217-14 24th Avenue Rezoning

Environmental Assessment Statement

Prepared for:
BMBT LLC

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Environmental Assessment Statement

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ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) FULL FORM

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 217-14 24th Avenue Rezoning

1. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
24DCP118Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable)
240297ZMQ, 240298ZRQ	(*e.g.*, legislative intro, CAPA)

2a. *Lead Agency Information*			**2b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department of City Planning			**BMBT LLC**		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Stephanie Shellooe, Director			**John Silviano**		
ADDRESS **120 Broadway, 31st Floor**			ADDRESS **1044 Northern Boulevard, Suite 302**		
CITY **New York**	STATE **NY**	ZIP **10271**	CITY **Rosalyn**	STATE **NY**	ZIP **11576**
TELEPHONE **212.720.3328**	EMAIL **sshellooe@planning.nyc.gov**		TELEPHONE **646.476.9228**	EMAIL **js@baronemanagement.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): **6 NYCRR 617.4(b)(10)**

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, BMBT LLC, is seeking a zoning map and text amendment (collectively, the "Proposed Actions") to facilitate the development of a single, new eight-story residential building with senior living facilities on the first and second floors (the "Proposed Development") at 217-14 24th Avenue (Queens Block 6008, Lot 95; a.k.a. the "Proposed Development Site") in the Bay Terrace neighborhood of Queens Community District (CD) 11. The Applicant is seeking two discretionary actions, including: (i) a zoning map amendment to rezone an area bound by 24th Avenue and its easterly centerline prolongation, the Cross Island Parkway, Little Neck Boulevard, and a line 225 feet south of and parallel to the 24th Avenue centerline, including Block 6008, portions of (p/o) Lots 84, 95, and 150 (the "Proposed Rezoning Area") from a R1-2 district to a R6A district; and (ii) a zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing (MIH) area. The Proposed Actions would facilitate the development of the Proposed Development, which would comprise of approximately 162,026 gross square feet (gsf) of residential uses (167 dwelling units [DUs]; of which, approximately 42-50 units would be designated as permanently affordable pursuant to the City's MIH program), 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade accessory parking space, for a total of approximately 254,171 gsf. As the Applicant intends to pursue Option 2 of the City's MIH program, 30 percent of the 167 DUs (or approximately 50 units) would be designated as permanently affordable at an average affordability level not exceeding 80 percent of area median income (AMI). Additionally, the proposed below-grade parking garage would include up to 86 accessory off-street parking spaces. It is anticipated that the Proposed Development would be completed and operational by 2027.

As a Reasonable Worst-Case Development Scenario (RWCDS), it is assumed that the With-Action conditions would maximize the permitted FAR (3.6 FAR) on the Proposed Development Site. However, for conservative analysis purposes, the RWCDS will assume an average DU size of 850 square feet (sf) and that all assisted living space be analyzed as residential DUs. Thus, under the RWCDS, the Proposed Development could be redeveloped with up to 259 DUs (of which, approximately 65-78 units would be designated as permanently affordable pursuant to MIH), 58,194 gsf of assisted living space,* and 86 accessory, off-street parking spaces.

It should be noted that while the total DUs and residential population generated by the RWCDS would be based on a project absent the assisted living facilities (resulting in up to 259 DUs), for conservative analysis purposes the non-residential population generated by the RWCDS will be based on the inclusion of the proposed 58,194 gsf of assisted living uses.

Project Location

BOROUGH **Queens**	COMMUNITY DISTRICT(S) **11**	STREET ADDRESS **217-14 24th Avenue**
TAX BLOCK(S) AND LOT(S) **Block 6008, Lot 95**		ZIP CODE **11360**

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS **24th Avenue to the north, a mapped and unimproved portion of Little Neck Boulevard to the west, the Cross Island Parkway to the east, and a line 225 feet south of and parallel to 24th Avenue's centerline to the south.**

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY **R1-2** | ZONING SECTIONAL MAP NUMBER **11a**

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	☐ ACQUISITION—REAL PROPERTY	☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY	☐ DISPOSITION—REAL PROPERTY	☐ FRANCHISE
☐ HOUSING PLAN & PROJECT	☐ OTHER, explain:	

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

☐ VARIANCE (use)

☐ VARIANCE (bulk)

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

***Department of Environmental Protection*:** ☐ YES ☒ NO ☐ Cogeneration Facility ☐ Title V Permit

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

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

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

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

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

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.): **55,614 sf**	Waterbody area (sq. ft.) and type: **N/A**
Roads, buildings, and other paved surfaces (sq. ft.): **55,614 sf**	Other, describe (sq. ft.): **N/A**

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): **254,171 gsf**

NUMBER OF BUILDINGS: **1**	GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): **254,171 gsf**
HEIGHT OF EACH BUILDING (ft.): **85'**	NUMBER OF STORIES OF EACH BUILDING: **8**

Does the proposed project involve changes in zoning on one or more sites? ☒ YES ☐ NO

If "yes," specify: The total square feet owned or controlled by the applicant: **55,614 sf (Lot 95)**

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

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

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

AREA OF TEMPORARY DISTURBANCE: **55,614** sq. ft. (width x length) VOLUME OF DISTURBANCE: **339,510** cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: **33,951** sq. ft. (width x length)

8. *Analysis Year* CEQR Technical Manual Chapter 2

ANTICIPATED BUILD YEAR (date the project would be completed and operational): **2027**

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: **22 months**

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: **Assuming certification and completion of the ULURP process by 2025, and a period of approximately 22 months for construction over a single phase of construction, completion of the Proposed Development is expected in 2027.**

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

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

Figure 1
Project Site Location

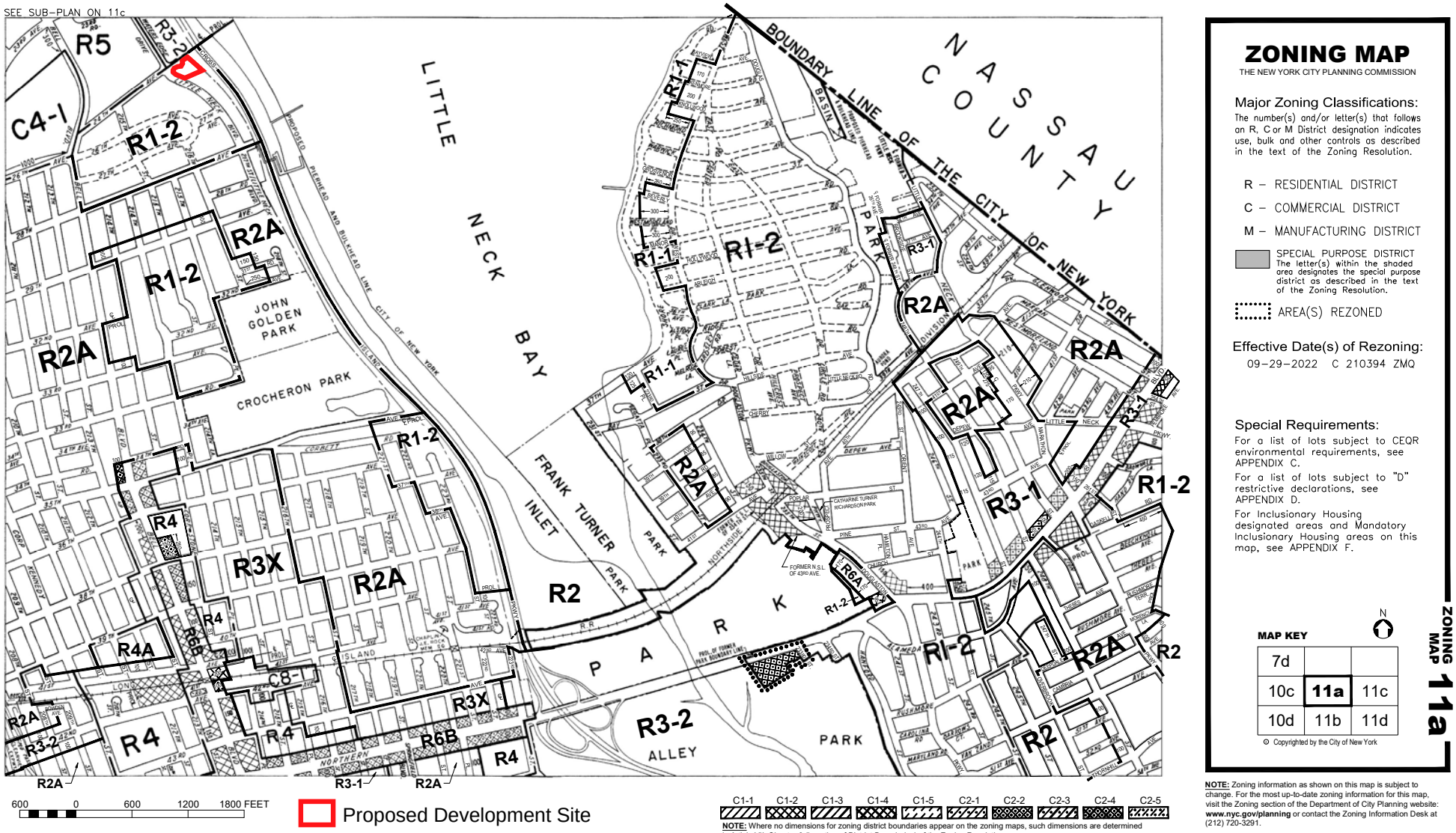


Figure 2
Land Use Map



Legend

Proposed Development Site	**Land Use**	
400-foot Radius	One & Two Family Buildings	Transportation/Utility
Future Open Space	Multi-Family Walkup Buildings	Public Facilities & Institutions
City-Owned Parkland	Multi-Family Elevator Buildings	Open Space
6008 Tax Block	Mixed Commercial/Residential Buildings	Parking Facilities
Water	Commercial/Office Buildings	Vacant Land
	Industrial/Manufacturing	All Others or No Data



ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

Major Zoning Classifications:

The number(s) and/or letter(s) that follows an R, C or M District designation indicates use, bulk and other controls as described in the text of the Zoning Resolution.

R – RESIDENTIAL DISTRICT

C – COMMERCIAL DISTRICT

M – MANUFACTURING DISTRICT

SPECIAL PURPOSE DISTRICT
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.

AREA(S) REZONED

Effective Date(s) of Rezoning:

09-29-2022 C 210394 ZMQ

Special Requirements:

For a list of lots subject to CEQR environmental requirements, see APPENDIX C.

For a list of lots subject to "D" restrictive declarations, see APPENDIX D.

For Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas on this map, see APPENDIX F.

N

MAP KEY

7d		
10c	**11a**	11c
10d	11b	11d

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ZONING MAP **11a**

NOTE: Zoning information as shown on this map is subject to change. For the most up-to-date zoning information for this map, visit the Zoning section of the Department of City Planning website: **www.nyc.gov/planning** or contact the Zoning Information Desk at (212) 720-3291.



217-14 24th Avenue Rezoning EAS

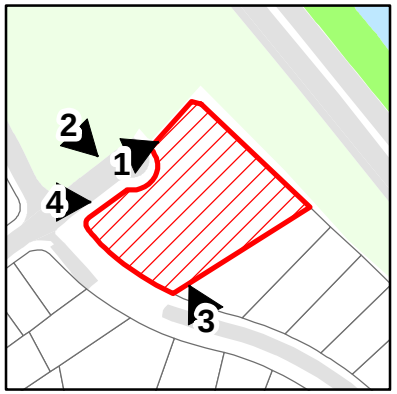
Figure 4
Tax Map



1. View looking east towards the Proposed Development Site at the end of 24th Avenue.



2. View looking south at the Proposed Development Site along 24th Avenue.



Photos taken on 5/31/24.



3. View looking north towards the Proposed Development Site along Little Neck Boulevard.



4. View looking east towards the Proposed Development Site at the intersection of 24th Avenue and Little Neck Boulevard.

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	N/A	N/A	Eight-Story residential building with senior assisted living	Construction of new residential building
No. of dwelling units	N/A	N/A	259 DUs	+259 DUs
No. of low- to moderate-income units	N/A	N/A	65-78 DUs	+65-78 DUs
Gross floor area (sq. ft.)		N/A	220,220 gsf	+220,220 gsf
Commercial	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Describe type (retail, office, other)	Private swimming and sports club with café/locker room	Private swimming and sports club with café/locker room	N/A	Elimination of private swimming and sports club with café/locker room
Gross floor area (sq. ft.)	2,800 gsf	2,800 gsf	N/A	-2,800 gsf
Manufacturing/Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	N/A	N/A	N/A	N/A
Gross floor area (sq. ft.)	N/A	N/A	N/A	N/A
Open storage area (sq. ft.)	N/A	N/A	N/A	N/A
If any unenclosed activities, specify:	N/A	N/A	N/A	N/A
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type	N/A	N/A	N/A	N/A
Gross floor area (sq. ft.)	N/A	N/A	N/A	N/A
Vacant Land	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:	N/A	N/A	N/A	N/A
Publicly Accessible Open Space	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify type (mapped City, State, or Federal parkland, wetland—mapped or otherwise known, other):	N/A	N/A	N/A	N/A
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:	N/A	N/A	N/A	N/A
PARKING				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces	N/A	N/A	N/A	N/A
No. of accessory spaces	N/A	N/A	86	+86 spaces
Operating hours	N/A	N/A	24/7	Addition of 24/7 operation
Attended or non-attended	N/A	N/A	Attended	Addition of parking attendant
Lots	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces	N/A	N/A	N/A	N/A
No. of accessory spaces	N/A	N/A	N/A	N/A
Operating hours	N/A	N/A	N/A	N/A
Other (includes street parking)	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
If "yes," describe:	N/A	N/A	N/A	N/A
POPULATION				
Residents	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify number:	N/A	N/A	697	+697 residents
Briefly explain how the number of residents was calculated:	Population generated by residential DUs based on 2020 Decennial US Census Data for average persons per household in Queens Community District 11 (2.69 p/hh).			
Businesses	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. and type	1: Private outdoor pool and country club	1: Private outdoor pool and country club	3: Assisted Living Facilities; Residential building; Attended Parking Garage	Loss of private outdoor pool and country club; addition of assisted living facilities, residential DUs, and parking garage
No. and type of workers by business	3 workers	3 workers	71 workers	+68 workers
No. and type of non-residents who are not workers	N/A	N/A	N/A	N/A
Briefly explain how the number of businesses was calculated:	Based on information provided by the Applicant, the site is currently occupied by the Bay Terrace Country Club. Number of workers assumes 1 worker per 900 gsf of private sports club space; 1 worker per 25 DUs; 1 worker per 50 attended parking spaces; and 1 worker per 1,000 gsf of community facility (assisted living) space.			
Other (students, visitors, concert-goers, *etc.*)	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If any, specify type and number:	Country club members and visitors (March through September)	Country club members and visitors (March through September)	N/A	
Briefly explain how the number was calculated:				
ZONING				
Zoning classification	R1-2	R1-2	R6A (MIH)	R1-2 to R6A (MIH)
Maximum amount of floor area that can be developed	R: 27,807 sf CF: 55,614 sf C: 0 sf M: 0 sf	R: 27,807 sf CF: 55,614 sf C: 0 sf M: 0 sf	R: 200,210 sf CF: 166,842 sf C: 0 sf M: 0 sf	R: +172,403 sf CF: +111,228 sf C: 0 sf M: 0 sf
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential, Open Space, Vacant Land	Residential, Open Space, Institutional (Public School)	Residential, Assisted Living, Open Space, Institutional (Public School)	+Assisted Living facilities
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. **See Attachment C, "Land Use, Zoning, and Public Policy"**		
(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. **See Appendix 1, "WRP CAF" and Attachment C, "Land Use, Zoning, and Public Policy"**		
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? **See Attachment D, "Socioeconomic Conditions"**	☐	☒
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 **N/A; see Attachment B, "Supplemental Screening"**		
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?	☐	☐

	YES	NO
o Is any category of business to be displaced the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it?	☐	☐
iv. Indirect Business Displacement **N/A; see Attachment B, "Supplemental Screening"**		
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 **N/A; see Attachment b, "Supplemental Screening"**		
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? **See Attachment E, "Community Facilities & Services"**	☒	☐
o If "yes," would the project generate 100 or more elementary or middle school students past the 100% utilization rate? **See Attachment E, "Community Facilities & Services"**	☐	☒
o If "yes," would the project result in a utilization rate of the high schools that is equal to or greater than 100 percent? **See Attachment E, "Community Facilities & Services"**	☐	☒
o If "yes," would the project increase the high school utilization rate by 5 percent or more from the No-Action scenario? **See Attachment E, "Community Facilities & Services"**	☐	☒
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?	☒	☐

	YES	NO
(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 G, "Shadows"**		
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. **See Attachment B, "Supplemental Screening" and Appendix 2, "LPC Review Letter"**		
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 H, "Urban Design and Visual Resources"**		
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? **See Appendix 3, "Phase I ESA Report"**	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify:	☐	☒
(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 sewered 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?	☐	☒

	YES	NO
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or 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. **See Attachment I, "Water and Sewer Infrastructure"**		
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): **10,619 lbs per week**		
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): **27,901,874 MBTUs**		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the 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? ***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.* See Appendix 4, "TPF-TDF Memorandum" and Attachment J, "Transportation"**	☒	☐
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) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☐	☒
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 B, "Supplemental Screening"**	☐	☒
(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. **See Attachment K, "Air Quality"**		
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?	☐	☐

	YES	NO
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 rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☐	☒
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
(e) If "yes" to any of the above, conduct the appropriate analyses and attach any supporting documentation. **See Attachment L, "Noise"**		
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	☒	☐
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary. **See Attachment B, "Supplemental Screening"**		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	☒	☐
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. **See Attachment B, "Supplemental Screening"**		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
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. **See Attachment B, "Supplemental Screening"**		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	SIGNATURE	DATE
Philip Habib, P.E.		6/25/25

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

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

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

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

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

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

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

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

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

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

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

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

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission
NAME	DATE
Evren Ulker-Kacar, AICP, Deputy Director	June 27, 2025

SIGNATURE



NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

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

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The Applicant, BMBT LLC, is seeking approval of a zoning map amendment to rezone Block 6008, portions of Lots 84, 95, and 150 from an R1-2 district to an R6A district and a text amendment to Appendix F of the New York City Zoning Resolution (ZR) to establish a Mandatory Inclusionary Housing (MIH) area, (the "Proposed Actions") in the Bay Terrace neighborhood of Queens Community District 11. The Project Area is bounded by 24th Avenue and its easterly centerline prolongation, the Cross Island Parkway, Little Neck Boulevard, and a line 225 feet south of and parallel to the 24th Avenue centerline. The Proposed Actions would facilitate the development of a new eight-story (85-foot-tall), approximately 254,171 gross square foot (gsf) residential and senior long-term care facility building at 217-14 24th Avenue (Block 6008, Lot 95; the "Proposed Development Site"). The building would contain 162,026 gsf of residential use (167 dwelling units ("DU"), 42-50 of which would be affordable pursuant to MIH, 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking (86 parking spaces). For a conservative analysis, the EAS assumed a smaller DU size and all assisted living space was analyzed as DUs, and thus analyzed up to 259 DUs, 65-78 of which would be affordable pursuant to MIH.

The development facilitated by the Proposed Actions would be compatible with existing mixed residential and commercial uses along 24th Avenue and the surrounding area. While the Proposed Actions would allow for an increase in development and bulk relative to the existing zoning, the proposed R6A district would allow for residential use of up to 3.6 FAR (before the adoption of City of Yes for Housing Opportunity (CHO), which is compatible with the densities to the north and west of the Project Area. A new public school and public park are planned on lots adjacent to the Proposed Development Site and are both expected to be complete in the 2027 analysis year. Additionally, consistency with the NYC Waterfront Revitalization Program (WRP) is included in the EAS. The WRP Policy Consistency Assessment Form demonstrates that the Proposed Development is consistent with the policies of the WRP (WRP# 22-141). Therefore, the Proposed Actions would not result in significant adverse impacts to land use, zoning, or public policy, and no further analysis is warranted.

Open Space

An assessment related to indirect residential effects on open space is included in the EAS. Under the With-Action conditions, the total open space ratio would decrease by 8.9%, to 2.70 acres per 1,000 residents. Although greater than the 5% threshold for a potential for an impact, this would be offset by factors including ongoing capital improvements to existing and new open space resources within the open space study area. Additionally, the EAS notes that the portion of John Golden Park that is outside the half-mile radius, along with the adjacent Crocheron Park, could also be expected to serve residents of the study area. Therefore, based on quantitative and qualitative factors, the project would not result in a significant adverse impact related to open space.

Transportation

Pursuant to the CEQR TM screening thresholds, the Proposed Actions would not result in significant impacts related to pedestrian flows or transit operations. However, the Proposed Actions exceed the screening thresholds for vehicular traffic, and therefore a detailed traffic analysis is included in this EAS. As part of the Proposed Project, an all-way stop control is proposed at the intersection of Water's Edge Drive and 24th Avenue and signal phasing/timing changes are proposed at the intersection of Bell Boulevard and 24th Avenue. Additionally, a post-opening traffic monitoring plan (TMP) will be conducted in coordination with NYCDOT once the Proposed Project is complete to determine if the project-related improvements are still the most appropriate treatments at that time. With the implementation of these components, the Proposed Actions would not result in significant adverse traffic impacts, and no further analysis is necessary. A Restrictive Declaration will be recorded at the time of approval of the Proposed Actions to ensure implementation and funding of the project related improvements and the TMP.

A parking analysis is included in the EAS which projects a deficit of on-street parking within a quarter mile radius from the Proposed Development Site. An expanded study area was analyzed, which found a surplus of parking within a half mile radius of the site. Therefore, while the Proposed Actions would result in a parking shortfall in the immediate area of the site, pursuant to the CEQR TM, the shortfall would not be considered significant due to the availability of parking outside the quarter mile radius.

An evaluation of street user safety concludes that within a quarter mile of the Proposed Development Site, no intersections have experienced five or more pedestrian/bicyclist related crashes in any one year during the three-year study period. As such, none of these intersections are identified as high-crash locations and therefore no further analysis is warranted.

Disadvantaged Communities Assessment

An assessment of the Proposed Action's potential effects on disadvantaged communities is included in this EAS. The Project Area is not located within a designated disadvantaged community according to the NYSDEC Disadvantaged Community Assessment Tool. The Proposed Actions would not result in significant adverse

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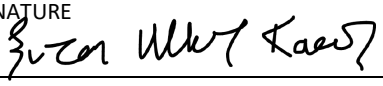
SEQRA Classification: Type I

impacts on the following technical areas analyzed in the EAS: land use, zoning, and public policy, socioeconomic conditions, community facilities and services, open space, shadows, urban design and visual resources, water and sewer infrastructure, transportation, noise, or air quality. As such, the Proposed Actions would not disproportionately affect any disadvantaged communities, nor would they cause or increase a disproportionate pollution burden on disadvantaged communities.

Air Quality and Noise

An (E) designation (E-812) related to air quality and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The air quality and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to air quality or noise.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Andrew Martini at amartini@planning.nyc.gov.

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3493
NAME Evren Ulker-Kacar, AICP	DATE 6/27/2025
SIGNATURE 	

TITLE	
Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE 6/30/2025
SIGNATURE	

Project Name: 217-14 24th Avenue Rezoning
CEQR # 24DCP118Q
SEQRA Classification: Type I

Determination of Significance Appendix

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

Development Site	Borough	Block and Lot
Proposed Development Site	Queens	Block 6008, Lot 95

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-812**) would be established as part of approval of the proposed actions on the **Proposed Development Site** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Proposed Development Site		X	X

Air Quality

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

> ***Proposed Development Site:*** *Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilation, and air conditioning (HVAC) systems and/or the hot water equipment stack(s) is located at the building's highest level and at least 88 feet above grade to avoid any potential significant adverse air quality impacts.*

Noise

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

> ***Proposed Development Site:*** *In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 31 dB(A) window/wall attenuation on all façades facing 24th Avenue to maintain an interior noise level not greater than 45 dB(A) for residential 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.*

ATTACHMENT A

PROJECT DESCRIPTION

I. INTRODUCTION

The Applicant, BMBT LLC, is seeking a zoning map and text amendment (collectively, the "Proposed Actions"), to facilitate the development of a single new eight-story (85-foot-tall) residential building with senior living facilities on the first and second floors (the "Proposed Development") at 217-14 24th Avenue (Queens Block 6008, Lot 95; a.k.a. the "Proposed Development Site") in the Bay Terrace neighborhood of Queens Community District (CD) 11. Specifically, the Applicant is seeking (i) a zoning map amendment to rezone an area bound by 24th Avenue and its easterly centerline prolongation, the Cross Island Parkway, Little Neck Boulevard, and a line 225 feet south of and parallel to the 24th Avenue centerline, including Block 6008, portions of (p/o) Lots 84, 95, and 150 (the "Proposed Rezoning Area") from a R1-2 district to a R6A district; and (ii) a zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing (MIH) area.

The Proposed Development Site is irregularly shaped, has an area of approximately 55,614 square feet (sf), and is zoned R1-2. The site has approximately 173 feet of frontage along 24th Avenue to the north and approximately 198 feet of frontage along Little Neck Boulevard to the east. The portion of 24th Avenue fronting the Proposed Development Site contains a cul-de-sac and is the eastern terminus of that roadway, and the portion of Little Neck Boulevard fronting the Proposed Development Site is mapped and unimproved, and is inaccessible to the public or traffic. The Proposed Rezoning Area would by bounded by 24th Avenue to the north, the unimproved portion of Little Neck Boulevard to the west, the Cross Island Parkway to the east, and a line 225 feet south of and parallel to 24th Avenue's centerline to the south (refer to **Figure 4 in the EAS Form**). The "Project Area," which is coterminous with the Proposed Rezoning Area would roughly encompass the Proposed Development Site, along with a small portion of the adjacent Lot 84 directly to the south, and an area of unimproved mapped City-owned parkland between the Proposed Development Site's eastern lot line and the Cross Island Parkway. The Proposed Development Site is currently occupied by the Bay Terrace Country Club, which is a private swimming and sports club that features a pool, playgrounds, and concessions. The existing club house building at the Proposed Development Site contains approximately 2,800 gross-square-feet (gsf) of commercial space.

The Applicant proposes to demolish the existing structure at the Proposed Development Site to facilitate the Proposed Development, a new eight-story (85-foot-tall) residential building with senior living facilities on the first and second floors. The Proposed Development would be composed of approximately 162,026 gross square feet (gsf) of residential uses (167 dwelling units [DUs]; of which, approximately 42-50 units would be designated as permanently affordable pursuant to the City's MIH program),[1] 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space, for a total of approximately 254,171 gsf. Additionally, the proposed below-grade parking garage would include up to 86 accessory off-

[1] The range of permanently affordable units generated by the Proposed Actions pursuant to MIH (i.e., 42-50 affordable units) assumes Options 1 and 2 of the MIH program. Option 1 requires 25 percent of residential floor area to be affordable at or below 60 percent of area median income (AMI), whereas Option 2 requires 30 percent at or below 80 percent of AMI.

street parking spaces (under the proposed R6A zoning district, the Proposed Development would be required to provide a minimum of 76 accessory off-street parking spaces).

As a Reasonable Worst-Case Development Scenario (RWCDS), it is assumed that the With-Action conditions would maximize the permitted FAR (3.6 FAR) on the Proposed Development Site under the requested R6A (MIH) zoning. However, for conservative analysis purposes, the RWCDS will assume an average DU size of 850 square feet (sf) and that all assisted living space be analyzed as residential DUs. Thus, under the RWCDS, the Proposed Development could be redeveloped with up to 259 DUs (of which, approximately 65-78 units would be designated as permanently affordable pursuant to MIH), 58,194 gsf of assisted living space, and 86 accessory, off-street parking spaces. It should be noted that while the total DUs and residential population generated by the RWCDS would be based on a project absent the assisted living facilities (resulting in up to 259 DUs), for conservative analysis purposes the non-residential population generated by the RWCDS will be based on the inclusion of the proposed 58,194 gsf of assisted living uses.

This attachment provides a summary and description of the Proposed Actions, including Project Area location, existing conditions at the Project Area, project purpose and need, project description, RWCDS under No-Action and With-Action conditions, and the governmental approvals required. The attached supplemental studies examine the potential for the Proposed Development to result in impacts in any CEQR technical areas, including separate attachments with analyses of land use, zoning, and public policy; socioeconomic conditions; community facilities (elementary schools); open space; shadows; urban design and visual resources; water and sewer infrastructure; air quality; and noise in **Attachments C through L**, respectively. All other preliminary screening assessments are summarized in **Attachment B, "Supplemental Screening."**

CHO was approved by the City Planning Commission on September 25, 2024, and adopted by the City Council on December 5, 2024. This text amendment expands housing options through zoning reforms that would address the housing crisis. Key components included: updates to the Mandatory Inclusionary Housing (MIH) program; the introduction of the Universal Affordability Preference (UAP) program which provides a preferential FAR that is available for affordable housing developments located outside of MIH applicable areas; and modifications to parking requirements that balances between housing development and the need for parking in some parts of the city. These modifications, in addition to low-density zoning reforms such as allowing Accessory Dwelling Units and modest apartment buildings, aim to enable a little more housing in every neighborhood. A technical memorandum has been included in **Appendix 5** that assesses whether the conclusion of the environmental review would be altered by CHO. As discussed in **Appendix 5**, CHO would facilitate the incremental development of up to an additional 22 total DUs. The technical memorandum in **Appendix 5** concludes that this incremental development facilitated by CHO would not change the results of the environmental assessments in **Attachments B to L** of this EAS.[2]

II. BACKGROUND AND EXISTING CONDITIONS

[2] The Applicant's updated development program, as reflected in the Land Use Application, comprises a new eight-story (85-foot-tall) approximately 282,014 gsf building, with approximately 175,352 gsf of residential uses (183 DUs; of which approximately 46-55 units would designated as permanently affordable pursuant to the City's MIH program), 58,193 gsf of assisted living uses (65 beds), and 36,428 gsf of below-grade parking (86 spaces). This updated program falls within the scope of the CHO technical memorandum in **Appendix 5**.

Proposed Rezoning Area

As described above, the Proposed Rezoning Area is located in the Bay Terrace neighborhood of Queens CD 11, and is composed of the Applicant-owned Proposed Development Site (Block 6008, Lot 95, excluding a small portion of the lot north of the centerline of 24th Avenue), and a small portion of the adjacent Lot 84 directly south of the Proposed Development Site.

The Proposed Development Site is a corner lot occupying the northern portion of Block 6008, which is bounded by 24th Avenue to the north, Little Neck Boulevard to the west, and 28th Avenue to the south. To the east, the block is bounded by a strip of city-owned parkland, which separates the lots on Block 6008 from the Cross Island Parkway further east. Thus, there is no street frontage along the eastern boundary of any lots on this block. As noted above, 24th Avenue, which bounds the project block to the north, terminates in a cul-de sac fronting on the Proposed Development Site (see **Figure A-1**). The portion of Little Neck Boulevard fronting the Proposed Development Site is mapped and unimproved (a "paper street").

The Proposed Development Site has a total of approximately 55,614 sf of lot area and has approximately 173 feet of frontage along 24th Avenue to the north and approximately 198 feet of frontage along Little Neck Boulevard to the east. It is currently occupied by a private swimming and sports club that features a pool, playgrounds, and concessions. There is a single structure on the site, a club house building with a total of approximately 2,800 gsf of commercial space. According to a 1961 Certificate of Occupancy (CO) filed with the NYC Department of Buildings (DOB), the occupancy permitted for the existing structure on the Proposed Development Site is that of Use Group 6 – "Non-commercial clubs, without restrictions on activities or facilities [PRC-D]." The structure is located at the southwestern corner of the lot along the mapped but unbuilt portion of Little Neck Boulevard. The eastern portion of the Proposed Development Site is occupied by a swimming pool with associated seating areas, and the remaining area along 24th Avenue is predominantly open space with playground equipment and picnic seating.

The Proposed Rezoning Area is currently zoned R1-2. R1 zoning districts are low-density residential districts supporting single-family buildings with low lot coverage.

24th Avenue, which borders the Proposed Development Site to the north, is a 60-foot wide, two-way local road running east-west with no lane markings and on-street parking on both sides. As noted above, 24th Avenue terminates in a cul-de-sac adjacent to the site, where the roadbed widens slightly to accommodate turning vehicles. There is an approximately 11-foot wide sidewalk along the southern edge of the street. Little Neck Boulevard borders the Proposed Development Site to the west. It is an 80-foot wide, two-way local road running north-south. The portion of Little Neck Boulevard adjacent to the Proposed Development Site is mapped but unbuilt.

Surrounding Area Context

The surrounding area within 400 feet of the Proposed Development Site primarily supports residential uses (see **Figure 2 in the EAS Form**). Block 6008, which contains the Proposed Development Site, and Block 6004, which is directly to the west, are entirely residential and are occupied by single-family detached homes of one to two stories. A single lot on Block 6004, which is adjacent to the Proposed Development Site, is part of the Bay Terrace Country Club, and is occupied by tennis courts. Block 5958, to the northwest of the Proposed Development Site, has one lot within 400 feet of the Proposed

Figure A-1
Aerial Imagery



Development Site, which is vacant. Two seven-story, multi-family residential elevator buildings occupy a large lot on this block that falls mostly outside the 400-foot area.

The area to the east and north of the Proposed Development Site is unimproved City-owned, mapped parkland. A portion of this land directly north of the Proposed Development Site is slated for development by the NYC Department of Parks and Recreation, as shown in **Figure 2 in the EAS Form**. NYC Parks plans to construct a new playground, the Cross Island Parkway Waters Edge Drive Playground. According to the NYC Parks Capital Projects Tracker, the project is currently in the design phase.

Directly east of the City-owned parkland and within 400 feet of the Proposed Development Site is the Cross Island Parkway, which is an approximately 90-foot wide, six-lane, principal arterial expressway that generally runs north-south and connects the Whitestone and Throggs Neck Bridges in Queens to the Southern State Parkway in Nassau County. The Cross Island Parkway Greenway, a linear open space operated by NYC Parks, runs along the east side of the parkway at the waterfront of Little Neck Bay. Little Neck Bay is an inlet of the Long Island Sound, and it occupies the remainder of the area in a 400-foot radius of the Proposed Development Site.

The area is served by the MTA Q13 bus line, which runs north-south along Bell Boulevard, approximately 1,000 feet west of the Proposed Development Site.

III. THE PROPOSED ACTIONS

In order to the facilitate the construction of the Proposed Development, the Applicant is seeking two discretionary actions, as follows:

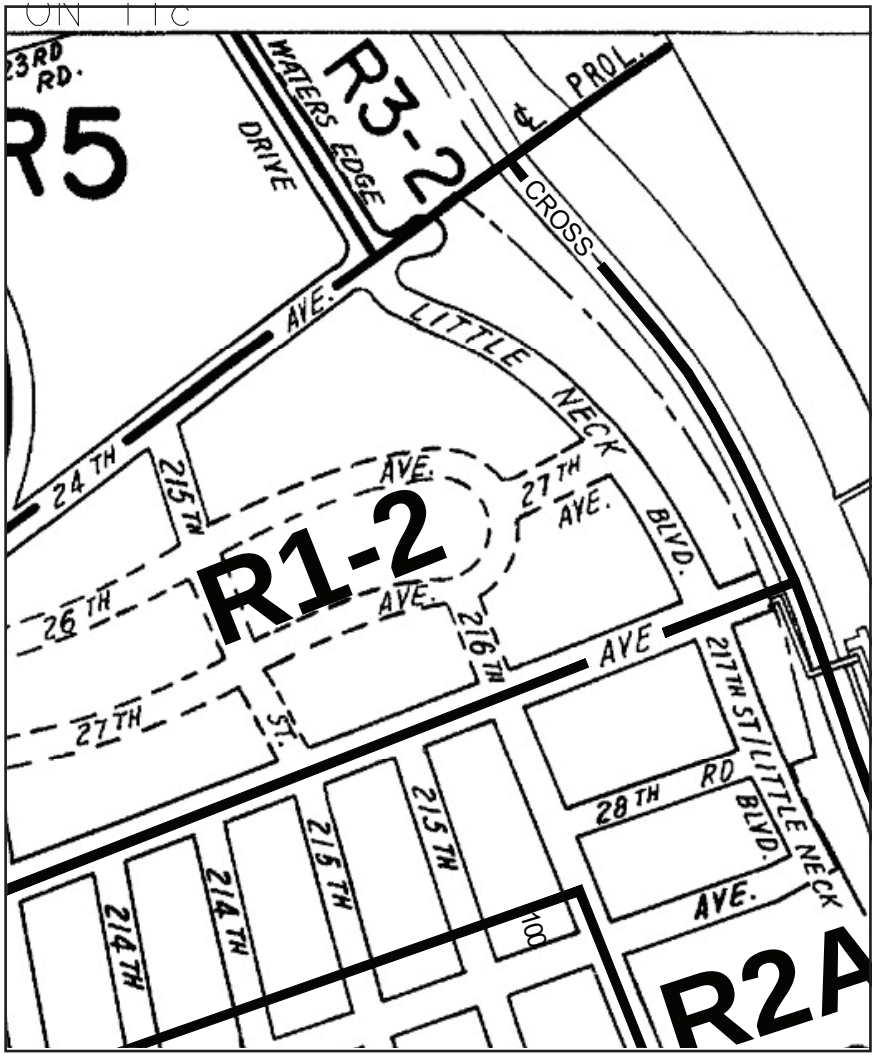
- a zoning map amendment to rezone the Proposed Rezoning Area from an R1-2 district to an R6A district, and
- a zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to establish the Proposed Rezoning Area a as a MIH area.

The proposed zoning map and text amendment are discretionary actions that are subject to the Uniform Land Use Review Procedure (ULURP). The Proposed Actions are also subject to environmental review under the City Environmental Quality Review (CEQR) process. These actions are detailed below.

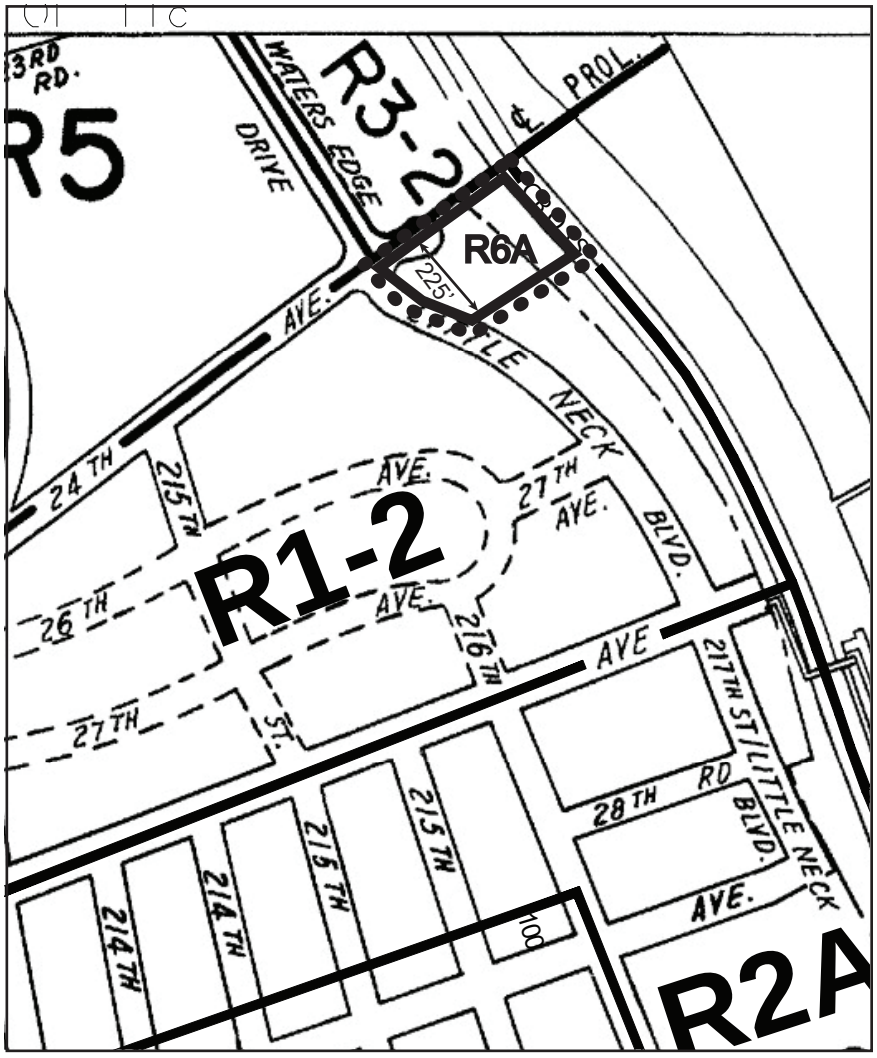
Zoning Map Amendment

The proposed zoning map amendment would rezone the Proposed Rezoning Area from R1-2 to R6A (refer to **Figure A-2**). As shown in **Figure 4 of the EAS Form**, the proposed zoning map amendment would affect Queens Block 6008, portions of Lot 84, 95, and 150, an area totaling approximately 55,614 sf.

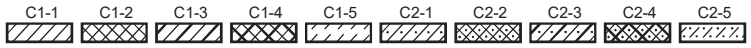
Table A-1 compares the use and bulk requirements under the existing and proposed zoning districts. R1-2 zoning districts are low-density, single-family detached residence districts generally mapped in areas with a suburban character. R1 districts are characterized by generous yard requirements and lot coverage regulations that maintain substantial open spaces between buildings. R1-2 districts have a maximum FAR of 0.5 for residential uses and 1.0 for community facility uses. Only Use Group (UG) 1 single-family residential uses are permitted. A limited selection of UG 3 and UG 4 community facility uses that provide essential services to residents are permitted. Building heights are governed by the *sky exposure plane*, which begins at 25 feet above the street line. R1-2 districts require one on-street parking space per



Existing Zoning Map (13b)



Proposed Zoning Map (11a)
Area to be rezoned is outlined with dotted lines



dwelling unit. By comparison, R6A districts are medium-density contextual residential districts where Quality Housing bulk regulations are mandatory. The maximum permitted residential FAR is 3.0, which increases to 3.6 with MIH. The maximum FAR for community facility uses is 3.0. After a base height of 45 feet, buildings in R6A districts must set back by 10 feet on wide streets and 15 feet on narrow streets. The maximum height is 75 feet if providing a qualifying ground floor (85 feet with MIH). Off-street parking is generally required for 50 percent of a building's dwelling units, but requirements are lower for income-restricted housing units.[3]

TABLE A-1
Comparison of Existing and Proposed Zoning

	Existing	Proposed
	R1-2	**R6A**
Use Groups	1, 3, 4	1-4
Maximum Permitted FAR		
Residential	0.5	3.6 (with MIH)
Community Facility	1.0 (Limited Uses)	3.0
Commercial	Not Permitted	Not Permitted
Manufacturing	Not Permitted	Not Permitted
Overall Maximum Permitted	1.0	3.6

Source: *Zoning Resolution of the City of New York.*

Zoning Text Amendment - MIH

The Applicant is also proposing a zoning text amendment that is required to map the proposed R6A zoning district as an MIH area by creating a new map for Queens CD 11 in Appendix F of the New York City ZR. The MIH Area would require any new developments containing residential uses to provide affordable units pursuant to one of the four MIH options described below:

- Option 1 – requires 25 percent of residential floor area must be affordable housing for residents with incomes averaging 60 percent of area median income (AMI);
- Option 2 – requires 30 percent of residential floor area must be affordable housing for residents with incomes averaging 80 percent AMI;
- Option 3 (or the "Deep Affordability Option") – requires 20 percent of residential floor area must be affordable housing for residents with incomes averaging 40 percent of AMI; and
- Option 4 (or the "Workforce Option") – requires at least 30 percent of residential floor area must be affordable housing for residents with incomes averaging 115 percent of AMI, with no unit targeted to a household exceeding 135 percent of AMI.

The MIH Area would set a new maximum residential FAR permitted by the underlying zoning district (3.6 FAR). With both the designation of the Project Area as an MIH Area and its rezoning to a R6A, the maximum permitted FAR within the Project Area in the R6A district would be 3.6.

E-Designation and Project Component Related to the Environment (PCRE)

[3] With the City of Yes Housing Opportunity text amendment, the R6A zoning district would be able to go up to 3.9 FAR with the Universal Affordability Preference (UAP). An additional analysis is warranted, and is provided in a technical memorandum in Appendix 5.

The Proposed Actions include the assignment of an (E) designation (E-812) for air quality and noise on Block 6008, Lot 95 to ensure that there would be no significant adverse impacts to air quality and noise. The (E) designation is a mechanism that ensures no significant adverse impacts would result from a proposed action because of steps that would be undertaken prior to the development of a rezoned site.

In addition, as described in **Attachment J, "Transportation,"** the Applicant will conduct a traffic monitoring plan (TMP) at the intersection of Bell Boulevard and 24th Avenue to determine if implementation of traffic improvement measures would be necessary in 2027. NYCDOT will be contacted at the project opening to report occupancy status to aid NYCDOT in determining when the TMP shall be conducted. Prior to undertaking the TMP, the Applicant will prepare and submit a scope of work for NYCDOT review and approval. The Applicant will submit a report summarizing the finding of the TMP as well as all necessary materials, for NYCDOT's review and approval. The TMP will be included as a Project Component Related to the Environment (PCRE) under the Proposed Actions and a Restrictive Declaration will be recorded at the time of approval of the Proposed Actions to ensure implementation and funding of the PCRE.

IV. PURPOSE AND NEED FOR THE PROPOSED ACTIONS

The Proposed Actions would facilitate the development of new, multi-family housing, including income-restricted housing pursuant to the City's MIH program, and a senior long-term care facility at an underutilized site adjacent to an existing R5 district. The proposed zoning map amendment presents an opportunity to bring new housing and assisted senior living space to an area with aging housing stock, limited new production of housing, and low vacancy rates. According to American Community Survey (ACS) data, 83 percent of the housing units in CD 11 were built before 1970 and only 1.2 percent were built since 2010. The rental vacancy rate is 4.5 percent, approximately 43.6 percent of rental households are rent-burdened, and CD 11 has the third highest senior population in New York City at 20.7 percent. The Proposed Actions would promote the production of new housing and senior assisted living facilities to serve these needs. Additionally, the site is adjacent to the boundary of CD 7, which is similarly underserved in terms of new housing and senior living facilities. It should also be noted that a new public school and public park are planned directly northeast and north of the Proposed Rezoning Area, respectively, further emphasizing the potential for growth in the area.

The proposed R6A district would increase the housing capacity for the neighborhood. Pursuant to Options 1 through 3 of the City's MIH program, a minimum of 20 percent of the residential floor area would be required to be set aside for permanently affordable housing below 80 percent of AMI. The Proposed Actions would create new affordable housing units that would be consistent with the goals that were set forth by the City in *Housing New York: A Five-Borough, Ten-Year Plan* and *Housing New York 2.0*. *Housing New York* was the City's comprehensive housing development policy plan under the de Blasio administration that sought, as a primary goal, to build and preserve 300,000 units of high-quality affordable housing over the next decade. The proposed affordable units would also be consistent with Mayor Adams' *Housing Our Neighbors: a Blueprint for the City of New York*, which aims to create and preserve affordable housing. The Proposed Development would be consistent with the former Housing New York policy and current Housing Our Neighbors policy by adding permanently affordable units in a community where affordable housing demand is high.

V. DESCRIPTION OF THE PROPOSED DEVELOPMENT

As discussed above, in the future with the Proposed Actions, the Applicant proposes to demolish the existing structures at the Proposed Development Site to facilitate the development of a new eight-story (85-foot-tall) residential building with senior living facilities on the first and second floors. The Proposed Development would be composed of approximately 162,026 gsf of residential uses (167 DUs), 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space, for a total of approximately 254,171 gsf. Depending on the MIH option selected, approximately 42-50 DUs would be designated as permanently affordable. The Applicant intends to pursue Option 2 of the City's MIH program. In this scenario, 30 percent of the 167 DUs (or approximately 50 units) would be designated as permanently affordable at an average affordability level not exceeding 80 percent of AMI.

Senior living facility uses in the Proposed Development are expected to occupy portions of the first and second floors of the building, while residential uses including accessory amenity spaces are expected to occupy a portion of the first floor and the third through eighth floors. The single below-ground cellar level would contain an 86-space parking garage and additional accessory amenity space. The entrances for the proposed residential and senior uses would be provided along the north side of the building and would be accessed by a driveway loop extending from the existing cul-de-sac, while the entrance for the below-grade parking garage would be along the west side of the building, accessed via a driveway off 24th Avenue that would roughly follow the path of the mapped but unbuilt portion of Little Neck Boulevard (refer to the site plan provided in **Figure A-3**).

As shown in **Figure A-3** and the illustrative building massing provided in **Figures A-4 and A-5**, the Proposed Development would consist of a single U-shaped massing facing towards 24th Avenue and oriented around the cul-de-sac. The U-shaped building would form an inner court where a driveway loop would provide vehicle access from the cul-de sac and a pathway would provide pedestrian access to the entrances for the residential and senior living uses. The building would rise to a maximum height of approximately 85 feet with setbacks above the sixth floor along 24th Avenue. The Proposed Development would provide the required 30-foot rear yard along the southern and eastern lot lines.

VI. ANALYSIS FRAMEWORK

Build Year

It is anticipated that the Proposed Actions would be certified in ULURP in 2024. Assuming the completion of the ULURP process by 2025, and a period of approximately 22 months for construction over a single phase of construction, completion of the Proposed Development is expected in 2027. The Build Year reflects a reasonable estimate of the time needed for the Applicant to demolish the existing structures at the Proposed Development Site and construct the Proposed Development within the estimated 22-month period.

The future No-Action and With-Action scenarios identify the amount, type, and location of development that is expected to occur by 2027 without and with approval of the Proposed Actions. The incremental difference between the future No-Action and future With-Action scenarios is the basis for the impact category analyses of this Environmental Assessment Statement (EAS).

