NO	NO
35	2517 Barnes	4439	29	61.5	65.3	66.8	5.3	68.5	69.3	7.8	61.7	64.6	3.1	NO	NO	NO
36	2515 Barnes	4439	30	61.5	65.4	66.9	5.4	69.5	70.1	8.6	61.1	64.3	2.8	NO	NO	NO
40	2550 Boston	4439	20	66.8	67.1	69.9	3.2	70.9	72.3	5.6	64.2	68.7	1.9	NO	NO	NO
41	2542 Boston	4439	18	66.8	59.5	67.5	0.7	62	68.0	1.3	57.9	67.3	0.5	NO	NO	NO
42	2538 Boston	4439	17	66.8	59.9	67.6	0.8	62.5	68.1	1.4	59.5	67.5	0.7	NO	NO	NO
59	2541 Bronxwood	4441	53	60.0	62.9	64.7	4.7	61.4	63.8	3.8	57.9	62.1	2.1	NO	NO	NO
74	2545 Boston	4439	61	66.8	65.2	69.1	2.3	63.8	68.5	1.8	58.7	67.4	0.6	NO	NO	NO

Matthews Avenue

No significant adverse noise impacts would occur at the residences located on Matthews Avenue based on the magnitude and duration of noise level increases. The highest cumulative L_{eq} would be 76.4 dBA during the second construction quarter, when excavation and foundation work would occur at the Project Site, and two concrete mixer trucks and one concrete pour truck would be located on Matthews Avenue. The primary contribution to the noise levels would be the concrete pump truck and concrete mixer trucks, which are on the street outside the construction fence. Concrete operations including pumps and trucks would occur within a plywood enclosure. Maximum noise levels in the subsequent quarter would be much lower as construction would enter the superstructure block-and-plank construction phase, when no concrete pump and mixer trucks, and fewer heavy duty diesel equipment (e.g., excavators) would be needed.

Incremental noise increases exceeded 15 dBA at two sensitive receptors during the first or second construction quarter by a maximum of 1.4 dBA. This would not constitute a significant impact because the duration of incremental noise increase is less than 12 months. No construction quarters exhibited an incremental noise level increase of 20 dBA more.

Barnes Avenue

No significant adverse noise impacts would occur at the residences located on Barnes Avenue based on the magnitude and duration of noise level increases. The highest cumulative L_{eq} would be 79.0 dBA during the second construction quarter, when excavation and foundation work would occur at the Project Site, and two concrete mixer trucks and one concrete pump truck would be located on Barnes Avenue. As with Matthews Avenue, the concrete pump and mixer trucks are the primary source of the high noise levels. Maximum noise levels in the third construction quarter would be much lower as construction would enter the superstructure phase, when no concrete mixer trucks and fewer heavy diesel equipment would be needed.

The highest noise increase during construction would be 17.5 dBA, and it would occur only during the second construction quarter. Incremental noise increases exceeded 15 dBA at one sensitive receptor during the first and second construction quarter by 2.5 dBA. This would not be considered a significant impact since the increase would not exceed a 20 dBA increment over a three-month construction period or exceed a 15 dBA increment over a 12-month construction period.

Boston Road

No significant adverse noise impacts would occur at sensitive receptors located on Boston Road based on the magnitude and duration of noise level increases. The highest total L_{eq} would be 72.3 dBA at the commercial/office building located at 2550 Boston Road (Receptor ID #40) during the second construction quarter, when excavation and foundation work would occur at the Project Site.

Wallace Avenue, Bronxwood Avenue, Mace Avenue, and Allerton Road

No significant adverse noise impacts would occur at sensitive receptors located on these roads based on the magnitude and duration of noise level increases. They are more distant from the project site than the buildings on Barnes and Matthews Avenues, and they are largely shielded from the Project Site by intervening buildings.

VI. CONCLUSION

With the adherence to existing construction noise regulations and additional noise control measures beyond the minimum required by code, the Proposed Project would not result in significant adverse construction noise impacts.