Identification of Development Sites



1 Site
1" = 30'-0"

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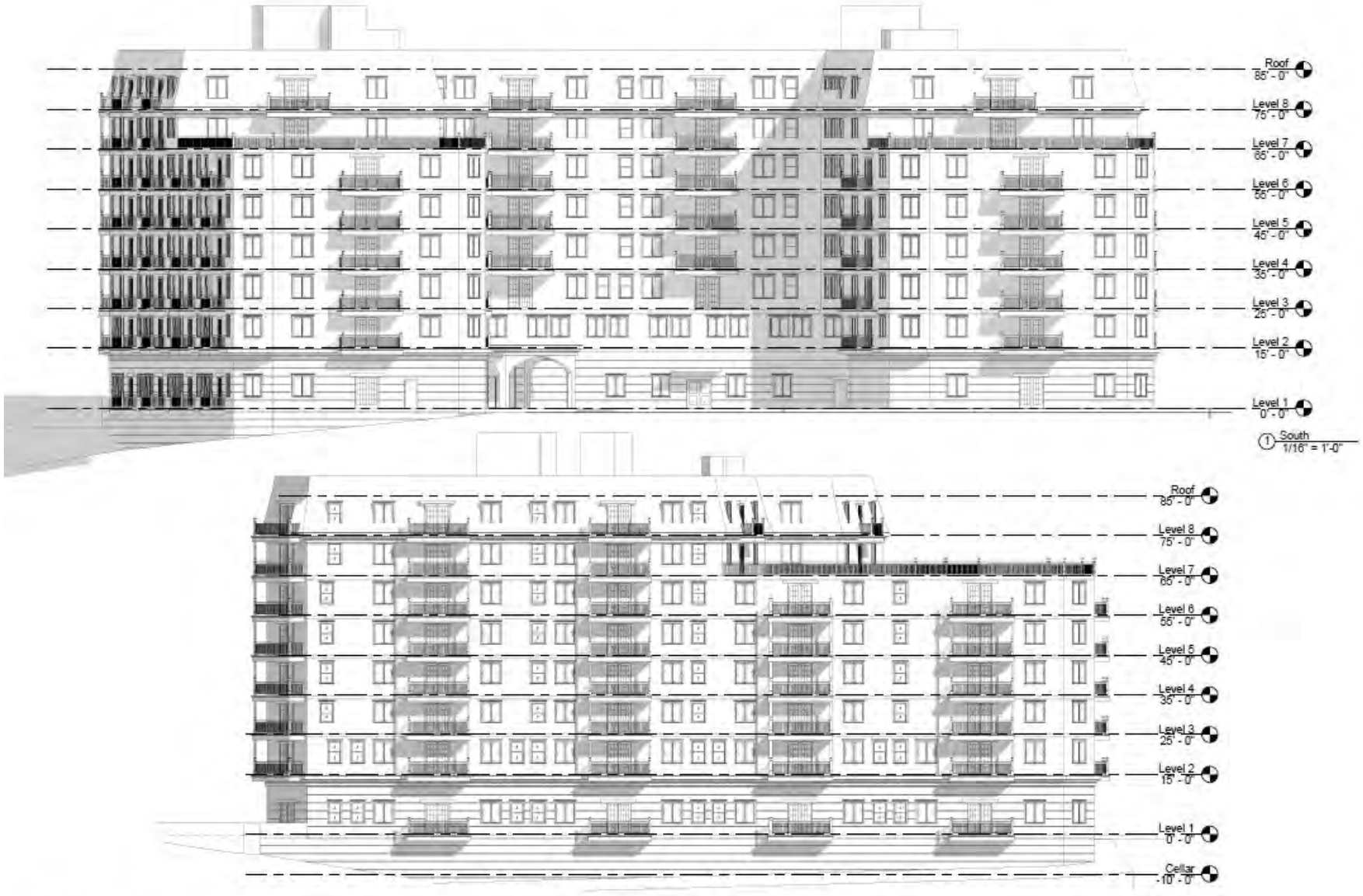
T: 212.421.3712 F: 212.421.8471
© 2023

217-14 24TH AVENUE
QUEENS, NEW YORK

Site Plan
Scale: 1" = 30'-0"
2023/02/08
A1



BOROUGH: QUEENS
BLOCK: 6008
LOT: 95

"Applicant's stamp and seal corresponds to the information regarding the development site, zoning lot, and related curb cuts. Information regarding the surrounding properties is for illustrative purposes only"

Figure A-4a
Illustrative Building Sections - South and West Elevations





BOROUGH: QUEENS
BLOCK: 6008
LOT: 95

"Applicant's stamp and seal corresponds to the information regarding the development site, zoning lot, and related curb cuts. Information regarding the surrounding properties is for illustrative purposes only"

Figure A-4b
Illustrative Building Sections - North and East Elevations

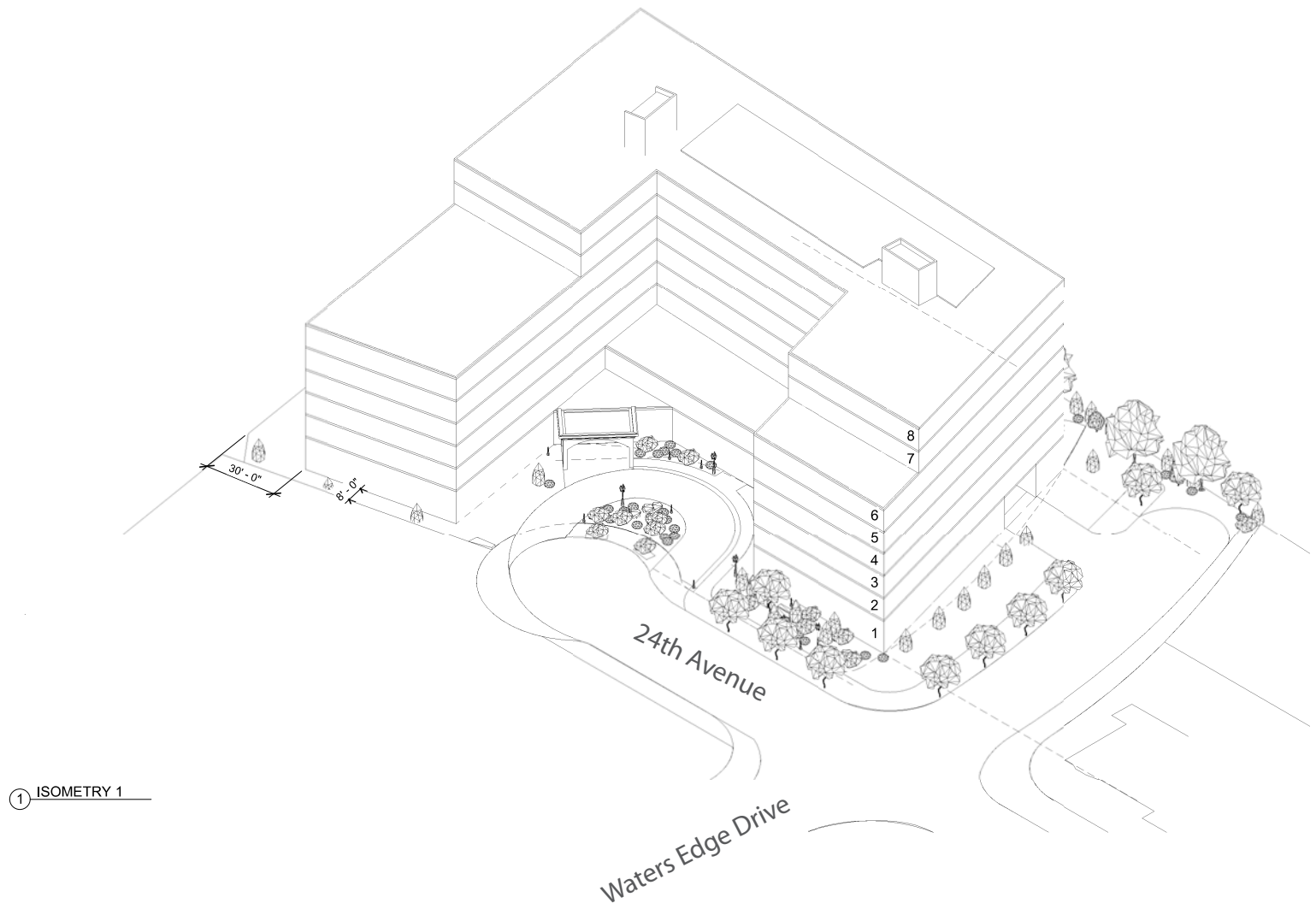


Figure A-5
Illustrative Massing

According to the *2021 CEQR Technical Manual*, the following factors, commonly referred to as "soft site criteria," are generally considered when evaluating whether some amount of development would likely be constructed by the Build Year as a result of Proposed Actions:

- The uses and bulk allowed: Lots located in areas where changes in use would be permitted and/or contain buildings built to substantially less than the maximum allowable floor area ratio (FAR) under the existing zoning are considered "soft" enough such that there would likely be sufficient incentive to develop in the future, depending on other factors specific to the area (e.g., the amount and type of recent as-of-right development in the area, recent real estate trends, site specific conditions that make development difficult, and issues relating to site control or site assemblage that may affect redevelopment potential); and
- Size of the development site: Lots must be large enough to be considered "soft." Generally, lots with a small lot size are not considered likely to be redeveloped, even if they are currently built to substantially less than the maximum allowable FAR. A small lot is often defined for this purpose as 5,000 sf or less, but the lot size criteria is dependent on neighborhood-specific trends, and common development sizes in the study area should be examined prior to establishing this criterion.

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

- Full block and newly constructed buildings with utility uses, as these uses are often difficult to relocate;
- Lots where construction is actively occurring, or has recently been completed, as well as lots with recent alterations that would have required substantial capital investment, unless recently constructed or altered lots were built to less than or equal to half of the maximum allowable FAR under the proposed zoning;
- Lots whose location or irregular shape would preclude or greatly limit future as-of-right development. Generally, development on irregular lots does not produce marketable floor space;
- Long-standing institutional uses with no known development plans; or
- Residential buildings with six or more units constructed before 1974. These building are likely to be rent-stabilized and difficult to legally demolish due to tenant relocation requirements.

Proposed Development Site (Lot 95)

The Applicant-owned site is considered a projected development site, as in the future with the Proposed Actions the Applicant intends to redevelop the site with an eight-story (85-foot-tall) residential building with senior living uses on the base two floors, as detailed above.

Remainder of the Project Area (Lot 84)

In addition to the Applicant's property, the Proposed Rezoning Area also includes a small portion of Lot 84, which is not controlled by the Applicant. As the portion of Lot 84 that would fall within the Proposed R6A district is less than 50 percent of the lot area, and none of the lot boundaries would extend to a distance of 25 feet or greater into the Proposed Rezoning Area, per the provisions in NYC Zoning Resolution Section 77-11, the use and bulk regulations of an R3-2 district would apply to the entire zoning lot. No changes in use or bulk over what is currently permissible would occur on Lot 84, therefore it is not considered a projected development site.

Reasonable Worst-Case Development Scenario (RWCDS)

In order to assess the possible effects of the Proposed Actions and resulting Proposed Project, a RWCDS was established for both the future without the Proposed Actions (No-Action) and the future with the Proposed Actions (With-Action) for an analysis year, or Build year, of 2027. The incremental difference between the No-Action and With-Action conditions will serve as the basis of the impact category analyses. The Proposed Development described above would have a built FAR of approximately 3.6, and would therefore maximize the allowable residential FAR for the site under the Proposed Actions. However, as described above, for conservative analysis purposes the RWCDS will assume an average DU size of 850 sf. Thus, under the RWCDS, the Proposed Development could be redeveloped with up to 259 DUs (of which, approximately 65-78 units would be designated as permanently affordable pursuant to MIH), 58,194 gsf of assisted living space and 86 accessory, off-street parking spaces. While the total DUs and residential population generated by the RWCDS would be based on a project absent the assisted living facilities (resulting in up to 259 DUs), for conservative analysis purposes the non-residential population generated by the RWCDS will be based on the inclusion of the proposed 58,194 gsf of assisted living uses.

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

In the future without the proposed action, no changes would occur within the project area. All existing uses are anticipated to remain. The Proposed Development Site would not be redeveloped, and the existing structures and recreational facilities associated with the Bay Terrace Country Club would remain on the site.

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

In the future with the Proposed Actions (the "With-Action condition"), the proposed zoning map and text amendment would be approved, and the Proposed Development Site would be redeveloped as outlined above. However, for conservative analysis purposes, the RWCDS will assume an average DU size of 850 sf. Thus, under the RWCDS, the Proposed Development Site could be redeveloped with up to 259 DUs (of which, up to approximately 65-78 units would be designated as permanently affordable pursuant to MIH), and 86 accessory off-street parking spaces. As noted above, while the total DUs and residential population generated by the RWCDS would be based on a project absent the assisted living facilities (resulting in up to 259 DUs), for conservative analysis purposes the non-residential population generated by the RWCDS will be based on the inclusion of the proposed 58,194 gsf of assisted living uses.

Possible Effects of the Proposed Actions

Table A-2 below provides a comparison of the Proposed Development Site under No-Action and With-Action conditions identified for analysis purposes. As shown, the incremental (net) change that would result from the Proposed Actions under the RWCDS on the Proposed Development Site is the addition of a total of 162,026 gsf of residential uses, including approximately 259 DUs (of which up to approximately 65-78 would be affordable units at or below 80 percent AMI), along with 86 off-street parking spaces in a below-grade garage. In terms of population, the Proposed Project is expected to generate approximately 697 incremental residents and 68 incremental employees, as compared to the 2027 No-Action condition.

TABLE A-2

Comparison of 2027 No-Action and With-Action Conditions (Project Area)

	Existing	No-Action	With-Action	Increment
Land Use				
Residential GSF	0	0	220,220	+220,220 gsf
Total DUs	0	0	259[1]	+259 DUs
Market-rate DUs	0	0	181-194	+181-194 DUs
Affordable DUs	0	0	65-78[2]	+65-78 DUs
Accessory Parking GSF	0	0	33,951	+33,951 gsf
Accessory Parking Spaces	0	0	86	+86 spaces
Commercial GSF	2,800	2,800	0	-2,800 gsf
Population				
Residents[3]	0	0	697	+697 residents
Workers[4]	3	3	71	+68 workers

[1] While the Applicant proposes to develop up to 167 DUs with 58,194 gsf of senior living space, for CEQR analysis purposes, the RWCDS will assume no senior living uses and an average DU size of 850 sf, resulting in 259 DUs.
[2] Depending on the MIH option selected, 25% or 30% of the Proposed Development's DUs would be designated as permanently affordable at or below 80% AMI.
[3] Based on 2020 US Census data for average persons per household in Queens Community District 11 (2.69p/hh).
[4] Number of workers assumes 1 worker per 900 gsf of private sports club space; 1 worker per 25 DUs; 1 worker per 50 attended parking spaces; and 1 worker per 1,000 gsf of community facility (assisted living) space.

VII. REQUIRED APPROVALS

As noted above, the proposed zoning map and text amendment are discretionary actions that are subject to both the ULURP and CEQR. ULURP is a process that allows public review of Proposed Actions at four levels: the Community Board; the Queens Borough President; the New York City Planning Commission; and the City Council. The procedure mandates time limits for each stage to ensure a maximum review period of seven months. CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. The City of New York established CEQR regulations in accordance with SEQRA. In addition, the City has published a guidance manual for environmental review, the *CEQR Technical Manual*. CEQR rules guide environmental review through the following steps:

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

ATTACHMENT B

SUPPLEMENTAL SCREENING

I. INTRODUCTION

This Environmental Assessment Statement ("EAS") has been prepared in accordance with the guidance and methodologies presented in the 2021 *City Environmental Quality Review ("CEQR") Technical Manual*. For each technical area, thresholds are defined, which if met or exceeded, require that a detailed technical analysis be undertaken. Using this guidance, preliminary screening assessments were conducted for the Proposed Actions and resultant reasonable worst-case development scenario (RWCDS) to determine whether detailed analysis of any technical area may be appropriate. Part II of the EAS Form identifies those technical areas that warrant additional assessment. For those technical areas that warranted a "Yes" answer in Part II of the EAS Form, including Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Community Facilities and Services; Open Space; Shadows; Historical and Cultural Resources; Urban Design and Visual Resources; Hazardous Materials; Water and Sewer Infrastructure; Transportation; Air Quality; Noise; Public Health; Neighborhood Character; and Construction supplemental screening assessments are provided in this attachment. The remaining technical areas detailed in the *CEQR Technical Manual* were not deemed to require supplemental screening because they do not trigger initial CEQR thresholds and/or are unlikely to result in significant adverse impacts. The following technical areas screened out from any further assessment: Natural Resources; Solid Waste and Sanitation Services; Energy; and Greenhouse Gas Emissions and Climate Change.

The supplemental screenings contained herein identified that additional analyses are required in the areas of Land Use, Zoning, and Public Policy, Socioeconomic Conditions, Community Facilities and Services, Open Space, Shadows, Urban Design and Visual Resources, Water and Sewer Infrastructure, Transportation, Air Quality, and Noise. In addition, a statement of the effects of the Proposed Actions on disadvantaged communities is included pursuant to Section 8-0109(2)(k) of the New York State Environmental Conservation Law. These analyses are provided in **Attachments C to L**, respectively, and are summarized in this attachment. **Table B-1** presents a summary of analysis screening information for the Proposed Actions.

As described in **Attachment A, "Project Description,"** approval of the proposed zoning map and text amendments (the "Proposed Actions") and resultant RWCDS would result in the net increase of approximately 220,220 gsf of residential uses, including up to 259 dwelling units (DUs) of which up to approximately 65-78 units would be affordable at or below 80 percent of average median income (AMI) pursuant to the city's Mandatory Inclusion Housing (MIH) program, as well as 86 off-street accessory parking spaces in a below-grade garage, in the Bay Terrace neighborhood of Queens Community District (CD) 11, as compared to the No-Action condition. None of the other tax lots affected by the proposed zoning map and text changes are expected to be redeveloped or enlarged in the future with the Proposed Actions.

TABLE B-1
Summary of CEQR Technical Areas Screening

CEQR TECHNICAL AREA	SCREENED OUT PER EAS FORM	SCREENED OUT PER SUPPLEMENTAL SCREENING	ANALYSIS REQUIRED
Land Use, Zoning, & Public Policy			X
Socioeconomic Conditions			X
Community Facilities and Services - Early Childhood Programs			 X
Open Space			X
Shadows			X
Historic & Cultural Resources		X	
Urban Design & Visual Resources			X
Natural Resources	X		
Hazardous Materials		X	
Water and Sewer Infrastructure			X
Solid Waste & Sanitation Services	X		
Energy	X		
Transportation - Traffic & Parking - Transit - Pedestrians - Street User Safety	 X X 	 	 X X
Air Quality - Mobile Sources - Stationary Sources - Garage	 X 	 	 X X
Greenhouse Gas Emissions	X		
Noise			X
Public Health		X	
Neighborhood Character		X	
Construction		X	
Effects on Disadvantaged Communities		X	

II. SUPPLEMENTAL SCREENING AND SUMMARY OF DETAILED ANALYSES

Land Use, Zoning, and Public Policy

According to the *CEQR Technical Manual*, a detailed assessment of land use, zoning and public policy is appropriate if an action would result in a significant change in land use or would substantially affect regulations or policies governing land use. Zoning and public policy analyses are typically performed in conjunction with a land use analysis when an action would change the zoning on the site or result in the loss of a particular use. Land use analyses are required when an action would substantially affect land use regulation.

The Proposed Actions include zoning map and zoning text amendments. Therefore, a land use, zoning, and public policy assessment is provided in **Attachment C, "Land Use, Zoning, and Public Policy."** As discussed therein, no significant adverse land use, zoning, or public policy impacts are expected in the future with the Proposed Actions. The Proposed Actions would facilitate new mixed-use residential and community facility development in a location where appropriate, and that is characterized by similar uses.

Socioeconomic Conditions

The *CEQR Technical Manual* states that a socioeconomic assessment should be conducted if an action may be reasonably expected to create socioeconomic changes within the area affected by the action that would not be expected to occur without the action. In accordance with CEQR guidance, a socioeconomic analysis considers five specific elements that can result in significant adverse socioeconomic impacts: (1) direct displacement of residential populations from a development site; (2) direct displacement of existing businesses or institutions from a development site; (3) indirect displacement of residential populations in a study area; (4) indirect displacement of businesses or institutions in a study area; and (5) adverse effects on specific industries.

As indicated on the EAS Form, the Proposed Actions can be screened out from any consideration of direct displacement of existing residential populations and businesses/institutions. There are no existing residential uses on the Proposed Development Site. The potential direct displacement of the existing private swimming and sports club on the Proposed Development Site could result in the direct displacement of an estimated three employees. The amount of employment associated with that displacement would not exceed the 100-employee threshold outlined in the *CEQR Technical Manual*. Therefore, an assessment of direct business displacement is not warranted pursuant to CEQR guidance.

The Proposed Actions can also be screened out from any consideration of indirect business displacement or adverse effects on specific industries, per the EAS Form. The Proposed Actions would not introduce commercial development in excess of the CEQR threshold of 200,000 sf, nor would it add to, or create, a retail concentration that may draw a substantial amount of sales from existing businesses within the study area to the extent that certain categories of business close and vacancies in the area increase, thus resulting in a potential for disinvestment on local retail streets. Additionally, the Proposed Actions would not result in any effects on any specific industries, such as introducing a new concentration of a specific industry, affecting an area where a specific industry is concentrated, or indirectly substantially reduce employment in or impair the economic viability of a specific industry. Therefore, no assessment is warranted.

The Proposed Actions and associated RWCDS would introduce a net residential increment of up to 259 DUs (of which, up to approximately 65-78 units would be reserved as permanently affordable pursuant to MIH), which exceeds the CEQR threshold of 200 units. A preliminary analysis of indirect residential displacement is provided in **Attachment D, "Socioeconomic Conditions."** As discussed therein, the Proposed Actions would not result in significant adverse indirect residential socioeconomic impacts.

Community Facilities

Potential direct or indirect effects of a proposed action(s) can trigger the need for analysis of community facilities. Direct effects occur if a project would "physically alter a community facility, whether by displacement or other physical change." Indirect effects occur if a project would add population to an area, which may potentially affect service delivery. While no community facilities would be directly displaced by the Proposed Actions, the Proposed Actions and associated RWCDS could result in the development of up to 259 dwelling units, of which up to approximately 65-78 would be considered affordable under MIH. The *CEQR Technical Manual* provides density thresholds, which are used to make an initial determination of whether detailed studies are necessary to determine potential indirect impacts. These density thresholds are summarized in **Table B-2**.

TABLE B-2
Preliminary Screening Analysis Criteria for Community Facilities

Community Facility	Threshold for Detailed Analysis	Minimum Number of Residential Units in Queens that Trigger Detailed Analyses
Public Elementary/Intermediate Schools	50 or more elementary/intermediate school students	171[1]
Public High Schools	150 or more high school students	1,500[1]
Libraries	More than five percent increase in ratio of residential units to libraries in the borough	663
Health Care Facilities (outpatient)	Introduction of sizeable new neighborhood	N/A
Child Care Centers (publicly funded)	More than 20 eligible children under age six based on number of low- to moderate-income units	139
Fire Protection	Introduction of sizeable new neighborhood	N/A
Police Protection	Introduction of sizeable new neighborhood	N/A

Sources: *CEQR Technical Manual; CEQR App.*
Notes:
[1] Based on school multipliers defined by the School Construction Authority (SCA) for Central School District (CSD) 26: 0.29 for Primary/Elementary School (age 4-10); 0.13 for Intermediate School (age 11-13); and 0.10 for High School (age 14-17); provided by NYCDCP (2020).

Public Schools

The *CEQR Technical Manual* recommends conducting a detailed analysis of public schools if a proposed action would generate 50 or more elementary/intermediate school students and/or 150 or more high school students. As described in **Attachment A, "Project Description,"** the Proposed Actions and resultant RWCDS would result in an increase of 259 dwelling units. Based on the *CEQR Technical Manual* student generation rates for CSD 26 (0.29 elementary school students per unit; 0.13 intermediate school students per unit; and 0.1 high school students per unit), the Proposed Actions would generate approximately 135 additional students (approximately 76 elementary school students, 33 intermediate school students, and 26 high school students). Because these increments exceed the thresholds of 50 additional elementary and intermediate school students, a detailed analysis of the Proposed Actions' effects on elementary and intermediate schools was conducted and is presented in **Attachment E, "Community Facilities and Servies."** However, as the number of project-generated high school students would be below the 150 high school student threshold, no significant adverse impacts to public high schools are anticipated and no further analysis is warranted.

Public Schools, Libraries, Health Care Facilities, and Fire and Police Protection

As the Proposed Actions would not result in the introduction of a sizeable new neighborhood, would not result in a more than five percent increase in the ratio of residential units to libraries in Queens (i.e., would result in the development of fewer than 633 DU), and would not result in the generation of 20 or more children under age six eligible for publicly funded child care, analyses of fire and police protection, health care facilities, libraries, and early childhood programs are not warranted, and significant adverse impacts are not anticipated in these technical areas.

Open Space

Based on the *CEQR Technical Manual*, an open space assessment is typically warranted if an action would directly affect an open space or if it would increase the population by more than 200 residents or 500 workers to an area.

The Proposed Actions and RWCDS are expected to result in an estimated 697 new residents and 10 (net) employees as compared to the No-Action Condition. As the Proposed Actions would result in an increase in residents above the *CEQR Technical Manual* threshold for analysis, a residential open space analysis is provided in **Attachment F, "Open Space."** As discussed in detail in **Attachment F**, no significant adverse impacts to open space are expected as a result of the Proposed Actions.

Shadows

A shadows assessment considers Proposed Actions that result in new shadows long enough to reach a publicly accessible open space or sunlight-sensitive historic resource (except within an hour and a half of sunrise or sunset). For Proposed Actions resulting in structures less than 50 feet high, a shadow assessment is generally not necessary unless the site is adjacent to a park, historic resource, or important natural feature (if the features that make the structure significant depend on sunlight). According to the 2021 *CEQR Technical Manual*, some open spaces contain facilities that are not sunlight-sensitive, and do not require a shadow analysis including paved areas (such as handball or basketball courts) and areas without vegetation.

As detailed in **Attachment A, "Project Description,"** as a RWCDS, the Proposed Actions would facilitate the construction of an approximately 85-foot tall building at the Applicant-owned Proposed Development Site, which is near existing and future sunlight-sensitive open space resources. Therefore, an assessment of shadows is warranted to determine whether the RWCDS would result in new shadows long enough to reach sunlight-sensitive resources as compared to the No-Action condition. As detailed in **Attachment G, "Shadows,"** while the RWCDS would cast new incremental shadows, the Proposed Actions would not result in significant adverse shadows impacts on sunlight-sensitive resources in the surrounding area.

Historic and Cultural Resources

Historic and cultural resources include both architectural and archaeological resources. The *CEQR Technical Manual* identifies historic and cultural resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes designated New York City Landmarks; properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (LPC); properties listed on the State/National Registers of Historic Places (S/NR) or contained within a district listed in or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks; and properties not identified by one of the programs listed above, but that meet their eligibility requirements. An assessment of historic/archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures or within historic districts, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

In a letter dated April 13, 2023 (provided in **Appendix 2**), LPC determined that there are no designated or eligible historic architectural resources on the Proposed Development Site or within a 400-foot radius of the site. Moreover, LPC determined that the Proposed Development Site has no archaeological sensitivity. Therefore, the Proposed Development and any associated excavation or grading would not have the potential to result in any significant adverse impacts to historic architectural or archaeological resources. As such, no further analysis of historic and cultural resources is warranted for the Proposed Project.

Urban Design and Visual Resources

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

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

The Proposed Actions involve the rezoning of area from R1-2 to R6A, which would result in a development that would differ from what is currently permitted as-of-right, and as such, an analysis of urban design and visual resources is appropriate. This analysis is provided in **Attachment H, "Urban Design and Visual Resources."** As discussed in **Attachment H**, there would be no significant adverse impacts to urban design and visual resources due to the Proposed Actions.

Hazardous Materials

As defined in the 2021 *CEQR Technical Manual*, a hazardous material is any substance that poses a threat to human health or the environment. Substances that can be of concern include, but are not limited to, heavy metals, volatile and semi volatile organic compounds (VOCs and SVOCs), methane, polychlorinated biphenyls (PCBs) and hazardous wastes (defined as substances that are chemically reactive, ignitable, corrosive, or toxic). According to the *CEQR Technical Manual*, the potential for significant adverse impacts from hazardous materials can occur when: (a) hazardous materials exist on a site, and (b) an action would increase pathways to their exposure; or (c) an action would introduce new activities or processes using hazardous materials.

Phase I Environmental Site Assessment (ESA)

As the Proposed Actions would result in new in-ground disturbance and site excavation at the applicant-owned Proposed Development Site at 217-14 24th Avenue (Block 6008, Lot 95), a Phase I Environmental Site Assessment (ESA) was prepared to determine whether hazardous materials exist on or adjacent to the site. The Phase I ESA (**Appendix 3**) was prepared by ALC Environmental (ALC) in March 2023 in conformance with the guidelines described in ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process – E1527-13. The Phase I ESA consisted of visual observations, a review of historical information, environmental databases, information provided by the applicant, and interviews with current site representatives.

According to the Phase I, the Proposed Development Site is currently improved with a one-story commercial building, with a slab-on-grade foundation, located on an irregular-shaped parcel of land that is approximately 1.27 acres in size. The property features two pools, a pool shed containing pump equipment, a pump room, a security booth, a supply shed used by the restaurant for storage, a concrete

paved walkway throughout the property, an asphalt-paved courtyard on the southwestern portion of the lot, and a yard with playground equipment. The property is secured by a fence with a gate entrance on the west side of the property, fronting 24th Avenue. The existing structure is approximately 2,800 gsf and contains an office and commercial restaurant. The roof is used as a lounge area/restaurant, and is accessed via two staircases on the southwestern and northeastern facades of the building. The office area contains mechanical equipment and storage areas.

As per the historical and municipal records reviewed, prior to the construction of the current improvements, the Proposed Development Site was previously improved with a two-story residential building from at least 1917 to 1960. According to the NYC Department of Buildings (DOB), the current structure on the site was constructed in 1961 and used for recreational and commercial purposes. No other prior uses were identified.

Based on a review of background data, regulatory agency records, aerial photographs, and observations made during the site reconnaissance, the Phase I ESA did not identify Recognized Environmental Conditions (RECs).[1] However, the following noteworthy conditions, which include *de minimis* conditions[2], were identified: (i) suspect asbestos-containing materials in the form of sheetrock and joint compound were observed at the subject building, and damaged sheetrock panels were observed in the mechanical room; (ii) evidence of water intrusion was observed on the mechanical room ceiling sheetrock panels; and (iii) no vapor encroachment conditions (VECs) that could be ruled out were identified.

Based on the findings of the Phase I report, prior to any repair or renovation work that will affect the referenced materials, asbestos testing should be conducted. If determined to contain asbestos, the referenced materials should be abated by a certified asbestos abatement contractor prior to commencement of the renovation works, as per all applicable local, state, and federal regulations. In regards to the evidence of water intrusion observed on the mechanical room ceiling sheetrock panels, the sources of the water intrusion should be investigated and permanently repaired to prevent further water damage and the proliferation of mold growth. ALC has no additional recommendations for further study at the Proposed Development Site, and a Phase II subsurface environmental site investigation is not warranted. As such, any new in-ground disturbances that would result from the approval of the Proposed Actions would not cause significant adverse impacts related to hazardous materials at or within the vicinity of the Project Area.

Water and Sewer Infrastructure

According to the 2021 *CEQR Technical Manual,* a preliminary water supply infrastructure analysis is needed if the project would result in an exceptionally large demand for water (e.g., more than one million gallons per day [mgd]), or is located in an area that experiences low water pressure (i.e., areas at the end of the water supply distribution system such as the Rockaway Peninsula or Coney Island). As the Project Area is not located in an area that experiences low water pressure and the Proposed Actions would not result in an incremental water demand exceeding one mgd, a detailed analysis is not warranted.

[1] Recognized Environmental Conditions (RECs) are defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under condition indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

[2] A *de minimis* condition is one that generally does not present a material risk of harm to the public health or the environment and that generally would not be the subject of an enforcement active if brought to the attention of appropriate governmental agencies (excluding local asbestos and lead situations).

For wastewater and stormwater conveyance and treatment, a preliminary sewer analysis is warranted if (i) a project site comprises more than five acres and would result in an increase of impervious surfaces on the site; (ii) a project is located in a combined sewer area and would result in the incremental development of at least 400 residential units or 150,000 sf or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens or at least 1,000 residential units or 250,000 sf or more of commercial space in Manhattan; or (iii) a project is located in a separately sewered area and would result in the incremental development exceeding that presented in Table 13-1 of the CEQR Technical Manual (and reproduced below in **Table I-1**). As the Proposed Development Site is located in a separately sewered area in Queens and the Proposed Development's incremental development would exceed the *CEQR Technical Manual* residential unit threshold in R1 districts, a preliminary assessment of wastewater and stormwater infrastructure is provided in **Attachment I, "Water and Sewer Infrastructure."** As discussed in **Attachment I**, no significant adverse impacts would occur to water and sewer infrastructure as a result of the Proposed Actions.

Transportation

The *CEQR Technical Manual* identifies minimum development densities that have the potential to result in significant adverse impacts to traffic conditions and therefore require a detailed transportation analysis. The development densities shown in Table 16-1 of the *CEQR Technical Manual* generally result in fewer than 50 peak hour vehicle trips, 200 peak hour subway/rail or bus transit riders, and 200 peak hour pedestrian trips, where significant adverse impacts are considered unlikely.

According to the *CEQR Technical Manual*, if an action would result in development greater than one of the minimum development densities in Table 16-1, a Level 1 (Project Trip Generation) Screening Assessment should be prepared. Except in unusual circumstances, if a proposed action is projected to result in fewer than 50 peak hour vehicle trips, 200 peak hour subway/rail or bus transit riders, or 200 peak hour pedestrian trips, it is unlikely that further analysis would be necessary. If a proposed action would result in a mix of land uses, it may be appropriate to conduct a preliminary trip generation assessment for each land use or use a weighted average to determine whether the total site generated trips exceed the threshold for analysis. If the trip generation screening thresholds are exceeded, a Level 2 (Project-Generated Trip Assignment) Screening Assessment should be prepared to determine if a proposed action would generate or divert 50 peak hour vehicle trips through any intersection, 200 peak hour subway trips through a single station, 50 peak hour bus trips on a single bus route in the peak direction, or 200 peak hour pedestrian trips through a single pedestrian element. If any of these Level 2 screening thresholds are met or exceeded, a detailed analysis for the respective mode is required.

As the RWCDS net increment for the Proposed Actions would exceed the CEQR criteria described above, an assessment of the Proposed Actions' effect on the City's transportation system is required and has been provided in **Attachment J, "Transportation."** Per CEQR guidance, a screening assessment was completed to determine if the Proposed Actions warranted detailed analyses of traffic, parking, transit, pedestrians, or street user safety. The screening assessment consisted of a Level 1 Project Trip Generation and a Level 2 Project-Generated Trip Assignment, presented in **Attachment J.**

As detailed in **Attachment J**, the Proposed Actions warrant a detailed traffic analysis as three intersections near the Project Area would exceed the 50-vehicle CEQR threshold for a detailed traffic analysis. As per the *CEQR Technical Manual*, a detailed parking assessment is needed if the threshold for traffic analysis is exceeded. As described in **Attachment J,** the Proposed Actions would not result in significant adverse parking impacts and with the incorporation of the recommended improvement measures (PCREs), no

individual movements will be significantly worse in delay to be considered significantly or adversely impacted pursuant to the *CEQR Technical Manual* impact criteria.

Additionally, an evaluation of street user safety is needed for locations within the traffic and pedestrian study areas that have been identified as high-crash locations. As discussed in **Attachment J**, no intersections were identified as high-crash locations in the quarter-mile study area and the Proposed Actions would not result in the potential for significant safety impacts.

As described in **Attachment J**, the Proposed Actions would not exceed the CEQR threshold of 200 peak hour subway trips at a single subway station, 50 peak hour bus trips in one direction along a single bus route, 25 peak hour trips by Citywide Ferry Service (CWFS) in a single direction or 50 peak hour CWFS trips at a single ferry landing, and 200 peak hour pedestrian trips at any single pedestrian element (i.e., sidewalks, corner areas, or crosswalks), and therefore, no significant impacts related to transit and pedestrian conditions are anticipated and no further analysis is warranted.

Air Quality

According to CEQR Technical Manual guidance, air quality analyses are conducted to assess the effect of an action on ambient air quality (i.e., the quality of the surrounding air), or effects on the project because of ambient air quality. Air quality can be affected by "mobile sources," pollutants produced by motor vehicles, and by pollutants produced by fixed facilities, i.e., "stationary sources." As per the 2021 CEQR Technical Manual, an air quality assessment should be carried out for actions that can result in either significant adverse mobile source or stationary source air quality impacts.

Mobile Sources

The Proposed Actions and RWCDS would not generate peak hour vehicle volumes in exceedance of the CEQR threshold of 170 vehicle trips (in this area of the City). The Proposed Development Site is bounded by 24th Avenue to the north, which is classified as a local road, and Little Neck Boulevard to the west, which is a mapped and unimproved street. The Proposed Actions and RWCDS would generate peak hour vehicle volumes in exceedance of the CEQR thresholds for heavy-duty diesel vehicle (HDDV) traffic or the vehicular emissions equivalent on adjacent roadways. Therefore, a detailed microscale PM2.5 analysis for the action-generated vehicle trips has been warranted. No significant adverse air quality impact was predicted in the analysis.

In addition, as the Proposed Actions would introduce a new accessory below-grade parking garage on the Proposed Development Site, an analysis was conducted to evaluate potential future pollutant concentrations in the vicinity of the ventilation outlets with the proposed accessory parking garage. Emissions from vehicles using the parking garage could potentially affect levels of carbon monoxide ("CO") and particulate matter smaller than 2.5 microns ("PM2.5") concentrations in the immediate vicinity of the ventilation outlets. Therefore, an analysis was conducted to estimate pollutant concentrations in the vicinity of the parking garage to determine whether concentrations with the garage comply with the City Environmental Quality Review (CEQR) de minimis criteria and the National Ambient Air Quality Standards (NAAQS) for PM2.5 and CO.

As presented in **Attachment K, "Air Quality,"** the maximum pollutant concentrations and concentration increments from mobile source (parking garage) associated with the Proposed Actions are projected to be lower than the corresponding NAAQS and CEQR de minimis criteria, and thus the Proposed Actions

and resultant RWCDS are not expected to result in any significant adverse impacts related to mobile source air quality. However, some restriction measures were used to ensure that no significant adverse air quality impact would occur.

Stationary Sources

As discussed in **Attachment K, "Air Quality,"** a screening analysis was conducted using Figure 17-3 of the 2021 *CEQR Technical Manual*. As shown in **Figure B-1**, using Figure 17-3 and the 254,171-gsf future building size, it was determined that the HVAC emissions from the eight-story building located on the Proposed Development Site would not result in any air quality impacts to existing or future planned sensitive receptors. As there are no existing or planned buildings that are taller than the RWCDS within 400 feet of the Proposed Development Site, emissions from the RWCDS would fall below the applicable curve and would therefore not result in any adverse air quality impacts related to stationary sources (see **Figure B-1**).

As discussed in **Attachment K, "Air Quality,"** to ensure that there is no potential for significant adverse impacts from the Proposed Development's HVAC system(s) emissions, an Air Quality (E) designation [E-812] would be mapped on the Proposed Development Site (Block 6008, Lot 95) in connection with the Proposed Actions to avoid any potential significant adverse air quality impacts.

Air Toxics

In accordance with 2021 *CEQR Technical Manual* methodology, projects that would result in new uses (particularly schools, hospitals, parks, and residences) (a) within 1,000 feet of a major or large emission source; (b) near medical, chemical, or research labs; (c) within 400 feet of manufacturing or processing facilities; (d) near an odor-producing facility; and/or (e) near "non-point" sources (e.g., unpaved surfaces and storage piles that could result in fugitive dust) may result in stationary source air quality impacts.

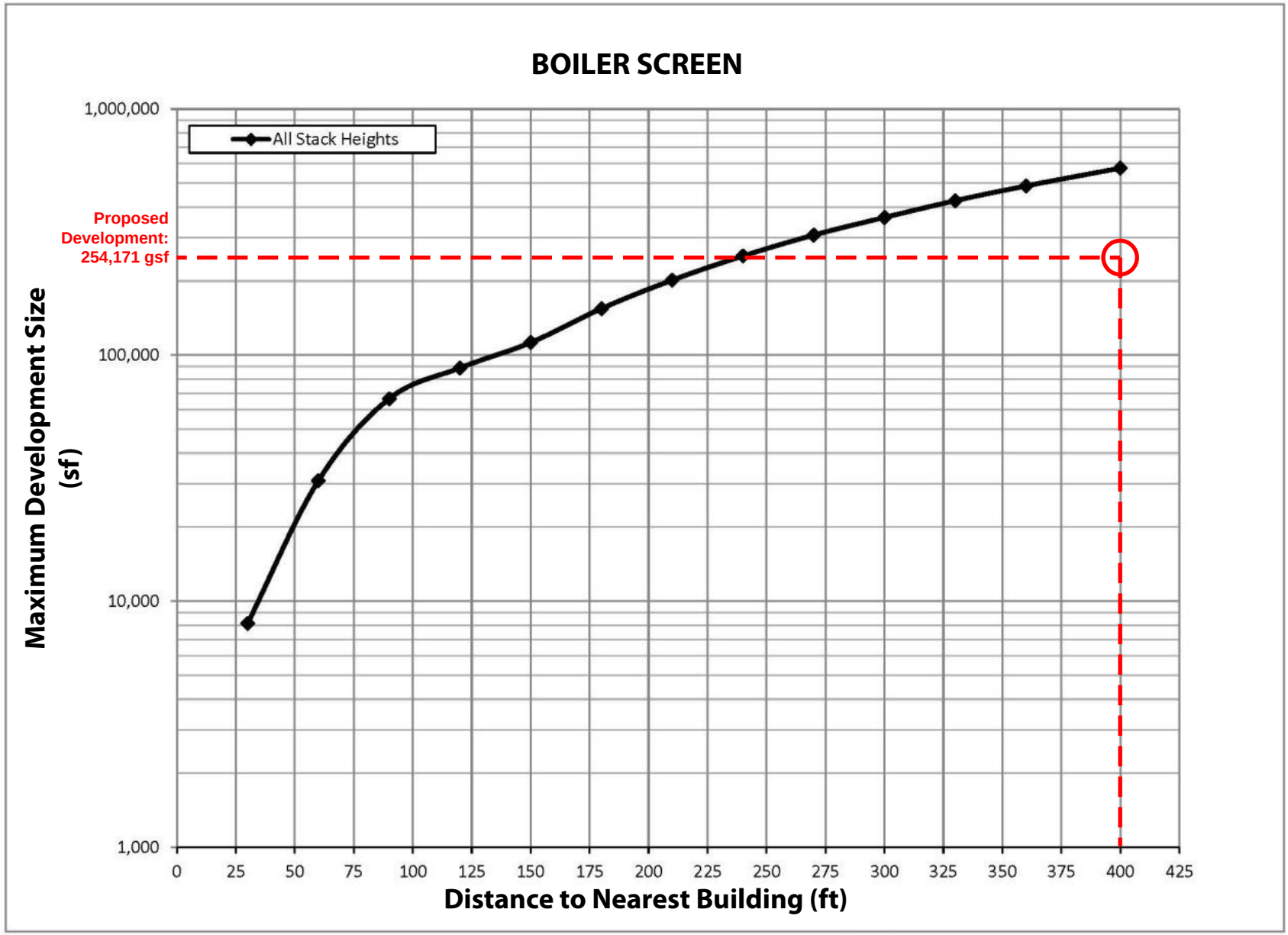
The Proposed Development would not be located within 1,000 feet of a major or large emission source, near medical, chemical, or research labs, within 400 feet of manufacturing or processing facilities, near an odor-producing facility, or near "non-point" sources. Therefore, the Proposed Actions would not result in any significant adverse air quality impacts.

Noise

The purpose of a noise analysis is to determine both a proposed action's potential effects on sensitive noise receptors and the effects of ambient noise levels on new sensitive uses introduced by the proposed action(s). The principal types of noise sources affecting the New York City environment are mobile sources (primarily motor vehicles), stationary sources (typically machinery or mechanical equipment associated with manufacturing operations, building HVAC systems, or play area facilities) and construction noise (e.g. trucks, bulldozers, power tools, etc.).

As the Proposed Action would introduce new sensitive uses, a detailed noise analysis was conducted in compliance with *CEQR Technical Manual* guidance to determine whether traffic generated by the Proposed Actions would have the potential to result in significant adverse noise impacts and determine the level of building attenuation necessary to ensure that the projected development sites' interior noise levels satisfy applicable interior noise criteria.

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



As presented in **Attachment L, "Noise,"** noise from the increased traffic volumes generated by the Proposed Actions would result in an increase in predicted L_{eq} noise levels that would exceed the CEQR impact criteria (3.0 dBA) at several nearby sensitive receptors located close to the Project Area (specifically Receptor Locations 1, C, and E, as shown in **Table L-9** in **Attachment L, "Noise"**), thus indicating the potential for a significant adverse noise impact at Receptor Locations 1, C, and E. However, as the corresponding L_{10} noise levels during the impacted peak hours would be less than 70 dBA, interior noise levels at these receptors would remain below the CEQR interior noise level guideline of 45 dBA for residential/community facility uses. Anticipated off-site stationary (play area) noise sources within the vicinity of the Project Area, while resulting in an increase in L_{eq} noise levels that would not exceed the CEQR impact criteria (3.0 dBA), would result in corresponding L_{10} noise levels of 73.65 dBA. However, by implementing required window/wall attenuation of 31 dBA along the northern frontage of the Proposed Development Site facing 24th Avenue, interior noise levels would remain below the CEQR interior noise level guideline of 45 dBA for residential uses. The composite window/wall noise attenuation outlined in **Attachment L, "Noise"** would be required through the assignment of an (E) designation [E-812] for noise to the Proposed Development Site (Block 6008, Lot 95) in conjunction with the Proposed Actions to avoid any potential significant adverse noise impacts. Therefore, the Proposed Actions would not result in any significant adverse noise impacts related to building attenuation.

Public Health

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

According to the 2021 *CEQR Technical Manual*, a public health assessment may be warranted if a project results in (a) increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; (b) increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse impacts, or the presence of contamination from historic spills or releases of substances that might have affected or might affect groundwater to be used as a source of drinking water; (c) solid waste management practices that could attract vermin and result in an increase in pest populations; (d) potential significant adverse impacts to sensitive receptors from noise and odors; (e) vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts; (f) exceedances of accepted federal, state, or local standards; or (g) other actions that might not exceed the preceding thresholds but might, nonetheless, result in significant health concerns.

As detailed in the analyses provided in this EAS, the Proposed Actions and RWCDS would not result in significant adverse impacts in the areas of air quality, water quality, hazardous materials, or noise. Therefore, the Proposed Actions do not have the potential to result in significant adverse public health impacts, and further assessment is not warranted.

Neighborhood Character

According to the 2021 *CEQR Technical Manual*, an assessment of neighborhood character may be appropriate if a proposed action(s) has the potential to result in significant adverse impacts on land use, zoning, public policy, socioeconomic conditions, open space, historic and cultural resources, urban design and visual resources, shadows, transportation, or noise, or when an action may have moderate effects on several of the elements that define a neighborhood's character. As the EAS provides assessments of land

use, zoning, and public policy (**Attachment C**), socioeconomic conditions (**Attachment D**), open space (**Attachment F**), shadows (**Attachment G**), urban design and visual resources (**Attachment H**), transportation (**Attachment J**), and noise (**Attachment L**), a preliminary screening analysis is necessary to determine if a detailed neighborhood character analysis is warranted.

Neighborhood character is an amalgam of various elements that give neighborhoods their distinct "personality." According to the *CEQR Technical Manual*, a preliminary assessment may be appropriate if a project has the potential to result in any significant adverse impacts on any of the following technical areas: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. Per the analyses provided in this EAS, although the Proposed Actions required supplemental screening or assessment of some of these technical areas, there would be no action-generated significant adverse impacts.

The *CEQR Technical Manual* also states that for projects not resulting in significant adverse impacts to any technical areas related to neighborhood character, additional analyses may be required to determine if the Proposed Actions would result in a combination of moderate effects to several elements that cumulatively may affect neighborhood character. However, the *CEQR Technical Manual* indicates that neighborhood character impacts are rare and it would be unusual that, in the absence of a significant adverse impact in any of the relevant technical areas, a combination of moderate effects in the neighborhood would result in any significant adverse impact to neighborhood character.

The Proposed Actions would not adversely affect any component of the surrounding area's neighborhood character. The Proposed Actions would not conflict with the surrounding activities, nor would they significantly affect land use patterns. The RWCDS that would be facilitated by the Proposed Actions would bring occupancy and activity to underutilized site in a predominantly residential neighborhood. The proposed residential uses would add market-rate and affordable housing and convenient amenities to the neighborhood, as well as assisted living facilities in a neighborhood with an aging population where housing options for seniors is in high demand. As the Proposed Actions would not be considered to have any significant effects on any of the technical areas relating to neighborhood character, a neighborhood character assessment can be screened out, and no significant adverse neighborhood character impacts would occur. Therefore, no additional analysis is warranted for neighborhood character.

Construction

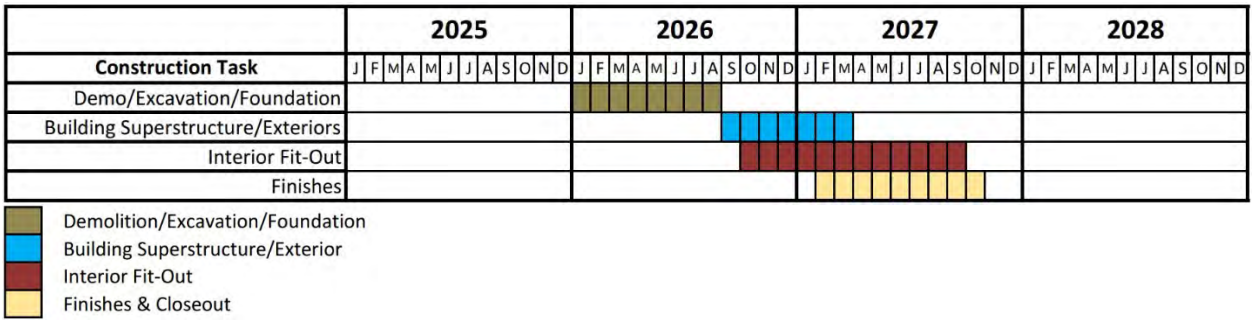
Although temporary, construction impacts can include noticeable and disruptive effects from an action that is associated with construction or could induce construction. Determination of the significance of construction impacts and need for mitigation is generally based on the duration and magnitude of the impacts. Based on *CEQR Technical Manual* guidance, when the duration of construction is expected to be short-term (less than two years), any impacts resulting from construction generally do not require detailed assessment. Construction impacts are usually important when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise patterns, and air quality conditions.

As a RWCDS, the Proposed Actions are expected to facilitate the development of a single residential and assisted living building at the Proposed Development Site. The Proposed Development would be constructed in a single phase and in less than two years. Thus, potential construction impacts would be minimal and as discussed below, not expected to have any significant adverse impacts.

Construction of the Applicant-controlled Proposed Development Site is expected to begin in 2026, following approval of the Proposed Actions, and would be completed in up to 22 months, by 2027. The Proposed Development Site is occupied by a single-story commercial building and would require some demolition and site excavation to construct a single cellar level.

Table B-2 illustrates the conceptual construction sequencing of the Proposed Development associated with the Proposed Actions. As shown in **Table B-2**, it is expected that the Proposed Development would take up to approximately 22 months to complete. Construction of the Proposed Development would undergo an initial approximately eight months of demolition/excavation/foundation work, approximately seven months of building superstructure erection and exteriors, approximately 12 months of interior building fit-out, and approximately nine months of building finishes.

TABLE B-2
Conceptual Construction Schedule Sequencing for the Proposed Development



As construction duration of the Proposed Development would be considered "short-term" (i.e., taking less than two years) in accordance with CEQR, potential effects are expected to be minimal and, as discussed below, the Proposed Actions are not expected to have any significant adverse construction impacts. Construction activities are not expected to adversely affect surrounding land uses. As required by City regulations, sidewalk protection bridges and full height plywood barriers would be installed to protect the public right of way. Construction of the Proposed Development would follow applicable federal, state, and local laws for building and safety, as well as local noise ordinances, as appropriate. Construction specifications would require that construction contractors comply with all applicable legal requirements including environmental regulations and obtain necessary permits for the duration of construction.

The Proposed Actions would result in temporary disruptions including construction related traffic, dust, noise, or mobile source emissions. However, these effects would be temporary, as the duration of construction activities would not exceed 22 months. No publicly accessible open space or community facilities would be directly affected by construction activities for an extended duration. The future, 572-seat public elementary school at 23-50 Waters Edge Drive (Block 5958, Lot 30) located at the northwest corner of 24th Avenue and Wasters Edge Drive (approximately 115 feet northwest of the Project Area) is anticipated to be complete and fully operational in 2026, and the future Cross Island Parkway Waters Edge Playground (approximately 60 feet norther of the Project Area) is anticipated to be complete and fully operational by 2025, and thus, construction-related interruptions to the future school and playground would be minimal. The Proposed Development Site will be surrounded by construction fencing and barriers that would limit the effects of construction on nearby facilities. Construction of the proposed buildings would not block or restrict access to any facilities in the area. Although construction of the Proposed Development would be expected to have the potential to result in elevated noise levels at

nearby receptors (including the future school and playground), and noise due to construction would at times be noticeable, noise from construction would be intermittent and of limited duration.

The following is a brief discussion of the effects associated with construction related activities on hazardous materials, traffic, air quality, noise, and historic and cultural resources resulting from the construction that could occur under the RWCDS.

Conceptual Construction Schedule and Activities

Construction activities for buildings in New York City generally take place Monday through Friday, with exceptions that are discussed separately below. In accordance with City laws and regulations, construction work on the projected development sites would generally begin at 7AM on weekdays, with workers arriving to prepare work areas between 6AM and 7AM. Construction work would typically end at 3:30PM, but at times, the workday could be extended to complete some specific tasks beyond normal work hours, such as completing the drilling of piles, finishing a concrete pour for a floor deck, or completing the bolting of a steel frame erected that day. The extended workday could last until about 9PM and would not include all construction workers on-site, but just those involved in the specific task requiring additional work time. Extended work hours would be subject to after-hours work variance permits from DOB. Additionally, all construction sites require preparation of a noise mitigation plan as outlined in Section 24-219 of the Administrative Code of the City of New York.

Occasionally, Saturday or overtime hours may be required to complete time-sensitive tasks. Weekend work requires a permit from the DOB and, in certain instances, approval of a noise mitigation plan from the DEP under the City's Noise Code. The New York City Noise Control Code, as amended December 2005 and effective July 1, 2007, limits construction (absent special circumstances as described below) to weekdays between the hours of 7AM and 6PM, and sets noise limits for certain specific pieces of construction equipment. Construction activities occurring after hours (weekdays between 6PM and 7AM and on weekends) may be permitted only to accommodate: (i) emergency conditions; (ii) public safety; (iii) construction projects by or on behalf of City agencies; (iv) construction activities with minimal noise impacts; and (v) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts and/or financial considerations. In such cases, the numbers of workers and pieces of equipment in operation would be limited to those needed to complete the particular authorized task. Therefore, the level of activity for any weekend work would be less than a normal workday. The typical weekend workday would be on Saturday from 7AM with worker arrival and site preparation to 5PM for site cleanup, or as specified in DOB-issued work variance permits.

Construction staging would most likely occur on the Proposed Development Site. The development associated with the Proposed Actions would affect the portion of 24th Avenue east of Waters Edge Drive (which is a dead end) and Little Neck Boulevard, which is a mapped and unimproved street. During construction the sidewalks along 24th Avenue fronting the Proposed Development Site may need to be closed at times in order to accommodate construction vehicles, equipment, and supplies. If sidewalk closure is necessary, jersey barriers would be erected, and a covered pedestrian walkway would be created to accommodate pedestrian traffic around the respective subject property. This closure would be considered to be a routine closure that would be addressed by a permit (and pedestrian access plan) to be issued by the NYC Department of Transportation (DOT) Office of Construction Mitigation and Coordination (OCMC) at the time of closure so that impacts are not expected to occur. Although during construction on-street parking may be affected adjacent to the construction area, which will occur along

24th Avenue, it is not anticipated that vehicle moving lanes adjacent to the sites along any of these streets would need to be closed during construction.

Builders would be required to plan and carry out noise and dust control measures during construction. In addition, there would be requirements for street crossing and entrance barriers, protective scaffolding, and strict compliance with all applicable construction safety measures. Construction activities would be subject to compliance with the New York City Noise Code and EPA noise emission standards for construction equipment.

Effect of Construction on Hazardous Materials

As stated above, a Phase I ESA was prepared to determine whether hazardous materials exist on or adjacent to the site (see **Appendix 3**). Based on a review of background data, regulatory agency records, aerial photographs, and observations made during the site reconnaissance, the Phase I ESA did not identify any RECs, and thus a Phase II subsurface environmental site investigation is not warranted. As such, any new in-ground disturbances that would result from the construction of the Proposed Development would not cause significant adverse impacts related to hazardous materials at or within the vicinity of the Project Area. Based on the findings of the Phase I report, prior to any repair or renovation work that will affect the referenced materials, asbestos testing should be conducted. If determined to contain asbestos, the referenced materials should be abated by a certified asbestos abatement contractor prior to commencement of the renovation works, as per all applicable local, state, and federal regulations. In regards to the evidence of water intrusion observed on the mechanical room ceiling sheetrock panels, the sources of the water intrusion should be investigated and permanently repaired to prevent further water damage and the proliferation of mold growth.

In addition, demolition of interiors, portions of buildings, or entire buildings are regulated by DOB and require abatement of asbestos prior to any intrusive construction activities, including demolition. OSHA regulates construction activities to prevent excessive exposure of workers to contaminants in the building materials, including lead paint. New York State Solid Waste regulations control where demolition debris and contaminated materials associated with construction are handled and disposed of. Adherence to these existing regulations would prevent impacts from construction activities at the Proposed Development Site.

Effect of Construction on Traffic

Construction of the Proposed Development would generate trips resulting from arriving and departing construction workers, movement of materials and equipment, and removal of construction waste. As discussed above, construction of the Proposed Development is expected to occur during the typical construction hours of 7AM and 3:30PM. Therefore, worker trips would be concentrated in off-peak hours and would not represent a substantial increment during the area's peak travel periods. Construction workers would use both public transportation and private automobiles. Construction workers typically park off-site for larger developments and at curbside near smaller developments. These curbside spaces are typically available as area residents use their autos to travel to work and elsewhere, and are vacated by construction workers in the afternoon before resident demand increases after the typical workday.

Truck movements would be spread throughout the day and would generally occur between the hours of 6AM and 3PM, depending on the stage of construction. Flaggers are expected to be present during construction to manage the access and movements of trucks to and from the Proposed Development Site.

Little if any rerouting of traffic is anticipated because of the construction of the Proposed Development. Additionally, moving lanes of traffic are expected to be available at all times along the affected streets except on limited days when cranes will be erecting planks. These conditions would be temporary and not result in significant adverse impacts on traffic conditions.

The daily construction worker vehicle trips are expected to be distributed throughout the workday based on projected work shift allocations and conventional arrival/departure patterns of construction workers and trucks. While construction truck trips would be made throughout the day (with more trips typically made during the early morning), construction workers would typically commute during the hours before and after the work shift. At no point would construction at the Proposed Development Site generate more than 50 peak hour vehicle trips.

Construction activities could result in short-term disruption of pedestrian movements around the projected development sites, occurring primarily because of the temporary loss of curbside lanes from the staging of equipment and the movement of materials to and from the sites. Additionally, it is anticipated that some sidewalks could also be closed to accommodate heavy loading areas for at least several months of the construction period for activities associated with the construction of the Proposed Development. These activities would include the unloading of construction materials from trucks and the loading of trucks with construction debris. Curb lane and/or sidewalk closures would not affect access points to public transportation including subway and bus stops. In these instances, pedestrians would either walk on the opposite side of the street or in a sectioned-off portion of the street. Detailed Maintenance and Protection of Traffic (MPT) Plans for each building would be submitted prior to construction for approval by DOT- OCMC, which issues permits for any street/sidewalk closures after evaluation of traffic and pedestrian conditions. Appropriate protective measures for ensuring pedestrian safety surrounding the Proposed Development Site would be implemented under these plans. Therefore, no significant adverse construction impacts on transportation are expected due to the Proposed Actions.

Effect of Construction on Air Quality

Possible impacts on local air quality during construction of the Proposed Development include: fugitive dust (particulate) emission from land clearing operation; and mobile source emissions, including hydrocarbons, nitrogen oxide, and carbon monoxide.

Fugitive dust emissions from land clearing operations can occur from excavation, hauling, dumping, spreading, grading, compaction, wind erosion, and traffic over unpaved areas and would be of short duration for the Proposed Development. Actual quantities of emissions depend on the extent and nature of the clearing operations, the type of equipment employed, the physical characteristics of the underlying soil, the speed at which construction vehicles are operated, and the type of fugitive dust control methods employed. Much of the fugitive dust generated by construction activities consists of relatively large-size particles, which are expected to settle within a short distance from the construction site (and largely contained within a proposed site) and to not significantly impact nearby buildings or people. All appropriate fugitive dust control measures, including watering of exposed areas and dust covers for trucks, would be employed during construction of the Proposed Development. Therefore, the fugitive source emissions generated by the Proposed Actions would not be significant.

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As the number of construction-related vehicle trips generated by the Proposed Actions

would be relatively small and the emissions from such vehicles as well as construction equipment would occur over a period of less than two years at the Proposed Development Site, the mobile-source emissions generated by the Proposed Actions would not be significant. Overall, the Proposed Actions would not have the potential to result in significant adverse air quality impacts.

Effect of Construction on Noise

Noise and vibration from construction equipment operation and noise from construction workers' vehicles and delivery vehicles traveling to and from construction sites can affect community noise levels. The severity of impact of these noise sources would depend on the noise characteristics of the equipment, activities involved, the construction schedule, and the location of potentially sensitive noise receptors. Noise and vibration levels at a given location would be dependent on the kind and number of pieces of construction equipment being operated, as well as the distance of the location from the construction site and the types of structures, if any, between the location and the noise source. Noise levels caused by construction activities can vary widely, depending on the phase of construction (e.g. demolition, land clearing and excavation, foundation, erection of structure, construction of exterior walls) and the specific task being undertaken. Construction noise associated with the Proposed Actions is expected to be similar to noise generated by other residential and community facility construction projects in the city. Increased noise level caused by construction activities can be expected to be more significant during early excavation phases of construction and would be of relatively short duration. Increases in noise levels caused by delivery trucks and other construction vehicles would not be significant. As construction would occur over a period of less than two years, the level and duration of construction noise would not be significant.

Construction noise is regulated by the New York City Noise Control Code and by the Environmental Protection Agency (EPA) noise emission standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 7:00 AM and 6:00 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. In addition, whenever possible, appropriate low noise emission level equipment and operational procedures can be utilized to minimize noise and its effect on adjacent uses. Thus, these regulations would be followed in such a manner that no significant adverse noise impacts would be expected to result from the Proposed Actions and no further analysis is warranted.

Effect of Construction on Historic Resources

The Projected Development Sites do not possess archaeological significance and no further assessment is warranted. Therefore, the Proposed Actions would not have the potential to result in construction period archaeological impacts. The Proposed Actions would not result in any significant adverse impact to architectural resources on the Proposed Development Site, as no historic architectural resources are located on the site. Moreover, no architectural resources are located within 90 feet of the Proposed Development Site. Therefore, the Proposed Actions would not result in any significant adverse impacts to historic architectural resources.

Effects on Disadvantaged Communities Assessment

Effective 30 December 2024, Section 8-0109(2)(k) of the New York State Environmental Conservation Law requires that environmental review documentation includes a statement of the effects of the Proposed Actions on disadvantaged communities, including whether the action may cause or increase a disproportionate pollution burden. The 2021 *City Environmental Quality Review* (CEQR) *Technical Manual* does not provide guidance regarding the scope of this analysis. On January 29, 2025, the New York State Department of Environmental Conservation (NYSDEC) proposed draft State Environmental Quality Review Act (SEQRA) Amendments to implement this new statutory provision. This assessment of the effects on disadvantaged communities considers the impacts identified using *CEQR Technical Manual* guidance.

As described in **Attachment A, "Project Description,"** the Applicant is seeking a zoning map amendment to rezone the Applicant-owned site at 217-14 24th Avenue (Proposed Development Site) from R1-2 to R6A and a zoning text amendment to designate the Proposed Development Site as a Mandatory Inclusionary Housing (MIH) area. The Proposed Development Site is located in the Bay Terrace neighborhood of Queens Community District 11 (Block 6008, Lot 95), within Queens Census Tract 997.03.

Disadvantaged communities (DAC) in New York State were identified based on criteria adopted in 2023 by the Climate Justice Working Group (CJWG), a group composed of representatives from State Agencies and Environmental Justice groups across the State. The CJWG used 45 indicators to identify 35 percent of Census Tracts within New York State as DACs. The criteria include multiple indicators that represent the environmental burdens or climate change risks within a community, or population characteristics and health vulnerabilities that can contribute to more severe adverse effects of climate change. Each Census Tract was scored based on relative burden, risk, vulnerability, or sensitivity. Specifically, the percentile ranks of the indicators for each Census Tract were combined to produce a value measuring a Census Tract's relative level of "Environmental Burdens and Climate Change Risks" as well as "Population Characteristics and Health Vulnerabilities" relative to other Census Tracts. Census Tracts with higher scores relative to other Census Tracts statewide or to their region (i.e., New York City) were identified as DACs.

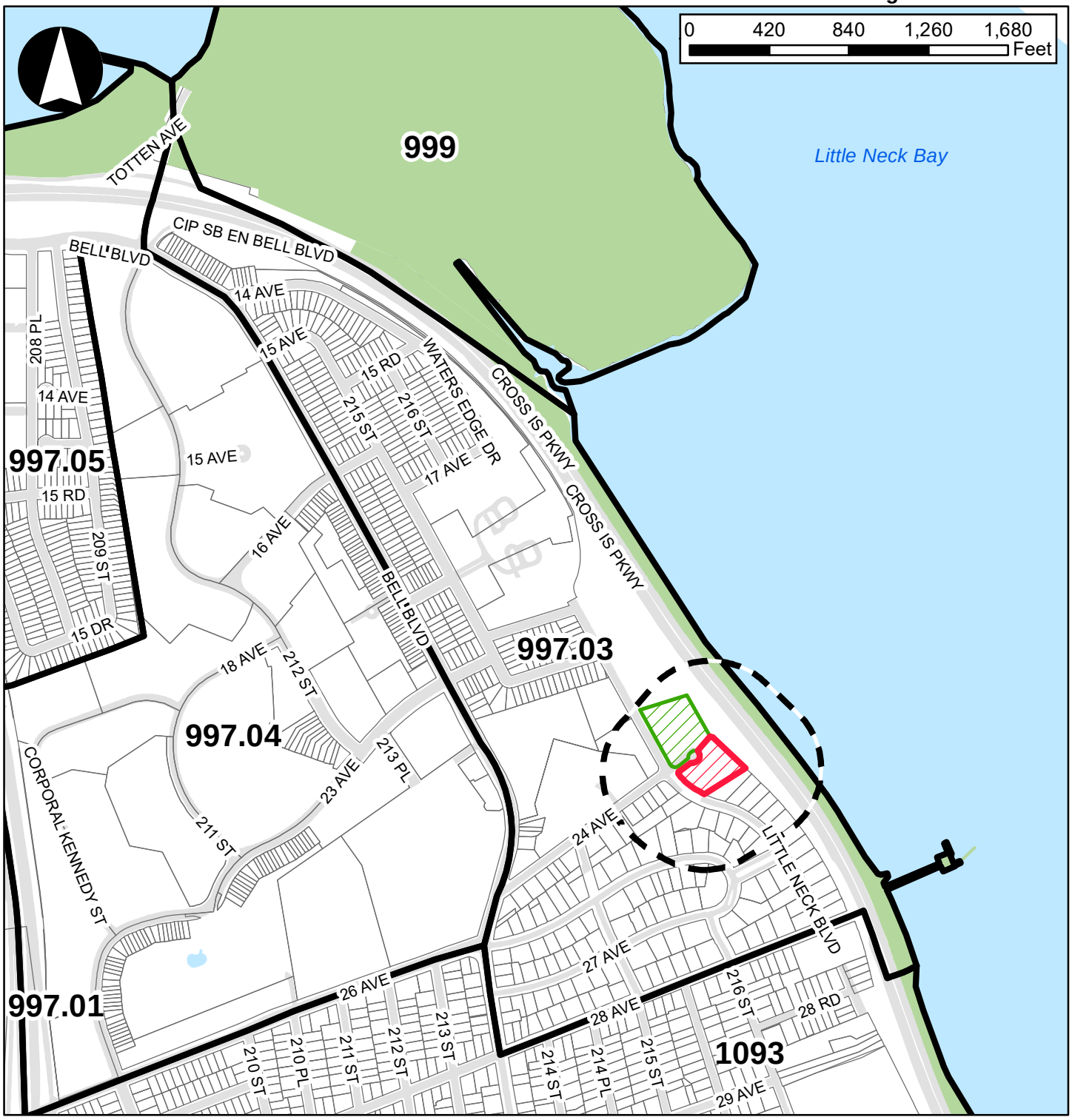
As shown in **Figure B-2**, the Proposed Development Site is located within Census Tract 997.03, which is wholly outside of a DAC. There are no DAC census tracts within ½-mile of the Proposed Development Site.

The Proposed Actions would not result in significant adverse impacts in the following technical areas analyzed in this EAS: land use, zoning, and public policy; socioeconomic conditions; community facilities; open space; shadows; urban design and visual resources; water and sewer infrastructure; transportation; air quality; or noise.

As the Proposed Development Site is not located within a DAC, and the Proposed Actions would not result in any significant adverse impacts in any of the technical areas analyzed in this EAS, the Proposed Actions would not disproportionately affect disadvantaged communities, nor would they cause or increase a disproportionate pollution burden on DACs.

Figure B-2

NYSDEC Disadvantaged Communities



Legend

- Proposed Development Site
- 400-foot Radius
- 997.03 Census Tract
- DACs identified with having comparatively higher burdens and vulnerabilities
- DACs identified with having comparatively lower burdens and vulnerabilities
- Open Space
- Future Open Space
- Water

ATTACHMENT C

LAND USE, ZONING, & PUBLIC POLICY

I. INTRODUCTION

Under 2021 *CEQR Technical Manual* guidance, a land use analysis evaluates the uses and development trends in the area that may be affected by a proposed action(s) and determines whether the action(s) would be compatible with those conditions or potentially adversely affect them. Similarly, the analysis considers the proposed action's compliance with, and effect on, the area's zoning and other applicable public policies.

As discussed in **Attachment A, "Project Description,"** the Applicant is seeking a zoning map and text amendment (the "Proposed Actions") to facilitate the construction of a new eight-story (85-foot-tall) residential building with senior living facilities on the first and second floors (the "Proposed Development") at 217-14 24th Avenue (Queens Block 6008, Lot 95; a.k.a. the "Proposed Development Site") in the Bay Terrace neighborhood of Queens Community District (CD) 11. The Proposed Actions would affect the "Proposed Rezoning Area (Queens Block 6008, portions of [p/o] Lots 84, 95, and 150; a.k.a. the "Project Area")" an area bounded by 24th Avenue to the north, the unimproved portion of Little Neck Boulevard to the west, the Cross Island Parkway to the east, and a line 225 feet south of and parallel to 24th Avenue to the south (**refer to Figure 4 in the EAS Form**). The Applicant is seeking to rezone the Proposed Rezoning Area from its existing R1-2 zoning to an R6A district, and establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing (MIH) area.

The Applicant proposes to demolish the existing structure at the Proposed Development Site to facilitate the Proposed Development, a new eight-story, 85-foot tall residential building with senior living facilities on the first and second floors. The Proposed Development would be composed of approximately 162,026 gross square feet (gsf) of residential uses (167 dwelling units [DUs]; of which, approximately 42-50 units would be designated as permanently affordable pursuant to the City's Mandatory Inclusionary Housing [MIH] program), 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space, for a total of approximately 254,171 gsf. As the Applicant intends to pursue Option 2 of the City's MIH program, 30 percent of the 167 DUs (or approximately 50 units) would be designated as permanently affordable at an average affordability level not exceeding 80 percent of area median income (AMI). Additionally, the proposed below-grade parking garage would include up to 86 accessory off-street parking spaces.

As discussed in **Attachment A,** for RWCDS purposes, all proposed assisted living space will be analyzed as residential DUs, and an average DU size of 850 square feet (sf) will be assumed for the purposes of this environmental assessment statement (EAS), therefore bringing the total to 259 DUs (of which, up to approximately 65-78 units would be affordable under MIH). Under the Proposed Actions, the existing private sports and swimming club at the Proposed Development Site would be demolished to make way for the Proposed Development. No changes are expected to occur in the remainder of the Project Area (the small portion of adjacent non-Applicant-owned Lot 84 and the adjacent unimproved City-owned parkland) as a result of the Proposed Actions.

According to the *CEQR Technical Manual*, a land use and zoning analysis is warranted for actions facilitating a change in land use or zoning. As the Proposed Actions involve zoning map and text amendments that would result in new permitted land uses and increase in the allowable density, an analysis of land use and zoning is warranted. Furthermore, the *CEQR Technical Manual* recommends that

if a preliminary assessment cannot succinctly describe land use conditions in the study area, or if a detailed assessment is required in the technical analyses of socioeconomic conditions, neighborhood character, transportation, air quality, noise, infrastructure, or hazardous materials, a detailed land use assessment is appropriate. As such, a detailed land use and zoning assessment is warranted for the Proposed Actions.

II. METHODOLOGY

The purpose of this attachment is to examine the effects of the Proposed Actions and determine whether they would result in any significant adverse impacts on land use, zoning, or public policy. The analysis methodology is based on the guidance of the *CEQR Technical Manual* and examines the Proposed Actions' consistency with land use patterns and development trends, zoning regulations, and other applicable public policies. As described in **Attachment A, "Project Description,"** in order to assess the possible effects of the Proposed Actions, a RWCDS was established for the future without the Proposed Actions (the No-Action condition) and future with the Proposed Actions (the With-Action condition) for the 2027 analysis year.

This attachment includes a description of existing land uses and zoning within the directly affected area and the broader study area. Following the guidance of the *CEQR Technical Manual*, the analysis describes existing and anticipated future conditions to a level necessary to understand the relationship of the Proposed Actions to such conditions, assesses the nature of any changes on these conditions that would be created by the Proposed Actions, and identifies those changes, if any, that could be significant or adverse.

Existing land uses were identified through review of a combination of sources including field surveys and secondary sources, as well as the City's Primary Land Use Tax Lot Output (PLUTO™) data files for 2022 and websites, such as New York City's Zoning and Land Use Map (ZoLa, https://zola.planning.nyc.gov) and NYCityMap (http://gis.nyc.gov/doitt/nycitymap/). New York City Zoning Maps and the Zoning Resolution (ZR) of the City of New York were consulted to describe existing zoning districts and provided the basis for the zoning evaluation of the future No-Action and future With-Action conditions. Relevant public documents including documents recognized by the New York City Department of City Planning (DCP) and other City agencies were utilized to describe existing public policies pertaining to the study areas.

Analysis Year

As discussed in **Attachment A, "Project Description,"** construction of the Proposed Development under the Proposed Actions is expected to be completed by 2027. Therefore, for the purposes of determining potential impacts, this analysis assesses current conditions and forecasts those conditions to 2027. Future No-Action conditions account for planned land use and development projects, initiatives, and proposals that are anticipated to be completed by 2027.

Study Area Definition

According to the *CEQR Technical Manual*, the appropriate study area for land use, zoning, and public policy is related to the type and size of an action, as well as the location and context of the area that could be affected. Study area boundaries vary according to these factors, with suggested study areas ranging from 400 feet for a small project to 0.5 miles for a very large project. The study areas for the Proposed Actions

have been established in accordance with *CEQR Technical Manual* guidance and are shown in **Figure C-1**.

As shown in **Figure C-1**, land use, zoning, and public policy are addressed and analyzed for two geographical areas for the Proposed Actions. The study areas include: (1) the directly affected area, which comprises the Proposed Development Site (Block 6008, Lot 95); and (2) a secondary study area that encompasses an area that has the potential to experience indirect impacts as a result of the Proposed Actions. The secondary study area extends an approximate 400-foot radius from the boundary of the primary study area. The secondary study area reaches the midblock between 24th Avenue and 23rd Road to the north, 27th Avenue to the south, Little Neck Bay to the east, and midblock between 215th Street and Waters Edge Drive to the west.

III. EXISTING CONDITIONS

Land Use

Primary Study Area (Proposed Development Site)

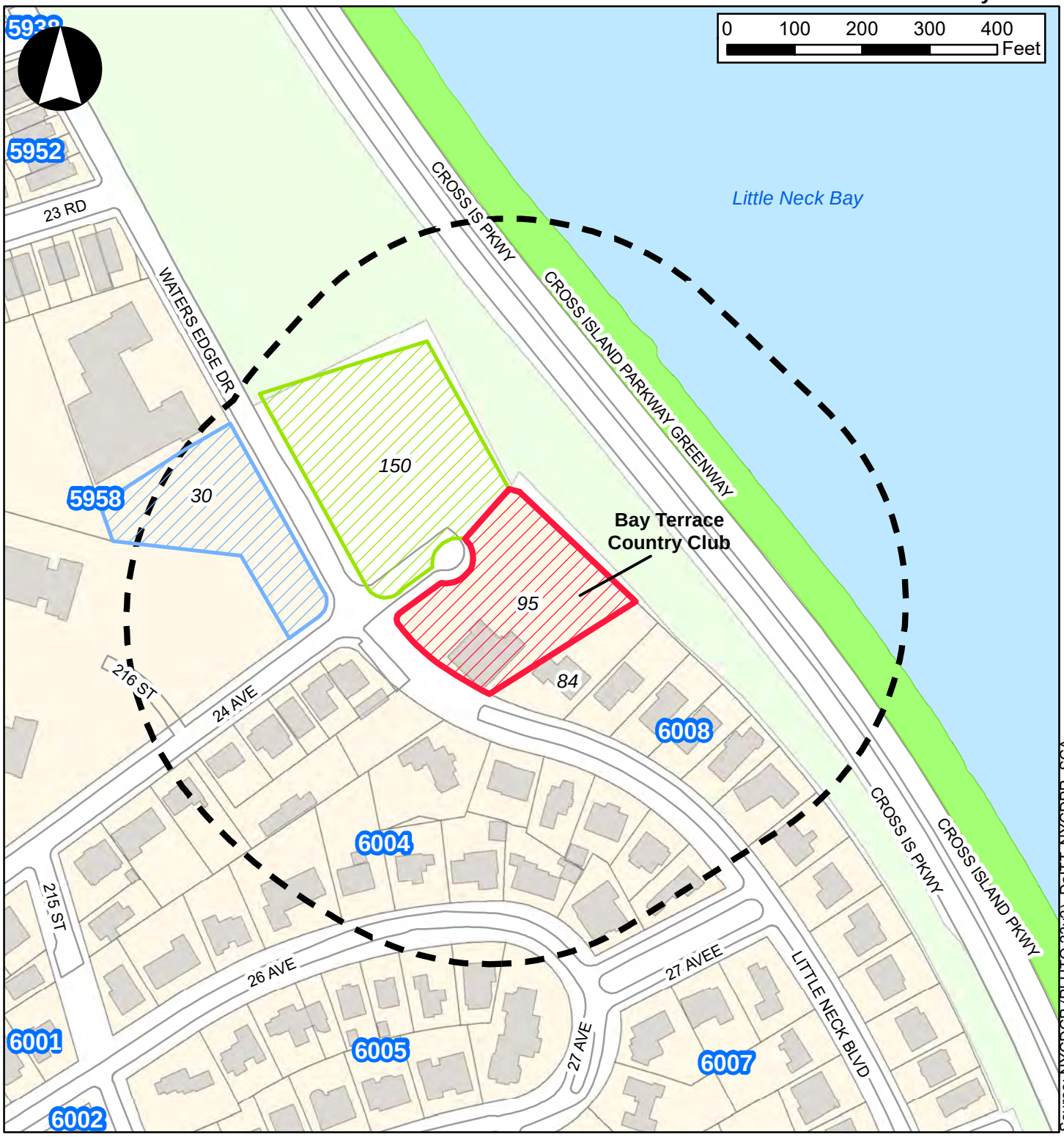
The primary study area is the area that would be directly affected by the Proposed Actions. The area directly affected by the Proposed Actions (where development could occur) consists of the Proposed Development Site at Lot 95, which occupies the northern-most portion of Queens Block 6008. Block 6008 is bounded by 24th Avenue to the north, 28th Avenue to the south, City-owned parkland to the east (and the Cross-Island Parkway further east) and the unimproved portion of Little Neck Boulevard to the west. Lot 95 is a corner lot with frontage along 24th Avenue and Little Neck Boulevard. 24th Avenue is a two-way, 60-foot wide local road that terminates in a cul-de-sac adjacent to the Proposed Development Site. Little Neck Boulevard is an 80-foot wide (considered a "wide street" per NYC zoning), two-way street. The portion of Little Neck Boulevard directly adjacent to the Proposed Development Site is mapped but unbuilt.

The Proposed Development Site at 217-14 24th Avenue (Block 6008, Lot 95), which is under the Applicant's control, measures approximately 55,374 sf and is located at the intersection of 24th Avenue and Little Neck Boulevard. The irregularly-shaped lot has approximately 173 feet of frontage along 24th Avenue to the north and approximately 198 feet of frontage along Little Neck Boulevard to the east. The Proposed Development Site is currently occupied by the Bay Terrace Country Club, a private commercial swimming and sports club which includes a single structure, an approximately 2,800-gsf clubhouse. The single-story clubhouse occupies the southwestern corner of the lot, while the eastern portion is occupied by a swimming pool and associated seating area, and the northwestern portion is an open grassy area with children's playground equipment and picnic seating. The site is mainly surrounded by a chain-link fence, with a stone and metal gate along the cul-de-sac of 24th Avenue at the site's northern frontage.

Secondary Study Area (400-foot Radius)

As shown in **Figure C-2**, the secondary study area is mainly made up of single-family residential land uses, with few exceptions. To the south and west of the Proposed Development Site, an irregular, suburban street network creates irregularly-shaped blocks that are divided into rectangular and irregular mid-sized lots, generally ranging in area from about 5,000 to 15,000 square feet. Northwest of the Proposed Development Site is a vacant lot and a portion of a large lot containing two seven-story co-op apartment buildings, though these are outside of the secondary study area. East of the Proposed Development Site,

Figure C-1
Land Use Study Areas



Legend

- Proposed Development Site (Primary Study Area)
- 400-foot Radius (Secondary Study Area)
- Building Footprints
- 6008 Tax Block
- Open Space
- City-Owned Parkland
- Future Open Space
- Future Public Elementary School

Figure C-2
Land Use Map



Source: NYCDCP (PLUTO 23v2), DoITT, NYCDPR, SCA

Legend

	Land Use	
Proposed Development Site	One & Two Family Buildings	Transportation/Utility
400-foot Radius	Multi-Family Walkup Buildings	Public Facilities & Institutions
Future Open Space	Multi-Family Elevator Buildings	Open Space
Future Public Elementary School	Mixed Commercial/Residential Buildings	Parking Facilities
City-Owned Parkland	Commercial/Office Buildings	Vacant Land
6008 Tax Block	Industrial/Manufacturing	All Others or No Data

a strip of City-owned parkland separates the site from the Cross Island Parkway, which runs along the waterfront of Little Neck Bay. There is a linear open space, the Cross Island Parkway Greenway, running along the eastern side of the parkway. Little Neck Bay makes up the eastern-most portion of the secondary study area.

As shown in **Figure C-2**, Blocks 6008 and 6004 within the secondary study area are almost exclusively occupied by single-family residential land uses. The irregular street pattern formed by Little Neck Boulevard, 26th Avenue, and 27th Avenue creates a suburban character as opposed to an urban street grid more typical of denser areas of New York City. Houses on these lots are detached with front, rear, and side yards, leading to significant amounts of open space on each lot. They are generally set back from the lot lines by approximately 20 feet, and feature driveways and on-street parking spaces. Sidewalks in this area are limited. The houses are generally one or two stories tall, often with an attic. The single-family residential area to the south and east of the Proposed Development Site has limited access, with gated entrances to 26th and 27th Avenues from Bell Boulevard west of the secondary study area. Access to this area from the south along 215th Street and Little Neck Boulevard is restricted by signage. Within the secondary study area, this means that Little Neck Boulevard functions as a private road. In this area, there are only two lots that are not occupied by single-family residential buildings: a lot adjacent to the Proposed Development Site on the other side of the unbuilt portion of Little Neck Boulevard, which is currently occupied by tennis courts associated with the Bay Terrace Country Club, and a single very small lot on Block 6004 with no street frontages, which is vacant.

In addition to the area described above, there is only one other tax lot within the secondary study area. On Block 5958, which is northwest of the Proposed Development Site, a single vacant lot is within the secondary study area. The lot is unbuilt and overgrown, but is owned by the NYC School Construction Authority, and is expected to be the site of a new public school in the future (refer to **Section IV**, **"the Future Without the Proposed Actions"**). Though a portion of a large residential lot containing two co-op apartment buildings falls within the 400-foot radius, the majority of the lot is outside the radius and the lot is not included in the secondary study area.

The remainder of the secondary study area (the area generally east of the Proposed Development Site) is occupied by parkland, a highway, and water. Directly east of the Proposed Development Site, and extending north and south within the secondary study area, is a mapped but unimproved strip of City-owned parkland. Directly across 24th Avenue from the Proposed Development Site, a portion of this parkland is open and sometimes used as parking for the Bay Terrace Country Club, and the rest is forested. The NYC Department of Parks and Recreation has plans to develop a new public park in this area (refer to **Section IV**, below). East of the mapped parkland is the Cross Island Parkway, followed by the Joe Michaels Mile, a linear waterfront open space that runs along the eastern side of the parkway. The eastern edge of the study area is occupied by Little Neck Bay.

Table C-1 provides a description of existing land use within the secondary study area. As shown in **Table C-1**, single-family residential uses make up almost all of the lots and lot area within the secondary study area, comprising 81.6 percent of total lot area and all but three of the 27 lots. In addition, single-family residential uses make up all of the total building area in the area, as there are no non-residential buildings present. The only non-residential lots in the secondary study area are a single open space use and two vacant lots, one of which is an isolated lot with no street frontage. Note that the mapped parkland east of the Proposed Development Site, along with the Joe Michaels Mile open space, are not included in this table as they are not mapped on the city Tax Map and are not in DCP's PLUTO dataset.

TABLE C-1: Existing Land Uses in the Secondary Study Area

Land Use	Number of Lots	Percentage of Total Lots (%)	Lot Area (sf)	Percentage of Total Lot Area (%)	Building Area (sf)	Percentage of Total Building Area (%)
Residential	24	88.9%	241,180	81.6%	69,106	100.0%
One & Two Family Buildings	24	88.9%	241,180	81.6%	69,106	100.0%
Multi-Family Walkup Buildings	0	0.0%	0	0.0%	0	0.0%
Multi-Family Elevator Buildings	0	0.0%	0	0.0%	0	0.0%
Mixed Commercial/Residential Buildings	0	0.0%	0	0.0%	0	0.0%
Commercial/Office Buildings	0	0.0%	0	0.0%	0	0.0%
Industrial/Manufacturing	0	0.0%	0	0.0%	0	0.0%
Transportation/Utility	0	0.0%	0	0.0%	0	0.0%
Public Facilities & Institutions	0	0.0%	0	0.0%	0	0.0%
Open Space	1	3.7%	9,435	3.2%	0	0.0%
Parking Facilities	0	0.0%	0	0.0%	0	0.0%
Vacant Land	2	7.4%	45,030	15.2%	0	0.0%
All Others/No Data	0	0.0%	0	0.0%	0	0.0%
Total	**27**	100.0%	**295,645**	100.0%	**69,106**	100.0%

Source: NYC Department of City Planning (PLUTO 2022 v3)
Notes: Excludes Proposed Development Site

Zoning

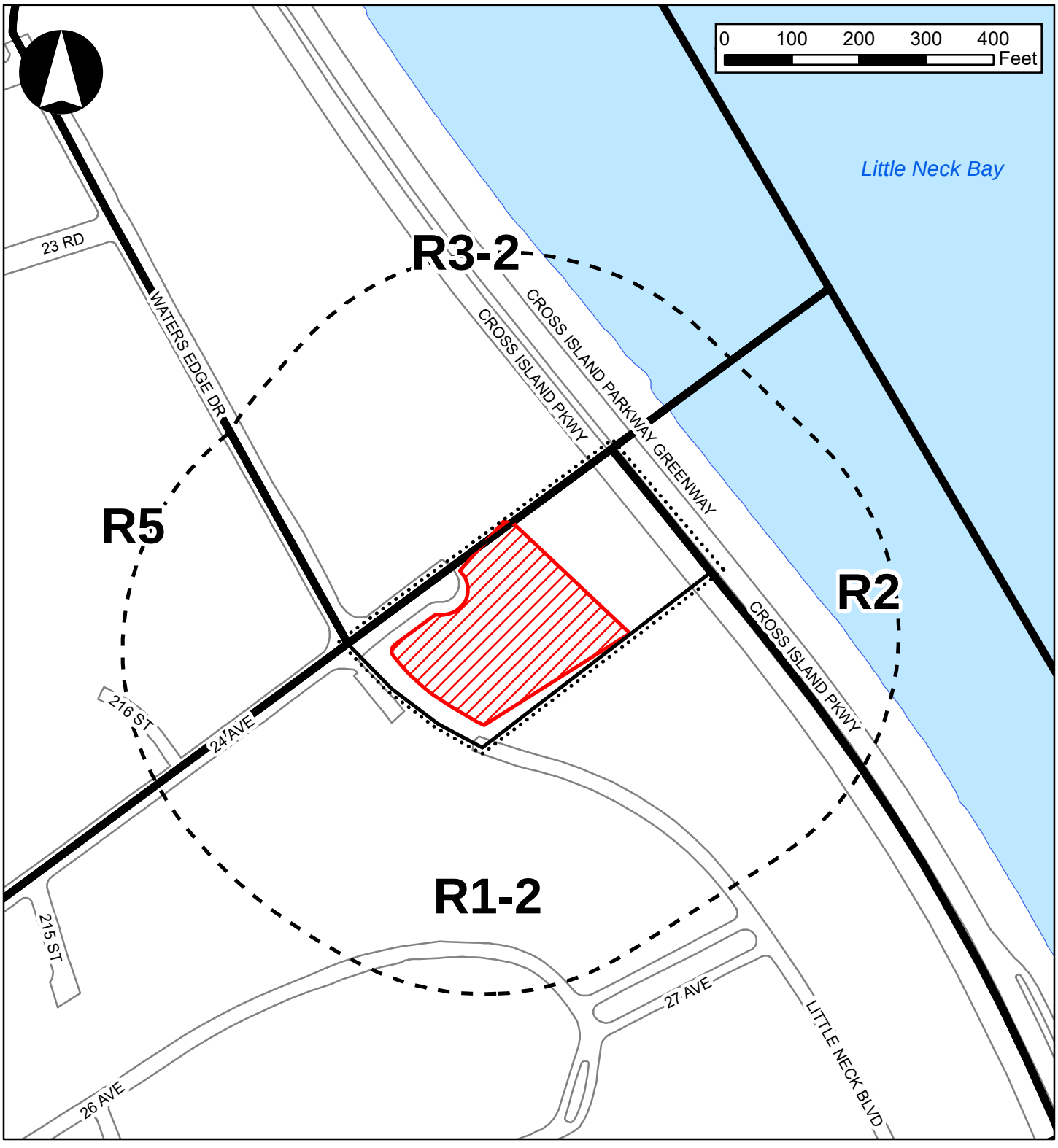
Primary Study Area

As shown in **Figure C-3**, the primary study area is currently zoned R1-2. R1-2 zoning districts are low-density, single-family detached residence districts generally mapped in areas with a suburban character. R1 districts are characterized by generous yard requirements and lot coverage regulations that maintain substantial open spaces between buildings.

Secondary Study Area

Zoning classifications within the secondary study area are also shown in **Figure C-3** and **Table C-2,** and consist entirely of residential zoning districts. All lots within the secondary study area are zoned for residential uses. As shown in **Figure C-3**, the Project Area is mapped with an R1-2 district that extends from the Proposed Development Site south of 24th Avenue and west of the Cross Island Parkway. An R5 district is mapped to the northwest of the Proposed Development Site, north of 24th Avenue and west of Water's Edge drive. Only a single lot in the secondary study area is zoned R5. Though R3-2 and R2 districts are mapped within the area to the north and east of the Proposed Development Site, there are no lots in the area that are mapped within these districts.

Figure C-3
Exisiting and Proposed Zoning



Legend

- Proposed Development Site
- R1-2 Zoning District
- 400-foot Radius
- R6A Proposed Rezoning Area (a.k.a. Project Area)

TABLE C-2: Existing Zoning Districts within the Secondary Study Area

Name	Definition/General Use	Maximum FAR
Residential Districts		
R1-2	R1-2 zoning districts are non-contextual, low-density, single-family detached residence districts. R1 districts are characterized by generous yard requirements and lot coverage regulations that maintain substantial open spaces between buildings.	R: 0.5 (single-family only); CF: 1.0 (limited Uses); C: Not Permitted; M: Not Permitted
R2*	R2 zoning districts are non-contextual, low-density, single-family detached residence districts. Compared to R1 districts, they allow for slightly higher density through smaller minimum lot and yard sizes.	R: 0.5 (single-family only); CF: 1.0 (limited Uses); C: Not Permitted; M: Not Permitted
R3-2*	R3-2 non-contextual districts are widely mapped in districts intended for neighborhoods with a variety of low-density housing types, including detached, attached, and semi-detached buildings.	R: 0.5; CF: 1.0; C: Not Permitted; M: Not Permitted
R5	R5 districts are non-contextual districts intended for neighborhoods with an assortment of housing types, and are often transition districts between medium and lower density areas.	R: 1.25 CF: 2.0 C: Not permitted M: Not permitted

Source: Zoning Resolution of the City of New York
Notes: R=Residential; C=Commercial; CF=Community Facility; M=Manufacturing
* R2 and R3-2 districts are mapped in the secondary study area, there is no lot area or built area are within these districts

Public Policy

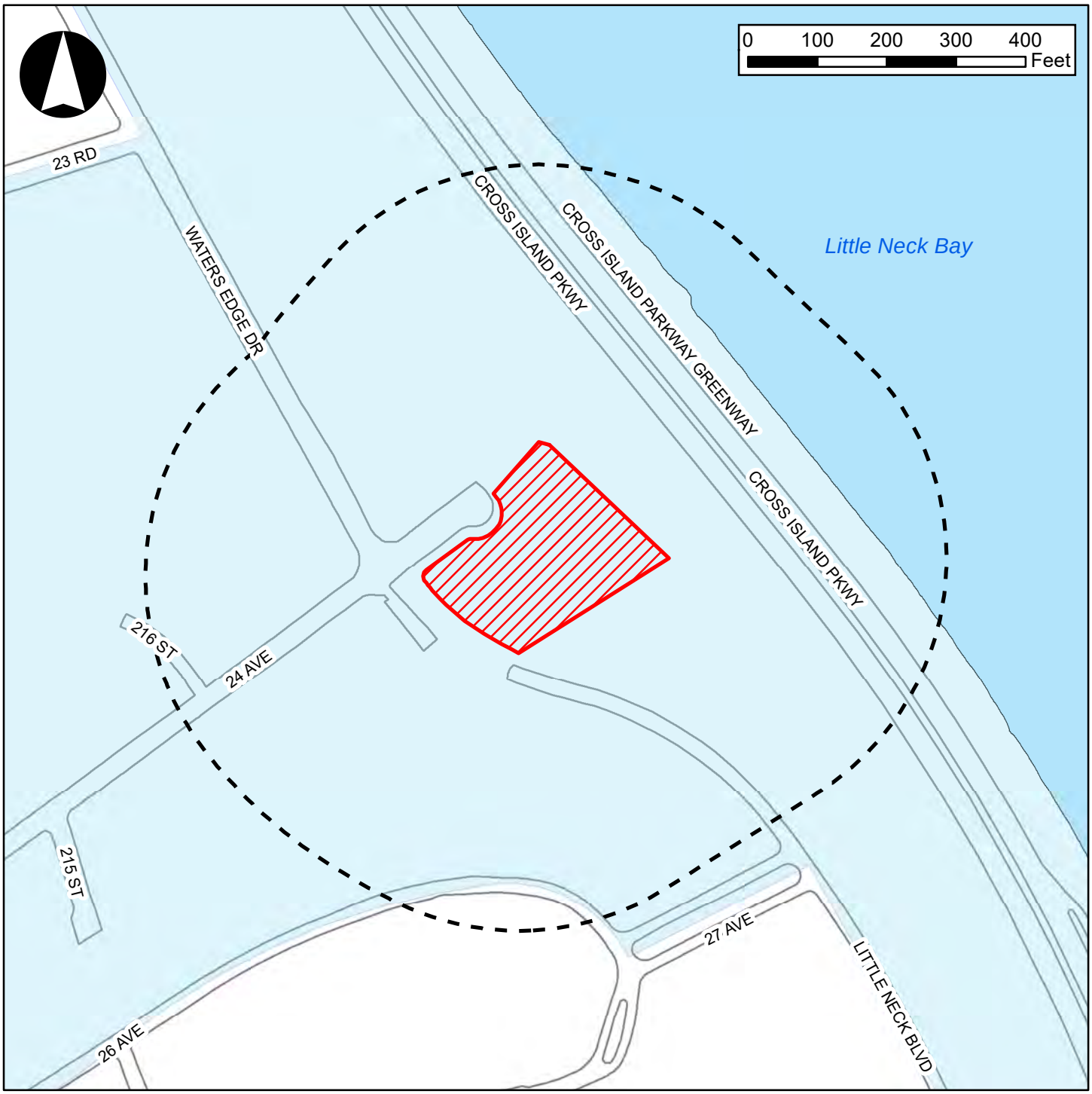
According to the *CEQR Technical Manual*, a project that would be located within areas governed by public policies controlling land use, or that has the potential to substantially affect land use regulation or policy controlling land use, requires and analysis of public policy. A preliminary assessment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

While there are not specific initiatives and goals in Mayor Adams' *Housing Our Neighbors: a Blueprint for Housing and Homelessness* plan that relate specifically to the primary or secondary study areas, it is citywide policy initiative that would be applicable to the study areas and is, therefore, included also in this analysis. The study areas are not part of, or subject to, an Urban Renewal Plan, adopted community 197-a Plan, Business Improvement District (BID), or Industrial Business Zone (IBZ). The Proposed Actions do not include a largely publicly sponsored project, and as such, consistency with the City's OneNYC for sustainability is not warranted. Both the primary and portions of the secondary study area are located within the New York City Coastal Zone (see **Figure C-4**), and therefore the project is subject to consistency review under the New York City Waterfront Revitalization Plan (WRP).

Housing Our Neighbors: a Blueprint for Housing and Homelessness

In 2022, the administration of Mayor Eric Adams released *Housing Our Neighbors: a Blueprint for Housing and Homelessness,* a comprehensive, citywide blueprint aimed at addressing the city's housing crisis. The *Blueprint* outlines policies and strategies to address five goals: (1) Transform NYCHA, (2) Address Homelessness and Housing Instability, (3) Create and Preserve Affordable Housing, (4) Improve the Health and Safety of New Yorkers, and (5) Reduce Administrative Burden. The plan details the specific actions that agencies and stakeholders should undertake to address these goals. Similar to the previous administration's *Housing New York* plan, the *Blueprint* emphasizes the importance of building new housing in amenity-rich areas, and expanding the availability of different housing types including

Figure C-4
Coastal Zone Boundary



Legend

- Proposed Development Site
- 400-foot Radius
- NYC WRP Coastal Zone
- Water

affordable housing and senior housing. The *Blueprint* additionally emphasizes cooperation between numerous city agencies.

Waterfront Revitalization Plan (WRP)

As shown in **Figure C-4**, the Proposed Development Site and the western portion of the secondary study area are located within the City's designated coastal zone. Proposed projects that are located within the designated boundaries of New York City's Coastal Zone must be assessed for their consistency with the City's WRP.

Legislative and Regulatory Background

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

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

New York City Panel on Climate Change: Projections

In 2013, the New York City Panel on Climate Change (NPCC) released a report (*Climate Risk Information 2013: Observations, Climate Change Projections, and Maps*) outlining New York City-specific climate change projections to help respond to climate change and accomplish PlaNYC goals. The 2013 NPCC report predicted future City temperatures, precipitations, sea levels, and extreme event frequency for the 2020s and 2050s. Subsequently, in January 2015, the Second NPCC (NPCC2) released an updated report that presented the full work of the NPCC2 from January 2013 to 2015 and includes temperature, precipitation, sea level, and extreme event frequency predictions for the 2081 to 2100 time period. While the projections will continue to be refined in the future, current projections are useful for present planning

purposes and to facilitate decision-making in the present that can reduce existing and near-term risks without impeding the ability to take more informed adaptive actions in the future. Specifically, as shown in **Table C-3**, the NPCC2 report predicts that mean annual temperatures will increase by 2.0 to 2.8˚F, 4.1 to 5.7˚F, 5.3 to 8.8˚F, and 5.8 to 10.3˚F by the 2020s, 2050s, 2080s, and 2100, respectively; total annual precipitation will rise by one to eight percent, four to 11 percent, five to 13 percent, and -one to +19 percent by the 2020s, 2050s, 2080s, and 2100, respectively; sea level will rise by four to eight inches, 11 to 21 inches, 18 to 39 inches, and 22 to 50 inches by the 2020s, 2050s, 2080s, and 2100, respectively; heat waves and heavy downpours are also very likely to become more frequent, more intense, and longer in duration, with coastal flooding very likely to increase in frequency, extent, and elevation.

TABLE C-3
NPCC Projections

Time Period	Increase in Mean Annual Temperatures	Increase in Total Annual Precipitation	Increase in Sea Level
2020s	2.0 – 2.8 ˚F	1 – 8%	4 – 8 inches
2050s	4.1 – 5.7˚F	4 – 11%	11 – 21 inches
2080s	5.3 – 8.8˚F	5 – 13%	18 – 39 inches
2100	5.8 – 10.3˚F	-1 – 19%	22 – 50 inches

A WRP consistency assessment for the Proposed Actions is provided below under **Section VI, "Future With the Proposed Actions."** The WRP Consistency Assessment Form is provided in **Appendix A**.

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

Land Use and Zoning

Primary Study Area

As presented in **Attachment A, "Project Description,"** in the 2027 future without the Proposed Actions, it is anticipated that no land use or zoning changes would occur within the primary study area, and the existing uses would remain. The Project Area would continue to be zoned R1-2. The existing Bay Terrace Country Club would continue to function as a private swimming and recreation club.

Secondary Study Area

Existing land use patterns are generally anticipated to continue in the surrounding area. Within the area, there are two known projects anticipated to be completed in the 2027 future without the Proposed Actions.

At 23-50 Waters Edge Drive (Block 5958, Lot 30 - the vacant lot northwest of the Proposed Development Site across 24th Avenue and Water's Edge Drive), the NYC School Construction Authority (SCA) is planning to construct a new public elementary school building. The school is anticipated to be complete and fully operational in 2026. The new, five-story, approximately 84,000-gsf public school is anticipated to have a capacity of approximately 572 elementary seats with a main entrance on Waters Edge Drive and outdoor play yards on the southern and western portions of the site.

in addition, the New York City Department of Parks and Recreation is constructing a new playground (the Cross Island Parkway Water's Edge Playground) on the parkland adjacent to and north of the Proposed Development Site (shown as "future open space" in **Figure C-2**). The new approximately 1.5-acre park would contain an array of multigenerational recreational opportunities for the surrounding neighborhood, including play areas, fitness equipment, open lawns, picnic areas, a comfort station, and pedestrian paths, among other amenities. According to the Parks Capital Projects Tracker, the project is currently in the design phase, and is expected to be complete by 2025.

There are no other known developments anticipated within the secondary study area by the 2027 analysis year.

There are no known zoning changes proposed that would affect the study area by 2027.

Public Policy

In absence of the Proposed Actions, no changes to public policies are anticipated in the primary or secondary study areas.

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

Under the With-Action condition, the Proposed Actions, which include zoning map and text amendments, would be approved. As described in **Attachment A, "Project Description,**" under the RWCDS, the Proposed Actions would facilitate the development of 259 DUs (including approximately 65-78 affordable DUs under MIH)[1], and an 86-space accessory parking garage at the Proposed Development Site (Block 6008, Lot 95). The existing Bay Terrace Country Club and its approximately 2,800-gsf clubhouse structure at the Proposed Development Site would be demolished. No other changes are expected to occur as a result of the Proposed Actions.

Land Use

Primary Study Area

The Proposed Actions would result in changes to land use within the primary study area by increasing the allowable density and introducing new multi-family residential uses, which are not currently allowed in the No-Action condition. Approval of the Proposed Actions would result in the demolition of the existing commercial swimming and recreational club use at the Proposed Development Site and the development of a new residential use in a new eight-story (85-foot-tall) building. As described above and in **Attachment A, "Project Description,"** the Proposed Actions under the RWCDS would result in a net increase of approximately 220,220 gsf (259 DUs) of residential space, along with an increase of 86 accessory off-street parking spaces (approximately 33,951 parking gsf).

[1] As noted in **Attachment A,** the assisted living space in the Applicant's proposed plan are analyzed as residential floor area under the RWCDS, for conservative analysis purposes.

Secondary Study Area

No additional changes to land use are anticipated in the secondary study area as a result of the Proposed Actions. The Proposed Actions are not expected to alter development trends or patterns in the secondary study area.

Assessment

The Proposed Actions would facilitate a change in land use on one lot, the Proposed Development Site, allowing the redevelopment of an existing private recreational club use on an underutilized site with a new multi-family residential building and parking garage. This change in use would result in an appropriate increase in residential density given the character of the Proposed Development Site and its surroundings. The Proposed Actions would facilitate the introduction of a new residential use in an area that is predominately residential, and none of the existing land uses in the surroundings would have the potential to negatively affect the Proposed Development. Though the Proposed Development would include residential use with a greater density than what exists within the secondary study area, this density would be comparable to existing uses in the adjacent R5 district across 24th Avenue. The nearby Bay Terrace Shopping Center along Bell Boulevard, located approximately 1,000 feet west of the Proposed Development Site, would provide local and specialty retail uses to residents of the Proposed Development. New residents would utilize the proposed parking garage and would access public transit along Bell Boulevard. In the future with the Proposed Actions, it is assumed that the playground under development on the adjacent site would be complete, providing a new and beneficial land use compatible with the proposed residential use.

The Proposed Actions would not introduce any land uses that would be incompatible with their surroundings, and would not result in any significant adverse impact on land use in the primary or secondary study areas, in accordance with the criteria set forth in the *CEQR Technical Manual.*

Zoning

Primary Study Area

In the future with the Proposed Actions, the Proposed Rezoning Area would be rezoned from R1-2 to R6A (refer to **Figure C-3**). R6A districts are medium-density contextual residential districts where Quality Housing bulk regulations are mandatory. The proposed R6A zoning district would allow residential and community facility uses (Use Groups 1-4). Use Group 2 residential uses along with certain community facility uses in Use Groups 3 and 4 are not permitted under the existing R1-2 zoning. The proposed zoning district would permit residential FAR of 3.6 (with MIH), and community facilities up to 3.0 FAR. After a base height of 45 feet, buildings in R6A districts must set back by 10 feet on wide streets and 15 feet on narrow streets. The maximum height is 75 feet if providing a qualifying ground floor (85 feet with MIH). Off-street parking is generally required for 50 percent of a building's dwelling units, but requirements are lower for income-restricted housing units.

In the With-Action condition, the proposed R6A zoning district would additionally be designated as a MIH area through a proposed zoning text amendment. The MIH Area would require any new developments containing residential uses to provide affordable units pursuant to one of four MIH options at varying levels of affordability. The Applicant intends to pursue MIH option 2, under which 30 percent of the

residential floor area would be designated as permanently affordable at an average affordability level not exceeding 80 percent of AMI. The MIH area would increase the maximum residential FAR of the underlying proposed R6A district from 3.0 to 3.6.

Secondary Study Area

The Proposed Actions would only affect the primary study area, and no changes in zoning would occur in the secondary study area as a result of the Proposed Actions.

Assessment

The Proposed Actions would not result in a significant adverse impact to zoning in the primary or secondary study areas. The proposed zoning map and text amendments would align with the City's policy objective to facilitate the development of affordable housing by enabling the development of multi-family housing on an underutilized site adjacent to an existing R5 district. The proposed R6A district would be consistent with the presence of other residential districts in the secondary study area and multi-family, medium-density residential districts nearby along 24th Avenue, Water's Edge Drive, and Bell Boulevard.

The Proposed Actions would facilitate development in an area that is well-suited for additional growth. A new public school and public park are planned on lots adjacent to the Proposed Development Site and are both expected to be complete in the 2027 analysis year. These anticipated public facility developments can be expected to increase the area's capacity for increased residential density as a result of the proposed R6A district.

Public Policy

Assessment

Housing Our Neighbors: a Blueprint for Housing and Homelessness

The Proposed Actions would be consistent with *Housing Our Neighbors,* and under the RWCDS would result in a net increase of approximately 259 DUs, including approximately 65-78 units of affordable housing. Under Option 2 of MIH, approximately 30 percent of the new residential units would be permanently affordable to residents with incomes averaging 80 percent of the AMI. The affordable dwelling units under the With-Action condition would provide the area with a mix of new affordable housing and market-rate units that would be located near existing and planned amenities, and would support the City's efforts to increase the overall amount of affordable housing and help foster diverse and livable neighborhoods. Though the RWCDS analyzes an entirely residential development, the Applicant's proposed plans include senior assisted living facilitate as part of the Proposed Development, which would also be consistent with the *Blueprint* goal of increasing the diversity of housing options for seniors. The Proposed Actions would be consistent with this policy.

Waterfront Revitalization Plan

As the Proposed Development Site is located within the city's designated Coastal Zone, the Proposed Actions are subject to review for consistency with the policies of the WRP. The WRP includes policies designed to maximize the benefits derived from economic development, environmental preservation, and

public use of the waterfront, while minimizing the conflicts among those objectives. The WRP Consistency Assessment Form (CAF) (see **Appendix 1**) lists the WRP policies and indicates whether the Proposed Actions would promote or hinder that policy, or if that policy would not be applicable. The development facilitated by the Proposed Actions would not hinder any of the applicable WRP policies, and as such is not likely to have any adverse effect on economic development, environmental preservation, and public use of the waterfront. This section provides additional information for the policies that have been checked "promote" in the WRP CAF. As the Proposed Actions would not hinder any of the applicable policies, all other policies not discussed below have been checked "not applicable" in the WRP CAF.

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

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

Compliance Statement: The primary study area is not located on the waterfront. The primary study area is an upland area that is located approximately 300 feet to the west of Little Neck Bay, separated from the waterfront by open space and the Cross Island Parkway. Within the primary study area, the Proposed Actions would facilitate the development of a new residential building containing approximately 167 DUs and approximately 65 beds of senior living facilities. The primary study area is located in an area appropriate for residential development, as it is located in Bay Terrace, a neighborhood with existing residential uses that is well served by existing infrastructure. New public facilities (a public park and a public school) are also planned to be developed within the vicinity of the primary study area. The Proposed Actions would introduce land uses that would be complementary to the neighborhood's existing land uses. The primary study area is not located within a Significant Maritime and Industrial Area (SMIA), Special Natural Waterfront Area (SNWA)[2], Priority Maritime Activity Zone (PMAZ), Recognized Ecological Complex (REC), or West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA), as defined in the WRP, and is therefore not located in a special area that may be inappropriate for the development of new residential land uses. For these reasons, the Proposed Actions would advance Policy 1.1.

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

Compliance Statement: The Proposed Actions would encourage new development in an area served by existing public facilities and infrastructure. The density of the Proposed Development is compatible with the capacity of surrounding roadways, public transportation, infrastructure, and essential community services. It is anticipated that the mix of residential and commercial land uses, and the scale of the resultant development would not overburden the surrounding Bay Terrace neighborhood and the primary study area would continue to be adequately served by existing public facilities and infrastructure. Overall, the Proposed Actions would encourage redevelopment in an area adequately served by existing public facilities and infrastructure. Additionally, new public facilities are planned and are anticipated to be completed by the time the Proposed Development is operational; these include a new public park and public school adjacent to the primary study area. For these reasons, the Proposed Actions would advance Policy 1.3.

[2] Little Neck Bay is the closest body of water to the primary study area. Though Little Neck Bay is considered a SNWA, the primary study area is not located within or adjacent to the SNWA boundary. The Proposed Actions would thus have no effect on the SNWA.

Policy 1.5: Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.

Compliance Statement: As detailed in the Compliance Statement for WRP Policy 6.2 below, the Proposed Development would integrate consideration of the latest projections of climate change and sea level rise in New York City into planning and design. All new vulnerable, critical, or potentially hazardous features would be protected through flood damage reduction measures or future adaptive actions, and through compliance with all applicable rules and regulations. For these reasons, the Proposed Actions would advance Policy 1.5.

Policy 5: Protect and improve water quality in the New York City coastal area.

Policy 5.1: Manage direct or indirect discharges to waterbodies.

Compliance Statement: As detailed in **Attachment I, "Water and Sewer Infrastructure,"** the primary study area is located in a separately sewered area with separate systems for sanitary sewage and stormwater. Sanitary wastewater is transported for treatment at the Tallman Island Wastewater Resource Recovery Facility (WRRF), and stormwater runoff is directly discharged via outfalls into Little Neck Bay. Therefore, stormwater runoff from the primary study area would be directly discharged to a nearby waterbody. However, all future development located within the primary study area would incorporate on-site stormwater Best Management Practices ("BMPs") measures to reduce stormwater runoff volumes and ensure that direct drainage of stormwater runoff into nearby waterbodies would be properly managed.

As discussed in **Attachment I,** a broad range of BMPs could be implemented on the Proposed Development Site to facilitate stormwater source controls and limit the stormwater release rate to the required rate. The implementation of low-flow fixtures, as per the New York City Plumbing Code, Local Law 33 of 2007, and the U.S. Environmental Protection Agency's WaterSense Program, would help control sanitary flows. To further offset these increases, on-site stormwater control measures of BMPs could be implemented to retain or slowly release stormwater runoff with controlled discharge rates to the City's combined sewer system.

The following typical BMP measures could be used to help manage stormwater flows: the implementation of BMPs described in the New York City Green Infrastructure Plan and/or green technologies, such as blue and green roofs, subsurface detention and infiltration, porous pavement, enhanced tree pits, and rain cisterns, depending on site conditions. The design of detention tanks, green roofs, and/or other chosen stormwater control BMPs, would be required to meet the required release rate.

Therefore, with the incorporation of appropriate BMPs that would be required as part of the site connection approval process to be reviewed and approved by DEP, the overall volume of sanitary sewer discharge and stormwater runoff, as well as the peak stormwater runoff rate, would be reduced. For these reasons, the Proposed Actions would advance Policy 5.1.

Policy 5.5: Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.

Compliance Statement: As detailed in **Attachment I, "Water and Sewer Infrastructure,"** the Proposed Actions would not result in significant adverse impacts to the city's water supply or wastewater and stormwater conveyance and treatment infrastructure. All future development located within the primary

study area would incorporate on-site stormwater BMPs, such as blue and green roofs, subsurface detention and infiltration, porous pavement, enhanced tree pits, and rain cisterns, which would be required as part of the DEP site connection approval process in order to bring all future building(s) into compliance with the required stormwater release rate in effect at the time of the future building completion. For these reasons, the Proposed Actions would advance Policy 5.5.

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

Policy 6.1: Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.

Compliance Statement: In June 2013, FEMA issued Preliminary Work Maps for New York City to show coastal flood hazard data. Subsequently, the city made immediate accommodations to zoning regulations and upgrades to the New York City Building Code to ensure that new construction would be built to these higher standards. In January 2015, FEMA issued Revised Preliminary FIRMs for New York City, which are considered the best available flood hazard data, replacing the FEMA Preliminary Work Maps.

Based on the most recent flood hazard data, the primary study area is located within an area of special flood hazard. According to the 2015 FEMA Preliminary Flood Insurance Rate Maps (PFIRMs), the primary study area is mostly located in the Area of Minimal Flood Hazard, (Zone X), and is intersected by the 500-year flood zone (Shaded Zone X) and 100-year flood zone (Zone AE; refer to **Figures C-5a and C-5b**). The Base Flood Elevation ("BFE") of the 100-year flood zone is approximately 13 feet (NAVD88).

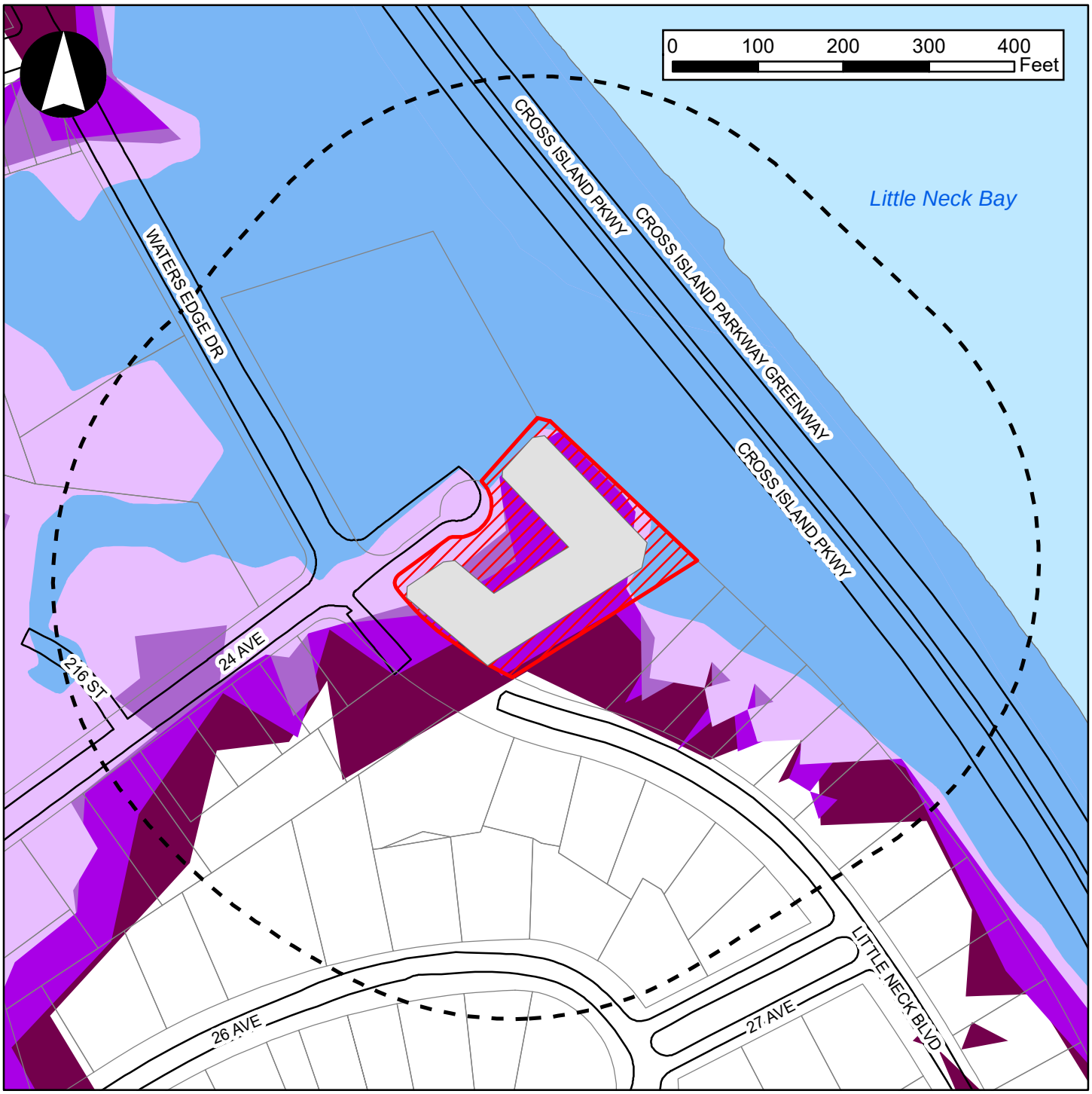
Though the primary study area partly within the boundaries of the 100-year and 500-year floodplains, the area to be developed (the building footprint of the Proposed Development) is not delineated as an area of special flood hazard. As such, Appendix G of the *New York City Building Code* would not apply to the Proposed Development. The Proposed Development is not required to have a Design Flood Elevation (DFE). The BFE of the 100-year floodplain in the primary study area is 13 feet (NAVD88). The Proposed Development's ground floor would have an elevation of approximately 15 feet (NAVD88). The Proposed Development would contain a cellar, which would feature a depth of approximately 10 feet below-grade (elevation of five feet [NAVD88]).

The Proposed Development would be designed and constructed in accordance with city and state flooding and erosion regulations, where applicable, including New York City Administrative Code, Title 28, Section 104.9 ("Coastal Zones and Water-Sensitive Inland Zones"). For these reasons, the Proposed Actions would advance Policy 6.1.

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

Compliance Statement: The Proposed Development has considered potential risks related to coastal flooding to features specific to the Proposed Development, including, but not limited to, the location of critical mechanical, electrical, and plumbing ("MEP") services and residential dwelling units. As outlined in The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance document, for site-specific actions that include (or would facilitate the development of) new vulnerable, critical, or

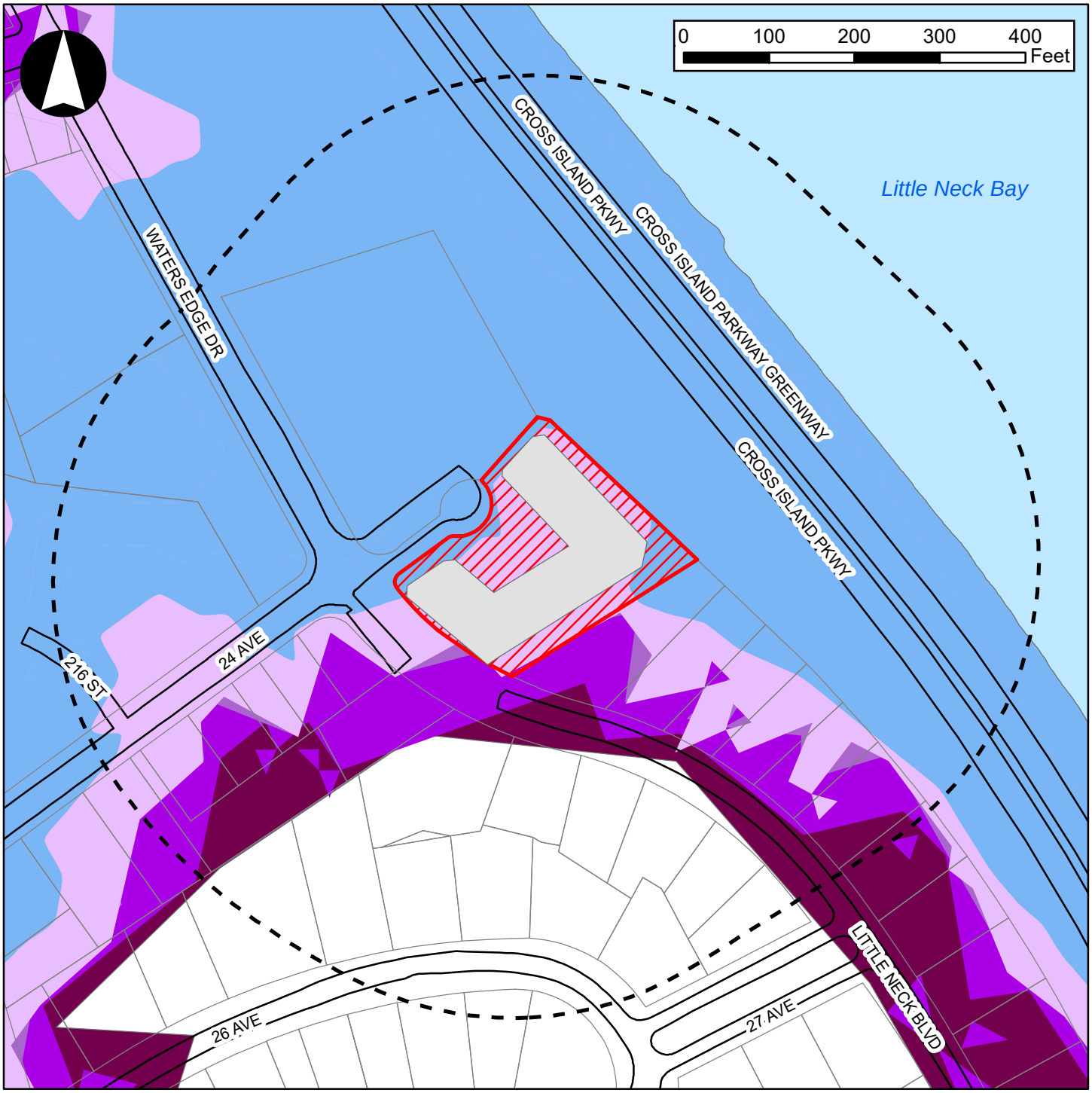
Figure C-5a
NPCC 100-Year Floodplain Projections



Legend

- Proposed Building Footprint
- Proposed Development Site
- 400-foot Radius
- Water
- 2015 FEMA PFIRM - 100-year Floodplain
- NPCC 2020s Projection
- NPCC 2050s Projection
- NPCC 2080s Projection
- NPCC 2100s Projection

Figure C-5b
NPCC 500-Year Floodplain Projections



Legend

- Proposed Building Footprint
- Proposed Development Site
- 400-foot Radius
- Water
- 2015 FEMA PFIRM - 500-year Floodplain
- NPCC 2020s Projection
- NPCC 2050s Projection
- NPCC 2080s Projection
- NPCC 2100s Projection

potentially hazardous features, the detailed methodology approach should be utilized to assess a project or action's consistency with Policy 6.2.

STEP 1: IDENTIFY VULNERABILITIES AND CONSEQUENCES

The goal of this first step is to assess the project's vulnerabilities to future coastal hazards and what potential consequences may result.

As discussed above, the primary study area is within New York City's CZB, and is intersected by the boundary of the 100-year flood zone (Zone AE) and 500-year flood zone (Shaded Zone X) as delineated in the 2015 FEMA PFIRMs. However, the building footprint of the Proposed Development would not fall within an area of special flood hazard as delineated under the FEMA PFIRMs. The Proposed Development would be entirely constructed within the "Area of Minimal Hazard" (Zone X), where the risk of flooding is low.

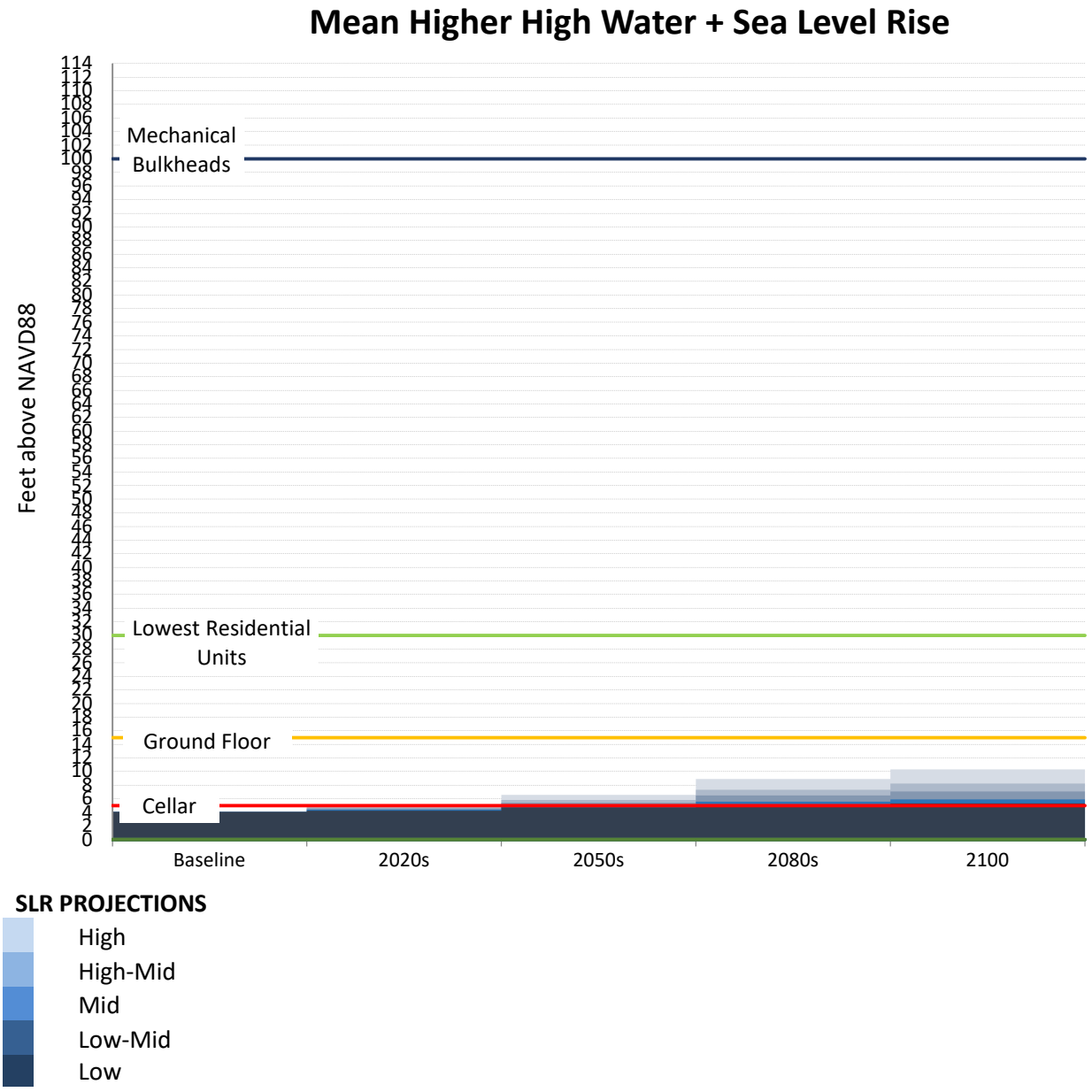
Coastal storms could bring high winds in addition to flood hazards to the primary study area. However, the primary study area is not located within a Coastal A or V zone. The Proposed Development is not expected to make flooding on adjacent properties worse, nor would the Proposed Development conflict with other plans for flood protection on adjacent properties.

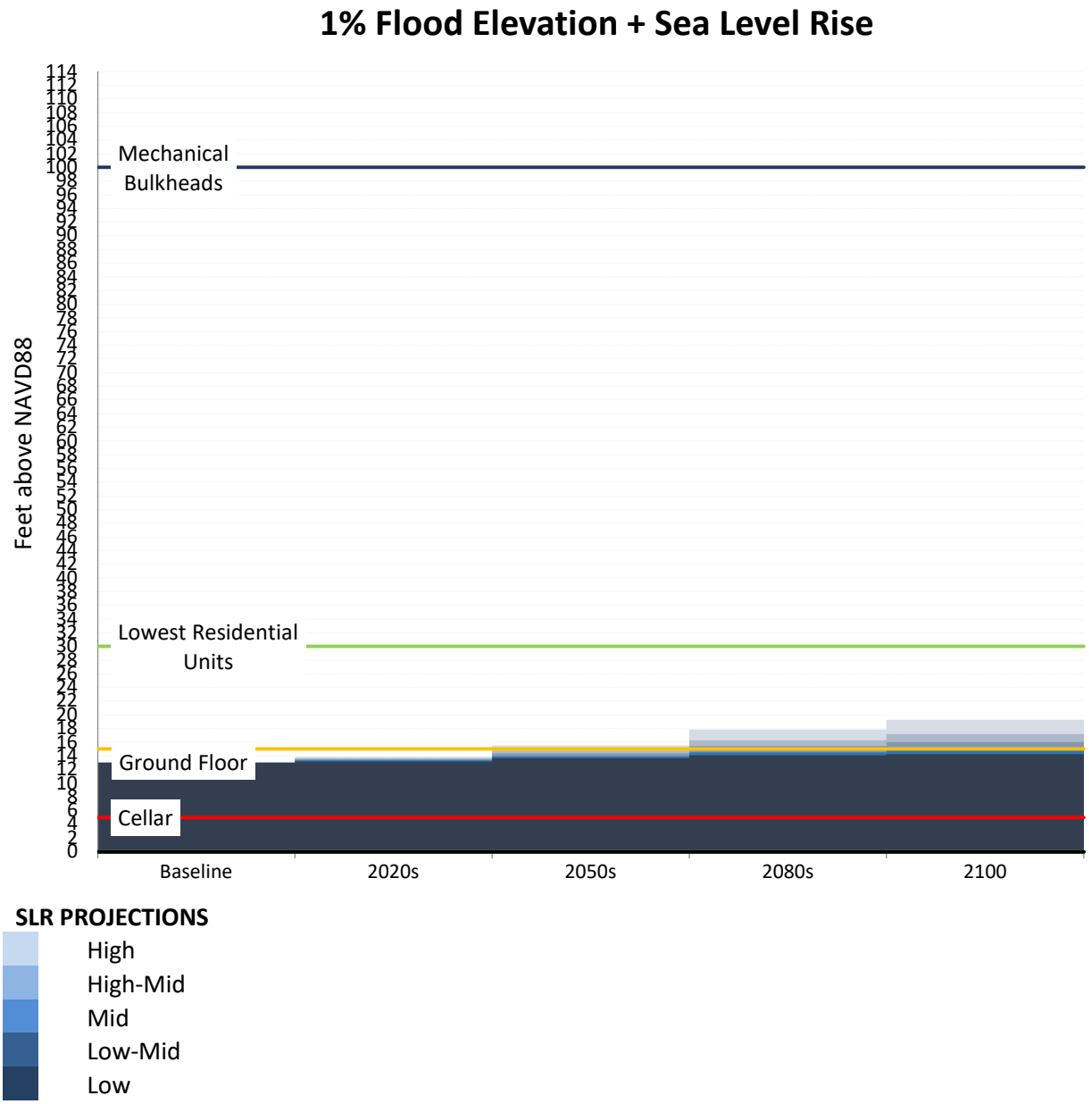
Little Neck Bay, the water body in the vicinity of the primary study area, is an inlet that leads to the Long Island Sound. Therefore, the flood elevation is controlled by the tidal conditions within New York Bay, Long Island Sound, and the Atlantic Ocean. Because the coastal floodplain adjacent to the primary study area is affected by coastal flooding, rather than local or fluvial flooding, the operation of the Proposed Development would not exacerbate flooding conditions on or near the primary study area. Furthermore, coastal floodplains are influenced by astronomic tide and meteorological forces (e.g., northeasters and hurricanes) and not by fluvial flooding (e.g., rivers and streams overflowing their banks), and, as such, are not affected by the placement of obstructions (e.g., buildings) within the coastal floodplain.

The New York City Panel on Climate Change ("NPCC") recommends assessing the impacts of projected sea level rise on the lifespan of projects. While the NPCC developed a series of flood projection maps that incorporate sea level rise projections with FEMA's January 2015 FIRMs, because of limitations in the accuracy of flood projections, the NPCC recommends that these flood projection maps not be used to judge site-specific risks. However, in general, the NPCC estimates that in the New York City area, sea level will rise up to a high estimate of 10 inches by the 2020s, and up to a high estimate of 30 inches by the 2050s. As such, areas not currently within the currently applicable 100-year and 500-year flood zones will be in the future based on the NPCC projections. Furthermore, the NPCC projects that the frequency, extent, and height of 100-year and 500-year floods will increase by the 2050s. As illustrated in **Figure C-5a** and **Figure C-5b**, the primary study area is expected to continue to fall within the current and future 100-year and 500-year flood zones, as published by the NPCC. The Proposed Development would fall within the future 100-year and 500-year floodplains in the 2020s, based on the NPCC projections. Per 2021 *CEQR Technical Manual* guidance, the Flood Elevation Worksheet was prepared for the Proposed Development and is provided herein and in **Appendix 1**.

As shown in the Mean Higher High Water + Sea Level Rise graph, only the Proposed Development's cellar, a potentially critical feature, would be located below the elevation of the Mean Higher High Water for the Proposed Development's lifespan (spanning an estimated 75 years subsequent to completion in 2027). As shown in the graph, no other critical and vulnerable features of the Proposed Development are

anticipated to be located below the elevation of the Mean Higher High Water at any point over the Proposed Development's lifespan. Therefore, operation of the Proposed Development is not expected to exacerbate future projected coastal flooding conditions.





As shown in the 1% Flood Elevation + Sea Level Rise graph, the Proposed Development's cellar, which would contain the residential parking garage, four back of house spaces, and a mechanical space, would have a depth of approximately 10 feet below grade (+5 feet [NAVD88]). The parking garage located within the Proposed Development's cellar would be a vulnerable feature; though the future design has not been finalized, the four back of house spaces and mechanical space located within the Proposed Development's cellar could contain critical features, such as MEP equipment (including electrical, gas, and water meter rooms), as well as telecom rooms. However, where applicable and feasible, the Applicant is committed to locating MEP equipment above the ground floor so as to keep vulnerable equipment well above the BFE (i.e., 13 feet [NAVD88]). As illustrated in the 1% Flood Elevation + Sea Level Rise graph, the Proposed Development's cellar would be located below the BFE of the 100-year flood zone (13 feet [NAVD88]) and the any critical features within the cellar would remain below the elevation of the 100-year flood zone for the remainder of the Proposed Development's lifespan (approximately 75 years). As a result, future

flooding events could result in a loss of building services, temporary displacement of residents, structural damage and damage to personal property (e.g., vehicles and bicycles), loss of inventory, or potentially increased flood insurance costs. However, the NPCC recommends that these flood projection maps not be used to judge site-specific risks, and they are subject to change. The Proposed Development's cellar would be designed and constructed in accordance with all applicable city and state flooding and erosion regulations, including New York City Administrative Code, Title 28, Section 104.9 ("Coastal Zones and Water-Sensitive Inland Zones"). As noted previously, Appendix G of the *New York City Building Code* would not apply to the Proposed Development; therefore, the Proposed Development's cellar is not required to be floodproofed at this time. However, where necessary, the Applicant is committed to making all mechanical rooms within the cellar and/or ground floor floodproofed.

The Proposed Development's ground floor (the lowest occupied floor), which would contain a residential lobby and senior assisted living space, would feature a proposed elevation of approximately 15 feet (NAVD88); these building features would be elevated approximately two feet above the BFE of the 100-year flood zone (13 feet [NAVD88]). The residential lobby and senior assisted living space (including amenity space and 22 senior units) located on the Proposed Development's ground floor would be vulnerable features. Though the future design has not been finalized, potential back of house space located on the ground floor could contain critical features, as this space could contain MEP equipment such as electrical, gas, water meter, and telecom rooms. At this time, the Applicant plans to include all critical MEP equipment on either the rooftop mechanical bulkhead or on levels above the ground floor, where feasible, where it would be located well above the future 100-year flood zone. However, in the event it is determined impractical or infeasible to locate critical equipment above the ground floor, such equipment will be placed in floodproofed mechanical rooms on the ground and/or cellar level.

Beginning in the 2050s, the elevation of the Proposed Development's ground floor would fall below the elevation of the one percent annual chance flood zone (under high sea level rise projections), and would remain below the elevation of the future one percent annual chance flood zone for the remainder of the Proposed Development's lifespan (approximately 75 years). If any of the Proposed Development's critical and vulnerable features located on the ground floor were to fall below the elevation of the future one percent annual chance flood zone, future flooding events could result in a loss of building services, temporary displacement of residents, structural damage, loss of inventory, or potentially increased flood insurance costs.

In the event of critical building equipment being damaged by a potential future flood, two separate power generators (one generator serving the building's residential use and the other serving the senior-living use) would provide backup power for life safety functions (including fire protection and emergency services), with an accessory tank holding a minimum two-day fuel supply. The proposed senior living space would not contain any medical or life-support equipment, and would essentially function as standard residential space designed to serve senior populations. As such, the building's MEP systems are expected to support only residential uses, and no vital life support or medical systems would be compromised in the event of a flood. Additionally, employees of the senior assisted-living space will be trained to follow Occupational Safety and Health Administration (OSHA) guidelines, which include a matrix for all natural disasters as well as attacks. Employees will receive training upon hire and annually. In the event an emergency situation is anticipated, employees working in the senior assisted-living facility will be asked to stay over, with no employee to leave before their replacement arrives. Under these circumstances and where applicable, all transportation will be arranged and paid for by the senior assisted-living facility.

The building's HVAC systems would include variable refrigerant flow (VRF) heating and cooling units, which would allow for independent climate control run on separate condensers located on elevated rooftop areas so that if one condenser fails the entire building would not lose temperature control. The

independent climate control feature allows for different areas of the building (down to the individual room more or less) to have different temperatures, even allowing some rooms to have heat while others operate cooling simultaneously. This system is unlikely to be affected by a hypothetical flood event.

The NPCC recommends that these flood projection maps not be used to judge site-specific risks and they are subject to change. The Proposed Development's ground floor would be designed and constructed in accordance with all applicable city and state flooding and erosion regulations, including New York City Administrative Code, Title 28, Section 104.9 ("Coastal Zones and Water-Sensitive Inland Zones").

As shown in the 1% Flood Elevation + Sea Rise graph, the Proposed Development's lowest residential units (vulnerable features at an elevation of approximately 30 feet [NAVD88]) and rooftop mechanical bulkhead (critical features at an elevation of approximately 100 feet [NAVD88]) would be located well above the current and future one percent annual chance flood zone under high sea level rise projections. The Proposed Development's lowest residential units and lowest mechanical bulkhead would remain above the elevation of the future one percent annual chance flood zone for the full lifespan of the Proposed Development.

STEP 2: IDENTIFY ADAPTIVE STRATEGIES

The Proposed Development would be designed and constructed in accordance with all applicable city and state flooding and erosion regulations, including New York City Administrative Code, Title 28, Section 104.9 ("Coastal Zones and Water-Sensitive Inland Zones"). As noted previously, Appendix G of the *New York City Building Code* would not apply to the Proposed Development; therefore, the Proposed Development's cellar is not required to be floodproofed at this time.

As discussed in detail above, in the event of an emergency, the Applicant would implement an emergency preparedness plan consistent with New York State Department of Health requirements in addition to having two emergency power generators (one generator serving the building's residential use and the other serving the senior-living use) with an accessory tank holding a minimum two-day fuel supply. Therefore, the Proposed Development would minimize the potential for public and private losses due to flood damage, reduce the exposure of public utilities to flood hazards, and prepare for and address future risks.

Based on the future 100-year flood zone projections for the 2020s, 2050s, 2080s, 2100, the Project Area would continue to remain within the 100-year and 500-year flood zones (see **Figures C5-a** and **C5-b**). However, as described above, the NPCC recommends that these maps not be used to judge site-specific risks and they are subject to change. As previously stated, coastal floodplains are influenced by astronomic tide and meteorological forces and not by fluvial flooding, and as such are not affected by the placement of obstructions within the floodplain. In the event of a 100-year flood event, the Proposed Development would respond well, as it will be built with the lowest occupied floor above the BFE of 13 feet (NAVD88). With the very unlikely event of a 100-year flood event combined with a 50" sea level rise, the cellar level (which would contain no residents but could contain critical mechanical equipment) as well as the ground floor level (which would contain some senior assisted-living units and amenity space, and could contain critical mechanical equipment) may be vulnerable. However, as described above, where practicable and feasible, the building's MEP equipment would be located on either the rooftop or above the ground floor level, which would be well above the BFE that is projected to be 50" higher than today's. In the event that locating critical equipment above the ground floor is infeasible or impracticable, such equipment will be placed in floodproofed mechanical rooms on the ground and/or cellar level. Should the sea level rise 50"

in the future, additional flood proofing measures may need to be implemented to adapt the lowest floors of the building to minimize damage.

If the elevation of the floodplain increases, potential adaptive actions to be considered may include elevating critical features (i.e., the back of house spaces that could contain MEP equipment and telecom rooms) from the Proposed Development's cellar and/or ground floor to the Proposed Development's second floor. If elevated, these critical features would feature an elevation of approximately 30 feet (NAVD88) and would be located well above the current and future one percent annual chance flood zone under high sea level rise projections. An additional potential adaptive action may include the utilization of portable flood barriers at all of the Proposed Development's points of ingress and egress. Such portable flood barriers could be mobilized and installed prior to future storm events that may result in extreme flooding. In addition, while the Applicant is committed to floodproofing any mechanical rooms containing critical equipment at or below grade, additional potential retrofits could be pursued to further floodproof, as appropriate, the cellar and ground floor of the Proposed Development. The Proposed Development is not expected to make flooding on adjacent properties worse, nor would the Proposed Development conflict with other plans for flood protection on adjacent properties.

STEP 3: ASSESS POLICY CONSISTENCY

The Proposed Actions would advance Policy 6.2 and there would be no significant adverse impacts associated with the primary study area's location within the 100-year and 500-year flood zones. At present, the primary study area is susceptible to minimal flooding risk. In the future, according to NPCC projections, most of the primary study area would continue to be susceptible to low or moderate flooding risk. In addition, the NPCC recommends that these flood projection maps not be used to judge site-specific risks and they are subject to change. All new vulnerable, critical, or potentially hazardous features would be protected through flood damage reduction measures or future adaptive actions, where applicable. Therefore, the Proposed Project would be consistent with New York City policies regarding adaptation to climate change.

Based on the CAF completed for the Proposed Actions, which is provided in **Appendix 1**, three WRP policies required further assessment. The assessment provided herein found that the Proposed Actions would be consistent with all applicable WRP policies. Therefore, the Proposed Actions are not expected to result in any significant adverse impacts related to the WRP. DCP's division of Climate and sustainability Planning, on behalf of the New York City Coastal Commission, has reviewed the WRP assessment, and has found that the Proposed Actions would not substantially hinder the achievement of any WRP policy and has determined that the Proposed Project would be consistent with the WRP. The Proposed Project has been assigned WRP No. [22-141].

VI. CONCLUSION

The Proposed Actions include a zoning map amendment to rezone the Proposed Rezoning Area from R1-2 to R6A, and a zoning text amendment to designate the Proposed Rezoning Area as a MIH area. A detailed assessment of land use, zoning, and public policy according to the *2021 CEQR Technical Manual* determined that the Proposed Actions would not result in significant adverse impacts to these areas. The Proposed Actions would facilitate changes at the Proposed Development Site including the addition of approximately 167 DUs and 58,194 gsf of senior assisted living space (259 DUs and no assisted-living space under the RWCDS), and 86 accessory off-street parking spaces in a new eight-story (85-foot-tall) building. The new residential land use introduced by the Proposed Actions would be compatible with uses in the

surrounding area, which is capable of supporting increased residential density due to the nearby commercial and transportation corridor and the planned development of public facilities nearby. The proposed zoning would be compatible with districts in the surrounding area and would facilitate development at a comparable density. The Proposed Actions are consistent with all relevant public policy goals. Therefore, the Proposed Actions would not result in adverse impacts to land use, zoning, or public policy, and no further assessment is warranted.

ATTACHMENT D

SOCIOECONOMIC CONDITION

I. INTRODUCTION

This attachment assesses whether the Proposed Actions and associated reasonable worst-case development scenario (RWCDS) would result in significant adverse impacts to the socioeconomic character of the area within and surrounding the Proposed Rezoning Area in the Bay Terrace neighborhood of Queens Community District (CD) 11 (see **Figure D-1**). As described in the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*, the socioeconomic character of an area includes its population, housing, and economic activities. Socioeconomic changes may occur when an action directly or indirectly changes any of these elements. Although some 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. The objective of a CEQR analysis is to disclose whether any changes created by the actions would have a significant adverse impact compared to what would happen in the future without the actions (i.e., the No-Action condition).

As discussed in **Attachment A, "Project Description,"** the Applicant is seeking (i) a zoning map amendment to rezone the Proposed Rezoning Area from a R1-2 district to a R6A district; and (ii) a zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing (MIH) area. The Proposed Actions would facilitate the development of a new, eight-story residential building on the Proposed Development Site at 217-14 24th Avenue (Queens Block 6008, Lot 95 as shown in **Figure D-1**). The Proposed Development would be comprised of 167 dwelling units (DUs), of which approximately 42-50 units would be designated as permanently affordable pursuant to the City's MIH program; approximately 58,194 gross square feet (gsf) of assisted living uses (65 beds); and approximately 86 accessory below-grade parking spaces.

The RWCDS for the Proposed Actions detailed in **Attachment A** assumes that, for conservative analysis purposes, the Proposed Development Site would be redeveloped with up to 259 DUs, of which approximately 65-78 units would be designated as permanently affordable pursuant to MIH and approximately 86 below-grade parking spaces. It should be noted that while the total DUs and residential population generated by the RWCDS would be based on a project absent the assisted living facilities (resulting in up to 259 DUs), for conservative analysis purposes, the non-residential population generated by the RWCDS will be based on the inclusion of the proposed 58,194 gsf of assisted living uses (refer to **Attachment A** for further discussion). No other land in the Proposed Rezoning Area is expected to undergo changes as a result of the Proposed Actions. Absent the Proposed Actions, no changes to the existing conditions within the Proposed Rezoning Area are anticipated.

In accordance with 2021 *CEQR Technical Manual* guidance, this socioeconomic assessment considers whether the Proposed Actions could result in significant adverse socioeconomic impacts due to: (1) direct residential displacement; (2) direct business or institutional displacement; (3) indirect residential displacement; (4) indirect business or institutional displacement; or (5) adverse effects on specific industries.

Socioeconomic Study Area (0.5-mile)



Legend

Proposed Development Site | Half-mile Radius | 997.03 Census Tract

II. METHODOLOGY

Under CEQR, the assessment of socioeconomic conditions usually distinguishes between the socioeconomic conditions of an area's residents and businesses. However, a proposed action can affect either or both segments in similar ways: it may directly displace residents or businesses; or it may alter one or more of the underlying forces that shape socioeconomic conditions in an area and thus may cause indirect displacement of residents or businesses. The objective of the CEQR analysis is to disclose whether any changes created by an action would have a significant impact compared with what would happen in the future without the action.

Direct displacement is defined as the involuntary displacement of residents, businesses, or institutions from the actual site of (or sites directly affected by) a proposed action. Examples include the proposed redevelopment of a currently occupied site for new uses or structures, or a proposed easement or right-of-way that would take a portion of a parcel and thus render it unfit for its current use. Since the occupants of a site are usually known, the disclosure of direct displacement focuses on specific businesses and employment and an identifiable number of residents and workers.

Indirect or secondary displacement is defined as the involuntary displacement of residents, businesses, or employees in an area adjacent to, or close to, a project or development site that results from changes in socioeconomic conditions created by a proposed action. Examples include rising residential rents in an area that result from a new concentration of higher-income housing introduced by an action, which ultimately could make existing housing unaffordable to lower income residents; a similar turnover of industrial to higher-rent commercial tenancies induced by the introduction of a successful office project in an area; or the flight from a neighborhood that can occur if a proposed action creates conditions that break down the community (such as a highway dividing the area). Unlike direct displacement, the exact occupants to be indirectly displaced are not known. Therefore, an assessment of indirect displacement usually identifies the size and type of groups of residents, businesses, or employees potentially affected.

Even if an action does not directly or indirectly displace businesses, it may affect the operation and viability of a major industry or commercial operation in the City. An example would be new regulations that prohibit or restrict the use of certain processes that are critical to certain industries. In this case, the CEQR review may involve the assessment of the economic impact of the action on the specific industry in question.

Determining Whether a Socioeconomic Assessment is Appropriate

According to the 2021 *CEQR Technical Manual*, a socioeconomic assessment should be conducted if an action may be reasonably expected to create socioeconomic changes in the area affected by the action that would not be expected to occur in the absence of the action. The following initial screening assessment considers threshold circumstances identified in the 2021 *CEQR Technical Manual* that could lead to socioeconomic changes warranting further assessment.

As detailed in **Attachment A, "Project Description,"** the Proposed Actions and associated RWCDS would introduce a net increase of 259 DUs (of which 65-78 would be affordable units) and 86 accessory residential parking spaces, as well as a net decrease of 2,800 gsf of commercial space in the Proposed Rezoning Area, as compared to the No-Action condition.

- ***Direct Residential Displacement: Would the Proposed Actions directly displace residential populations 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 Rezoning Area does not include any residential uses. Therefore, the Proposed Actions would not directly displace any residential populations, and no further assessment is warranted.

- ***Direct Business Displacement: Would the Proposed Actions directly displace more than 100 employees, or 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, assessments of direct business displacement and indirect business displacement are appropriate.***

The Proposed Development Site contains a 2,800-gsf club house building for a private swimming and sports club, which employs a total of three workers based on the standard rate of one worker per 900 gsf of private sports club space. According to the 2021 *CEQR Technical Manual*, direct displacement of fewer than 100 employees would not typically be expected to alter the socioeconomic characteristics of a neighborhood. Therefore, the direct displacement of the three workers from the Proposed Rezoning Area as a result of the Proposed Actions is not expected to result in any significant adverse impacts due to direct business displacement. Additionally, no business or service which provides products or services essential to the local economy would be directly displaced or would no longer be available as a result of the Proposed Actions. Moreover, there are no regulations or publicly adopted plans to preserve, enhance, or otherwise protect the existing swimming and sports club on the Proposed Development Site. As such, there would be no direct business displacement impacts related to the Proposed Actions and associated RWCDS, and no further analysis is required.

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

The Proposed Actions and associated RWCDS would introduce a net increase of 259 DUs to the Proposed Rezoning Area, exceeding the 200-unit *CEQR Technical Manual* threshold for analysis. Therefore, a preliminary assessment of potential indirect residential displacement is warranted and is provided below.

The Proposed Actions and associated RWCDS would result in net decreases of 2,800 gsf of commercial space in the Proposed Rezoning Area, which would not exceed the 200,000-sf *CEQR Technical Manual* threshold for analysis. Therefore, an assessment of potential indirect business displacement is not warranted for the Proposed Actions.

- ***Indirect Business Displacement due to Retail Market Saturation: Would the Proposed Actions result in a total of 200,000 sf or more of retail on a single development site or***

200,000 sf or more of regional-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 Actions would not result in 200,000 sf or more of retail on a single development site or 200,000 sf or more of regional-serving retail across multiple sites. Therefore, an assessment of indirect business displacement due to retail market saturation is not required for the Proposed Actions.

- ***Adverse Effects on Specific Industries: Are the Proposed Actions 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 Proposed Actions would result in the loss or substantial diminishment of a particularly important product or service within the City.***

The Proposed Actions would not result in development warranting an assessment of direct or indirect business displacement. Therefore, an assessment of adverse effects on specific industries is not warranted for the Proposed Actions.

Analysis Format

Following 2021 *CEQR Technical Manual* guidance, the socioeconomic analysis of potential indirect residential displacement begins with a preliminary assessment. The purpose of the preliminary assessment is to learn enough about the effects of the Proposed Actions to either rule out the possibility of significant adverse impacts or determine that a more detailed analysis is warranted. A detailed analysis, when required, is framed in the context of existing conditions and evaluations of the futures without and with the Proposed Actions for the analysis year of 2027.

Study Area Definition

A socioeconomic study area is the area within which the Proposed Actions have the greatest potential to directly or indirectly affect population, housing, and economic activities. A study area typically encompasses a project or development site(s) and adjacent areas within an approximately 400-foot, quarter-mile, or half-mile radius, depending upon the project size and area characteristics. According to the 2021 *CEQR Technical Manual*, the larger half-mile study area is appropriate for actions that would potentially increase the quarter-mile area population by more than five percent. The incremental population introduced by the Proposed Actions and associated RWCDS (697 residents[1]) would result in an increase in the quarter-mile study area residential population of over 15 percent. Therefore, a half-mile study area is the appropriate study area for assessing the potential for indirect residential displacement in accordance with 2021 *CEQR Technical Manual* methodology. In accordance with CEQR guidance, the indirect residential displacement analysis considers an area "near" the study area (i.e., within a half-mile radius of the secondary study area) to examine real estate market trends.

As socioeconomic analyses depend on demographic data, it is appropriate to adjust the study area boundary to conform to the census tract delineation that most closely approximates the desired radius (in this case, a half-mile radius surrounding the boundary of the Proposed Rezoning Area). For this

[1] The estimate of incremental residential population resulting from the Proposed Actions and associated RWCDS assumes 100 percent occupancy and 2.69 persons per DU, based on the average household size for Queens CD 11 in the 2020 Census.

analysis, three Census tracts comprise the half-mile socioeconomic study area (Census tracts 997.03, 997.04, and 1093); the half-mile socioeconomic study area is shown in **Figure D-1**.[2] The half-mile socioeconomic study area is located in the Bay Terrace neighborhood of northeastern Queens, bounded by Fort Totten to the north, Clearview to the west, Bayside to the south, and Little Neck Bay to the east.

Data Sources

Information used in the analysis of indirect residential displacement (including population, housing, rents, and incomes) were obtained from the U.S. Census Bureau's 2020 Census, and 2006-2010 and 2018-2022 American Community Survey (ACS) Five-Year Estimates. The New York City Department of City Planning (DCP)'s Population FactFinder online mapping application tool was used to determine the statistic reliability of single-variable ACS data presented for the study area, the borough of Queens, and New York City.[3] The average household size (2.69 persons per household) for Queens CD 11 according to the 2020 Census is used to estimate the future population resulting from anticipated No-Action development projects in the study area. Data on the study area were compared to Queens and New York City. Land use and parcel data were collected from the City's 2022 Primary Land Use Tax Lot Output (PLUTO) data files and New York's City Map (NYCityMap).

III. PRELIMINARY ASSESSMENT OF INDIRECT RESIDENTIAL DISPLACEMENT

As described in the 2021 *CEQR Technical Manual*, indirect residential displacement usually results from substantial new development that is markedly different from existing uses and activity in an area, which can lead to increased property values in the area. Increased property values can lead to increased rents in non-regulated rental housing units, which can make it difficult for some existing residents to afford to stay in their homes. Pursuant to *CEQR Technical Manual* guidance, the indirect residential displacement assessment aims to determine whether the Proposed Actions would either introduce a trend or accelerate an existing trend of changing real estate market conditions that may have the potential to displace a vulnerable residential population and substantially change the socioeconomic character of the neighborhood. To quantify the reasonably anticipated effects of the Proposed Actions, the vulnerable population is defined in the *CEQR Technical Manual* to include renters living in privately held units unprotected by rent control, rent stabilization, or other government regulations restricting rents, and whose incomes or poverty status indicate that they may not support substantial rent increases. Residents who are homeowners, or who are renters living in rent-regulated[4] or subsidized housing units would not be vulnerable to rent pressures according to CEQR guidance.

This preliminary assessment follows the step-by-step preliminary assessment guidance described in Section 332.1 of the 2021 *CEQR Technical Manual*. As described below and in keeping with CEQR guidance, Step 2 of the preliminary assessment was sufficient to determine that the Proposed Actions and

[2] In accordance with 2021 *CEQR Technical Manual* guidance, the socioeconomic study area includes all census tracts with at least 50 percent of area within a half-mile radius of the Proposed Rezoning Area.

[3] The reliability of data is based on the margin of error (MOE). MOEs describe the precision of an estimate within a 90 percent confidence interval and provide an idea of how much variability (i.e., sampling error) is associated with the estimate, where the larger MOE relative to the size of the estimate, the less reliable the data. The MOE is partially dependent on the sample size because the large sample sizes result in a greater amount of information that more closely approximates the population.

[4] Rent regulated housing includes both rent controlled and rent stabilized apartments that are protected from steep rent increases and offer tenants greater legal protections than those residing in market-rate housing.

associated RWCDS would not result in significant adverse impacts due to indirect residential displacement.

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

Household income characteristics for the study area population are described using the average (or mean) and median household incomes, as well as a breakdown of income distribution. The median household income represents the mid-point of all household incomes in a study area, and the mean household income is calculated by dividing aggregate income by the total number of households in a study area. The presence of higher or lower income households raises or lowers the area's mean income, sometimes substantially higher or lower than the median of household incomes in a study area.

Table D-1: Household Income Characteristics in the Study Area, Queens, and New York City[1]

	Median Household Income			Mean Household Income		
	2006-2010 ACS	2018-2022 ACS	Percent Change	2006-2010 ACS	2018-2022 ACS	Percent Change
Study Area	$105,702	$99,368	N/A[2]	$135,997	$135,300	N/A[2]
Queens	$74,604	$82,431	+ 10.5%	$94,732	$109,287	+ 15.4%
New York City	$67,850	$76,607	+ 12.9%	$105,106	$122,667	+ 16.7%

Sources: Bureau of the Census, 2006-2010 and 2018-2022 Five-Year ACS Estimates, as reported on DCP's Population FactFinder in May 2024.

Notes:

[1] Statistical reliability of the data included in this table has been vetted using DCP's NYC Population FactFinder.

[2] If the MOE of the difference between 2006-2010 and 2018-2022 ACS Five-Year Estimates is greater than the difference, a change cannot be reported with confidence; if the MOE of the difference is greater than one third of the difference, a chance cannot be estimated with confidence and only the direction of change can be reported (i.e., increase/decrease). For the study area, neither the directionality nor the percent change could be reported for the study area's median or mean annual household incomes.

According to 2018-2022 Five-Year ACS estimates, the mean annual household income of residents living in the study area is approximately $135,300, as compared to $135,997 in 2006-2010 (refer to **Table D-1**).[5] The existing mean annual household income of study area residents is high and is between 90 and 100 percent of the 2024 area median income (AMI) of New York City for a family of three.[6] As shown in **Table D-1**, the residents of the half-mile study area have higher mean household incomes than in Queens ($109,287) and New York City as a whole ($122,667).

[5] Based on the MOE for the mean household income of the study area according to the 2018-2022 Five-Year ACS (MOE of $21,182), the average household income could range from $114,118 to $156,482. Neither the directionality nor the percent change could be reported with statistical confidence for mean household income between the 2006-2010 and 2018-2022 Five-Year ACS estimates in the study area.

[6] The median income for all cities across the country is defined each year by the U.S. Department of Housing and Urban Development (HUD). 90 percent AMI for a family of three in New York City is an annual income of $125,820 in 2024. 100 percent AMI for a family of three in New York City is an annual income of $139,800 in 2024. The AMI for a three-person household is used because the average household size for Queens CD 11 is 2.69 persons, as detailed above.

Trends in the mean household income within Queens and greater city indicate that the mean household income is increasing As shown in **Table D-1**, the mean household income in Queens increased by 15 percent since 2006-2010 and increased by nearly 17 percent in New York City. Neither the directionality nor the percent change in mean household income could be reported with statistical confidence for the study area between the 2006-2010 and 2018-2022 ACS Five-Year Estimates.

In all areas, the median household income is lower than the mean household income, indicating the presence of higher income households in the study area, borough, and city. As shown in **Table D-1**, similar to the trends in mean household income, the median household income in the study area is higher than in Queens and New York City as a whole. According to the 2018-2022 Five-Year ACS data, the median household income for the study area is estimated at $99,368,[7] as compared to $82,431 for Queens households and $76,607 for New York City households. The study area's existing median annual household income is close to 70 percent AMI for the New York City region for a three-person family ($97860). Like mean household incomes, neither the directionality nor the percent change in median household income could be reported with statistical confidence for the study area between the 2006-2010 and 2018-2022 ACS Five-Year Estimates

Table D-2: Household Income Distribution in the Study Area, Queens, and New York City (2018-2022)

	Total House-holds	Households Earning Less Than $25,000		Households Earning $25,000-$49,999		Households Earning $50,000-$99,999		Households Earning $100,000-$199,999		Households Earning $200,000 or More	
		#	%	#	%	#	%	#	%	#	%
Study Area	6,469	N/A	N/A	N/A	N/A	1,888	29.2	2,227	34.4	984	15.2
Queens	816,859	117,943	14.4	131,078	16.1	228,850	28.0	237,790	29.1	101,198	12.4
New York City	3,282,804	655,649	20.0	515,571	15.7	800,254	24.4	799,063	24.3	512,267	15.6

Source: U.S. Census Bureau, 2018-2022 Five-Year ACS estimates via DCP's Population FactFinder, accessed May 2024.
Note: The statistical reliability of the data included in this table has been vetted using DCP's NYC Population FactFinder.

Table D-2 illustrates the distribution of household incomes in the study area as compared to the larger borough and New York City. As detailed therein, there is a larger portion of households with incomes above $50,000 in the study area as compared to Queens and New York City as a whole. As detailed therein, approximately 29 percent have incomes between $50,000 and $99,999; approximately 34 percent have incomes between $100,000 and $199,999; and approximately 15 percent have incomes of $200,000 per year or more.

In the future with the Proposed Actions, the proposed zoning changes would permit increases in building heights as well as residential uses in the Proposed Rezoning Area, and would designate the area an MIH Area. The designated MIH Area would set mandatory affordable housing requirements pursuant to the MIH Program in the Proposed Rezoning Area, and would require a share of new housing to be set aside as permanently affordable. There would be no expiration on the affordability requirements of housing units created through the MIH Program, making them a long-term stable reservoir of affordable housing

[7] Based on the MOE for the median household income of the study area according to the 2018-2022 Five Year ACS (MOE of $12,386), the median household income could range from $86,982 to $111,754.

in the surrounding area, a key policy to meet the goals outlined in the city's *Housing Our Neighbors: A Blueprint for Housing and Homelessness* . The Proposed Actions would expand housing opportunities in an area of the City where a strong demand for affordable and senior housing exists. The MIH Program would provide assurance that new residential development would address the needs of residents at lower income levels.

As noted above, the RWCDS for the Proposed Actions conservatively assumes that the Proposed Development Site would be redeveloped with up to 259 DUs, of which approximately 65-78 units would be designated as permanently affordable pursuant to MIH and approximately 86 below-grade parking spaces. Pursuant to Options 1 through 3 of the City's MIH program, a minimum of 20 percent of the residential floor area would be set aside for permanently affordable housing below 80 percent of AMI. Housing is considered affordable if it costs 30 percent or less of a household's annual income; HUD defines families who pay more than 30 percent of their income for housing as rent-burdened. It should be noted that approximately 43.6 percent of rental households in Queens CD 11 are rent-burdened, and the CD has an incredibly low rental vacancy rate of 4.5 percent. Moreover, the CD has the third highest senior population in New York City at 20.7 percent. The affordable and senior housing added by the Proposed Actions is expected to help maintain a more diverse demographic composition within the study area, and would expand affordable and senior housing opportunities in an area where a strong demand for such housing exists.

IV. CONCLUSIONS

According to 2021 *CEQR Technical Manual* methodology, if a project would introduce a more costly type of housing compared to existing housing, then the new population may be expected to have higher incomes. However, if the expected average incomes of the new population would be similar to the average incomes of the study area populations, than the project would not be expected to result in any significant adverse socioeconomic impacts related to indirect residential displacement. As detailed above, the Proposed Actions' generated RWCDS population is expected to have a mix of average household incomes that would be similar to (for the market-rate units) and lower than (for the affordable units) the average incomes of the study area population. Therefore, the Proposed Actions are not expected to result in any significant adverse socioeconomic impacts related to indirect residential displacement, and no further analysis is warranted.

ATTACHMENT E

COMMUNITY FACILITIES AND SERVICES

I. INTRODUCTION

This chapter examines the potential effects of the Proposed Actions and associated reasonable worst-case development scenario (RWCDS) on community facilities in and around the Project Area. The *City Environmental Quality Review* (CEQR) *Technical Manual* defines community facilities as public or publicly funded facilities, including schools, health care, child care, libraries, and fire and police protection services. CEQR methodology focuses on direct impacts on community facilities and services and on increased demand for community facilities and services generated by increases in population.

As described in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the incremental development (compared to No-Action conditions) of 259 DUs, of which approximately 65-78 would be affordable units at or below 80 percent of area median income (AMI). The analysis of community facilities and services has been conducted in accordance with *CEQR Technical Manual* guidelines and the latest data and guidance from agencies such as the New York City Department of Education (DOE) the Queens Public Library (QPL), the New York City School Construction Authority (SCA), and the New York City Department of City Planning (DCP).

II. PRELIMINARY SCREENING

The purpose of the preliminary screening is to determine when a community facilities assessment is required. In accordance with the *CEQR Technical Manual*, a community facilities assessment is warranted if a project has the potential to result in either direct or indirect effects on community facilities. If a project would physically alter a community facility, whether by displacement of the facility or other physical change, this "direct" effect triggers the need to assess the potential effect that the physical change may have on the service delivery. New population added to an area as a result of an action would use existing services, which may result in potential "indirect" effects on service delivery. Depending on the size, income characteristics, and age distribution of the new population, there may be effects on public schools, libraries, or early childhood programs centers.

Direct Effects

There are no community facilities located within the Project Area. Therefore, the Proposed Actions would neither permanently nor temporarily alter a community facility, and there would be no displacement or physical alteration to a community facility. In accordance with the *CEQR Technical Manual*, the Proposed Actions would not result in any direct effects to community facilities. Therefore, an analysis of direct effects is not warranted.

Indirect Effects

The *CEQR Technical Manual* includes thresholds that provide guidance in making an initial determination of whether a detailed analysis is necessary to determine potential impacts. **Table E-1** lists the *CEQR Technical Manual* thresholds for each community facility analysis area. According to the *CEQR Technical*

Manual, if a proposed action exceeds the threshold for a specific facility, a more detailed analysis is warranted. A preliminary screening analysis was conducted to determine if the Proposed Actions would exceed established *CEQR Technical Manual* thresholds warranting further analysis. Based on this screening, the Proposed Actions warrant a detailed analysis for public elementary and intermediate schools. Detailed analysis is not required for public high schools, publicly funded child care centers, public libraries, police and fire protection or health care facilities.

TABLE E-1
Preliminary Screening Analysis Criteria

Community Facility	Threshold for Detailed Analysis
Public Schools	50 or more elementary/intermediate school students or 150 or more high school students
Early childhood programs (Publicly Funded)	More than 20 eligible children under age six based on the number of low- to moderate-income units
Libraries	More than 5 percent increase in ratio of residential units to libraries in the borough
Police Protection	Introduction of a sizable new neighborhood
Fire Protection	Introduction of a sizable new neighborhood
Health Care Facilities (Outpatient)	Introduction of a sizable new neighborhood
Source(s): *CEQR Technical Manual, Chapter 6, "Community Facilities, and Services."*	

Public Schools

The *CEQR Technical Manual* recommends conducting a detailed analysis of public schools if a proposed action would generate 50 or more elementary/intermediate school students and/or 150 or more high school students. As described in **Attachment A, "Project Description,"** in the Reasonable Worst Case Development Scenario (RWCDS), the Proposed Actions would result in an increase of 259 dwelling units. Based on the *CEQR Technical Manual* student generation rates for CSD 26 (0.29 elementary school students per unit; 0.13 intermediate school students per unit; and 0.1 high school students per unit), the Proposed Actions would generate approximately 135 additional students (approximately 76 elementary school students, 33 intermediate school students, and 26 high school students). Because these increments exceed the thresholds of 50 additional elementary and intermediate school students, a detailed analysis of the Proposed Actions' effects on elementary and intermediate schools was conducted. However, as the number of project-generated high school students would be below the 150 high school student threshold, no significant adverse impacts to public high schools are anticipated and no further analysis is warranted.

Early Childhood Programs

According to the *CEQR Technical Manual*, if a proposed action would add 20 or more children under age six eligible for child care, a detailed analysis of its potential effects on publicly funded early childhood programs is warranted. This threshold is based on the number of low-income and low- to moderate-income units generated by a proposed action (139 dwelling units in Queens).[1] The Proposed Actions are expected to result in a net increase of approximately 259 dwelling units, of which 65-78 are expected to be affordable units. In accordance with the City's MIH policy, under the Proposed Actions, the Applicant will choose either MIH Option 1 or 2, which would require 25 or 30 percent of the residential floor area be designated as affordable housing units for residents with incomes averaging between 60 and 80

[1] *CEQR Technical Manual* (2021), Chapter 6, "Community Facilities," Table 6-1.

percent of area median income (AMI) and none of the units exceeding 130 percent of AMI. As Options 1 and 2 require that at least 25 or 30 percent of the residential floor area be reserved for residents with incomes averaging 60 to 80 percent of AMI, some of these MIH units would be affordable to households earning more than 60 to 80 percent of AMI. Therefore, as requested by DCP, for conservative CEQR analysis purposes, 20 percent of the overall residential floor area (approximately 52 DUs) of the RWCDS is assumed to be set aside for "affordable" residential units, which refers to the amount residential units that would accommodate households earning 60 to 80 percent (or below) of AMI. Based on the *CEQR Technical Manual* generation rates for eligible children under the age of six in Queens (i.e., 0.14), the Proposed Actions would generate approximately seven additional children under the age of six who are eligible for publicly funded child care.[2] Therefore, the Proposed Actions would not exceed the 20 children threshold for a detailed analysis of publicly funded early childhood programs, and as such, the Proposed Actions are not expected to result in significant adverse impacts to publicly funded early childhood programs, and no further analysis is warranted.

Libraries

Potential impacts on libraries can result from an increased user population. According to the *CEQR Technical Manual*, a proposed action that generates a 5-percent increase in the average number of residential units served per branch (equivalent to a 663-unit increase in Queens)[3] may cause significant adverse impacts on library services and, therefore, requires further analysis. As described above, the Proposed Actions are expected to generate up to 259 incremental dwelling units over the No-Action Condition. Therefore, the Proposed Actions would not exceed the CEQR threshold, and a detailed analysis of libraries is not warranted.

Police, Fire, and Health Care Facilities

The *CEQR Technical Manual* recommends a detailed analysis of indirect impacts on police, fire, and health care services in cases where a proposed action would create a sizeable new neighborhood where none existed before. The Project Area is a developed area with an existing and well-established community that is served by existing police, fire, and health care services. Therefore, the Proposed Actions would not create a sizeable new neighborhood where none existed before and a detailed analysis of indirect effects on these community facilities is not warranted. However, for informational purposes, a description of existing police, fire, and health care facilities serving the Project Area is provided below.

The Project Area is served by the New York City Police Department's (NYPD) 111th Precinct, located at 45-06 215th Street. The 111th Precinct is located in the northeastern portion of Queens, and covers Bayside, Douglaston, Little Neck, Auburndale, Hollis Hills, and Fresh Meadows.

The Project Area is served by the Fire Department of New York's (FDNY) Division 14 and Battalion 306. There are several firehouses located near the Project Area. Engine 306 is located at 40-18 214th Place, approximately 1.2 miles south of the Project Area. Engine 320 Ladder 167 is located at 36-18 Francis Lewis Boulevard, approximately 1.5 miles southwest of the Project Area. Engine 313 Tower Ladder 164 is located approximately 3 miles southeast of the Project Area at 44-01 244th Street. In addition, Marine 4 & ReBreather 2 are located at Fort Totten Park approximately one mile north of the Project Area.

[2] *CEQR Technical Manual* (2021), Chapter 6, "Community Facilities," Table 6-1a.
[3] *CEQR Technical Manual* (2021), Chapter 6, "Community Facilities," Table 6-1.

The two types of ambulances in the City are 911 providers and those providing inter-facility transport. Municipal FDNY and hospital-based ambulances are the sole providers of 911 services and Emergency Medical Services (EMS). There is a FDNY EMS station (FDNY EMS Station 53) located within the vicinity of the Project Area at Fort Totten Park, approximately one mile away. In addition, New York Presbyterian Queens Hospital, which is an EMS provider, is located at 56-45 Main Street (approximately 3.6 miles southwest of the Project Area), with the New York Presbyterian Queens Ambulance Garage located at 165-15 46th Avenue, approximately 2.5 miles to the southwest of the Project Area.

According to *CEQR Technical Manual* guidance, health care facilities include public, proprietary, and nonprofit facilities that accept government funds (usually in the form of Medicare and Medicaid reimbursements) and that are available to any member of the community. Examples of these types of facilities include hospitals or public health clinics. There is one hospital located within the vicinity of the Project Area. As described above, New York Presbyterian Queens Hospital is located approximately 3.6 miles southwest of the Project Area at 56-45 Main Street. New York Presbyterian Queens is the closest hospital to the Project Area and is likely to be used by the residents and workers of the area.

III. INDIRECT EFFECTS ON PUBLIC SCHOOLS

Methodology

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

The Proposed Actions would result in approximately 259 DUs which would generate approximately 135 school-aged children (approximately 76 elementary school students and 33 intermediate school students), which exceeds the threshold of 50 students for a detailed analysis. As the Proposed Actions would generate an estimated 26 new high school students compared to No-Action conditions, the *CEQR Technical Manual* threshold of 150 students for a detailed analysis of high schools would not be exceeded, and thus, no further analysis of public high schools is warranted.

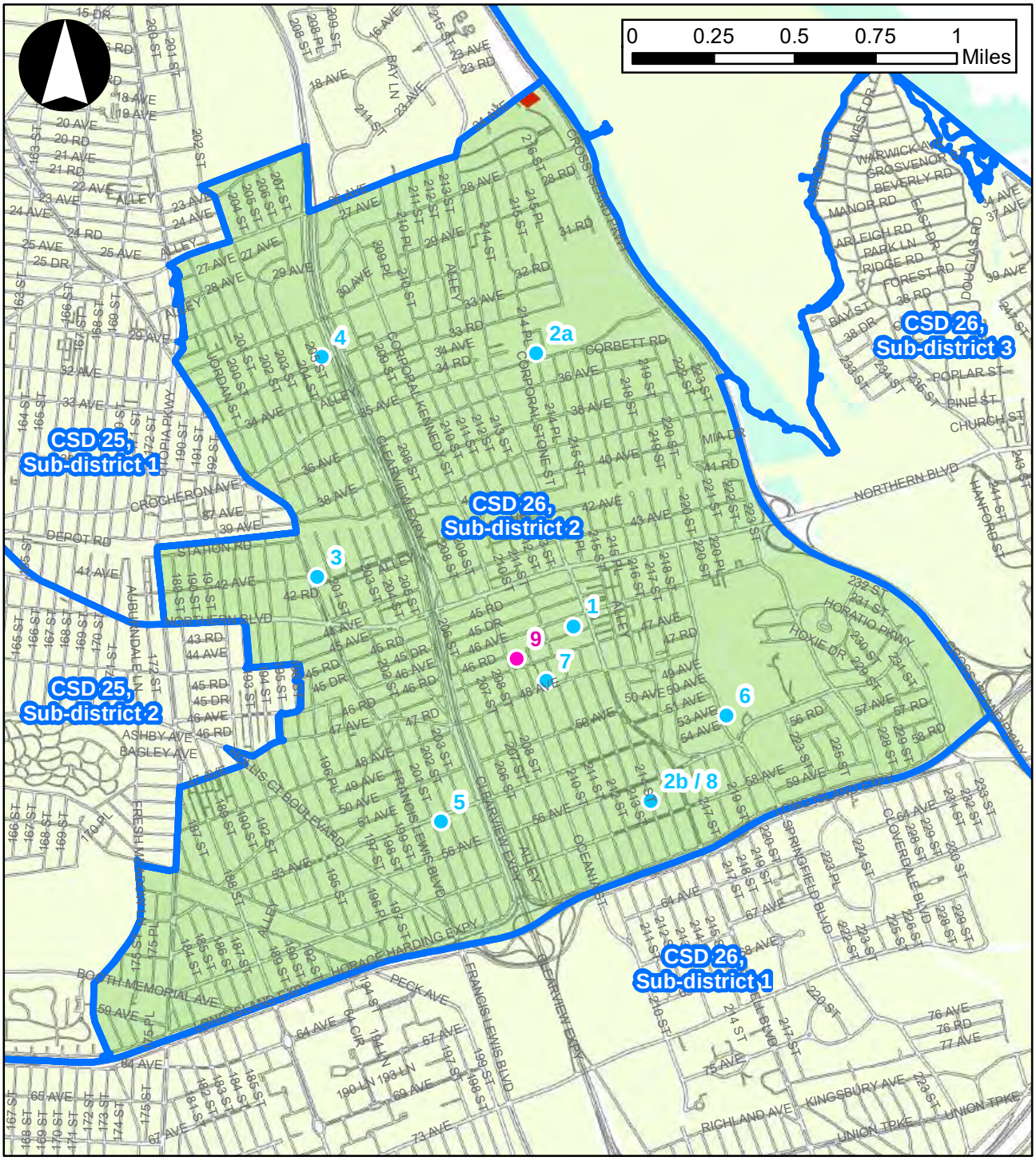
Following the methodologies outlined in the *CEQR Technical Manual*, the study area for the analysis of elementary and intermediate schools is the community school district's sub-district in which the project is located. As indicated in **Figure E-1**, the Project Area falls within the boundaries of CSD 26, Sub-district 2 (the "Elementary and Intermediate School Study Area"). **Table E-2** below summarizes the number of new residential units and new elementary and intermediate school students that are expected to result from the Proposed Actions.

TABLE E-2
Projected Development Sites and Associated Number of Projected Incremental Students

Study Area	Total Dwelling Units	Number of Projected Elementary Students	Number of Projected Intermediate Students
CSD 26, Sub-district 2	259	76	33

Figure E-1

Study Area Public Elementary and Intermediate Schools



A schools analysis presents the most recent capacity, enrollment, and utilization rates for elementary and intermediate schools in the respective study areas. Future conditions for the No-Action Condition are forecast based on enrollment projections and proposed development projects.[4] The future utilization rate for school facilities is calculated by adding the estimated enrollment from proposed residential developments in the school's study area to DOE's projected enrollment, and comparing that number with projected school capacity. In addition, any new school projects identified in the DOE 2020-2024 Five-Year Capital Plan (and/or subsequent amendments) are included if construction has begun. According to the *CEQR Technical Manual*, some schools may be included in the analysis if they are in the DOE Five-Year Capital Plan but are not yet under construction if the lead agency, in consultation with the SCA, concurs that it is appropriate.

To determine With-Action school utilization rates, the net elementary and intermediate school population anticipated to be generated by the Proposed Actions was added to CSD 26, Sub-district 2. The effect of the new students on the capacity of schools within the study area was then evaluated. According to the 2021 *CEQR Technical Manual*, a significant adverse impact may occur if a proposed action would result in (i) a utilization rate of the elementary and/or intermediate schools that is equal to or greater than 100 percent in the future With-Action Condition; and (ii) 100 or more new students generated by the proposed development past the 100% utilization rate.

Existing Conditions

Elementary Schools

As described above, elementary schools in New York City are located in geographically defined school districts. As shown in **Figure E-1**, the Project Area is located within the boundaries of CSD 26, Sub-district 2. Analyzed schools located in CSD 26, Sub-district 2 serving elementary students can generally be defined by one of two categories: elementary or K-8 schools. Public elementary schools (P.S.) serve pre-kindergarten or kindergarten through 5th grades and K-8 schools serve pre-kindergarten or kindergarten through 8th grades. For analysis purposes, the elementary and the P.S. component of K-8 schools have been combined.

As shown in **Figure E-1** and **Table E-3**, there are eight public schools located within Sub-district 2 of CSD 26 that serve elementary students.

Table E-3 provides the existing capacity, enrollment, and utilization figures for elementary schools within Sub-district 2 of CSD 26 during the 2022-2023 academic year. As shown in **Table E-3**, the eight schools within CSD 26, Sub-district 2 that serve elementary levels had a combined target capacity of 3,182 seats and enrollment of 3,559 students, for a combined utilization of approximately 112 percent with a shortage of approximately 377 seats.

Intermediate Schools

Analyzed schools located in CSD 26, Sub-district 2 serving intermediate students can generally be defined by one of three categories: intermediate, secondary, and K-8 schools. Intermediate schools (IS) serve 6th through 8th grades; secondary schools serve 6th through 12th grades; and K-8 schools serve pre-

[4] School Construction Authority, "Projected New Housing Starts for the 2020-2024 Capital Plan."

kindergarten or kindergarten through 8th grades. For analysis purposes, the intermediate and IS components of K-8 schools and secondary schools have been combined.

Table E-3 shows the existing capacity, enrollment, and utilization figures for intermediate schools within CSD 26, Sub-district 2. As shown in **Table E-3**, in the 2022-2023 academic year there was a single public school – J.H.S 158Q Marie Curie – within the study area that served intermediate students.

As shown in **Table E-3**, CSD 26, Sub-district 2 had a target capacity of 1,185 intermediate school seats in the 2022-2023 academic year and an enrollment of 760 students, for a total utilization of approximately 64 percent with 425 available seats.

TABLE E-3
2022-2023 Public Elementary and Intermediate School Enrollment, Capacity, and Utilization in CSD 26, Sub-district 2

Map No.[1]	Name	Address	Enrollment	Target Capacity	Available Seats	Utilization (%)
Elementary Schools						
1	**P.S. 31Q - The Bayside School**	211-45 46th Road	363	371	8	98%
2	**P.S. 41Q - The Crocheron School**	214-43 35th Ave/56-10 214th Street	408	353	-55	116%
3	**P.S. 130Q**	200-01 42nd Ave	363	266	-97	136%
4	**P.S. 159Q**	205-01 33rd Ave	556	499	-57	111%
5	**P.S. 162Q - John Golden School**	201-02 53rd Ave	516	432	-84	119%
6	**P.S. 203Q - Oakland Gardens**	53-11 Springfield Blvd	776	602	-174	129%
7	**P.S. 376Q**	210-21 48th Ave	474	447	27	106%
8	**The Civic School of Bayside Hills**	56-10 214th Street	103	212	109	49%
Total Elementary Schools in Sub-district 2 of CSD 26			***3,559***	***3,182***	***-377***	***112%***
Intermediate Schools						
9	**J.H.S 158Q – Marie Curie**	46-35 Oceania Street	760	1,185	425	64%
Total Intermediate Schools in Sub-district 2 of CSD 26			***760***	***1,185***	***425***	***64%***

Notes:
[1] Map numbers correspond to **Figure E-1**.
Source: New York City Department of Education, Enrollment-Capacity-Utilization Report, 2022-2023 School Year.

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

In the 2027 future without the Proposed Actions, future utilization of public elementary and intermediate, schools serving the study area would be affected by changes in enrollment mainly due to: (1) aging of the existing student body and new arrivals born in the area or moving to it; and (2) changes in capacity, or number of available seats, in the schools as a result of planned construction of new schools or building additions.

Capacity Changes

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

As discussed in the DOE's Five-Year Capital Plan, the capacity at P.S. 41 The Crocheron School's 214-43 35th Avenue facility would increase to 473 seats from the existing 353 seats by 2024 in the future without the Proposed Actions.[5] Therefore, there would be an additional 120 elementary school seats added to the study area by 2024. In addition, as discussed in DOE's Five-Year Capital Plan, a new elementary school is planned at 23-50 Waters Edge Drive directly across the street from the Project Area, which would introduce approximately 547 elementary school seats in the study area by 2026. However, this new school would be located in CSD 25, Sub-district 1, and therefore is not included in the No-Action school capacity calculations for the study area.

Enrollment Changes

Estimates of future enrollment are derived from the latest available DOE enrollment projection data for CSD 26, Sub-district 2 for 2027 (Projected 2023-2032). In the 2027 future without the Proposed Actions, DOE projections show that demand for public elementary and intermediate schools in CSD 26, Sub-district 2 is expected to decrease by approximately 34.3 percent (to 2,336) and 15.3 percent (to 644), respectively. The enrollment projections focus on natural growth of the City's student population and other population increases and do not account for new residential developments planned for the area (i.e., No-Action projects).

New residential development is also planned in the study area by the analysis year of 2027. Using numbers derived from the SCA's Projected New Housing Starts for Sub-district 2 of CSD 26, approximately 83 new elementary school students and 36 new intermediate school students are expected to be added to the study area by the 2027 analysis year. As such, 2027 projected elementary and intermediate enrollment in the future without the Proposed Actions would decrease to 2,419 and 680, respectively.

Elementary Schools

As discussed above, in the 2027 future without the Proposed Actions, CSD 26, Sub-district 2 elementary school enrollment is expected to increase to 2,419. Based on these changes, elementary schools in Sub-district 2 of CSD 26 are expected to begin to operate below capacity (approximately 73.3 percent utilization), with a surplus of 883 seats (see **Table E-6**).

[5] It should be noted that P.S. 41 The Crocheron School has two facilities: one at 214-43 35th Avenue and the other at 56-10 214th Street. Based on the 2022-2023 academic year, the existing capacity at 214-43 35th Avenue and 56-10 214th Street is 288 and 77 seats, respectively, for a total of 365 seats.

TABLE E-6
2027 No-Action Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization in CSD 26, Sub-district 2

	2027 Projected Enrollment[1]	Students Generated from Development in No-Action	Total Projected Enrollment in No-Action	Projected Capacity	Seats Available	Utilization (%)
Elementary Schools	2,336	83	2,419	3,302	883	73.3
Intermediate Schools	644	36	680	1,185	505	57.4

Notes:
[1] DOE Enrollment Projections (Projected 2021-2030).

Intermediate Schools

As shown in **Table E-6**, with no changes to CSD 26, Sub-district 2 intermediate school capacity anticipated in the 2027 future without the Proposed Actions and intermediate school enrollment expected to decrease to 644, the utilization rate for intermediate schools in CSD 26, Sub-district 2 is expected to decrease to approximately 57.4 percent, with 505 available seats.

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

As described in **Attachment A, "Project Description,"** the RWCDS for Proposed Actions would result in up to approximately 259 DUs by 2027. Based on *CEQR Technical Manual* student generation rates, the estimated school age population generated by approximately 259 residential units would include 76 elementary school students and 34 intermediate school students.

Elementary Schools

In the future with the Proposed Actions, elementary schools in Sub-district 2 of CSD 26 would continue to operate below capacity as under No-Action conditions. As shown in **Table E-7**, the addition of 76 elementary school students generated by the Proposed Actions would increase the utilization by approximately 2.3 percentage points to 75.6 percent.. According to the 2021 *CEQR Technical Manual*, a significant adverse impact may occur if a proposed action would result in both of the following conditions: (1) a utilization rate of the elementary schools in the sub-district study area that is equal to or greater than 100 percent in the future With-Action condition; and (2) 100 or more new students generated by the proposed development past the 100% utilization rate. As the Proposed Actions would not result in a utilization rate greater than 100 percent in CSD 26, Sub-district 2, no significant adverse impact on elementary schools would occur, per the criteria of the 2021 *CEQR Technical Manual*.

TABLE E-7
2027 With-Action Estimated Public Elementary and Intermediate School Enrollment, Capacity, and Utilization for CSD 26, Sub-district 2

	2027 No-Action Total Projected Enrollment	New Students Generated by Proposed Action	Total Future With-Action Projected Enrollment	Projected Capacity	Seats Available	Utilization (%)	Increase in Utilization (%) from No-Action Condition
Elementary Schools	2,419	76	2,495	3,302	807	75.6	+2.30
Intermediate Schools	680	33	713	1,185	472	60.2	+2.78

Intermediate Schools

As shown in **Table E-7**, the addition of 33 intermediate school students to CSD 26, Sub-district 2 would increase intermediate school enrollment to 713 in the With-Action condition. As under No-Action conditions, CSD 26, Sub-district 2 intermediate schools would operate below capacity, and the Proposed Actions are expected to increase the study area intermediate school utilization by 2.78 percentage points to 60.2 percent. According to the 2021 *CEQR Technical Manual*, a significant adverse impact may occur if a proposed action would result in both of the following conditions: (1) a utilization rate of the intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the future With-Action condition; and (2) 100 or more new students generated by the proposed development past the 100% utilization rate. As the Proposed Actions would generate 33 intermediate school students, and as the With-Action utilization of intermediate schools would remain below 100 percent, no significant adverse impacts to intermediate schools would occur, per the criteria of the 2021 *CEQR Technical Manual*.

IV. CONCLUSIONS

Pursuant to *CEQR Technical Manual* guidelines, detailed analyses of potential indirect impacts on public elementary and intermediate schools were conducted for the Proposed Actions. Based on the *CEQR Technical Manual* screening methodology, detailed analyses of public high schools, public libraries, early childhood programs, outpatient health care facilities and police and fire protection services are not warranted, although they are discussed qualitatively. As described in the analysis above and summarized below, the Proposed Actions are not expected to result in any significant adverse impacts to public elementary and intermediate schools.

Public Schools

As described above, the Project Area falls within the boundaries of CSD 26, Sub-District 2. The RWCDS associated with the Proposed Actions would introduce 135 total students, with approximately 76 elementary school students, 33 intermediate school students, and 26 high school students.

Elementary Schools

As detailed above, CSD 26, Sub-District 2 elementary schools would continue to operate below capacity in the future with the Proposed Actions (as under future conditions absent the Proposed Actions). CSD 26, Sub-District 2 elementary schools would increase from a No-Action utilization rate of 73.3 percent to 75.6 percent in the With-Action condition, with a surplus of 807 available elementary school seats. According to the 2021 *CEQR Technical Manual*, a significant adverse elementary school impact may result if a proposed action would result in both of the following: (1) A utilization rate of elementary schools that is equal to or greater than 100% in the With-Action Condition; and (2) 100 or more new students generated by the proposed development past the 100% utilization rate. As the Proposed Actions nwould generate 76 elementary school students, and as the With-Action utilization of elementary schools would remain below 100 percent In the future with the Proposed Actions, no significant adverse impacts on elementary schools would result, per the criteria of the 2021 *CEQR Technical Manual*.

Intermediate Schools

In the future with the Proposed Actions, CSD 26, Sub-District 2 intermediate schools would continue to operate under capacity, as under Existing and No-Action conditions. CSD 26, Sub-District 2 intermediate

schools would increase from a No-Action utilization rate of 57.4 percent to 60.2 percent in the With-Action condition, with 472 available intermediate school seats. According to the 2021 *CEQR Technical Manual*, a significant adverse impact may occur if a proposed action would result in both of the following conditions: (1) A utilization rate of intermediate schools that is equal to or greater than 100% in the With-Action Condition; and (2) 100 or more new students generated by the proposed development past the 100% utilization rate. As the Proposed Actions would generate 33 intermediate school students, and as the With-Action utilization of intermediate schools would remain below 100 percent, no significant adverse impacts on intermediate schools would result, per the criteria of the 2021 *CEQR Technical Manual*.

ATTACHMENT F

OPEN SPACE

I. INTRODUCTION

An open space assessment may be necessary if a proposed action(s) or project could potentially have a direct or indirect effect on open space resources in the project area. A direct effect would "physically change, diminish, or eliminate an open space or reduce its utilization or aesthetic value." An indirect effect may occur when the population generated by a project would be sufficient to diminish noticeably the ability of an area's open space to serve the existing or future population. Per the 2021 *City Environmental Quality Review (CEQR) Technical Manual*, if a project would generate more than 200 residents or 500 nonresidential users, an indirect open space assessment should be conducted pursuant to CEQR.

The Proposed Actions are expected to result in the elimination of a private open space, the Bay Terrace Country Club, which occupies the Proposed Development Site. However, the elimination of this open space would not be considered a direct impact, as the country club is a membership-only facility not accessible to the public, and as such no analysis of direct effects of the Proposed Actions on open space is warranted. While the Proposed Development would not directly displace any existing public open space resources, it is expected to result in an incremental increase of 259 dwelling units (DUs) over the 2027 No-Action condition. This would result in an incremental increase of approximately 697 residents[1], as compared to the No-Action condition, which would exceed the *CEQR Technical Manual* preliminary screening threshold of 200 incremental residents warranting an indirect open space analysis. Both quantitative and qualitative assessments were conducted to determine whether the Proposed Development would significantly affect the use and enjoyment of publicly accessible open space in an identified study area. The Proposed Development is also expected to cause a net increase of 68 employees[2] at the Proposed Development Site, as compared to the No-Action condition. As the Proposed Development is expected to result in an increase of fewer than 500 nonresidents, the analysis of indirect open space impacts focuses exclusively on the open space needs of the area's residential population.

II. METHODOLOGY

The analysis of open space resources has been conducted in accordance with *CEQR Technical Manual* guidance. Using CEQR methodology, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population, referred to as the open space ratio (OSR). This quantitative measure is then used to assess the changes in the adequacy of open space resources in the future, both without and with the Proposed Development. In addition, qualitative factors are considered in assessing the Proposed Development's potential effects on open space resources.

In accordance with *CEQR Technical Manual* methodology, the open space study area is generally defined by a reasonable walking distance that users would travel to reach local open space and recreational

[1] The estimated number of residents is based on the average household size in Queens Community District 11 (2.69 persons per household) per the 2020 Decennial Census.

[2] Number of workers assumes 1 worker per 900 gsf of private sports club space; 1 worker per 25 Dus; 1 worker per 50 attended parking spaces; and 1 worker per 1,000 gsf of community facility (assisted living) space.

resources. That distance is typically a half-mile radius for residential projects and a quarter-mile radius for commercial projects with a significant worker population.

Open Space Study Area

Pursuant to *CEQR Technical Manual* guidance, the open space study area includes all census tracts that have at least 50 percent of their area located within a half mile of the Proposed Development Site and all open spaces within this area that are publicly accessible.[3] As described above, residents typically walk up to a half (1/2) mile for recreational spaces.

The Proposed Development Site is located at Queens Block 6008, Lot 95, which fronts on 24th Avenue and an unbuilt portion of Little Neck Boulevard. A single census tract (997.03) has the majority of its area within a half-mile of the Proposed Development Site. Census tracts 997.04 and 1093 had just under 50 percent of their areas within the radius. Given the location of the Proposed Development Site relative to nearby census tract boundaries, to more accurately reflect the residential population that would make use of open spaces in the vicinity of the Proposed Development Site, the study area for residential population was adjusted to additionally include census block groups with a majority of their area within a half-mile of the site. The resulting residential study area includes the entirety of census tract 997.03 along with block groups 2 and 4 of census tract 997.04 and block group 2 of census tract 1093. Refer to **Figure F-1** for the boundary of the residential open space study area. The Cross Island Parkway forms the northern and eastern study area boundaries. The western boundary is formed by Totten Avenue, 16th Avenue, 18th Avenue, 211th Street, 210th Place, and 215th Place. The southern boundary is formed by 35th Avenue and 29th Avenue.

Analysis Framework

Indirect Effects Analysis

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed project if the project would add enough population, either workers or residents, to noticeably diminish the ability of an area's open space to serve the existing or future populations. Indirect effects may occur when the population generated by a proposed project overtaxes the capacity of existing public open spaces so that the service provided to existing and future populations in the area would be diminished substantially or noticeably.

As part of the preliminary assessment for open space, a project should be reviewed to determine if it is located in an area of the City within a Walk to a Park Service Area. A Walk to a Park Service Area (WtPSA) is a part of the *OneNYC 2050 Building a Strong and Fair City* plan, in which New York City has laid out a goal for 85 percent of New York City residents living within a walking distance of a park by 2030. Existing areas located within a WtPSA are within a walking distance of a park (i.e., 0.5-miles). Areas not located within a WtPSA are considered "walk gaps"; they are areas of New York City that are not within walking distance to a park. As shown in **Figure F-2**, the Proposed Development Site and portions of the ½-mile study area are located within the WtPSA, as they are within a walking distance of a park (i.e., not a walk gap area). Though there are walk gaps identified in the north and west of the study area, it should be noted that residents of these walk gap areas likely have access to numerous private open space resources within walking distance, as discussed qualitatively below.

[3] Pursuant to the *CEQR Technical Manual,* "public" open space that is analyzed under CEQR is defined as open space that is accessible to the public on a constant and regular basis for active or passive recreation, including for designated daily periods. Public open space may be under government or private jurisdiction.

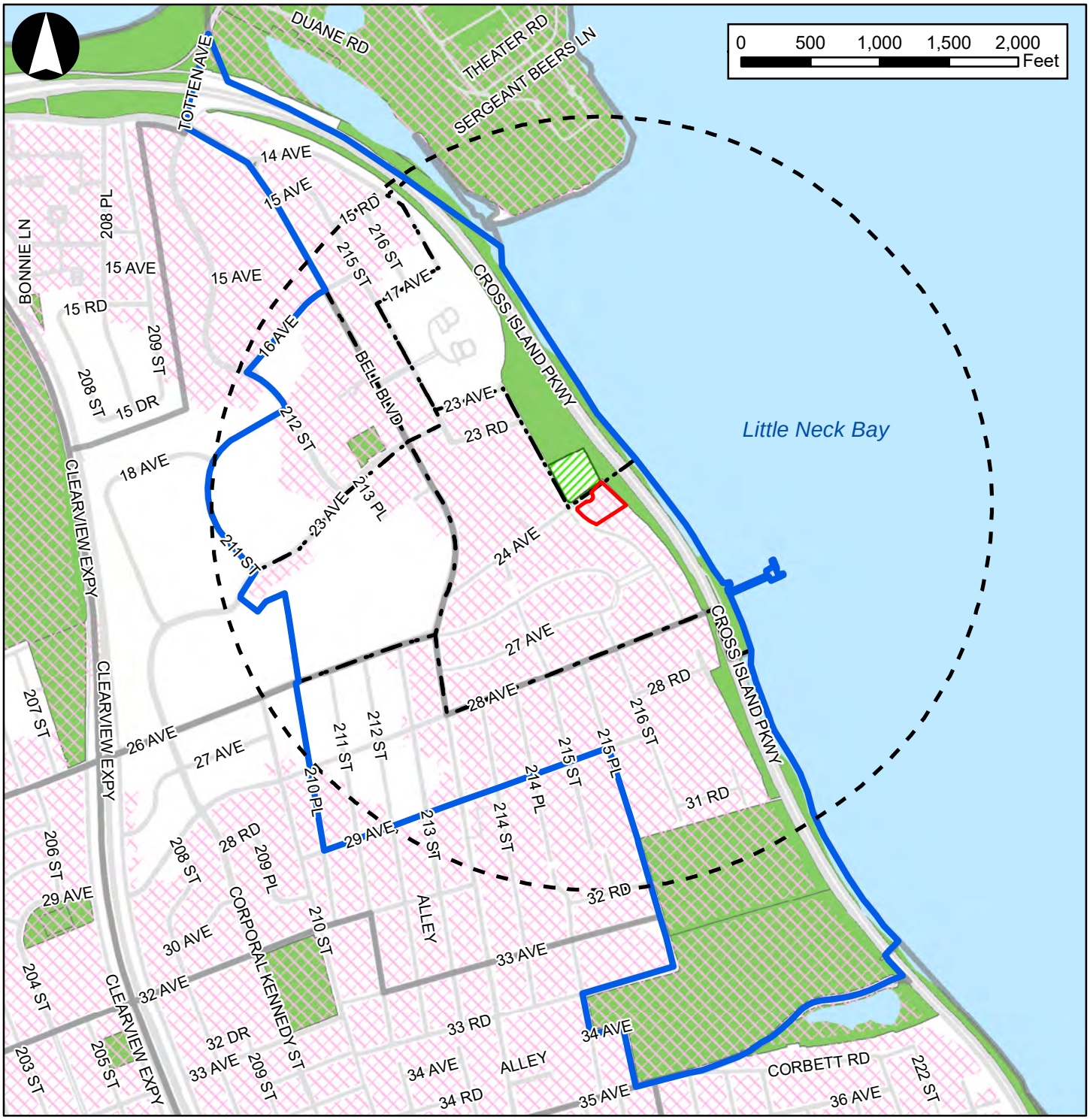
Open Space Study Area



Legend

- Half-mile Radius
- Proposed Development Site
- Open Space Residential Study Area
- 997.03 Census Tract
- Block Group 1 Census Block Group
- Future Open Space
- Open Space

Walk to a Park Service Area



Legend

- Proposed Development Site
- Half-mile Radius
- Open Space Residential Study Area
- Census Block Group
- Census Tract
- Walk to a Park Service Area
- Future Open Space
- Open Space

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

- Characteristics of the residential users. To determine the number of residents in the study area, 2020 Census data have been compiled for the census tracts comprising the open space study area.
- An inventory of all publicly accessible passive and active recreational facilities in the open space study area.
- An assessment of the quantitative ratio of open space in the study area by computing the ratio of open space acreage to the population in the study area and comparing this open space ratio with the City's planning goal. In New York City, the optimal open space ratio for residential populations is 2.5 acres of open space per 1,000 residents. Ideally, this would be comprised of a balance of 80 percent active open space (2.0 acres per 1,000 residents) and 20 percent passive open space (0.5 acres per 1,000 residents).
- An evaluation of qualitative factors affecting open space use.
- A determination of the adequacy of open space in the open space study area for existing, No-Action, and With-Action conditions.

Preliminary Assessment

According to the *CEQR Technical Manual*, a preliminary assessment may be useful to determine if a detailed open space analysis is necessary, or whether the indirect open space assessment can be targeted to a particular user group. This initial assessment calculates an open space ratio by relating the existing residential populations to the total open space in the study area. It then compares the existing open space ratio with the open space ratio in the future with the Proposed Development. If there is a decrease in the open space ratio that would approach or exceed one percent in areas exhibiting low open space ratios that are 0.50 or less, a detailed analysis is warranted. The detailed analysis examines passive and active open space resources available to residents within the open space study area delineated in accordance with the *CEQR Technical Manual*, as outlined above. As the Proposed Actions would introduce a residential population that would result in a decrease in the open space ratio of roughly 8.9 percent, a detailed open space analysis is warranted and is provided below.

Impact Assessment

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

An action's potential effects on an area's open space are based, in part, on how a project would change the open space ratios in the study area, as well as other qualitative considerations. According to the *CEQR Technical Manual*, a decrease in an open space ratio of five percent or more compared to the No-Action condition generally indicates the potential for a significant adverse impact. If a study area exhibits a low open space ratio, indicating a shortfall of open space, smaller decreases in that ratio as a result of the

action may constitute significant adverse impacts. As shown in **Table F-1**, the guidance for percent change in open space ratio is determined based on the open space ratio ranges outlined in the *CEQR Technical Manual*. In areas that are within a WtPSA, a greater percentage of change (more than noted in **Table F-1**) may be tolerated.

TABLE F-1: Guidance for Percentage Change in Open Space Ratio

Open Space Ratio Range	Percent Change in Open Space Ratio
2.01 to 2.50 or Greater	5%
1.51 to 2.0	4%
1.01 to 1.5	3%
0.51 to 1.0	2%
0.50 or Less	1%
*2.5 open space ratio is the planning goal in New York City.	

Source: Table 7-1 in Chapter 7, "Open Space" of the 2021 *CEQR Technical Manual.*

It should be noted that the City's optimal open space ratios and percentage reductions shown in **Table F-1** do not constitute an absolute impact threshold. The *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. Furthermore, as discussed in Section 321 of Chapter 7, "Open Space" of the 2021 *CEQR Technical Manual*, projects located outside of the WtPSA should be further assessed for qualitative impacts. As such, projects that may result in significant quantitative impacts on open space are typically further assessed in a qualitative assessment to determine the overall significance of the impact.

The qualitative assessment supplements the quantitative assessment and considers the distribution of open space, whether a site is within the WtPSA, the distance from the site to regional parks, the connectivity of open space(s), and any additional open space created by the Proposed Project not available to the general public, if applicable, and determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment.

III. DETAILED ANALYSIS

Existing Conditions

Study Area Population

To determine the residential population served by existing open space resources, 2020 Census data were compiled for the ½-mile study area. As shown in **Table F-2**, the study area consists of census tract 997.03, block groups 2 and 4 of census tract 997.04, and block group 2 of census tract 1093. The study area has a total residential population of approximately 7,140.

TABLE F-2: Existing Residential Population in the ½-Mile Study Area

Census Tract	Residential Population
997.03	3,938
Census Block Group	**Residential Population**
997.04 – Block Group 2	1,645
997.04 – Block Group 4	394
1093 – Block Group 2	1,163
Total	***7,140***

Source: 2020 US Census

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children four years old or younger use traditional

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

The residential population of the study area was also broken down by age group.[4] As shown in **Table F-3**, people between the ages of 20 and 64 make up the largest component of the population at approximately 47.9 percent. Children and teenagers (0 to 19 years old) account for approximately 21.6 percent of the entire residential population, and persons 65 years and over account for approximately 30.5 percent of the study area population. Based on this data, the peak hours of open space demand would be expected to be concentrated during weekends and the early morning and late afternoon to evening hours during the week, as it could be assumed that most residents aged 20 to 64 would work or attend school on weekdays. However, the relatively high proportion of residents over the age of 65 in the area would make use of open spaces during the day on weekdays and weekends, potentially lowering the relative concentration of users during the peak hours and spreading demand more evenly throughout the week.

TABLE F-3: Residential Population Age Distribution in the ½-Mile Study Area

Age Category[1]	Estimated Residential Population	Percent of Population
Under 5 years old	665	9.3%
5 to 9 years	259	3.6%
10 to 14 years	398	5.6%
15 to 19 years	217	3.0%
20 to 64 years	3,420	47.9%
65 years and older	2,181	30.5%

[1]Age group percentages based on 2017-2021 Five Year ACS data.
Source: 2020 US Census and 2017-2021 Five-Year American Community Survey (ACS)

Inventory of Publicly Accessible Open Space

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

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

[4] Aside from age groups under/over 18 years of age, the 2020 US Census data does not include detailed information about residential age groups. As such, the residential population age groups were determined based on the percentage of age group characteristics provided in the 2016-2020 Five-Year American Community Survey (ACS) data, and applied to 2020 Census data.

Within the defined study area, all publicly accessible open spaces were inventoried and identified by their location, size, owner, type, utilization, equipment, hours, and condition. The information used for this analysis was gathered through field inventories conducted in March 2023, DPR's website, and other secondary sources of information.

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

Likewise, judgments as to the intensity of use of the facilities were qualitative, based on an observed degree of activity or utilization on a weekday afternoon. If a facility seemed to be at or near capacity (i.e., most benches or equipment were in use), then utilization was considered heavy. If the facility or equipment was in use but could accommodate additional users, utilization was considered moderate. If a playground or sitting area had few people, usage was considered light. **Table F-4** identifies the address, ownership, hours, and acreage of active and passive open spaces in the study area, as well as their condition and utilization. **Figure F-3** maps their location in the study area.

Open Space Resources

As shown in **Table F-4** and **Figure F-3**, three open space resources comprising approximately 19.69 acres of open space are included in the quantitative analysis in the existing conditions, of which approximately 13.53 acres are considered active open space and 6.16 acres are passive open space. The open space resources considered in the quantitative analysis include a neighborhood park, a playground, and a linear waterfront park.

An approximately 8.39-acre portion of the 17-acre John Golden Park is included in the quantitative analysis. John Golden Park is located roughly 0.45 miles from the Proposed Development Site. However, as shown in **Figure F-3**, the street network in the study area does not allow for direct access from the Proposed Development Site to areas directly south, since Little Neck Boulevard is not built out to intersect with 24th Avenue. Pedestrians traveling to John Golden Park from the Proposed Development Site would need to travel west along 24th Avenue and then south along Bell Boulevard in order to bypass the inaccessible street network. Because of the characteristics of the street network, John Golden Park is an approximately 0.9-mile walk from the Proposed Development Site, despite its physical proximity. Although this open space resource is more than a ½-mile walk from the Proposed Development site, it is still included in the quantitative analysis because it is accessible to residents living in the ½-mile study area south of 24th Avenue, who would walk half a mile or less to access the open space. John Golden Park also provides connectivity to Crocheron Park directly to the south, which is discussed qualitatively below. Together, these two adjacent parks constitute a substantial open space resource with a variety of active and passive amenities that could be anticipated to attract residential users from more than a half mile away. Additionally, though John Golden park is located fully within the residential study area boundary, for conservative analysis purposes, only the portion within a half mile of the Proposed Development Site (refer to **Figure F-3**) is considered in the quantitative analysis. John Golden Park is a neighborhood park with a mix of active and passive open space, and includes baseball fields, public restrooms, and seating areas. This open space resource is assumed to serve people of all ages.

Bay Terrace Playground features play equipment, spray showers, public restrooms, and seating areas, and would generally be used by children. Currently, a portion of the playground is under construction, and approximately 0.34 acres of the 0.91-acre open space resource are currently accessible. As noted below



Legend

- Proposed Development Site
- Half-mile Radius
- Open Space Residential Study Area
- Census Tract
- Census Block Group
- 1 Open Space Included in Quantitative Analysis
- A Open Space Not Included in Quantitative Analysis
- Future Open Space
- Tax Lot

under "The Future Without the Proposed Actions", it is expected that construction will be complete by the analysis year of 2027, and the entire playground will be operational and accessible.

An approximately 10.39-acre portion of the larger 327-acre Cross Island Parkway open space is considered in the quantitative analysis, which represents the portion of the park's total area that falls within a half mile of the Proposed Development Site (see **Figure F-3**). The portion of the Cross Island Parkway considered in the quantitative analysis is referred to as the Joe Michaels Mile and Bayside Marina. This waterfront open space serves people of all ages and includes a running/biking trail, seating areas, and a seasonal marina. Similar to John Golden Park, as discussed above, the configuration of the street network means that pedestrians would walk further than a half mile from the Proposed Development Site (roughly 0.8 miles in this case) to reach the open space. A pedestrian overpass over the Cross Island Parkway located at the eastern terminus of 28th Street provides access from the study area to the Joe Michaels Mile. However, similar to John Golden Park, this open space resource is also included in the quantitative analysis. Residents living in the ½-mile study area south of 24th Avenue would walk half a mile or less to access the open space. In addition, Joe Michaels Mile is a linear open space that provides connectivity to Fort Totten Park (discussed qualitatively below) and Alley Pond Park, which are both regional parks that could attract visitors from distances greater than a half mile. As such, it is included in the quantitative analysis.

The additional portion of the Cross Island Parkway open space in the study area, which is located along the western side of the Cross Island Parkway, is not included in the quantitative analysis (labeled "E" on **Figure F-3**). This portion of the open space is mapped as parkland but is unimproved and not accessible. As discussed below, development of a new public playground on a portion of this land is anticipated in the future conditions (labeled "4" on **Figure F-3** and listed below in **Table F-4**).

A majority of the 45.79-acre Crocheron Park is within the residential study area. However, as this park is further than a half-mile from the Proposed Development Site, it is conservatively excluded from the quantitative analysis.

All of the publicly accessible open space resources included in the quantitative indirect open space impact assessment are in good condition. All of the study area open space resources exhibit moderate utilization.

TABLE F-4: Inventory of Open Space and Recreational Resources in Study Area – Existing Conditions

Map No. [1]	Name	Address	Owner/ Agency [2]	Amenities	Hours of Access	Total Acres	Active		Passive		Condition & Utilization
							Acres	%	Acres	%	
Publicly Accessible Open Space Resources Included in Quantitative Assessment											
1	John Golden Park[3]	215th Pl, Cross Island Parkway bet. 31st Rd and 33rd Ave	NYC Parks	Benches, baseball fields, public restrooms, landscaping	6:00 AM - 10:00 PM	8.39	3.36	40%	5.03	60%	Good / Moderate
2	Bay Terrace Playground[4]	23rd Ave bet. 212th St and Bell Blvd	NYC Parks	Benches, public restrooms, playground equipment, basketball courts, handball courts, spray showers	6:00 AM - 9:00 PM	0.34	0.31	90%	0.03	10%	Good / Moderate
3	Joe Michaels Mile and Bayside Marina (p/o Cross Island Parkway)[5]	Cross Island Parkway	NYC Parks	Biking and running trail, marina (seasonal), landscaping	6:00 AM - 9:00 PM	10.39	9.35	90%	1.04	10%	Good / Moderate
4	Cross Island Parkway Waters Edge Drive Playground[6]	24th Avenue and Waters Edge Drive	NYC Parks	-	-	-	-	-	-	-	-
					½-Mile Study Area Total	**19.12**	**13.01**	**68.1%**	**6.11**	**31.9%**	
Open Space Resources Not Included in Quantitative Assessment											
A	Garland Tennis at Water's Edge Towers	17-85 215th St	Water's Edge Towers	Tennis courts	-	1.09	1.09	100%	0.00	0%	-
B	CommonPoint Queens Bay Terrace Pool and Athletic Center	212-00 23rd Ave	CommonPoint Queens	Indoor soccer field, tennis courts, pool	-	1.91	1.91	100%	0.00	0%	-
C	Bay Country Tennis Courts and Playground	23-45 Bell Blvd	Bay Country Apartments	Tennis courts, playground	-	0.55	0.55	100%	0.00	0%	-
D	Fort Totten Park	Cross Island Pkwy. bet. Totten Ave and 15th Rd	NYC Parks	Playground, soccer fields, pool, nature center	6:00 AM - 9:00 PM	60.39	12.08	20%	48.31	80%	-
E	Cross Island Parkway	Cross Island Parkway	NYC Parks	-	-	326.89	-	-	-	-	-
F	Crocheron Park	214th Pl, 214th La, 215th Pl, Cross Island Parkway bet. 33rd Ave and 35th Ave	NYC Parks	Baseball fields, basketball courts, playground, public restrooms, spray showers, tennis courts	6:00 AM - 10:00 PM	45.79	11.45	25%	34.34	75%	-

Sources: NYC OASIS, NYC Parks, March 2023 field visits

Notes:

[1] Refer to **Figure C-3**.

[2] NYC Parks = New York City Department of Parks and Recreation.

[3] Only the portion of John Golden Park within a half-mile of the Proposed Development Site is included in the quantitative analysis.

[4] Approximately 0.34 acres of the 0.91-acre playground are accessible in the existing condition due to construction on the remainder of the playground.

[5] Only the portion of Joe Michaels Mile within a half mile radius of the Proposed Development Site is included in the quantitative analysis.

[6] Cross Island Parkway Waters Edge Drive Playground is currently unbuilt in the existing conditions, but will be complete in the 2027 future conditions (refer to **Table F-7**).

Assessment of Open Space Adequacy

Quantitative Assessment

The following analysis of the adequacy of existing open space resources within the study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents. As an optimal planning goal, the City tries to achieve an overall residential open space ratio of 2.5 acres per 1,000 residents (80 percent [2 acres] active and 20 percent [0.5 acres] passive) for large-scale plans and proposals. Although a typical population mix may call for such a goal, it is often not feasible for many areas of the City (especially higher density areas). As such, the City's optimal open space ratios and percentage reductions do not constitute an absolute impact threshold.

In calculating the open space ratio per 1,000-user population for the study area, all the resources listed in the "Open Space Resources Included in the Quantitative Analysis" section of **Table F-4** were included; pursuant to *CEQR Technical Manual* guidance, the quantitative analysis includes open space resources that are consistently and routinely accessible by the public. **Table F-5** shows that, with an existing study area residential population of approximately 7,140 people, the existing total open space ratio in the study area is approximately 2.68 acres per 1,000 residents; the study area has 1.82 acres of active open space per 1,000 residents and 0.86 acres of passive open space per 1,000 residents. As indicated in **Table F-5**, the existing total, active, and passive residential open space ratios are above the City's open space planning goals of 2.5, 2.0, and 0.5 acres per 1,000 residents, respectively.

TABLE F-5: Adequacy of Open Space Resource in the Study Area – Existing Conditions

		Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Population	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residents	7,140	19.12	13.01	6.11	2.68	1.82	0.86	2.5	2	0.5

Qualitative Assessment

As shown in **Table F-5**, the total, active, and passive open space resources that serve the population of the study area are above the City's quantitative guidelines, as discussed above. As shown in **Table F-4** and **Figure F-3**, the study area open spaces include a variety of actively programmed open spaces appropriate for the residential user groups. As noted above, the study area includes a high percentage of adults and seniors (Refer to **Table F-2**). As indicated in the *CEQR Technical Manual*, adults tend to use court facilities for sports, as well as spaces for more individualized forms of recreation, such as rollerblading, biking, and jogging, which require bike paths, esplanades, and vehicle-free roadways. Adults also gather with families for picnicking or ad hoc active sports such as Frisbee. Senior citizens may engage in active recreation such as handball, tennis, gardening, and swimming, as well as recreational activities that require passive facilities. Further, some passive spaces can be used for both passive and active recreation, such as a lawns or walkways that can be used for ball playing, jogging/running, or rollerblading. In addition, as noted in **Table F-4**, the open space resources located in the study area were found to be in good condition. In all, the open space resources considered in this quantitative analysis adequately serve the population of the study area.

As noted in **Table F-4** and described above, only 8.39 acres of the 17-acre John Golden Park are within a half-mile of the Proposed Development Site. The remaining portions of this park, located immediately adjacent to the boundaries of the half-mile radius, would likely be utilized by study area residents (as would the approximately 46-acre Crocheron Park, which is contiguous with and directly south of John Golden Park).

As shown in **Figure F-3** and listed in **Table F-4**, there are five additional open space resources located within the study area boundary, which together provide additional open space that is not included in the quantitative analysis. These resources include several private open spaces and recreation centers, which are not included in the quantitative analysis because they either require membership fees and/or are not accessible to the public. However, it can be assumed that study area residents would still make use of these resources when possible; for example, residents of co-op buildings with private tennis courts would be expected to make use of those amenities. While not shown in **Figure F-3** or **Table F-4**, it should also be noted that much of the residential study area is characterized by single-family detached residential uses with large lots, meaning that many residents of the study area have access to private open spaces in the form of front, rear, and side yards. It is likely that residents of these homes would exhibit less demand for public open spaces in the study area.

Fort Totten Park is an approximately 60-acre open space that features extensive facilities for passive and active recreation. A small portion of Fort Totten Park is within a half mile of the Proposed Development Site, though there is no pedestrian access to the park within a half mile. As such, the park is not considered in the quantitative analysis, though it would likely attract visitors from within the study area given its status as a regional park and the historic attractions within the park.

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

In the future without the Proposed Actions, no changes would occur on the Proposed Development Site. All existing uses are anticipated to remain. The site would not be redeveloped, and the existing country club and 2,800-gsf building would remain on the site. No open space in the Project Area would be created or removed in absence of the Proposed Actions.

Study Area Population

There are six anticipated residential developments within the ½-mile open space study area anticipated to be completed in the future without the Proposed Actions by 2027, as shown in **Table F-6**. All six developments are new single-family homes currently under construction in the study area. Assuming an average rate of 2.69 residents per DU (based on Based on 2020 US Census data for average persons per household in Queens Community District 11), these residential developments are expected to introduce approximately 16 new residents to the study area, bringing the total study area population to 7,156.

TABLE F-6: Anticipated No-Action Developments in the Study Area

Address	Additional Dwelling Units	Additional Residents[1]
28-30 213 St	1	2.69
212-05 29 Ave	1	2.69
28-45 Bell Blvd	1	2.69
28-55 Bell Blvd	1	2.69
28-29 215 Pl	1	2.69
28-56 216 St	1	2.69
Total	**6**	**16**

Source: NYC DOB (2023)
Notes:
[1] Based on an average household size of 2.69 persons per DU, per the 2020 US Census.

Open Space Resources

By 2027, three capital projects are expected to be completed by NYC Parks within the study area, according to the NYC Parks Capital Projects Tracker. These initiatives are expected to improve the condition of Bay Terrace Playground and the Bayside Marina, as well as add a new park to the study area.

Bay Terrace Playground is undergoing a reconstruction of the lower entrance, handball court, basketball court, and play area, with approximately $3.2 million of total funding. The project is in the last stages of construction and is expected to be complete and operational before the 2027 analysis year. Completion of this project will result in an increase of usable open space from 0.34 acres in the existing conditions to approximately 0.91 acres.

The Bayside Marina, which is accessed via the Joe Michaels Mile east of the Cross Island Parkway, is undergoing a reconstruction of the fixed pier, floating docks, and other elements damaged by Hurricane Sandy. The marina provides facilities for boating and fishing as well as a snack bar. The reconstruction is in the procurement phase and is expected to be complete before the 2027 analysis year.

In addition, NYC Parks will construct a new park, the Cross Island Parkway Waters Edge Drive Playground, near the intersection of 24th Avenue and Water's Edge Drive adjacent to the Proposed Development Site. The new, approximately 1.5-acre park would contain active (approximately 67 percent, or 1.0 acre) and passive space (approximately 33 percent; or 0.5 acres) with an array of multigenerational recreational opportunities for the surrounding neighborhood, including play areas, fitness equipment, open lawns, picnic areas, a comfort station, and pedestrian paths, among other amenities. The park is expected to be complete by 2025.

In total, approximately 21.19 acres of open space are expected in the half-mile study area in the No-Action condition, an increase of approximately 2.07 acres (1.52 acres of active open space and 0.55 acres of passive open space) over the existing conditions. **Table F-7** shows the open space resources in the 2027 future conditions.

TABLE F-7: Inventory of Open Space and Recreational Resources in Study Area – 2027 Future No-Action and With-Action Conditions

Map No. [1]	Name	Address	Owner/ Agency [2]	Amenities	Hours of Access	Total Acres	Active		Passive		Condition & Utilization
							Acres	%	Acres	%	
Publicly Accessible Open Space Resources Included in Quantitative Assessment											
1	John Golden Park[3]	215th Pl, Cross Island Parkway bet. 31st Rd and 33rd Ave	NYC Parks	Benches, baseball fields, public restrooms, landscaping	6:00 AM - 10:00 PM	8.39	3.36	40%	5.03	60%	Good / Moderate
2	Bay Terrace Playground[4]	23rd Ave bet. 212th St and Bell Blvd	NYC Parks	Benches, public restrooms, playground equipment, basketball courts, handball courts, spray showers	6:00 AM - 9:00 PM	0.91	0.82	90%	0.09	10%	Good / Moderate
3	Joe Michaels Mile and Bayside Marina (p/o Cross Island Parkway)[5]	Cross Island Parkway	NYC Parks	Biking and running trail, marina (seasonal), landscaping	6:00 AM - 9:00 PM	10.39	9.35	90%	1.04	10%	Good / Moderate
4	Cross Island Parkway Waters Edge Drive Playground[6]	24th Avenue and Waters Edge Drive	NYC Parks	Play areas, fitness equipment, open lawns, picnic areas, comfort station, pedestrian paths	-	1.50	1.00	67%	0.50	33%	Excellent / N/A
					½-Mile Study Area Total	**21.19**	**14.53**	**68.6%**	**6.66**	**31.4%**	
Open Space Resources Not Included in Quantitative Assessment											
A	Garland Tennis at Water's Edge Towers	17-85 215th St	Water's Edge Towers	Tennis courts	-	1.09	1.09	100%	0.00	0%	-
B	CommonPoint Queens Bay Terrace Pool and Athletic Center	212-00 23rd Ave	CommonPoint Queens	Indoor soccer field, tennis courts, pool	-	1.91	1.91	100%	0.00	0%	-
C	Bay Country Tennis Courts and Playground	23-45 Bell Blvd	Bay Country Apartments	Tennis courts, playground	-	0.55	0.55	100%	0.00	0%	-
D	Fort Totten Park	Cross Island Pkwy. bet. Totten Ave and 15th Rd	NYC Parks	Playground, soccer fields, pool, nature center	6:00 AM - 9:00 PM	60.39	12.08	20%	48.31	80%	-
E	Cross Island Parkway	Cross Island Parkway	NYC Parks	-	-	326.89	-	-	-	-	-
F	Crocheron Park	214th Pl, 214th La, 215th Pl, Cross Island Parkway bet. 33rd Ave and 35th Ave	NYC Parks	Baseball fields, basketball courts, playground, public restrooms, spray showers, tennis courts	6:00 AM - 10:00 PM	45.79	11.45	25%	34.34	75%	-

Sources: NYC OASIS, NYC Parks, March 2023 field visits

Notes:

[1] Refer to **Figure C-3**.

[2] NYC Parks = New York City Department of Parks and Recreation.

[3] Only the portion of John Golden Park within a half-mile of the Proposed Development Site is included in the quantitative analysis.

[4] It is assumed that the entire area of the 0.91-acre playground will be accessible in the 2027 future No-Action and with-Action conditions.

[5] Only the portion of Joe Michaels Mile within a half mile radius of the Proposed Development Site is included in the quantitative analysis.

[6] It is assumed that the new Cross Island Parkway Waters Edge Drive Playground will be complete and fully operational in the 2027 future No-Action and with-Action conditions.

Open Space Adequacy

Table F-8, below, presents the No-Action open space ratios for the ½-mile study area, based on the anticipated open space developments outlined previously. All three open space ratios are expected to increase in the No-Action conditions as compared to the existing conditions, due to the expected creation of new open space resources and the lack of anticipated residential development in the study area. Similar to existing conditions, the total, active, and passive open space ratios in the No-Action condition would all exceed the City's open space planning goals of 2.5, 2.0, and 0.5 acres of open space per 1,000 residents, respectively. The total open space ratio would increase to 2.96 acres per 1,000 residents, while the active ratio would increase to 2.03 acres per 1,000 residents and the passive ratio would increase to 0.93 acres per 1,000 residents.

TABLE F-8: Adequacy of Open Space Resource in the Study Area – No-Action Conditions

		Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Population	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residents	7,156	21.19	14.53	6.66	2.96	2.03	0.93	2.5	2	0.5

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

This section describes the open space conditions that would result from the Proposed Actions by 2027. It evaluates the potential for the Proposed Development to result in significant adverse indirect impacts to open space resources based on a comparison of the No-Action condition (described above) to the With-Action condition.

Study Area Population

As described in **Attachment A, "Project Description,"** the Proposed Development would introduce approximately 259 DUs to the Proposed Development Site under the RWCDS. Assuming an average rate of 2.69 residents per DU (based on Based on 2020 US Census data for average persons per household in Queens Community District 11), the Proposed Development is expected to introduce a net increase of approximately 697 residents and would therefore increase the study area's population to 7,853 residents in the 2027 With-Action condition.

Open Space Resources

The Proposed Actions would not introduce any publicly accessible open space resources to the study area as part of the Proposed Development. As such, under the With-Action condition, publicly-accessible open space in the ½-mile open space study area would be the same as in the No-Action condition, and would total 21.19 acres, comprised of 14.53 acres of active open space and 6.66 acres of passive open space.

In the future with the Proposed Actions, it is anticipated that the Applicant-owned Block 6004, Lot 70 would serve as private amenity space for residents of the Proposed Development. Since this open space would not be publicly accessible, it is not included in the quantitative analysis but is discussed qualitatively below.

Open Space Adequacy

As noted above, the indirect open space analysis consists of both quantitative and qualitative assessments. The quantitative assessment considers how a proposed action(s) could change the open space ratios in the study area.

Under the With-Action condition, the total open space ratio in the study area would decrease from 2.96 in the No-Action to 2.70 acres per 1,000 residents in the With-Action conditions (see **Table F-9**). The active open space ratio would also decrease compared to No-Action conditions, from 2.03 to 1.85 acres per 1,000 residents. The passive ratio would decrease from 0.93 to 0.85 acres per 1,000 residents. The total and passive ratios would continue to exceed the City's open space planning goals in the With-Action condition, while the active ratio would fall slightly short.

TABLE F-9: Adequacy of Open Space Resource in the Study Area – With-Action Conditions

		Open Space Acreage			Open Space per 1,000 Residents			City Open Space Planning Goals		
	Population	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residents	7,853	21.19	14.53	6.66	2.70	1.85	0.85	2.5	2	0.5

Potential Effects of the Proposed Project on Publicly Accessible Open Space

Quantitative Assessment

According to the 2021 *CEQR Technical Manual*, a significant adverse open space impact may occur if a proposed project would reduce the open space ratio by more than the general guidelines for the open space percentage change provided in **Table F-10**.

TABLE F-10: Detailed Assessment – Percentage Change Guidance to Determine Possible Open Space Impact

Total Open Space Ratio Range*	Active Open Space Ratio 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 open space ratio is the planning goal in NYC, with optimal distribution goal of 2.0 active open space ratio and 0.5 passive open space ratio.			

Source: Table 7-5 in Chapter 7, "Open Space" of the 2021 *CEQR Technical Manual.*

Table F-11 expresses the percentage change from No-Action to With-Action conditions for the study area. As noted previously, in the future with the Proposed Project, ratios of total and active open spaces to residents would continue to be lower than the optimal planning goals furnished by DCP, while passive open space resources would remain adequate. As shown in **Table F-11**, the study area's total open space ratio in the future with the Proposed Actions would be 2.68 acres per 1,000 residents, which represents a reduction of approximately 8.9 percent (0.81 acres per 1,000 residents) from No-Action conditions. The passive open space ratio in the study area would decrease from 0.93 acres per 1,000 residents to 0.85 acres per 1,000 residents in the With-Action condition, an 8.9 percent decrease. The active open space ratio for residents would decrease from 2.03 to 1.85 acres per 1,000 residents in the With-Action condition, also an 8.9 percent decrease.

TABLE F-11: Comparison of No-Action to With-Action Open Space Ratios in the ½-Mile Study Area

Ratio	*CEQR Technical Manual* Open Space Optimal Planning Goal (acres per 1,000)	Open Space Ratios Per 1,000			Percent Change
		Existing	No-Action	With-Action	Future No-Action to Future With-Action
Total – Residents	2.50	2.68	2.96	2.70	-8.9%
Active – Residents	2.00	1.82	2.03	1.85	-8.9%
Passive – Residents	0.50	0.86	0.93	0.85	-8.9%

As shown in **Table F-11**, the Proposed Project would result in percentage changes in open space ratio above the thresholds signifying a possible adverse impact for total, active, and passive open space. The expected 8.9 percent decrease in the total, active, and passive open space ratios would be a greater decrease than the applicable 5 percent decrease figures referenced in **Table F-10** for considering the significance of changes to the open space ratios.

Under the With-Action condition, total and passive open space in the study area would continue to exceed the City's goals, as shown in **Table F-10**. At 1.85 acres per 1,000 residents, the active open space ratio in the future with the Proposed Actions would fall slightly short of the applicable City goal of 2.00 acres per 1,000 residents.

As noted above, study area open spaces are in good condition, provide a variety of facilities, and are moderately used. In addition, as shown in **Figure F-2**, the Proposed Development Site and portions of the open space study area are located within a WtPSA and, therefore, are not located within a walk gap area (i.e., an area of the City that is not within a walking distance to a park). The development of the new Cross Island Parkway Water's Edge Playground is expected to increase the amount of the study area that is within the WtPSA in the future, likely eliminating future walk gaps in the vicinity of the Proposed Development Site. The qualitative assessment below also indicates that the quality and extent of the study area open spaces, combined with the availability private open spaces and other open spaces outside the study area, would further counteract the potential for an impact caused by the decrease in open-space ratios in the With-Action conditions.

Qualitative Assessment

In the future with the Proposed Actions, the study area would continue to have an adequate amount of total and passive open space relative to population, similar to the existing and No-Action conditions. Though the active open space ratio would fall short of the City's goal, the anticipated shortfall of 0.15 acres per 1,000 residents is relatively small.

Although open space ratios would decrease by a greater percentage than the applicable *CEQR* targets indicating the potential for an impact, the decrease in open space ratios would be ameliorated by several factors. First, all of the open space resources included in the quantitative analysis were found to be in good condition. Furthermore, capital improvements to existing and new open spaces within the study area are underway and are expected to provide improvements in the quality of the existing facilities. The existing open spaces offer a variety of passive and active recreational amenities, ranging from sitting areas, playgrounds, public restrooms, bike trails, spray showers, and baseball fields. The rich variety of facilities for active and passive recreation within the study area, and the expected new open space and improvements to existing facilities, will help to offset the decrease in open space ratios in the With-Action condition.

The population added because of the Proposed Development is not expected to significantly affect utilization of the area's open spaces. Though the Proposed Development would result in a decrease of approximately 8.9 percent in all open space ratios, given the large amount of open space available to study area residents, this decrease would likely not impact residents' use or enjoyment of open space resources. As noted above, most of the study area open space resources are in good condition and offer a variety of amenities which, therefore, could likely handle some increased demand. In addition, the population generated by the Proposed Project is not expected to have any special characteristics, such as a disproportionately older or younger population, that would place heavy demands on facilities that cater to specific user groups; the residents in the future with the Proposed Project are expected to exhibit similar characteristics to the current residents of the study area and the breakdown of the population is expected to remain the same.

Additionally, the proximity of large open spaces directly adjacent to the half-mile radius could be expected to alleviate some of the demand, as residents would likely make use of these resources in addition to the resources within the study area. The portion of the approximately 60-acre Fort Totten Park outside of the half-mile radius could be expected to serve the area's population, given that it is a regional park with historic attractions and is accessible from the adjacent Joe Michaels Mile. The portion of John Golden Park that is outside the half-mile radius, along with the adjacent Crocheron Park, could also be expected to serve residents of the study area. Once residents access open space resources from within the study area, it is reasonable to assume they might utilize facilities within the same open space resource located just outside of the half-mile radius, or in other nearby open space areas not considered in the quantitative analysis.

There are numerous private open space resources within the study area as well. Single-family detached residential land use makes up a large portion of the residential study area, and residents of these homes can be expected to make use of the front, rear, and side yards for recreation when possible. Many homes in the study area also feature private amenities such as in-ground pools. Many multi-family residential developments within the study area also provide private open space amenities for their residents. Though these resources are not considered in the quantitative analysis, it is expected that the population of the study area would make use of these private open spaces when possible, alleviating some demand on public open spaces within the study area.

In the future with the Proposed Actions, the Proposed Development Site would be mapped in a contextual zoning district requiring developments to adhere to Quality Housing regulations. The Proposed Development would introduce private accessory open space for the proposed building's residents. It can be expected that residents of the study area would make use of any existing and future private open spaces developed under this program within the study area, when possible. Additionally, as the private accessory open space areas have not yet been finalized, these spaces could be programmed with active and/or passive recreational areas based on the needs of the area. It should be noted that in the 2027 future conditions, the Proposed Development Site will be directly adjacent to a public playground, providing easy access for future residents of the Proposed Development. Finally, the Applicant plans to provide additional private amenity space on the adjacent, Applicant-owned Block 6004, Lot 70, which is currently occupied by tennis courts. Residents of the Proposed Development would be able to use this area as open space in the future with the Proposed Actions, which would relieve some of the incremental demand created by the Proposed Development on study area open spaces.

IV. CONCLUSIONS

The Proposed Actions would not result in a significant adverse indirect open space impact. While the open space study area would experience a decrease of approximately 8.9 percent in total, active, and passive

open space ratios in the future with the Proposed Actions, the open space resources would still adequately serve the area's residential population, and there would not be a noticeable reduction in the availability or quality of open space. The demand for open space generated in the With-Action condition is not expected to lead to a deficiency in the total or passive open space available to study area residents. There would be a deficiency of approximately 0.15 acres of active open space per resident.

The study area's open space resources are numerous and in good condition, offering a range of amenities, and could therefore handle the additional anticipated demand resulting from the Proposed Development. By the time of the analysis year, it is expected that several open space resources in the study area will have undergone renovations, improving their condition and likely adding new amenities. A new playground will have also been completed in the study area. Residents of the study area would continue to use additional open space resources not included in the quantitative assessment. Therefore, while the Proposed Development would result in a decrease in open space ratios in the future, given the amount and condition of open spaces and array of amenities of study area open spaces, and the availability of additional open spaces conservatively not included in the quantitative analysis, the Proposed Development is not expected to result in a significant adverse impact on open space. In addition, the Proposed Development would not have a direct effect on any study area open spaces due to construction or operation. The Proposed Development would not result in the imposition of noise, air pollutant emissions, odors, or significant new shadows on public open spaces that may alter usability. Therefore, the Proposed Actions would not result in a significant adverse indirect open space impact, and further analysis is not warranted.

ATTACHMENT G

SHADOWS

I. INTRODUCTION

According to the 2021 *CEQR Technical Manual*, an adverse shadows impact is considered to occur when an incremental shadow from a proposed project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource, or threatens the viability of vegetation or other resources. Pursuant to *CEQR Technical Manual* guidance, sunlight-sensitive resources of concern are those resources that depend on sunlight, or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Sunlight-sensitive resources can include publicly accessible open spaces, architectural resources, natural resources, and Greenstreets. In general, shadows on city streets, sidewalks, buildings, or project-generated open spaces are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are not considered significant under CEQR.

According to the *CEQR Technical Manual*, a shadows assessment is required only if a proposed action would result in structures (or additions to existing structures) of 50 feet or more and/or be located adjacent to, or across the street from, a sunlight-sensitive resource. As described in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the construction of a new eight-story building. As the Proposed Action would result in a structure taller than 50 feet and is located adjacent to open space, an analysis of shadows is warranted. This attachment assesses the potential for the Proposed Actions and subsequent development to result in a significant adverse shadow impact on any sunlight-sensitive resources.

II. METHODOLOGY

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

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

- *Public open space* (e.g., parks, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions or roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The use of vegetation in an open space establishes its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather

dependent features, like wading pools and sandboxes, or vegetation that could be affected by loss of sunlight during the growing season (i.e., March through October); and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include: passive use, such as sitting or sunning; active use, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots, particularly plots for food production in community gardens. The amount of sunlight typically considered to be the minimum that plantings and vegetation would need is six to eight hours of direct sunlight. However, certain plantings and vegetation can tolerate partial sun, with a reduced minimum requirement of four to six hours of direct sunlight. Examples of areas that can tolerate partial sun are established tree canopies, shrubs or perennials.

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

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

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

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

sunlight warmth. As these months and days are representative of the full range of possible shadows, they are also used for assessing shadows on sunlight-sensitive historic and natural resources. The *CEQR Technical Manual* defines the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset.

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

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

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

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

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

In general, a significant adverse shadows impact occurs when the incremental shadows added by a proposed building fall on a sunlight-sensitive resource and substantially reduce or completely eliminate direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other natural resources.

III. PRELIMINARY SCREENING

Tier 1 Screening Assessment

According to the 2*021 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 and occurs on December 21 (the winter solstice). The height of the proposed building (plus an additional 20 feet of mechanical bulkhead) was used to determine the longest shadow study area (Tier 1 Assessment). Within this longest shadow study area (i.e., a radius of 451.5 feet), there are four sunlight-sensitive resources (refer to **Table G-1**).

Therefore, further screening is warranted in order to determine whether these resources would be affected by project-generated shadows.

Table G-1: Sunlight-Sensitive Resources in the Tier I Assessment Area

Map No.*	Sunlight-Sensitive Resource
1	Cross Island Parkway Waters Edge Drive Playground
2	Cross Island Parkway
3	Joe Michaels Mile
4	Little Neck Bay

*Refer to **Figure G-1**

Tier 2 Screening Assessment

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

As presented in **Figure G-1**, the four sunlight-sensitive resources shown in Table G-1 would fall within the maximum shadow radius. Based on the Tier 2 Screening Assessment, it cannot be ruled out that the proposed actions would not cast shadow on these resources. Therefore, further analysis is warranted for these resources.

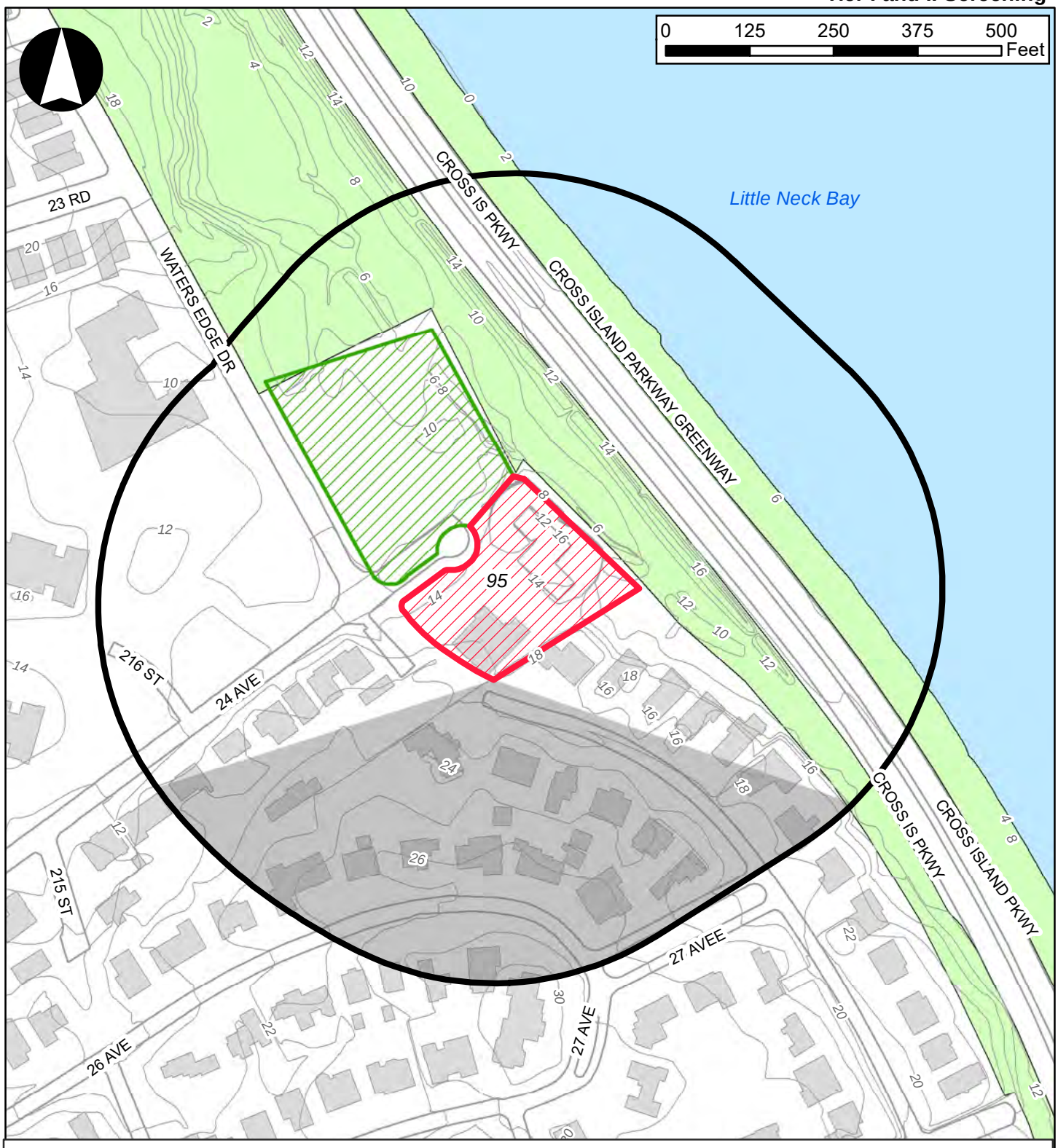
Tier 3 Screening Assessment

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 shadows 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.

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

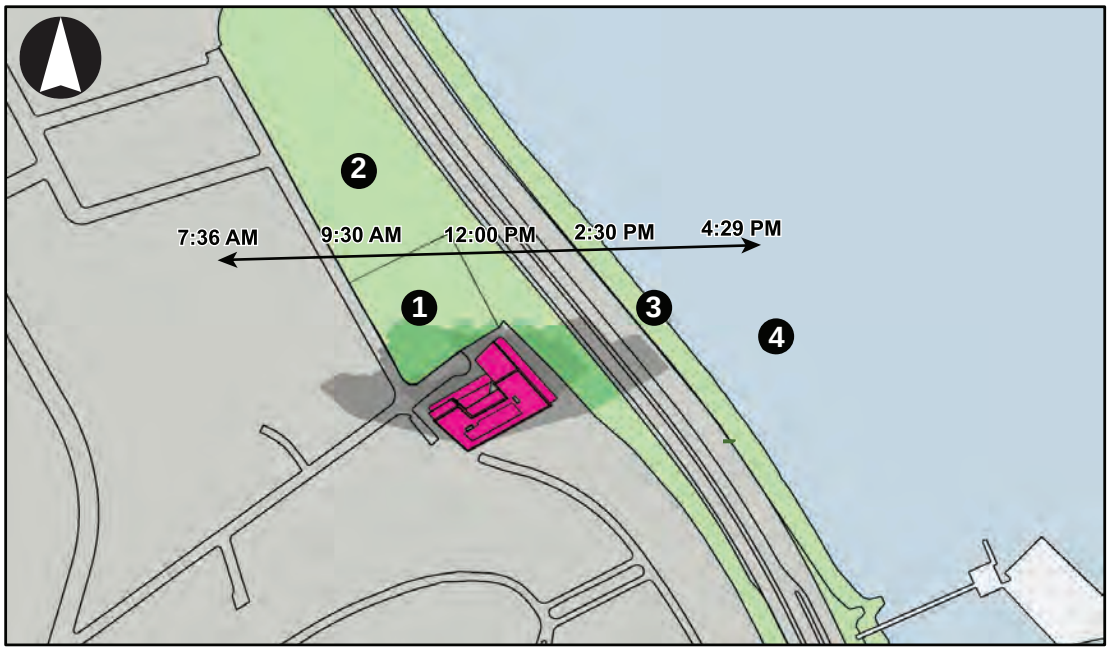
Figures G-2a and **G-2b** illustrate the range of project-generated shadows that could occur in the absence of existing buildings on the four representative analysis days. The Tier 3 analysis shows that each of the four sunlight-sensitive resources identified in Table G-1 would receive project-generated shadows (see **Table G-2**). Therefore, a detailed shadow analysis is required to determine the extent and duration of project-generated incremental shadows on this sunlight-sensitive resource.

Tier I and II Screening

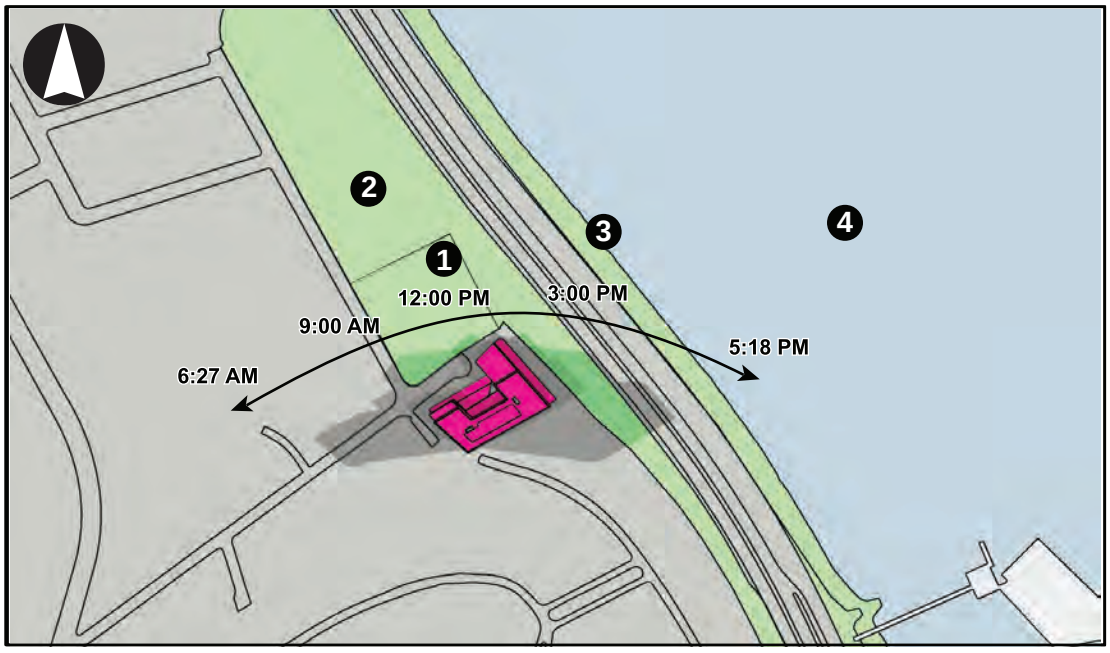


Legend

- Proposed Development Site
- Tier I: Longest Shadow Study Area (451.5 ft)
- Tier II: Area that Cannot be Shaded
- Future Open Space
- Open Space
- 12 U.S. Geological Survey (USGS) Contour Line



MARCH 21/SEPTEMBER 21

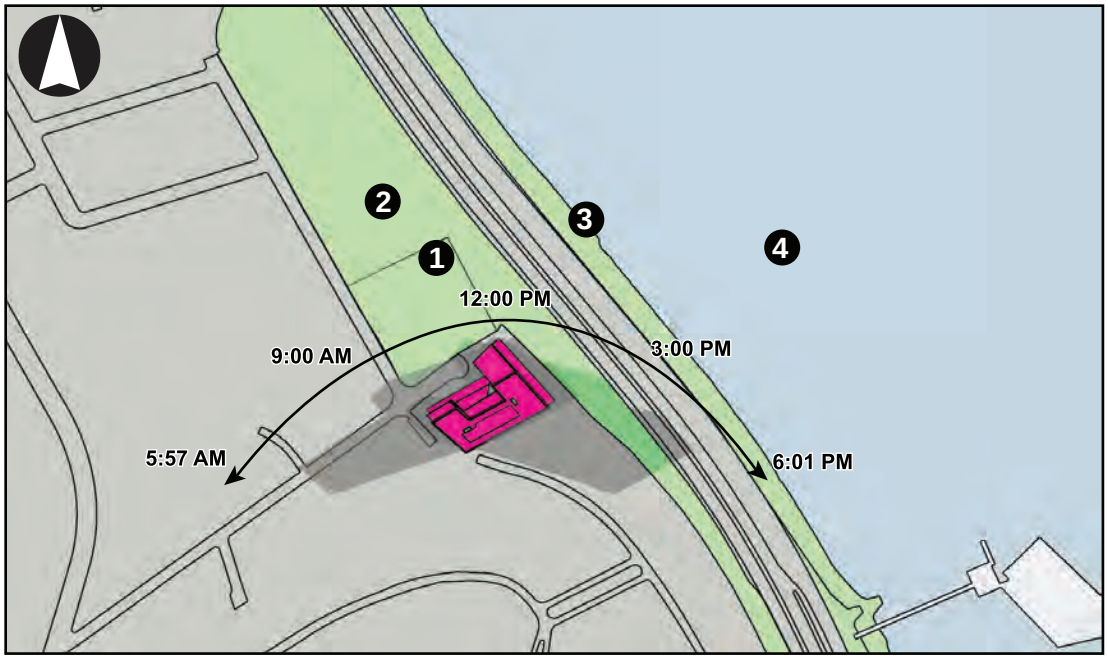


MAY 6/AUGUST 6

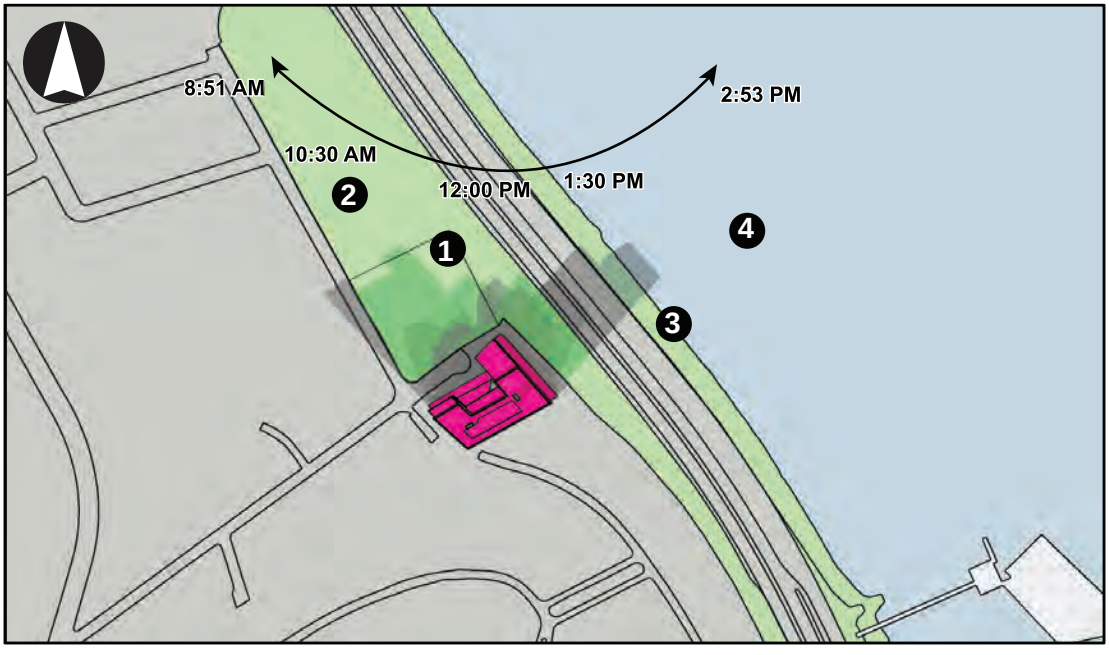
Proposed Development

1 Sunlight-Sensitive Resource

Project-Generated Shadow



JUNE 21



DECEMBER 21

Proposed Development

1 Sunlight-Sensitive Resource

Project-Generated Shadow

Table G-2: Tier 3 Shadow Screening Assessment Results

Map No.*	Resource Name	March 21/Sept. 21 7:36 AM – 4:29 PM	May 6/August 6 6:27 AM – 5:18 PM	June 21 5:57 AM – 6:01 PM	December 21 8:51 AM – 2:53 PM	Analysis Days
1	Cross Island Parkway Waters Edge Drive Playground	Shaded	Shaded	Shaded	Shaded	4
2	Cross Island Parkway	Shaded	Shaded	Shaded	Shaded	4
3	Joe Michaels Mile	Not Shaded	Not Shaded	Not Shaded	Shaded	1
4	Little Neck Bay	Not Shaded	Not Shaded	Not Shaded	Shaded	1

Note(s): **1 Numbers Keyed to **Figures G-2a** and **G-2b**.*

V. DETAILED ANALYSIS OF SHADOW IMPACTS

Shadows Analysis

Per CEQR guidance, shadows analyses were performed on four representative days of the year: March 21/September 21, the equinoxes; May 6, the midpoint between the summer solstice and the equinox (and equivalent to August 6); June 21, the summer solstice and the longest day of the year; and December 21, the winter solstice and shortest day of the year. These four representative days indicate the range of potential shadows over the course of the year. CEQR guidance defines the temporal limits of a shadow analysis period to fall from an hour and a half after sunrise to an hour and a half before sunset. **Table G-3** below summarizes the entry and exit times and total duration of project-generated incremental shadows on each sunlight-sensitive resource.

Table G-3: Duration of Incremental Shadows on Sunlight Sensitive Resources

No. [1]	Sunlight-Sensitive Resource	Shadow Enter-Exit/ Incremental Shadow Duration	Analysis Days			
			March 21/Sept. 21	May 6/August 6	June 21	December 21
			7:36 AM – 4:29 PM	6:27 AM – 5:18 PM	5:57 AM – 6:01 PM	8:51 AM – 2:53 PM
1	Cross Island Parkway Waters Edge Drive Playground	Shadow enter-exit time	7:36 AM – 1:23 PM	6:27 – 11:53 AM	5:57 – 11:01 AM	8:51 AM – 2:21 PM
		Incremental shadow duration	5 hour 47 minutes	5 hours 26 minutes	5 hours 4 minutes	5 hours 30 minutes
2	Cross Island Parkway	Shadow enter-exit time	11:46 AM – 4:29 PM	1:41 – 5:18 PM	2:32 – 6:01 PM	9:34 – 2:53 PM
		Incremental shadow duration	4 hours 43 minutes	3 hours 37 minutes	3 hours 29 minutes	5 hours 19 minutes
3	Joe Michaels Mile	Shadow enter-exit time	-	-	-	2:34 – 2:53 PM
		Incremental shadow duration	-	-	-	19 minutes
4	Little Neck Bay	Shadow enter-exit time	-	-	-	2:53 – 2:53 PM
		Incremental shadow duration	-	-	-	1 minute

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *2021 CEQR Technical Manual* guidance.
The table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.

As shown in **Table G-3**, incremental shadows would reach the Cross Island Parkway Waters Edge Drive Playground and Cross Island Parkway each of the four representative analysis days. Incremental shadow would reach Joe Michaels Mile and Little Neck Bay on the December 21st analysis day. **Figures G-3** through **Figure G-6** illustrate incremental shadow coverage on each of these analysis days. As shadows are in constant motion, these figures illustrate the extent of incremental shadows at particular moments in time, highlighted in red. Based on CEQR guidance, all times reported are Eastern Standard Time and do not reflect adjustments for Daylight Savings Time that is in effect from mid-March to early November.

Sunlight-Sensitive Resources

Cross Island Parkway Waters Edge Drive Playground

As presented in **Attachment D, "Open Space,"** a new playground is expected to be completed near the intersection of 24th Avenue and Water's Edge Drive adjacent to the Proposed Development Site by 2025. The new, approximately 1.5-acre park would contain active and passive space with an array of multigenerational recreational opportunities for the surrounding neighborhood, including play areas, fitness equipment, spray shower, open lawns, picnic areas, a comfort station, and pedestrian paths, among other amenities.

Cross Island Parkway

As shown in **Figures G-2a** and **G-2b**, the area northwest of the Proposed Development Site is a strip of city-owned parkland that runs along the western side of the Cross Island Parkway. The area is occupied by overgrown vegetation and trees and does not contain any park programming.

Joe Michaels Mile

On the eastern side of the Cross Island Parkway is Joe Michaels Mile, a 2.4-mile waterfront open space that includes a running/biking trail, seating areas, and a seasonal marina.

Little Neck Bay

Little Neck Bay is an approximately 1,400-acre estuary in western Long Island off the Long Island Sound. The bay is about a mile wide at the entrance and extends back just under two miles. The bay varies in depth between six and 12 feet.

March 21/September 21

As shown in Table G-3, incremental shadow from the Proposed Development would reach the future Cross Island Parkway Waters Edge Drive Playground and the natural area on the western side of the Cross Island Parkway for approximately five hours and 47 minutes (7:36 AM – 1:23 PM) and four hours 43 minutes (11:46 AM – 4:29 PM), respectively.

As shown in **Figure G-3a,** incremental shadow coverage over the future Cross Island Parkway Waters Edge Drive Playground would be at its largest at 7:36 AM and during the morning hours. Incremental shadow coverage would generally be limited to the southern corner of the park and would move to the southeast border of the park throughout the morning hours (refer to **Figures G-3a** through **G-3c**). By 12:00 PM, incremental shadow from the Proposed Development would be limited to the eastern corner of the playground. Incremental shadow from the Proposed Development would exit the playground at approximately 1:23 PM. No specific portion of the future playground would be cast in shadow for an extended period of time.

Incremental shadow coverage would begin over the natural area on the western side of the Cross Island Parkway at approximately 11:46 AM and continue until the end of the analysis day (approximately four hours and 43 minutes) (refer to **Figures G-3c** through **G-3e**). The area cast in incremental shadow includes

Incremental Shadows on March 21/September 21

7:36 AM



9:00 AM



Proposed Development (1) **Sunlight-Sensitive Resource**

Incremental Shadows on March 21/September 21

10:00 AM



11:00 AM



Proposed Development (1) **Sunlight-Sensitive Resource**

Figure G-3c
Incremental Shadows on March 21/September 21

12:00 PM



1:00 PM



Proposed Development (1) **Sunlight-Sensitive Resource**

Incremental Shadows on March 21/September 21

2:00 PM



3:00 PM



Proposed Development (1) **Sunlight-Sensitive Resource**

Incremental Shadows on March 21/September 21

4:29 PM



Proposed Development (1) **Sunlight-Sensitive Resource**

trees and other vegetation. It is expected that these trees and vegetation would continue to receive between six to eight hours of direct sunlight on this analysis day.

May 6/August 6

As shown in **Table G-3**, incremental shadow from the Proposed Development would reach the future Cross Island Parkway Waters Edge Drive Playground and the natural area on the western side of the Cross Island Parkway for approximately five hours and 26 minutes (6:27 AM – 11:53 AM) and three hours 37 minutes (1:41 – 5:18 PM), respectively.

As shown in **Figure G-4a,** incremental shadow coverage over the future Cross Island Parkway Waters Edge Drive Playground would be at its largest at 6:27 AM and during the morning hours. Incremental shadow coverage would generally be limited to the southern corner of the park and would move to the southeast border of the park throughout the morning hours (refer to **Figures G-4a** and **G-4b**). By 10:00 AM, incremental shadow from the Proposed Development would be limited to the eastern corner of the playground. Incremental shadow from the Proposed Development would exit the playground at approximately 11:53 AM. No specific portion of the future playground would be cast in shadow for an extended period.

Incremental shadow coverage would begin over the natural area on the western side of the Cross Island Parkway at approximately 1:41 PM and continue until the end of the analysis day (approximately three hours and 37 minutes) (refer to **Figures G-4d** and **G-4e**). The area cast in incremental shadow includes trees and other vegetation. It is expected that these trees and vegetation would continue to receive between six to eight hours of direct sunlight on this analysis day.

June 21

On the June 21 analysis day, incremental shadow from the Proposed Development would reach the future Cross Island Parkway Waters Edge Drive Playground and the natural area on the western side of the Cross Island Parkway for approximately five hours and four minutes (5:57 – 11:01 AM) and three hours 29 minutes (2:32 – 6:01 PM), respectively.

Incremental shadow coverage over the future Cross Island Parkway Waters Edge Drive Playground would be at its largest during the early morning hours (refer to **Figure G-5a**). Incremental shadow coverage from the Proposed Development would be limited to the southeastern portion of the park throughout the morning hours. By 9:00 AM, incremental shadow would be extremely limited in size and would continue to grow smaller as the shadow cast by the Proposed Development moves east and exits the playground at approximately 11:01 AM (refer to **Figures G-5b** and **G-5c**).

Incremental shadow coverage would begin over the natural area on the western side of the Cross Island Parkway at approximately 2:32 PM and continue and grow larger until the end of the analysis day (approximately three hours and 29 minutes) (refer to **Figures G-5d** and **G-5e**). The area cast in incremental shadow includes trees and other vegetation. It is expected that these trees and vegetation would continue to receive between six to eight hours of direct sunlight on this analysis day.

6:27 AM



8:00 AM



Proposed Development (1) Sunlight-Sensitive Resource

Figure G-4b
Incremental Shadows on May 6/August 6

9:00 AM



10:00 AM



Proposed Development

1 Sunlight-Sensitive Resource

Figure G-4c
Incremental Shadows on May 6/August 6

11:00 AM



12:00 PM



Proposed Development (1) **Sunlight-Sensitive Resource**

Incremental Shadows on May 6/August 6

2:00 PM



3:00 PM



Proposed Development (1) **Sunlight-Sensitive Resource**

Figure G-4e
Incremental Shadows on May 6/August 6

4:00 PM



5:18 PM



Proposed Development

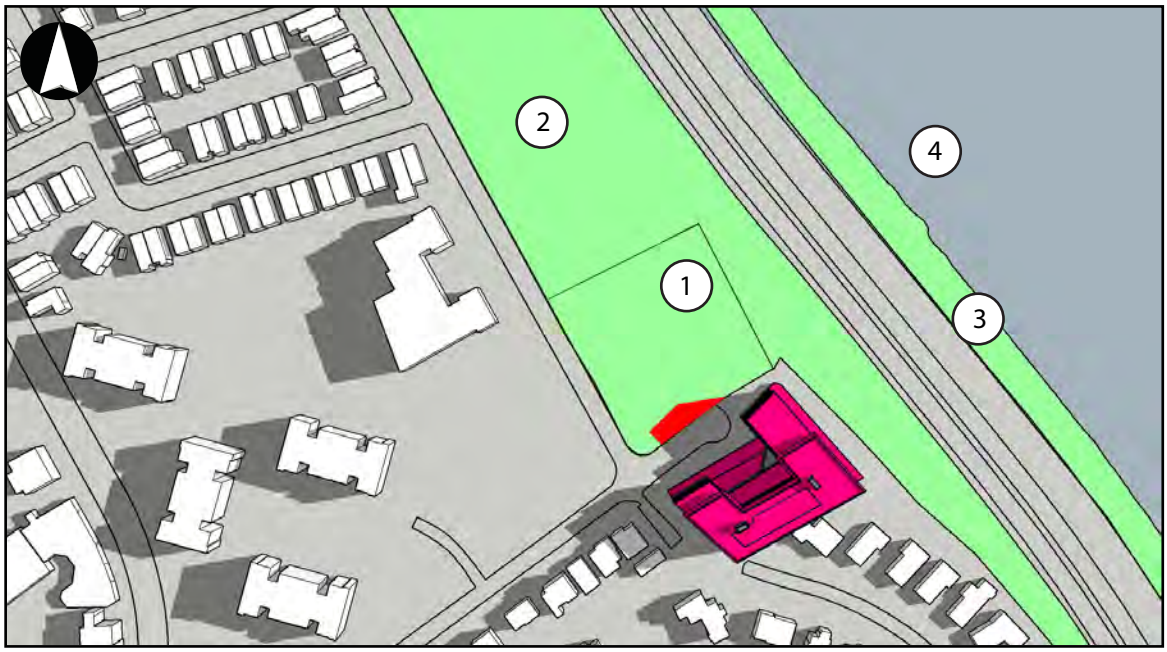
1 Sunlight-Sensitive Resource

Figure G-5a
Incremental Shadows on June 21

5:57 AM



7:00 AM



Proposed Development

1 Sunlight-Sensitive Resource

Figure G-5b
Incremental Shadows on June 21

8:00 AM



9:00 AM



Proposed Development

1 Sunlight-Sensitive Resource

Figure G-5c
Incremental Shadows on June 21

10:00 AM



11:00 AM



Proposed Development (1) **Sunlight-Sensitive Resource**

Figure G-5d
Incremental Shadows on June 21

3:00 PM



4:00 PM



Proposed Development

1 Sunlight-Sensitive Resource

Figure G-5e
Incremental Shadows on June 21

5:00 PM



6:01 PM



Proposed Development

1 Sunlight-Sensitive Resource

December 21

On the December 21 analysis day, incremental shadow from the Proposed Development would be cast over the future Cross Island Parkway Waters Edge Drive Playground, the natural area on the western side of the Cross Island Parkway, Joe Michaels Mile, and Little Neck Bay (refer to **Table G-3**).

The largest amount of incremental shadow coverage over the future Cross Island Parkway Waters Edge Drive Playground would occur at the beginning of the analysis day and would decrease in size as the incremental shadow moves east in the morning hours (refer to **Figure G-6a**). By 12:00 PM, incremental shadow from the Proposed Development would be limited to the eastern corner of the playground. As shown in **Table G-3**, incremental shadow would remain over portions of the playground until 2:21 PM (refer to **Figure G-6b**).

Incremental shadow coverage would begin over the natural area on the western side of the Cross Island Parkway at approximately 9:32 AM and continue until the end of the analysis day (approximately five hours and 21 minutes) (refer to **Figures G-6a** through **G-6c**). The area cast in incremental shadow includes trees and other vegetation. As this loss of sunlight would occur outside the growing season, it is not expected to have a negative impact on the vegetation.

Incremental shadow from the Proposed Development would reach Joe Michaels Mile for approximately 19 minutes (2:34 to 2:53 PM) on the December 21 analysis day (refer to **Figure G-6c**). Incremental shadow would cover portions of the running/biking trail along the waterfront.

Little Neck Bay would receive approximately one minute of incremental shadow from the Proposed Development (2:53 – 2:53 PM) on the December 21 analysis day (refer to **Figure G-6c**).

Assessment

Incremental shadow coverage at the future Cross Island Parkway Waters Edge Drive Playground would range between five hours and four minutes on the June 21 analysis day and five hours and 47 minutes on the March 21/September 21 analysis day. Despite the extended duration of incremental shadow coverage over this sunlight-sensitive resource, incremental shadow coverage would be limited to the southeastern and eastern portions of the playground during the growing season. Incremental shadows from the Proposed Development would not negatively impact the use or enjoyment of the playground. As part of the Waters Edge Drive Playground EAS (CEQR No. 23DPR003Q), a preliminary site plan and planting plan was prepared. The playground would be located in the center of the future open space. The play area/spray shower would be cast in incremental shadow on the March 21/September 21 and December 21 analysis days. On the March 21/September 21 analysis day, incremental shadows would occur over the future play area/spray shower until approximately 9:00 AM, approximately one hour and 30 minutes of incremental shadow coverage in comparison to future No-Action conditions. On the December 21 analysis day, incremental shadow from the Proposed Development would be cast over the play area/spray shower for approximately one hour and 39 minutes (8:51 – 10:30 AM). Along the southern and eastern edges of the open space, Eastern Redbuds (Cercis canadensis) and Eastern White Pine (Pinus strobus) Trees would be planted. Eastern Redbuds would be planted in the southern corner and Evergreens would be planted along the eastern edge. According to the Arbor Day Foundation, Eastern Redbuds and Eastern White Pine prefer full sun and partial sun/shade. During the growing season, under With-Action conditions, these trees would continue to receive six to eight hours of direct sunlight. Incremental shadow would be cast over the Eastern Redbuds during the early morning hours and the Eastern White Pine during the late

Figure G-6a
Incremental Shadows on December 21

8:51 AM



10:00 AM



Proposed Development

1 Sunlight-Sensitive Resource

Figure G-6b
Incremental Shadows on December 21

11:00 AM



12:00 PM

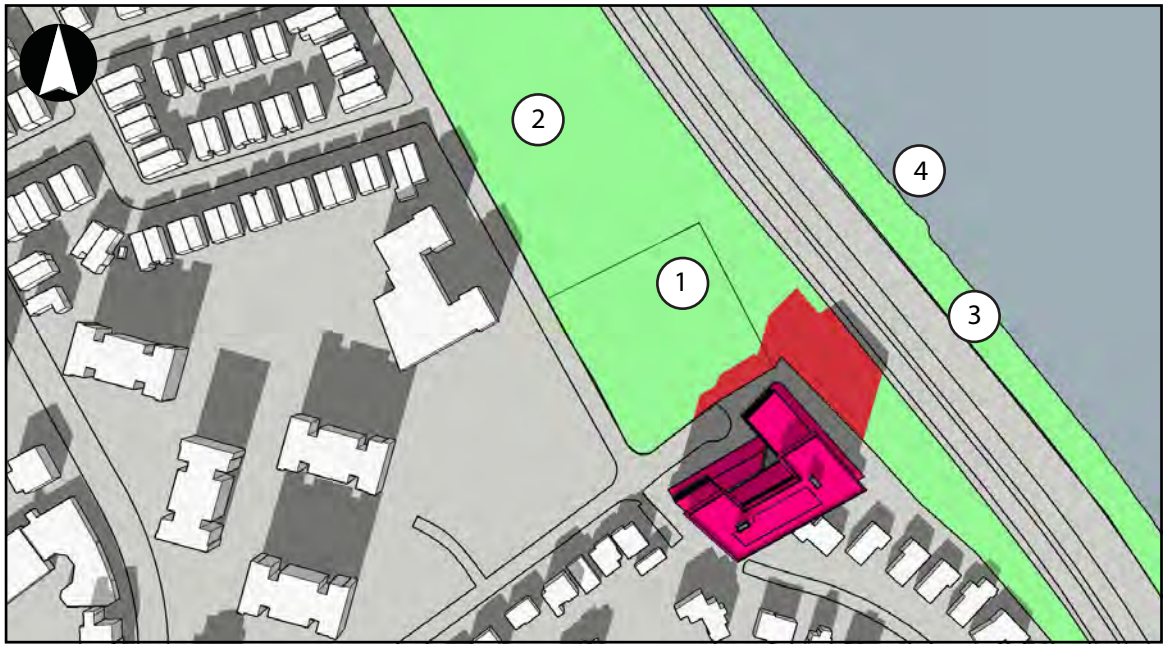


Proposed Development

1 Sunlight-Sensitive Resource

Figure G-6c
Incremental Shadows on December 21

1:00 PM



2:53 PM



Proposed Development

1 Sunlight-Sensitive Resource

morning and early afternoon hours. Incremental shadow from the Proposed Development would not be cast on any specific portion of the playground or on any vegetation for an extended time-period. Therefore, the Proposed Development is not anticipated to result in a significant adverse impact on the Cross Island Parkway Waters Edge Driveway Playground.

Incremental shadow coverage over the natural area on the western side of the Cross Island Parkway would range between three hours and 29 minutes and five hours and 21 minutes on the June 21 and December 21 analysis days, respectively. As shown in the attached figures, no specific vegetation or area would receive incremental shadow coverage for an extended period of time. Vegetation in the area will continue to receive six to eight hours of direct sunlight during the growing season. Therefore, the Proposed Development is not anticipated to result in a significant adverse impact on this sunlight-sensitive resource.

Incremental shadow coverage would occur over Joe Michaels Mile for approximately 19 minutes on the December 21 analysis day. Based on the limited duration and coverage of incremental shadow, the Proposed Development is not anticipated to negatively impact the use or enjoyment of the running/biking trail along the waterfront as users of these amenities would generally be passing through the area quickly. No benches are located within the area of Joe Michael's Mile to be cast in incremental shadow by the Proposed Development. Incremental shadow on the December 21 analysis day would be cast over an approximately 200-foot portion of the larger 2.4-mile open space resource. Therefore, no significant impacts are anticipated at this sunlight-sensitive resource.

The Proposed Development would case incremental shadow on Little Neck Bay for approximately one minute on the December 21 analysis day. Incremental shadow would occur over approximately 0.17-acres of the larger 1,400-acre Little Neck Bay. Based on the limited duration and coverage of incremental shadow, no significant adverse impacts are anticipated at this sunlight-sensitive resource.

ATTACHMENT H

URBAN DESIGN AND VISUAL RESOURCES

I. INTRODUCTION

The 2021 *City Environmental Quality Review* (CEQR) *Technical Manual* states that the urban design components and visual resources determine the "look" of a neighborhood – its physical appearance, including the street pattern, the size and shape of buildings, their arrangement on blocks, streetscape features, natural resources, and noteworthy views that may give an area a distinctive character. Pursuant to CEQR methodology, actions that would allow a project to potentially obstruct view corridors, compete with icons in the skyline, or make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings may warrant a detailed urban design and visual resources analysis. Since the Proposed Actions under the RWCDS would facilitate the construction of a building that would be different in bulk, type, and/or height than what is allowed or required by existing zoning, a detailed urban design and visual resources analysis was prepared.

This attachment considers the potential for the Proposed Actions to affect urban design characteristics and visual resources of the project area and the surrounding study area. The technical analysis presented in this attachment follows the guidance of the *CEQR Technical Manual* and addresses each of the previously listed characteristics for existing conditions, the future without the Proposed Actions (the No-Action condition), and the future with the Proposed Actions (the With-Action condition) for Proposed Development under the RWCDS.

As described in **Attachment A, "Project Description,"** the Proposed Actions consist of a zoning map and text amendment that would affect an area in the Bay Terrace neighborhood of Queens Community District (CD) 11. The Proposed Actions would affect the "Proposed Rezoning Area" (Queens Block 6008, portions of [p/o] Lots 84, 95, and 150; a.k.a. the "Project Area") an area bounded by 24th Avenue to the north, the unimproved portion of Little Neck Boulevard to the west, the Cross Island Parkway to the east, and a line 225 feet south of and parallel to 24th Avenue to the south (**refer to Figure 4 in the EAS Form**). The Applicant is seeking to rezone the Proposed Rezoning Area from its existing R1-2 zoning to an R6A district, and establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing (MIH) area.

As also described in **Attachment A,** the Proposed Actions would facilitate development of a new eight-story residential building with senior living facilities on the first and second floors on Applicant-owned Queens Block 6008, Lot 95 (the "Proposed Development Site"), which is the only area where development could occur as a result of the Proposed Actions. The Proposed Development would be composed of approximately 162,026 gross square feet (gsf) of residential uses (167 dwelling units [DUs]; of which, approximately 42-50 units would be designated as permanently affordable pursuant to the City's Mandatory Inclusionary Housing [MIH] program), 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space, for a total of approximately 254,171 gsf.

As discussed in **Attachment A,** for RWCDS purposes, all proposed assisted living space will be analyzed as residential DUs, and an average DU size of 850 square feet (sf) will be assumed for the purposes of this environmental assessment statement (EAS), therefore bringing the total to 259 DUs (of which, up to approximately 65-78 units would be affordable under MIH). Under the Proposed Actions, the existing private sports and swimming club at the Proposed Development Site would be demolished to make way for the Proposed Development. No changes are expected to occur in the remainder of the Project Area

(the small portion of adjacent non-Applicant-owned Lot 84 and the adjacent unimproved City-owned parkland) as a result of the Proposed Actions.

As discussed in **Attachment C, "Land Use, Zoning, and Public Policy,"** the existing R1-2 district mapped within the Project Area allows a maximum FAR of 0.5 for residential use (Use Group 1 only) and 1.0 for community facility uses (limited uses within Use Groups 3 and 4). The R1-2 district allows for a maximum base height of 25 feet before being subject to the sky exposure plane and requires a front, rear, and two side yards. The proposed R6A (MIH) district would permit a residential FAR of 3.6 (with MIH), and community facilities up to 3.0 FAR. After a base height of 45 feet, buildings in R6A districts must set back by 10 feet on wide streets and 15 feet on narrow streets. The maximum height is 75 feet if providing a qualifying ground floor (85 feet with MIH).

Under CEQR, a preliminary assessment of urban design is appropriate when there is the potential for a pedestrian to observe from the street level a physical alteration beyond that allowed by existing zoning, including the following: 1) projects that permit the modification of yard, height, and setback requirements; and 2) projects that result in an increase in built floor area beyond what would be allowed 'as-of-right' or in the future without the proposed action. According to the *CEQR Technical Manual*, detailed analyses are generally appropriate if an action introduces a new building requiring exception to existing zoning and would result in changes in height and setback requirements. As the Proposed Actions include a zoning map amendment that would facilitate a building with bulk characteristics and density beyond what is permitted as-of-right, a detailed urban design and visual resources assessment is warranted.

II. METHODOLOGY

Together, the urban design components and visual resources of an area define the distinctive identity of a neighborhood. In an urban design assessment under CEQR, one considers whether and to what degree a project may change the visual experience of a pedestrian in the study area. The assessment focuses on the components of the proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built environment from the pedestrian point of view. These components include building bulk, use, and type; building arrangement; block form and street pattern; streetscape elements; street hierarchy; and natural features. The concept of bulk is created by the size of a building and the way it is massed on a site. Height, length, and width define a building's size; volume, shape, setbacks, lot coverage, and density define its mass. A visual resources analysis identifies and assesses the effects of the proposed action on the study area's visual resources, which are its unique, or important public view corridors, vistas, or natural or built features. Waterfront views, public parks, landmarked structures, landmarked districts, and natural resources are examples of visual resources. As per the guidance of CEQR, only views of visual resources from public and publicly-accessible locations will be assessed. The analysis in this attachment addresses each of these characteristics of existing conditions and the future without and with the Proposed Actions for the year 2027.

In accordance with the *CEQR Technical Manual*, this assessment considers the effects of the Proposed Actions under the RWCDS on the following elements that play an important role in the pedestrian's experience of public space:

- ***Streets*** – the arrangement and orientation of streets define location, flow of activity, street views, and create blocks on which buildings and open spaces are arranged. Other elements including sidewalks, plantings, streetlights, curb cuts, and street furniture also contribute to an area's streetscape.

- ***Buildings*** – building size, shape, pedestrian and vehicular entrances, lot coverage and orientation to the street are important urban design components that define the appearance of the built environment.
- ***Open Space*** – open space consists of public and private areas that do not include structures, such as parks and other landscaped areas, cemeteries, and parking lots.
- ***Natural Features*** – natural features include vegetation, geologic and aquatic features that are natural to the area.
- ***View Corridors and Visual Resources*** – visual resources include significant natural or built features, such as important view corridors, public parks, landmark structures or districts, or otherwise distinct buildings.
- ***Wind*** – Channelized wind pressure from between tall buildings and down-washed wind pressure from parallel tall buildings may cause winds that may jeopardize pedestrian comfort and safety.

As the Proposed Actions would result in physical changes within the Project Area beyond the bulk and form currently permitted as-of-right, it has the potential to result in development that could alter the arrangement, appearance, and functionality of the built environment and, therefore, change a pedestrian's experience of the Project Area. Therefore, it is appropriate to assess the Proposed Actions potential impacts to urban design and visual resources. As described in **Attachment A, "Project Description,"** this analysis assumes that the With-Action condition would attempt to maximize the building envelope permitted through zoning. The urban design analysis presented below follows the guidance of the *CEQR Technical Manual.*

Wind Screening

As per Section 230 of the *CEQR Technical Manual*, projects involving multiple, tall buildings at or in close proximity to the waterfront may result in an exacerbation of wind conditions due to "downwash" effects that may affect the pedestrian experience in the area. The Proposed Actions are not expected to result in the construction of unusually tall buildings. Under the Proposed R6A district with MIH, the maximum roof height in the Project Area would be approximately 85 feet (assuming a qualifying ground floor under Quality Housing regulations, and not including mechanical bulkhead), which is not significantly taller than other buildings in the area. The Project Area is near the waterfront, but is shielded from wind conditions by a strip of land planted with trees. Therefore, a study of wind conditions and their effect on pedestrian level safety is not warranted.

Study Area Definition

The *CEQR Technical Manual* defines the urban design study area as the area "where the project may influence land use patterns and the built environment, and is generally consistent with [the study area] used for the land use analysis." The urban design study area is divided into the Proposed Development Site (where urban design effects of the proposed action are direct), also referred to as the primary study area, and a secondary study area (where the effects of the proposed action are indirect). As stated above, the Proposed Development Site encompasses Queens Block 6008, Lot 95. As discussed in **Attachment C**, **"Land Use, Zoning, and Public Policy,"** the secondary study area for this analysis has been identified as a 400-foot radius from the primary study area, with that boundary extended to include lots with buildings that fall substantially within the 400-foot radius. This is considered the area within the surrounding area whose land use and built environment have the potential to be indirectly affected by the Proposed Actions. As shown in **Figure H-1**, the secondary study area reaches the midblock between 24th Avenue and 23rd Road to the north, 27th Avenue to the south, Little Neck Bay to the east, and midblock between 215th Street and Waters Edge Drive to the west.

Figure H-1
Urban Design Study Area



Legend

- Proposed Development Site (Primary Study Area)
- 400-foot Radius (Secondary Study Area)
- 6008 Tax Block

The analysis is based on field visits, aerial views, photographs, and other graphic images of the rezoning area and surrounding study area. An aerial photo of the study area is provided in **Figure H-1**. **Figures H-2a through H-2e** present photos and display urban design characteristics of the study area.

III. EXISTING CONDITIONS

Primary Study Area (Proposed Development Site)

The Primary Study Area is defined as the area that would be directly affected by the Proposed Actions. The Primary Study Area for this analysis is the area affected by the proposed zoning map amendment and zoning text amendment where development could occur, which consists of Queens Block 6008, Lot 95 (the Applicant-owned Proposed Development Site).

Streets

As shown in **Figure H-1**, the Proposed Development Site is irregular in shape, and occupies the northern portion of Block 6008. The site has approximately 55,614 sf of lot area and has approximately 173 feet of frontage along 24th Avenue to the north and approximately 183 feet of frontage along Little Neck Boulevard to the east. **Figure H-2a** shows the streetscape in the primary study area.

24th Avenue is a two-way local road running east-west directly north of the Proposed Development Site. It has a width of 60 feet and is considered a "narrow street" for zoning. There are no lane markings, and on-street parking is available on both sides of the street. There is an approximately 12-foot wide sidewalk along the southern side of the street. Adjacent to the Projected Development Site, 24th Avenue terminates in a cul-de-sac. The entrance to the existing Bay Terrace Country Club is located along the cul-de-sac behind a stone fence and gate. Streetscape elements include standard signage, and planted areas along the lot line of the country club. Little Neck Boulevard is an 80-foot wide (considered a "wide street" per NYC zoning), two-way street running north-south to the west of the Proposed Development Site. The portion of Little Neck Boulevard directly adjacent to the Proposed Development Site is mapped but unbuilt. As shown in **Figure H-1,** the built portion of Little Neck Boulevard terminates at the southwest corner of the Proposed Development Site, and it does not connect to 24th Avenue. The unbuilt area mapped as Little Neck Boulevard at the west side of the Proposed Development Site is occupied by pathways and open area associated with the existing Bay Terrace Country Club. Directly west of this area is a cobblestone-paved driveway that serves the adjacent residential building. There are no street-facing windows at ground level within the primary study area.

Buildings

Within the Project Area, the Applicant-owned Proposed Development Site is currently occupied by a single structure associated with the existing Bay Terrace Country Club. The building, a single-story, approximately 12-foot tall clubhouse and locker room, was constructed in 1965 and totals approximately 2,800 gsf. The building is located at the southwestern corner of the lot, set back approximately 95 feet from 24th Avenue. A swimming pool occupies the eastern portion of the lot, including seating and sunbathing areas. The remainder of the site is an unbuilt lawn featuring picnic tables and children's playground equipment. Refer to **Figure H-2b** for views of the existing conditions within the primary study area.

Visual Resources

There are no notable visual resources located within the primary study area.



1. View looking east along 24th Avenue, the Project Area located to the right.



Photos taken on 5/31/24.



2. View looking north at the intersection of Waters Edge Drive and 24th Avenue.



3. View looking north along Little Neck Boulevard at the Project Area.



4. View looking northwest along Little Neck Boulevard, the Project Area to the right.



5. View looking southeast towards the Project Area along 24th Avenue.



Photos taken on 5/31/24.



6. View looking east towards the Project Area along 24th Avenue.



7. View looking northeast towards the Project Area along Little Neck Boulevard.



9. View looking northwest at the intersection between 24th Avenue and Waters Edge Drive.



Photos taken on 5/31/24.



10. View looking southwest along 24th Avenue between Waters Edge Drive and 216th Street.



11. View looking northwest along Little Neck Boulevard between 24th Avenue and 27th Avenue.



12. View looking southeast along Waters Edge Drive between 23rd Road and 24th Avenue.



13. View looking northwest along Waters Edge Drive Between 23rd Road and 24th Avenue.



Photos taken on 5/31/24.



14. View looking north at the intersection of 24th Avenue and 215th Street.



15. View looking south along 24th Avenue between 215th Street and Bell Boulevard.



16. View looking southwest along Little Neck Boulevard between 24th Avenue and 27th Avenue.



17. View looking southwest at the basketball courts along Waters Edge Drive between 23rd Road and 24th Avenue.



19. View looking northeast at the lawn along Waters Edge Drive between 23rd Road and 24th Avenue.



Photos taken on 5/31/24.



18. View looking east looking at landscaping at the Intersection of 26th Avenue and 27th Avenue.

Open Space

The primary study area includes the Bay Terrace Country Club, as described above. The lot has an area of approximately 55,374 square feet, and features a swimming pool and a grass-covered lawn with playground equipment and seating areas.

Natural Features

Elevations within the Project Area range from +10 to +16 feet (NAVD88). The terrain at the Proposed Development Site is generally flat. There are no unique natural features in the primary study area.

Secondary Study Area

The larger secondary study area contains all or part of three tax blocks. As discussed above, the secondary study area reaches the midblock between 24th Avenue and 23rd Road to the north, 27th Avenue to the south, Little Neck Bay to the east, and midblock between 215th Street and Waters Edge Drive to the west (refer to **Figure H-1**).

Streets

The street pattern in the secondary study area is limited and irregular, forming large blocks of varying shapes and sizes. 24th Avenue runs east-west through the approximate center of the study area, and divides the characteristically suburban street network to the south from the more regular grid toward the north. South of 24th Avenue, curved streets form elongated blocks where pedestrian access is limited. North of 24th Avenue, the street network is less complex – Water's Edge Drive is the only street in the study area that is north of 24th Avenue. The Cross Island Parkway runs east of the Proposed Development Site, but there is no access from within the secondary study area. The remainder of the study area is occupied by open space and water (Little Neck Bay). **Figure H-2c** shows the streetscape within the secondary study area.

As discussed above, 24th Avenue is a 60-foot wide local road which terminates near the Proposed Development Site in a cul-de-sac. West of the Proposed Development Site, 24th Avenue continues west through the secondary study area. There is a 20-foot wide sidewalk along the northern side of the street consisting of a 5-foot wide paved path flanked by planted strips. There is on-street parking along the northern side of the street only. The pedestrian experience along 24th Avenue is influenced by the character of the residential uses along each side of the street. Along the north side, buildings are set back far from the street, and there are street trees and landscaping at the lot lines, while the south side is occupied by residential driveways and front yards, with no sidewalk. The street is faced by ground-floor windows of the single-family homes along its south side.

As also mentioned above, Little Neck Boulevard is an 80-foot wide, two-way street running north-south to the west of the Proposed Development Site. The portion of the street adjacent to the Proposed Development Site is unbuilt and inaccessible, occupied by a yard and paved path associated with the existing country club. The segment of Little Neck Boulevard that runs south of the site is a dead end. Little Neck Boulevard has no sidewalks and both sides of the street are occupied by residential driveways and front yards. Buildings are set back approximately 20 feet from the lot lines, and the driveways and front yards generally extend 10 to 20 feet past the lot lines into the street.

North of 24th Avenue, Little Neck Boulevard becomes Water's Edge Drive, a 60-foot wide, two-way local road with on-street parking on both sides. There is a sidewalk along the west side of the street, consisting of a 5-foot wide pedestrian path flanked by planted strips, similar to the north sidewalk along 24th Avenue.

Within the secondary study area, the only uses along Water's Edge Drive are vacant land, and there are no windows or building entrances facing the street. Standard signage and utility poles are present along the street.

The portion of the study area south of 24th Avenue is characterized by low-traffic residential streets with limited pedestrian access. Along with the portion of Little Neck Boulevard mentioned above, 26th and 27th Avenues are within the secondary study area, and share similar characteristics. Both are "Record Streets" per the NYC Street Map, meaning they are built but not officially mapped. These streets function as private access for the residential buildings fronting on them. Though neither street has a mapped width, 26th Avenue has a roadbed approximately 25 feet wide, and 27th Avenue is approximately 65 feet wide with an approximately 35-foot wide median. Both streets are two-way with no sidewalks and no on-street parking. The curbs are lined by recessed drainage channels. Front yards and driveways generally face the street at the lot lines, with buildings set back from the street. Apart from streetlamps, pedestrian streetscape elements are limited. It should be noted that along with Little Neck Boulevard, both 26th and 27th Avenues have limited access from outside the study area. Along Bell Boulevard (approximately 1,000 feet west of the study area), vehicle entrances to 26th and 27th Avenues are blocked by private gates. Public pedestrian access is discouraged by signage at these gates and at the entrance to Little Neck Boulevard along 28th Avenue (approximately 500 feet south of the study area).

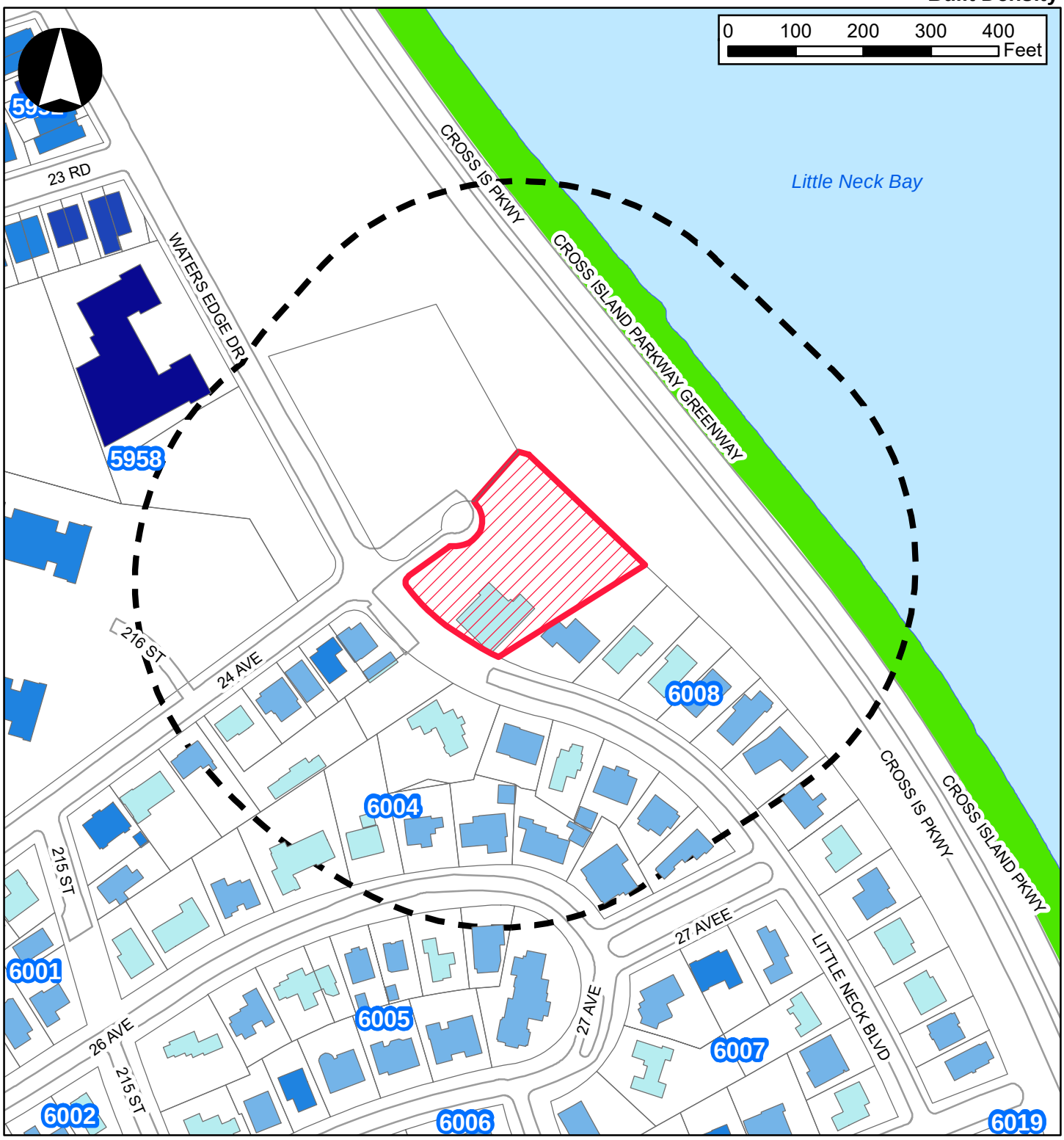
The Cross Island Parkway is within the secondary study area, though there is no vehicle or pedestrian access from the study area and no lots with frontage on the parkway. The Cross Island Parkway is a two-way, six-lane arterial highway running north-south in the east of the study area. The roadbed is approximately 90 feet wide, and there is an approximately 10-foot wide median. Along the eastern side of the parkway, there is a pedestrian path and bike trail, the "Joe Michaels Mile" (refer to **Attachment F, "Open Space"**).

Buildings

There are approximately 25 buildings in the secondary study area, excluding the existing building on the Proposed Development Site as well as several detached garages and sheds around the study area. This includes buildings that are partially within 400 feet of the Project Area but still contribute to the pedestrian experience in the study area. These buildings are exclusively single-family homes and share many characteristics. **Figure H-2d** shows photos of buildings within the secondary study area; **Figures H-3 and H-4,** respectively, show built densities and heights of buildings throughout the study area.

All of the buildings within the secondary study area (excluding the Proposed Development Site) are single-family residential buildings between one and 2.75 stories. The buildings share characteristics in accordance with the underlying R1-2 zoning (refer to **Attachment C, "Land Use, Zoning, and Public Policy"**). There are no continuous streetwalls, and all buildings are set back from the lot lines with front yards and driveways. Each house has a front, rear, and two side yards. These single-family detached buildings vary in style, massing, orientation, and construction material. The square footage of buildings within the study area ranges from approximately 2,000 to approximately 4,500 gsf, and roof heights range from approximately 15 feet to approximately 33 feet. Most of the buildings have integrated garages accessed via front driveways, though several have detached garages. There are various architectural and landscaping styles exhibited throughout the study area. There are several split-level houses in the study area, which generally feature below-grade garages and offset levels, resulting in buildings with additional half or quarter-stories. Ranch style, Mediterranean style, and contemporary houses can also be found in the secondary study area. Some houses have swimming pools in their rear yards, though these are generally not visible from the street.

Figure H-4
Built Density



Legend

- Proposed Development Site (Primary Study Area)
- 400-foot Radius (Secondary Study Area)
- 6008 Tax Block
- Tax Lot
- Water
- Open Space

Built FAR

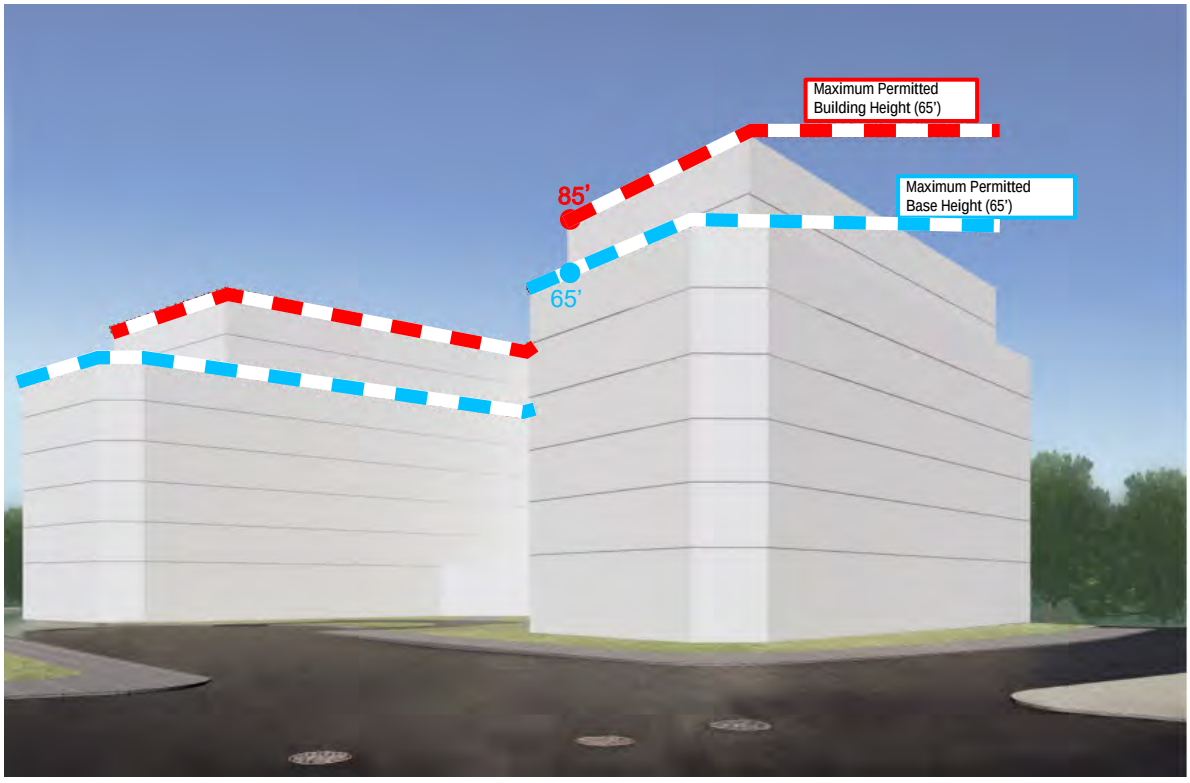
- 0 - 0.25
- 0.25 - 0.5
- 0.5 - 1.0
- 1.0 - 2.0
- 2.0 and Over

Illustrative Street View - Facing Southeast from 24th Avenue and Waters Edge Drive



Photo taken on 6/7/24

NO-ACTION



WITH-ACTION

Visual Resources

The waterfront of Little Neck Bay is visible from the eastern portion of the secondary study area. However, it is visible only from the Cross Island Parkway and Joe Michaels Mile, which are not accessible from within the secondary study area. Little Neck Bay is an inlet of the Long Island Sound. Refer to **Figure H-2e** for photos of visual resources in the study area.

Open Space

There is a substantial amount of open space in the secondary study area. There is a single public park, Joe Michaels Mile, which is part of the Cross Island Parkway open space as discussed in **Attachment F, "Open Space".** Joe Michaels Mile is a linear open space featuring a walking and biking path, landscaping, and seating areas, and is located in the eastern portion of the study area at the waterfront. However, as noted above, there is no access to the Joe Michaels Mile from within 400 feet of the Proposed Development Site. Other open spaces in the secondary study area include a large tract of undeveloped parkland located along the west side of the Cross Island Parkway. This area is occupied by trees and vegetation, except for a portion opposite from the Proposed Development Site, which is in use as a parking lot for the Bay Terrace Country Club. Private open space within the secondary study area includes the front yards of the residential buildings in the area, which are generally landscaped and planted with grass and trees, as well as the tennis courts and playground associated with the Bay Country Apartments co-op buildings (the buildings themselves are outside the study area). There is a vacant lot at the northwest corner of 24th Avenue and Water's Edge Drive that is fenced and inaccessible.

Natural Features

The topography of the secondary study area is more varied than that of the Proposed Development Site. Elevations in the study area range from +0 to +26 feet (NAVD88). The study area includes a portion of Little Neck Bay and the waterfront, and elevations slope upward from sea level in the east of the study area to a high of +26 feet in the southwest of the study area. There are no steep slopes or other natural features within the study area.

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

Primary Study Area (Proposed Development Site)

Under the No-Action condition, it is assumed that no changes would take place at the Proposed Development Site. The existing Bay Terrace Country Club, including the approximately 2,800-gsf structure and the associated swimming pool and recreational spaces, would remain.

Visual Resources

Under the No-Action condition, there are no changes to visual resources expected within the primary study area, as there are no existing visual resources in the area and the Proposed Actions would not result in the addition of new visual resources.

Secondary Study Area

Within the approximate 400-foot secondary study area, there are two known projects anticipated to be completed in the 2027 future without the Proposed Actions. Both are public projects: a public school and a playground.

At 23-50 Waters Edge Drive (the vacant lot northwest of the Proposed Development Site across 24th Avenue and Water's Edge Drive), the NYC School Construction Authority (SCA) is planning to construct a new public elementary school building. The school is anticipated to be complete and fully operational in 2027. The new, five-story, approximately 84,000-gsf public school is anticipated to have a capacity of approximately 572 elementary seats with a main entrance on Waters Edge Drive and outdoor play yards on the southern and western portions of the site.

The New York City Department of Parks and Recreation is constructing a new playground (the Cross Island Parkway Water's Edge Playground) on the parkland adjacent to and north of the Proposed Development Site**.** The new approximately 1.5-acre park would contain an array of multigenerational recreational opportunities for the surrounding neighborhood, including play areas, fitness equipment, open lawns, picnic areas, a comfort station, and pedestrian paths, among other amenities. According to the Parks Capital Projects Tracker, the project is currently in the design phase, and is expected to be complete by 2025.

Visual Resources

No changes to visual resources are expected in the No-Action condition.

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

Primary Study Area/Proposed Development Site

In the With-Action condition, the Applicant-owned Proposed Development Site (Block 6008, Lot 95) would be developed by the Applicant with a new eight-story residential building with senior living facilities on the first and second floors. The Proposed Development would contain approximately 167 dwelling units (DUs), approximately 58,194 gsf of assisted living uses, and approximately 33,951 gsf of below-grade parking space, for a total of approximately 254,171 gsf. Under the RWCDS, all proposed assisted living space is analyzed as residential DUs, and an average DU size of 850 sf is assumed, therefore bringing the total to 259 DUs.

The Proposed Development would consist of a single U-shaped massing facing towards 24th Avenue and oriented around the cul-de-sac. The U-shaped building would form an inner court where a driveway loop would provide vehicle access from the cul-de sac and a pathway would provide pedestrian access to the entrances for the residential and senior living uses. The building would rise to a maximum height of approximately 85 feet with setbacks above the sixth floor along 24th Avenue. The Proposed Development would provide the required 30-foot rear yard along the southern and eastern lot lines.

The Proposed Actions would result in the removal of the existing Bay Terrace Country Club, the demolition of the existing 2,800-gsf structure, and the elimination of the swimming pool and recreational open space from the Proposed Development Site. No public open space is expected to be provided as part of the Proposed Development.

The Proposed Actions would likely lead to increased pedestrian activity in the streets directly bordering the Proposed Development Site as well as the surrounding street network. The residential uses at the Proposed Development Site facilitated by the Proposed Actions could contribute to increased foot traffic in the With-Action conditions as opposed to the existing and No-Action conditions. The Proposed Development would replace the existing private country club, which is set back from the street behind a fenced area, with residential development that is closer to the street and more pedestrian-oriented.

Though existing open space at the Proposed Development Site would be replaced by development, the existing open space is not publicly-accessible. The loss of this space would not adversely impact the pedestrian experience of urban design within the primary study area. The Proposed Actions are not expected to result in changes to natural features in the primary study area.

Visual Resources

Development facilitated by the Proposed Actions would not obstruct or alter any visual resources in the primary study area, and no new visual resources are anticipated to be introduced as a result of the Proposed Actions.

Secondary Study Area

Though the Proposed Actions would facilitate the development of a building with a greater bulk, height, and density than what is permitted under existing zoning, as well as facilitating residential use that would not be permitted under existing zoning, the Proposed Actions would not result in any changes to buildings, streets, natural resources, or open space within the secondary study area.

Visual Resources

No changes to visual resources are expected in the secondary study area as a result of the Proposed Actions. The Proposed Development is not expected to affect any views of the Little Neck Bay waterfront from within the secondary study area.

Assessment

The Proposed Actions would facilitate development that is not currently permitted at the Proposed Development Site pursuant to existing zoning, which would create a change in the urban design character of the area. Compared to the future without the Proposed Actions, the visual appearance, and the pedestrian experience of the Proposed Development Site, would change. The Proposed Actions would facilitate the development of a building that could reach up to a height of approximately 85 feet, an approximately 73-foot increment over the existing and No-Action conditions at the Proposed Development Site. No development could occur within the remainder of the Project Area as a result of the Proposed Actions. Changes facilitated by the Proposed Actions would not constitute a significant adverse urban design impact as they would not alter the arrangement or functionality of the Project Area, thus not negatively affecting a pedestrian's experience. Rather, the Proposed Development resulting from the Proposed Actions is expected to positively affect the urban design of the area and improve the pedestrian experience through the redevelopment of an underutilized private country club with much-needed housing including permanently-affordable housing. **Figure H-5** shows a visual comparison of pedestrian views of the Proposed Development Site in the No-Action and With-Action conditions.

As detailed further in **Attachment C, "Land Use, Zoning, and Public Policy,"** the proposed zoning would be compatible with the surrounding study area, resulting in the mapping of a medium-density residential district along 24th Avenue, which is partially zoned for medium-density residential development within the secondary study area. Based on the residential character of the study area and the high demand for housing in the surrounding area, development resulting from the Proposed Actions would be compatible with the neighborhood context, compared to the existing and No-Action conditions. Though there are no residential buildings of comparable height and density within the secondary study area, several comparable buildings exist just beyond the 400-foot radius to the north, and are visible from within the study area. The Bay Country Apartments buildings along 24th Avenue and the Bay Vista Apartments along

Water's Edge Drive are examples of nearby buildings of comparable density and height to the Proposed Development. In the future with the Proposed Actions, the Proposed Development will benefit from the presence of two new public projects directly adjacent to the Proposed Development Site, as mentioned above: a public school and playground to be constructed along 24th Avenue. Together with the Proposed Development, these projects are anticipated to activate the pedestrian streetscape in the vicinity of the Project Area.

The Proposed Actions would facilitate a change in urban design as compared to what is permitted under existing zoning. However, this change would not negatively affect the pedestrian experience, either directly at the Proposed Development Site or indirectly in the secondary study area. Rather, it would represent the activation of an underutilized, vehicle-centric parcel at an intersection that is slated for new investment in public infrastructure in the future. The Proposed Development under the RWCDS would not obstruct pedestrian views of visual resources, nor would it result in any impacts on pedestrian access to public open spaces within the study area. As such, the Proposed Actions would not have a significant adverse impact on urban design or visual resources within the Project Area or in the 400-foot study area.

VI. CONCLUSIONS

No significant adverse impacts on urban design and visual resources, per the guidance found in the 2021 *CEQR Technical Manual*, are anticipated in the future with the Proposed Actions in the Project Area (the primary study area) or within a 400-foot radius (secondary study area). The Proposed Actions would permit development that is compatible with the existing buildings within and surrounding the Project Area. The analysis in this attachment finds that the Proposed Actions would not result in development that would alter views of any visual resources from publicly-accessible locations within the Project Area and surrounding study area.

ATTACHMENT I

WATER AND SEWER INFRASTRUCTURE

I. INTRODUCTION

This attachment assesses the potential effects of the Proposed Actions on the City's water supply, wastewater treatment, and stormwater management infrastructure in accordance with the 2021 *City Environmental Quality Review* (CEQR) *Technical Manual*. As discussed in **Attachment A, "Project Description,"** the Proposed Actions would facilitate the development of an approximately 254,171 gross square foot (gsf) residential/assisted living building (the "Proposed Project") in the Bay Terrace neighborhood of Queens Community District (CD) 11.

II. METHODOLOGY

Water Supply

According to the *CEQR Technical Manual*, a preliminary water supply infrastructure analysis is needed if a project would result in an exceptionally large demand for water (e.g., more than one million gallons per day (mgd)) or is located in an area that experiences low water pressure (e.g., areas at the end of the water supply distribution system). The Proposed Development Site is located in the Bay Terrace neighborhood of Queens CD 11 and is not located in an area that experiences low water pressure (i.e., it is not located at the end of the water supply distribution system, such as the Rockaway Peninsula or Coney Island). The Proposed Project would generate an incremental water demand of approximately 84,656 gallons per day (gpd) (including water related to sanitary and domestic uses) compared with the No-Action condition. While this would represent an increase in demand on the New York City water supply system, it does not meet the *CEQR Technical Manual* threshold requiring a detailed analysis (i.e., the Proposed Actions would not result in (i) water pressure of less than 30 lbs per square inch in the localized water main network; and (ii) water demand that would not be met by existing water supply infrastructure or require upgrades to the existing system). Therefore, an analysis of water supply is not warranted as it is expected that there would be adequate water service to meet the incremental water demand from the Proposed Project and there would be no significant adverse impacts on the City's water supply. The New York City Department of Environmental Protection ("DEP") has determined that existing water supply should be sufficient to accommodate the estimated increase in water demand associated with the RWCDS for the Proposed Development Site (refer to **Appendix 5** for DEP correspondence).

Wastewater and Stormwater Conveyance and Treatment

For wastewater and stormwater conveyance and treatment, a preliminary sewer analysis is warranted if (i) a project site comprises more than five acres and would result in an increase of impervious surfaces on the site; (ii) a project is located in a combined sewer area and would result in the incremental development of at least 400 residential units or 150,000 sf or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens or at least 1,000 residential units or 250,000 sf or more of commercial space in Manhattan; or (iii) a project is located in a separately sewered area and would result in the incremental development exceeding that presented in Table 13-1 of the CEQR Technical Manual (and reproduced below in **Table I-1**). As the Proposed Development Site is located in a separately sewered area in Queens and the Proposed Development's incremental development would exceed the *CEQR Technical Manual*

residential unit threshold in R1 districts, a preliminary assessment of wastewater and stormwater infrastructure is provided.

TABLE I-1
CEQR Threshold for Analysis For Projects in Separately Sewered Areas

Existing Zoning District	Number of Residential Units or Commercial/Public and Institution/Community Facility Use
R1, R2, or R3	25 residential units or 50,000 sf of commercial/public and institution/community facility use
R4, R5	50 residential units or 100,000 sf of commercial/public and institution/community facility use
All remaining zoning designations, including C, M, and Mixed-use districts	100 residential units or 100,000 sf of commercial/public and institution/community facility use

Source: 2021 *CEQR Technical Manual*, Table 13-1.

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

III. EXISTING CONDITIONS

Wastewater Conveyance System

The majority of New York City's wastewater treatment system is comprised of the sewer network beneath the streets and the fourteen wastewater resource recovery facilities (WRRFs) located throughout the City. While the majority of New York City's sewers are called combined sewers since they receive sanitary wastewater and stormwater runoff, some areas of the City (including the Proposed Development Site) operate within separate systems for sanitary sewage and stormwater. In these areas, sanitary sewage is sent to the WRRF and stormwater is sent untreated through separate sewers and outfalls into the nearest waterway. Refer to **Figure I-1** for location of nearest metropolitan separate storm sewer system (MS4) and combined sewer drainage areas and/or outfalls. As noted above, the Project Area is located in Queens CD 11 and is generally bound by 24th Avenue to the north, the unimproved portion of Little Neck Boulevard to the west, the Cross Island Parkway to the east, and a line 195 feet south of and parallel to 24th Avenue to the south. The Project Area is served by the Tallman Island WRRF, which discharges treated wastewater flows (or effluent) into the East River, and is located approximately 3.6 miles to the northwest at 127-01 Powell Cove Blvd in College Point, Queens.

Collection sewers can be one to two feet in diameter on side streets, and three or four feet in diameter under larger roadways, which connect to trunk sewers, generally five to seven feet in diameter. During dry weather, regulators built into the sewer system direct flows to interceptor sewers leading to the

Figure I-1
MS4 and CSO Infrastructure



WRRFs. These large interceptor sewers (often up to ten or twelve feet in diameter) bring the wastewater to the WRRFs for treatment. At the Tallman Island WRRF, sanitary wastewater is fully treated by physical and biological process before it is discharged primarily into the East River. The quality of the treated effluent is regulated by a State Pollutant Discharge Elimination System (SPDES) permit issued by the New York State Department of Environmental Conservation (NYSDEC), which establishes limits for effluent parameters (i.e., suspended solids, fecal coliform bacteria, and other pollutants). As the volume of flow to a WRRF affects the level of treatment a plant can provide, the maximum permitted capacity for the Tallman Island WRRF is 80 mgd. As presented in **Table I-2**, below, the average daily flows to the Tallman WRRF for the 12-month period ending in September 2022 was approximately 60 mgd, which is below the maximum permitted capacity of 80 mgd.

During and immediately after wet weather events, combined sewers can experience a much larger flow due to stormwater runoff collection. Stormwater runoff from impermeable surfaces is collected by catch basins along the street and conveyed by the City's combined sewer system to the Tallman Island WRRF. During storm events, the regulators built into the system allow only twice the dry weather design flow into interceptor sewers, and any excess flow is directed to outfalls into the local waterway (e.g., the East River, etc.) as combined sewer overflow (CSO). However, as mentioned above, the Project Site is served by separate sewer systems and therefore stormwater is sent untreated through combined and separate sewers and outfalls into the nearest waterway (i.e., the Little Neck Bay). As shown in **Figure I-1**, the nearest CSO is located directly northeast of the Proposed Development Site, which is served by an approximately 90" by 120" reinforced concrete sewer that runs beneath 24th Avenue east of Waters Edge Drive.

TABLE I-2
Existing Tallman Island WRRF Average Daily Sewer Flows

Year	Month	Average Daily Flows (mgd)
2021	October	59
	November	53
	December	55
2022	January	60
	February	65
	March	60
	April	62
	May	66
	June	61
	July	60
	August	55
	September	65
12-Month Average		***60***

Source: DEP "Monthly Operating Efficiency" tables 2022

Sanitary Flows

For sanitary sewage disposal, the Proposed Development Site relies on a system that conveys sanitary sewage to the Tallman Island WRRF. The sanitary sewers direct flow from the Proposed Development Site to a force main beneath Waters Edge Drive that carries the sanitary sewage northwest towards the Tallman Island WRRF. Catchment areas at the intersection of 24th Avenue and Waters Edge Drive collect sanitary flow from Little Neck Boulevard, Waters Edge Drive, and 24th Avenue, and are conveyed northwest to the WRRF facility. The sewers in this area vary in size from no smaller than 18 inches to a maximum diameter of approximately 90 inches before reaching the force main pipe.

As described in **Attachment A, "Project Description,"** the 55,614-sf Proposed Development Site is currently occupied by a private swimming and sports club that features a pool, playgrounds, and concessions. There is a single structure on the site, a club house building with a total of approximately 2,800 gsf of Use Group 6 "non-commercial clubs without restrictions on activities or facilities [PRC-D]." As such, the existing sanitary flows presented in **Table I-3** represent the existing occupancy (approximately 2,800 gsf of non-retail commercial). As presented in **Table I-3**, the existing uses are estimated to generate approximately 280 gpd of daily sanitary sewage, with a total water demand of approximately 756 gpd. As described above, existing sanitary flows generated on the Proposed Development Site are conveyed to the Tallman Island WRRF during dry weather events via the existing sewers serving the site.

TABLE I-3
Existing Water Consumption and Wastewater Generation on the Proposed Development Site

Land Use	Rate[1]	GSF/persons	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Commercial (non-retail)	Domestic: 0.1 gpd/sf; A/C: 0.17 gpd/sf	2,800	280	476
Residential	Domestic: 100 gpd/person	0	0	0
Community Facility (assisted living)	Domestic: 0.1 gpd/sf; A/C: 0.17 gpd/sf	0	0	0
Total Water Consumption (Domestic Water + A/C)			***756 gpd***	
Total Wastewater Generation			***280 gpd***	

Note: [1]Based on *CEQR Technical Manual* water demand rates from Table 13-2 when available. For commercial (non-retail) and community facility (assisted living) domestic and A/C, office rate conservatively applied.

Stormwater Flows

The analysis of stormwater management typically focuses on the body of water into which the stormwater is discharged – in this case, Little Neck Bay, the Long Island Sound, and ultimately the Atlantic Ocean. However, actions that do not involve the addition of impermeable surfaces (or those that do not direct additional volume to storm sewers) are not usually considered to have a potential to increase stormwater discharge.

The Proposed Development Site has a total lot area of approximately 55,614 sf (approximately 1.28 acres), comprised of one club house building, a shelter, a pool, paved areas surrounding the pool, and lawn areas. As such, approximately 6,075 sf (11 percent) of the Proposed Development Site lot area comprises rooftop area, approximately 34,389 sf (62 percent) comprises pavement and walks, and approximately 15,150 sf (27percent) comprises permeable surfaces (see **Table I-4**). For this analysis, standard DEP runoff coefficients were used to calculate the amount of stormwater runoff for various rainfall intensities and durations, with rainfall ranging from 0.00 inches to 2.50 inches over durations of 3.80 to 19.50 hours. **Table I-5** shows the stormwater runoff for the Proposed Development Site under existing conditions. As indicated in the table, the Proposed Development Site currently generates between 0.012 and 0.061 million gallons (mg) of stormwater runoff for the different rainfall intensities.

TABLE I-4
Existing Surface Types on the Proposed Development Site

Surface Type	Roof[1]	Pavement and Walks	Other	Grass and Softscape	Total
Area (%)	11	62	0	27	100
Surface Area (sf)	6,075	34,389	0	15,150	55,614
Runoff Coefficient[2]	1.0	0.85	0.85	0.20	**0.69**

Notes:
[1] Total roof area on site.

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

TABLE I-5
Existing Stormwater Runoff at the Proposed Development Site

Rainfall (inches)	Duration (Hours)	Total Area (Acres)	Runoff Coefficient	Stormwater to Storm Sewer (MG)
0.00	3.80	1.28	0.69	0.012
0.40	3.80			0.012
1.20	11.30			0.036
2.50	19.50			0.061

Notes:
MG = million gallons

As stated previously, within the Tallman Island WRRF service area, sanitary and stormwater flows are managed with separate and combined sewer systems. The stormwater sewers direct runoff from roofs, lots, and street drainage to existing outfalls. Runoff from impervious areas on the Proposed Development Site either flows into the stormwater sewer system where available and is discharged into the Little Neck Bay, or infiltrates into the subsurface. While the stormwater sewer system in the surrounding area is currently limited, stormwater sewers are located adjacent to the Proposed Development Site. Specifically, stormwater sewers within the vicinity of the Project Area include a 90-inch main on 24th Avenue which travels east where it connects to a 120" (wide) by 90" (high) CSO pipe on 24th Avenue east of Waters Edge Drive/Little Neck Boulevard, which in turn connects to a CSO outfall that discharges to the Little Neck Bay. There are also MS4 drainage areas north and south of the Project Area, with MS4 outfall located directly east of 17th Avenue and 28th Avenue, which both discharge stormwater flows into the Little Neck Bay. For any stormwater that does not enter the stormwater sewers in the vicinity of the Project Area, current runoff from impervious areas either infiltrates into the subsurface or flows directly into the Little Neck Bay to the east.

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

In the absence of the Proposed Actions (No-Action), no changes would occur with the Project Area, and all existing uses within the Project Area are anticipated to remain as under existing conditions. The Proposed Development Site would not be redeveloped, and the existing structures and recreational facilities associated with the Bay Terrace Country Club would remain on the site.

Sanitary Flows

As presented in **Table I-6**, in the future without the Proposed Actions, sewage flows are assumed to be the same as under existing conditions. As such, No-Action uses are estimated to generate approximately 280 gpd of daily sanitary sewage, with a total water demand of approximately 756 gpd. In the future without the Proposed Actions, sanitary discharges would continue to be directed to the Tallman Island WRRF during dry weather events via the existing separate and combined sewers serving the site. As there is available capacity at the Tallman Island WRRF, the facility would continue to operate within its current design capacities in the 2027 No-Action condition.

TABLE I-6
No-Action Water Consumption and Wastewater Generation on the Development Site[1]

Land Use	Rate[1]	GSF/persons	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Commercial (non-retail)	Domestic: 0.1 gpd/sf; A/C: 0.17 gpd/sf	2,800	280	476
Residential	Domestic: 100 gpd/person	0	0	0
Community Facility (assisted living)	Domestic: 0.1 gpd/sf; A/C: 0.17 gpd/sf	0	0	0
Total Water Consumption (Domestic Water + A/C)			***756 gpd***	
Total Wastewater Generation			***280 gpd***	

Note: [1]Based on rates from **Table I-3** above.

Stormwater Flows

In the future without the Proposed Actions, stormwater runoff from the Proposed Development Site would continue to be collected and directed through the separate and combined sewer systems and then conveyed to existing outfalls and discharged into the Little Neck Bay. As noted above, it is assumed that the existing structures on the Proposed Development Site would not be redeveloped in the No-Action condition. As such, sanitary flows and stormwater runoff generated on the Proposed Development Site, as well as the runoff coefficient of 0.69, would remain unchanged. As indicated in **Table I-7**, under the No-Action condition, the Proposed Development Site is estimated to generate between 0.012 and 0.061 mg of stormwater runoff. Stormwater runoff from the Proposed Development Site would continue to be served by the stormwater sewers along 24th Avenue, where it connects to a CSO pipe on 24th Avenue east of Waters Edge Drive/Little Neck Boulevard, which in turn connects to a CSO outfall that discharges into the Little Neck Bay. As under existing conditions, the area's MS4 drainage areas and outfalls north and south of the Project Area will continue to discharge stormwater flows into the Little Neck Bay as well. For any stormwater that does not enter the stormwater sewers under No-Action conditions, runoff from impervious areas will either continue to infiltrate into the subsurface or flow directly into the Little Neck Bay.

TABLE I-7
No-Action Stormwater Runoff at the Proposed Development Site

Rainfall (inches)	Duration (Hours)	Total Area (Acres)	Runoff Coefficient[1]	Stormwater to Storm Sewer (MG)
0.00	3.80	1.28	0.69	0.012
0.40	3.80			0.012
1.20	11.30			0.036
2.50	19.50			0.061

Notes:
[1] Refer to **Table I-4**.
MG = million gallons

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

As described in **Attachment A, "Project Description,"** in the 2027 With-Action condition, the Proposed Development Site would be redeveloped with a new eight-story (85-foot-tall) predominantly residential building containing up to approximately 259 dwelling units (DUs) and up to 58,194 gsf of assisted living space.

Sanitary Flows

As described previously, the Proposed Development Site is located in an area served by separate and combined sewers. In the future with the Proposed Actions, wastewater from the Proposed Development Site would continue to be directed to the Tallman Island WRRF during dry weather events via the existing separate and combined sewers serving the site. As described above, the Tallman Island WRRF has a SPDES-permitted dry weather flow capacity of 80 mgd. As shown in **Table I-8**, the Proposed Development would generate approximately 75,519 gpd of sanitary sewage, with a total water demand of approximately 85,412 gpd. This sanitary sewage generation represents a net increase of approximately 75,239 gpd (0.075 mgd) over the No-Action condition. While this represents an increase in sanitary flows, it is equivalent to less than 0.001 percent of the average daily flow at the Tallman Island WRRF. As there is available capacity at the Tallman Island WRRF, the Tallman Island facility would continue to operate within its current design capacities in the 2027 No-Action condition.

TABLE I-8
With-Action Water Consumption and Wastewater Generation on the Proposed Development Site

Land Use	Rate[1]	GSF/persons	Domestic Water/ Wastewater Generation (gpd)	A/C (gpd)
Commercial (non-retail)	Domestic: 0.1 gpd/sf; A/C: 0.17 gpd/sf	0	0	0
Residential	Domestic: 100 gpd/person	697	69,700	0
Community Facility (assisted living)	Domestic: 0.1 gpd/sf; A/C: 0.17 gpd/sf	58,194	5,819	9,893
Water Consumption				
Total Water Consumption			***85,412***	
Incremental Water Consumption (Compared to No-Action)			***+84,656***	
Wastewater Generation				
Total Wastewater Generation			***75,519***	
Incremental Wastewater Generation (Compared to No-Action)			***+75,239***	

Note: [1]Based on rates from **Table I-3**.

Connecting to the City's sewer system requires certification from DEP as part of the building permit process, which is not a discretionary approval. The Applicant would be required to file a site connection proposal for approval from DEP to tie into the sewer system (refer to **Appendix 5** for DEP correspondence). In order to obtain a sewer connection permit from DEP, the Applicant would be required to demonstrate that the existing system could handle the increased flows due to the Proposed Development. As part of the site connection approval process, a hydraulic analysis of the existing sewer system would likely be required to determine whether the existing sewer system is capable of supporting higher density development and the related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system. In addition, there may be a need to amend the existing drainage plan based on the hydraulic analysis calculations. Any analysis and improvements, if required, would be undertaken prior to construction of the Proposed Development and would be coordinated with DEP for

review and approval. In addition, in accordance with the New York City Plumbing Code (Local Law 33 of 2007), while not accounted for in the quantitative analysis, the Proposed Development would be required to utilize low-flow plumbing fixtures, which would reduce sanitary flows to the WRRF. Therefore, the Proposed Development would not result in a significant adverse impact to the City's sanitary sewage conveyance and treatment.

Stormwater Flows

In the future with the Proposed Actions, the existing structures at the Proposed Development Site would be demolished in order to facilitate the construction of the Proposed Development. As discussed above, the Proposed Development would be comprised of approximately 162,026 gsf of residential uses (167 DUs), 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space, for a total of approximately 254,171 gsf. However, under the RWCDS, the Proposed Development could be redeveloped with up to 259 DUs, 58,194 gsf of assisted living space and 86 accessory, off-street parking spaces. **Table I-9** shows the surface types that are expected on the Proposed Development Site under 2027 With-Action conditions. As presented in **Table I-9**, the runoff coefficient for the Proposed Development Site would increase from 0.69 to 0.87 in the future with the Proposed Actions.

TABLE I-9
With-Action Surface Types on the Proposed Development Site

Surface Type	Roof[1]	Pavement and Walks	Other	Grass and Softscape	Total
Area (%)	58	32	0	11	100
Surface Area (sf)	32,129	17,614	0	5,871	55,614
Runoff Coefficient[2]	1.0	0.85	0.85	0.20	0.87

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

The DEP Flow Volume Calculation Matrix was used to compare the estimated project generated combined flows (stormwater runoff and sanitary flows) to the separate sewer system under the No-Action and With-Action, which are shown in **Table I-10** below. As a result of the increase in impermeable surface area on the Proposed Development Site compared to existing and No-Action conditions, increased flows and volume would be conveyed to the stormwater sewers in the future with the Proposed Actions. As shown in the table, depending on the rainfall volume and duration, the total With-Action volume to the stormwater sewer system could be between 0.00 and 0.08 mg. Compared to existing and No-Action conditions, this would represent an increase in stormwater sewer flows between 0.00 and 0.01 mg over the No-Action condition.

TABLE I-10
No-Action and With-Action Stormwater Runoff and Sanitary Volumes

Rainfall (inches)	Duration (Hours)	Total Area (Acres)	No-Action Condition		With-Action Condition		Incremental Volume to Storm Sewer (MG)	Incremental Volume to WRRF (MG)
			Stormwater to Storm Sewer (MG)	Sanitary Volume to WRRF (MG)	Stormwater to Storm Sewer (MG)	Sanitary Volume to WRRF (MG)		
0.00	3.80	1.28	0.00	0.0	0.00	0.01	***0***	***0.01***
0.40	3.80	1.28	0.01	0.0	0.01	0.01	***0.00***	***0.01***
1.20	11.30	1.28	0.03	0.0	0.04	0.04	***0.01***	***0.04***
2.50	19.50	1.28	0.06	0.0	0.08	0.06	***0.00***	***0.06***

Notes:
MG = million gallons

As noted above, the Proposed Development Site is located in an area that is well-served by Separate and combined sewer infrastructure. Stormwater runoff from the Proposed Development Site would continue to be served by the stormwater sewers along 24th Avenue, where it connects to a CSO pipe on 24th Avenue east of Waters Edge Drive/Little Neck Boulevard, which in turn connects to a CSO outfall that discharges into the Little Neck Bay. As under existing and No-Action conditions, the area's MS4 drainage areas and outfalls north and south of the Project Area will continue to discharge stormwater flows into the Little Neck Bay as well. For any stormwater that does not enter the stormwater sewers under No-Action conditions, runoff from impervious areas will either continue to infiltrate into the subsurface or flow directly into the Little Neck Bay. Given the nominal increase in flows generated by the Proposed Development and the size of the sewer facilities in the vicinity of the Proposed Development Site (e.g., the adjacent CSO pipe at 24th Avenue east of Waters Edge Drive/Little Neck Boulevard is 90-inches-wide by 120-inches-high), it is anticipated that there is ample capacity in the adjacent sewer infrastructure to accommodate the additional stormwater flows generated by the Proposed Actions. As noted above, the Applicant would be required to file a site connection proposal for approval from DEP to tie into the City's sewer system. As part of the site connection approval process, a stormwater analysis would be required in order to ensure that the Proposed Development complies with the required stormwater release rate (refer to **Appendix 5** for DEP correspondence). Therefore, the Proposed Development would not result in a significant adverse impact to the City's stormwater sewer system.

Stormwater Best Management Practices

The Flow Volume Matrix calculations do not reflect the use of any sanitary and stormwater source control BMPs to reduce sanitary flow and stormwater runoff volumes to the combined sewer system. Stormwater BMPs would be required as part of the DEP site connection approval process in order to bring the Proposed Development into compliance with the required stormwater release rate. Specific BMP methods will be determined with further refinement of the building design and in consultation with DEP.

A broad range of BMPs could be implemented on the Proposed Development Site to facilitate stormwater source controls and limit the stormwater release rate to the required rate. The implementation of low-flow fixtures, as per the New York City Plumbing Code, Local Law 33 of 2007, and the U.S. Environmental Protection Agency's WaterSense Program, would help control sanitary flows. To further offset these increases, on-site stormwater control measures of BMPs could be implemented to retain or slowly release stormwater runoff with controlled discharge rates to the City's combined sewer system.

The following typical BMP measures could be used to help manage stormwater flows: the implementation of BMPs described in the New York City Green Infrastructure Plan and/or green technologies, such as blue and green roofs, subsurface detention and infiltration, porous pavement, enhanced tree pits, and rain cisterns, depending on site conditions. The design of detention tanks, green roofs, and/or other chosen stormwater control BMPs, would be required to meet the required release rate.

Therefore, with the incorporation of appropriate BMPs that would be required as part of the site connection approval process to be reviewed and approved by DEP, the overall volume of sanitary sewer discharge and stormwater runoff, as well as the peak stormwater runoff rate, would be reduced. Sewer conveyance near the Proposed Development Site and the treatment capacity at the Tallman Island WRRF is sufficient to handle wastewater flow resulting from the Proposed Development. Therefore, there would be no significant adverse impacts on wastewater treatment or stormwater conveyance infrastructure as a result of the Proposed Actions.

ATTACHMENT J

TRANSPORTATION

I. INTRODUCTION

This attachment describes the transportation characteristics and potential impacts associated with the Proposed Actions, presenting the findings of the analyses of traffic, parking, transit, and pedestrian conditions for the Proposed Actions' Reasonable Worst Case Development Scenario ("RWCDS"). As discussed in **Attachment A, "Project Description,"** the Applicant is seeking a zoning map and text amendment from the New York City Planning Commission ("CPC") (the "the Proposed Actions") to facilitate the development of a single new eight-story residential building with senior living facilities on the first and second floors (the "Proposed Development") at 217-14 24th Avenue (Queens Block 6008, Lot 95), an irregular-shaped, 55,614-sf lot (the "Proposed Development Site") with frontage on 24th Avenue in the Bay Terrace neighborhood of Queens Community District (CD) 11 (refer to **Figure J-1**). Specifically, the Applicant is seeking (i) a zoning map amendment to rezone the "Proposed Rezoning Area" (Queens Block 6008, portions of Lots 84, 95, and 150) from a R1-2 district to a R6A district; and (ii) a zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing (MIH) area.

The Proposed Actions would facilitate the development of the Proposed Development, which would contain approximately 162,026 gross square feet (gsf) of residential uses, 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space (86 spaces), for a total of approximately 254,171 gsf. The Proposed Development's residential floor area would comprise approximately 167 dwelling units ("DUs"), of which approximately 42-50 units would be designated as permanently affordable pursuant to the city's MIH program, at a range of 60 to 80 percent of the Area Median Income ("AMI") depending on the MIH Option selected. The Applicant intends to pursue Option 2 of the City's MIH program. In this scenario, 30 percent of the 167 DUs (or approximately 50 units) would be designated as permanently affordable at an average affordability level not exceeding 80 percent of AMI. Senior living facility uses in the Proposed Development are expected to occupy portions of the first and second floors of the building, while residential uses including accessory amenity spaces are expected to occupy a portion of the first floor and the third through eighth floors. The single below-ground cellar level would contain an 86-space parking garage and additional accessory amenity space. The entrances for the proposed residential and senior uses would be provided along the north side of the building and would be accessed by a driveway loop extending from the existing cul-de-sac, while the entrance for the below-grade parking garage would be along the west side of the building, accessed via a driveway off 24th Avenue that would roughly follow the path of the mapped but unbuilt portion of Little Neck Boulevard. It is assumed that the removal of any encroachments beyond the street line would be implemented by the appropriate party.

The Proposed Development would replace a site currently occupied by the Bay Terrace Country Club, a private swimming and sports club that features a pool, playgrounds, and concessions, which contains a single structure on the site (i.e., a club house building) with a total of approximately 2,800 gsf of commercial space. According to a 1961 Certificate of Occupancy (CO) filed with the NYC Department of Buildings (DOB), the occupancy permitted for the existing structure on the Proposed Development Site is that of Use Group 6 – "Non-commercial clubs, without restrictions on activities or facilities [PRC-D]." The structure is located at the southwestern corner of the lot along the mapped but unbuilt portion of Little Neck Boulevard. The eastern portion of the Proposed Development Site is occupied by a swimming pool

with associated seating areas, and the remaining area along 24th Avenue is predominantly open space with playground equipment and picnic seating.

In the future with the Proposed Actions, the proposed zoning map and text amendment would be approved, and the Proposed Development Site would be redeveloped as outlined above. However, as described in **Attachment A, "Project Description,"** for conservative analysis purposes the RWCDS will assume an average DU size of 850 square feet. Therefore, under the RWCDS, the Proposed Development could be redeveloped with up to 191 DUs (of which approximately 65 to 78 units would be designated as permanently affordable pursuant to MIH), 58,194 gsf of assisted living space (68 beds), and 86 accessory, off-street parking spaces.

In the future without the Proposed Actions, no changes would occur within the Project Area. All existing uses are anticipated to remain. The Proposed Development Site would not be redeveloped, and the existing structures and recreational facilities associated with the Bay Terrace Country Club would remain on the site.

The Proposed Development is expected to be completed and fully operational by 2027. The incremental differences between the No-Action and With-Action conditions serve as the basis of the transportation impact analysis, which was conducted in accordance with the 2021 *City Environmental Quality Review* ("CEQR") *Technical Manual*.

II. PRELIMINARY ANALYSIS METHODOLOGY

The 2021 *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (a Level 1 screening assessment) analysis to estimate the numbers of person and vehicle trips attributable to the Proposed Actions. According to the 2021 *CEQR Technical Manual*, if a proposed action is expected to result in fewer than 50 peak-hour vehicle or ferry trips and fewer than 200 peak-hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (a Level 2 screening assessment) are to be performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that a proposed action would generate 50 or more peak-hour vehicle trips at an intersection, 200 or more peak-hour subway trips at a station, 50 or more peak-hour bus trips in one direction along a bus route, 25 or more peak hour trips by Citywide Ferry Service ("CWFS") in a single direction or 50 or more at a ferry landing, or 200 or more peak-hour pedestrian trips traversing a sidewalk, corner area, or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking conditions.

III. LEVEL 1 SCREENING ASSESSMENT

A Level 1 screening assessment was conducted in order to estimate the number of person and vehicle trips by mode expected to be generated by the Proposed Actions during the weekday AM, midday, PM, and Saturday midday peak hours. These estimates were then compared to the 2021 *CEQR Technical Manual* analysis thresholds of 50 peak hour vehicle trips, 200 peak hour subway/rail riders, 50 peak hour bus riders, and 200 peak hour pedestrian trips to determine if a Level 2 screening assessment and/or

quantified operational analyses may be warranted. The travel demand assumptions used for this assessment are discussed below and a detailed travel demand forecast is provided.

Table J-1 provides a comparison of the 2027 No-Action and 2027 With-Action conditions identified for analysis purposes under the Proposed Actions. For conservative analysis purposes, no credit will be taken for the existing uses on the Proposed Development Site as the club, which operates from March to November, is not a year-round use (refer to **Table J-1**). As shown in **Table J-1**, by 2027, the incremental (net) change that would result under the Proposed Actions is a net increase of approximately 191 total DUs, 58,194 gsf (68 beds) of assisted living space, and 86 accessory parking spaces. **Table J-1** was prepared in consultation with NYCDOT to represent the reasonable worst case for a transportation analysis which differentiates the residential DUs from the assisted living beds (the overall number of units is the same (259)) because each of these land uses have distinct travel demand characteristics. As the incremental development would have the potential to exceed 2021 *CEQR Technical Manual* analysis thresholds, preliminary travel demand forecasts were prepared.

TABLE J-1
2027 RWCDS No-Action and With-Action Land Uses

Land Use		No-Action Condition	With-Action Condition	Increment
Residential	Gross Square Feet (gsf)	0 gsf	162,026 gsf	+162,026 gsf
	Total DUs	0 DUs	191 DUs	+191 DUs
	Affordable DUs	0 DUs	65–78 DUs	+65–78 DUs
Community Facility	Assisted Living (gsf)	0 gsf	58,194 gsf	+58,194 gsf
	Assisted Living (Beds)	0 beds	68 beds	+68 beds
Accessory Parking	Spaces	0 spaces	86 spaces	+86 spaces
Total Gross Square Feet		***0 gsf***	***254,171 gsf***	***+254,171 gsf***

Transportation Planning Factors

Table J-2 shows the transportation planning factors that were used to forecast the travel demand generated by the proposed uses in the weekday AM, midday, PM, and Saturday midday peak hours. These include trip generation rates, temporal and directional distributions, mode choice factors, vehicle occupancies, and truck trip factors for the incremental differences between the No-Action and With-Action conditions (refer to **Table J-1**). The factors in **Table J-2** were based on data cited 2021 *CEQR Technical Manual;* 2015-2019 American Community Survey ("ACS") journey-to-work data for Queens census tracts in proximity to the Proposed Rezoning Area (census tracts 997.03, 997.04, and 1093), American Association of State Highway Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) reverse journey-to-work five-year data, and factors developed for recent environmental reviews. Factors are shown for the weekday AM and PM peak hours (the typical peak periods for commuter travel demand) and the weekday midday and Saturday peak hours (the typical peak periods for retail demand).

Travel Demand Forecast

The net incremental change in person and vehicle trips expected to result from the Proposed Actions were derived based on the net change in land uses shown in **Table J-1** and the transportation planning factors shown in **Table J-2**. **Table J-3** shows an estimate of the total net incremental changes in peak hour person and vehicle trips that would occur in 2027 with the implementation of the Proposed Actions. As shown in **Table J-3**, the Proposed Actions' RWCDS would generate an incremental increase of approximately 178,

97, 173, and 171 person trips (in and out combined) in the weekday AM, midday, and PM, and Saturday peak hours, respectively.

TABLE J-2
Transportation Planning Factors

Land Use:	Residential		Assisted Living	
Trip Generation:	(1)		(6)	
Weekday	8.18		3.7	
Saturday	9.08		3.7	
	per DU		per DU	
Temporal Distribution:	(1)		(6)	
AM	9.3%		13.0%	
MD	5.6%		4.0%	
PM	8.5%		16.0%	
Saturday	8.4%		10.0%	
	(2)		(3)	
Modal Splits:	All Periods		All Periods	
Auto	74.0%		70.7%	
Taxi	1.0%		0.2%	
Subway-to-Bus	15.0%		6.1%	
Bus	8.0%		15.3%	
Walk/Other	2.0%		7.7%	
	100.0%		100.0%	
	(5)		(6)	
In/Out Splits:	In	Out	In	Out
AM	22%	78%	74%	26%
MD	50%	50%	55%	45%
PM	62%	38%	19%	81%
Saturday	55%	45%	38%	62%
Vehicle Occupancy:	(2)(4)		(3)(6)	
Auto	1.08		1.06	
Taxi	1.40		1.41	
Truck Trip Generation:	(1)		(6)	
	Weekday	SAT	Weekday	SAT
	0.06	0.02	0.07	0.07
	per DU		per DU	
	(1)		(6)	
AM	12.0%		17.0%	
MD	9.0%		13.0%	
PM	2.0%		0.0%	
SatMD	9.0%		0.0%	
	In	Out	In	Out
All Periods	50.0%	50.0%	50.0%	50.0%

Notes:

(1) 2021 *City Environmental Quality Review (CEQR) Technical Manual*
(2) Based on ACS journey-to-work 5-year (2015–2019) data for Queens census tracts 997.03, 997.04, and 1093.
(3) Based on AASHTO CTPP reverse journey-to-work 5-Year (2012-2016) data for Queens census tracts 997.03, 997.04, and 1093.
(4) Based on data from the *Innovation QNS FEIS* (2022).
(5) Based on data provided by NYCDOT.
(6) Based on *Brooklyn Developmental Center Mix-Use Project FEIS* (2021).

TABLE J-3
Travel Demand Forecast

Land Use:		Residential		Assisted Living		Total	
Size/Units:		191	DU	68	DU		
Peak Hour Person Trips:							
	AM	145		33		178	
	MD	87		10		97	
	PM	133		40		173	
	Saturday	146		25		171	
Person Trips:							
		In	Out	In	Out	In	Out
AM	Auto	24	83	17	6	41	89
	Taxi	0	1	0	0	0	1
	Subway-to-Bus	5	17	1	1	6	18
	Bus	3	9	4	1	7	10
	Walk/Other	1	2	2	1	3	3
	Total	33	112	24	9	57	121
		In	Out	In	Out	In	Out
MD	Auto	32	32	4	4	36	36
	Taxi	0	0	0	0	0	0
	Subway-to-Bus	7	7	0	0	7	7
	Bus	3	3	1	1	4	4
	Walk/Other	2	1	0	0	2	1
	Total	44	43	5	5	49	48
		In	Out	In	Out	In	Out
PM	Auto	60	37	5	24	65	61
	Taxi	1	1	0	0	1	1
	Subway-to-Bus	12	8	0	2	12	10
	Bus	7	4	1	5	8	9
	Walk/Other	2	1	1	2	3	3
	Total	82	51	7	33	89	84
		In	Out	In	Out	In	Out
Saturday	Auto	59	49	7	11	66	60
	Taxi	1	1	0	0	1	1
	Subway-to-Bus	12	10	1	1	13	11
	Bus	6	5	1	2	7	7
	Walk/Other	2	1	1	1	3	2
	Total	80	66	10	15	90	81
Vehicle Trips :							
		In	Out	In	Out	In	Out
AM	Auto (Total)	22	77	16	6	38	83
	Taxi Balanced	1	1	0	0	1	1
	Truck	1	1	0	0	1	1
	Total	24	79	16	6	40	85
		In	Out	In	Out	In	Out
MD	Auto (Total)	30	30	4	4	34	34
	Taxi Balanced	0	0	0	0	0	0
	Truck	1	1	0	0	1	1
	Total	31	31	4	4	35	35
		In	Out	In	Out	In	Out
PM	Auto (Total)	56	34	5	23	61	57
	Taxi Balanced	2	2	0	0	2	2
	Truck	0	0	0	0	0	0
	Total	58	36	5	23	63	59
		In	Out	In	Out	In	Out
Saturday	Auto (Total)	55	45	7	10	62	55
	Taxi Balanced	2	2	0	0	2	2
	Truck	0	0	0	0	0	0
	Total	57	47	7	10	64	57

Table J-4 summarizes the incremental peak hour person trips and vehicle trips generated by the Proposed Actions' RWCDS. As shown in **Table J-4**, the Proposed Actions' RWCDS would generate approximately 125, 70, 122, and 121 incremental vehicle trips (auto, taxi, and truck combined) during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. The Proposed Actions' RWCDS would also generate an incremental increase of approximately 24, 14, 22, and 24 subway trips in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. The Proposed Actions' RWCDS would also generate an incremental increase of approximately 41, 22, 39, and 38 bus trips (bus-only and subway-to-bus trips combined) during the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Additionally, the Proposed Actions' RWCDS would generate an incremental increase of approximately 47, 25, 45, and 43 pedestrian trips (including walk-only, subway and bus trips) in the weekday AM, midday, PM, and Saturday midday peak hours, respectively. Of these incremental pedestrian trips, approximately 6, 3, 6, and 5 are walk-only trips during the weekday AM, midday, PM, and Saturday midday peak hours, respectively.

TABLE J-4
Travel Demand Forecast Summary

				Person Trips														
Peak	Vehicle Trips			Subway-to-Bus			Bus-Only			Total Bus Trips			Walk/Other			Total Pedestrian Trips[1]		
Hour	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	40	85	125	6	18	24	7	10	17	13	28	41	3	3	6	16	31	47
MD	35	35	70	7	7	14	4	4	8	11	11	22	2	1	3	13	12	25
PM	63	59	122	12	10	22	8	9	17	20	19	39	3	3	6	23	22	45
Saturday	64	57	121	13	11	24	7	7	14	20	18	38	3	2	5	23	20	43

Notes:

1. Includes walk-only trips and pedestrians en route to/from nearby bus stops.

As the number of peak hour vehicle trips resulting from the Proposed Actions' RWCDS would exceed the 2021 *CEQR Technical Manual* analysis thresholds for traffic during one or more peak hours, a Level 2 screening assessment was undertaken to identify specific transportation elements where additional detailed analysis may be warranted.

IV. LEVEL 2 SCREENING ASSESSMENT

A Level 2 screening assessment involves the assignment of project-generated trips to the study area's pedestrian elements, and street network, and the identification of specific locations where the incremental increase in demand may potentially exceed 2021 *CEQR Technical Manual* analysis thresholds and, therefore, require a quantitative analysis. As the incremental traffic trips generated by the Proposed Actions' RWCDS exceed the 2021 *CEQR Technical Manual* thresholds, a Level 2 screening assessment was conducted and is discussed below.

Traffic

As shown in **Table J-4** and discussed above, the Proposed Actions' RWCDS are expected to result in incremental increases of approximately 125, 70, 122, and 121 vehicle trips in the weekday AM, midday, PM, and Saturday peak hours, respectively. As these traffic volumes exceed 50 trips in each peak hour (the 2021 *CEQR Technical Manual* Level 1 screening assessment threshold for a detailed analysis), a preliminary assignment of these incremental traffic volumes was prepared for each period to help identify individual intersections for analysis (a Level 2 screening assessment).

The assignments of auto and taxi trips to the street network in proximity to the Proposed Rezoning Area are based on the anticipated origins and destinations of vehicle trips associated with the different land uses projected under the RWCDS (i.e. residential and assisted living uses). Origins/destinations for residential uses were based on 2012-2016 ACS journey-to-work data, while origins/destinations for l assisted living trips were based on 2012 ACS reverse journey-to-work data.

Auto and taxi trips were first assigned to various portals on the periphery of Bay Terrace neighborhood, and there via the most direct route to the Proposed Rezoning Area. As accessory parking would be provided at Proposed Development Site, auto trips were assigned to the parking entrance located along Little Neck Road. Taxis were assigned to the porte-cochere located along the 24th Avenue frontage. Trucks were assigned to New York City Department of Transportation ("NYCDOT")-designated truck routes—Clearview Expressway (a Through Truck Route)—and then to the most direct paths to and from the Proposed Rezoning Area.

The assignment of net incremental peak hour vehicle trips at intersections in proximity to the Proposed Rezoning Area are shown in **Figure J-2**. As shown in **Figure J-2**, a total of three intersections (two signalized and one unsignalized) would exceed the 50-trip 2021 *CEQR Technical Manual* analysis threshold in one or more peak hours, and therefore would require a detailed traffic analysis. The intersections selected for analysis are listed below and shown in **Figure J-2**.

Traffic Analysis Locations

- 24th Avenue and Waters Edge Drive (unsignalized)
- Bell Boulevard and 26th Avenue (signalized)
- Bell Boulevard and 24th Avenue (signalized)

Parking

Under the Proposed Actions, 86 accessory parking spaces would be provided on Proposed Development Site. As the proposed 86 spaces of on-site accessory parking are not expected to be sufficient to accommodate all of the projected demand under the Proposed Actions' RWCDS, a detailed analysis of parking conditions within a half-mile radius of the Proposed Development Site during the weekday and Saturday overnight periods as well as the weekday AM period is included in this EAS. Existing on-street and off-street parking inventories are provided to document the existing supply and demand during the weekday and Saturday overnight periods as well as the weekday AM period. Changes in the parking supply and utilization under both No-Action and With-Action conditions are also forecasted.

V. TRANSPORTATION ANALYSES METHODOLOGIES

Traffic

Analysis Methodology

The traffic analysis examines conditions in the weekday AM, midday, PM, and Saturday peak hours at three intersections. Based on data collected in March and April 2023, the peak hours selected for analysis are 7:45-8:45 AM, 1:00-2:00 PM, 4:30-5:30 PM, and 2:00-3:00 PM during each respective period.

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

The HCM methodology produces a volume-to-capacity ("v/c") ratio for each signalized intersection approach. The v/c ratio represents the ratio of traffic volume on an approach to the approach's carrying capacity. A v/c ratio of less than 0.90 is generally considered indicative of non-congested conditions in dense urban areas; when higher than this value, the ratio reflects increasing congestion. At a v/c ratio between 0.95 and 1.0, near-capacity conditions are reached and delays can become substantial. Ratios of greater than 1.0 indicate saturated conditions with queuing. The HCM methodology also expresses the quality of traffic flow in terms of level of service ("LOS"), which is based on the amount of delay that a driver typically experiences at an intersection. Levels of service range from A, representing minimal delay (10 seconds or less per vehicle), to F, which represents long delays (greater than 80 seconds per vehicle).

For unsignalized intersections, the HCM methodology generally assumes that traffic on major streets is not affected by traffic flows on minor streets. Left turns from a major street are assumed to be affected by the opposing, or oncoming, traffic flow on that major street. Traffic on minor streets is affected by all conflicting movements. Similar to signalized intersections, the HCM methodology expresses the quality of traffic flow at unsignalized intersections in terms of LOS based on the amount of delay that a driver experiences. Level of service definitions used to characterize traffic flows at unsignalized intersections differ somewhat from those used for signalized intersections, primarily because drivers anticipate different levels of performance from the two different kinds of intersections. For unsignalized intersections, LOS ranges from A, representing minimal delay (10 seconds or less per vehicle, as it is for signalized intersections), to F, which represents long delays (greater than 50 seconds per vehicle, compared to greater than 80 seconds per vehicle for signalized intersections).

Table J-5 shows the LOS/delay relationship for signalized and unsignalized intersections using the HCM methodology. Levels of service A, B, and C generally represent highly favorable to fair levels of traffic flow. At LOS D, the influence of congestion becomes noticeable. LOS E reflects heavy delay, and LOS F is considered to be unacceptable to most drivers. In these traffic impact analyses, a signalized lane grouping operating at LOS E or F or a v/c ratio of 0.90 or more is identified as congested. For unsignalized intersections, a movement with LOS E or F is also identified as congested.

TABLE J-5
Intersection Level of Service Criteria

	Average Delay per Vehicle (seconds)	
LOS	**Signalized Intersections**	**Unsignalized Intersections**
A	Less than 10.1	Less than 10.1
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	Greater than 80.0	Greater than 50.0

Source: *2010 Highway Capacity Manual.*

Significant Impact Criteria

The identification of significant adverse traffic impacts at analyzed intersections is based on criteria presented in the 2021 *CEQR Technical Manual*. For signalized intersections, if a lane group in the With-Action condition would be LOS A, B, C or D, (i.e., delay less than or equal to 55.0 seconds/vehicle), the impact is not considered significant. For a lane group that would operate at LOS E under the With-Action condition, an increase in delay of 5.0 or more seconds compared to the No-Action condition is considered a significant impact. For a lane group that would operate at LOS F in the With-Action condition, an increase in projected delay of 4.0 or more seconds compared to the No-Action condition is considered a significant impact.

The same criteria apply to unsignalized intersections. However, for traffic on a minor street at an unsignalized intersection to trigger a significant impact, a total approach volume of 90 passenger car equivalents ("PCEs") must be projected in the future With-Action condition in any peak hour.

Street User Safety

Pursuant to 2021 *CEQR Technical Manual* guidance, an evaluation of vehicular and pedestrian safety is needed for locations within the traffic and pedestrian study areas that have been identified as high crash locations. These are defined as locations along a Vision Zero intersection or where five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent three-year period for which data is available should be identified as a high crash location. For these locations, crash trends would be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips. The determination of potential significant safety impacts depends on the type of area where the project site is located, traffic volumes, crash types and severity, and other contributing factors. Where appropriate, measures to improve traffic and pedestrian safety should be identified and coordinated with NYCDOT.

Parking

Analysis Methodology

The parking analysis identifies the supply of on-street and off-street public parking near a proposed project site and determines the extent to which the supply is utilized in existing conditions and in the future without and with a proposed action. The analysis considers anticipated changes in the study area's parking supply and demand and compares project-generated parking demand with future parking availability to determine if a parking shortfall is likely to result. The displacement of existing parking capacity attributable to the proposed action or project is also considered. Typically, the analysis encompasses the parking facilities—public parking lots and garages and on-street curbside spaces—that vehicular traffic destined to the project site or area would likely utilize. According to the 2021 *CEQR Technical Manual*, a quarter-mile to a half-mile radius around a site is generally assumed as the distance that someone driving to the site would be willing to walk.

A parking demand forecast for the Proposed Actions' RWCDS is provided to document the projected demand at the proposed 86 spaces of on-site accessory parking and the demand that would need to be

accommodated on-street or at nearby off-street public parking facilities. As the parking demand generated by the Proposed Actions are expected to peak during the overnight period on a weekday and a Saturday, the parking analysis focuses on the weekday and Saturday overnight periods. In addition, the parking analysis will include the weekday AM period based on NYCDOT guidance.

Significant Shortfall Criteria

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

Under 2021 *CEQR Technical Manual* guidance, different criteria for determining significance are applied based on whether or not a proposed project site is located in residential or commercial areas designated as Parking Zones 1 and 2 as shown in Map 16-2, "CEQR Parking Zones, May 2010," in the 2021 *CEQR Technical Manual*. As the Proposed Development Site is located outside of Zones 1 and 2, a parking shortfall that exceeds the available on-street and off-street parking spaces within quarter-mile of the site when compared to the No-Action condition, can be considered significant. Factors to be considered in determining whether a shortfall is significant include the availability and extent of transit in the area; the proximity of the project to such transit; any features of the project that are considered trip reduction or travel demand management ("TDM") measures as set forth in Subsection 515 of the 2021 *CEQR Technical Manual*; and travel modes of customers of area commercial businesses; and patterns of automobile usage by area residents. The sufficiency of parking within a half-mile of the Proposed Development Site to accommodate the projected shortfall may also be considered.

VI. TRAFFIC

Existing Conditions

Study Area Street Network

As shown in **Figure J-2**, the Proposed Development Site is bounded by 24th Avenue to the north, Little Neck Boulevard to the west, and 28th Avenue to the south. 24th Avenue operates as a two-way, east-west local street with parking along both curbs. Little Neck Boulevard operates as a two-way, north-south street with parking along both curbs. 28th Avenue operates as a two-way, east-west local street with parking along both curbs. The portion of 24th Avenue fronting the Proposed Development Site contains a cul-de-sac and is the eastern terminus of that roadway, and the portion of Little Neck Boulevard fronting the Proposed Development Site is mapped and unimproved (a "paper street"), and is inaccessible to the public or traffic.

The roadway system serving the Proposed Development Site includes the Clearview Expressway (I-295), the Cross Island Parkway, and local streets. The Clearview Expressway is located approximately 0.7 miles west of the Proposed Development Site and is accessible in both directions via 26th Avenue, located approximately 1,500 feet to the southwest. Access to the Cross Island Parkway is available via an eastbound on-ramp and a westbound off-ramp located approximately 0.7 miles to the north, as well as via an eastbound off-ramp and a westbound on-ramp located approximately 1.1 miles to the northwest.

Traffic Conditions

To establish the existing conditions traffic network, an extensive traffic data collection program—including ATR counts, turning movement counts, and vehicle classification counts—was undertaken in March and April 2023. Physical inventory data needed for operational analysis—e.g., the number of traffic lanes, lane widths, pavement markings, turn prohibitions, bus stops, and typical parking regulations—were also collected in April 2023. Signal timing plans for signalized intersections within the study area were obtained from NYCDOT. **Figure J-3** shows existing peak-hour traffic volumes during the analyzed weekday AM, midday, PM, and Saturday peak hours.

Intersection Capacity Analysis

The v/c ratios, delays, and levels of service at each analyzed intersection under existing conditions are shown in **Table J-6**. A lane group is considered congested if it operates at LOS E or F and/or with a v/c ratio of 0.90 or above. A v/c ratio of 1.00 or above reflects capacity conditions.

As shown in **Table J-6**, under existing conditions, all lane groups in all three analyzed intersections operate at LOS C or better in all analyzed peak hours with the exception of the westbound approach in all peak hours and the northbound-left movement in the Saturday peak hour at Bell Boulevard and 24th Avenue (uncongested LOS D).

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

Future No-Action Traffic Growth

Between 2023 and 2027, it is expected that the transportation demands in the vicinity of the Proposed Rezoning Area will increase due to long-term background growth and other planned developments unrelated to the Proposed Actions. As shown in **Table J-1**, no credit will be taken for the existing uses on the Proposed Development Site for conservative analysis purposes as the club, which operates from March to November, is not a year-round use.

In order to forecast future traffic conditions without the Proposed Actions (the No-Action condition), No-Action development projects within a quarter-mile radius of the Proposed Rezoning Area were considered, including a 572-seat elementary school located at 23-50 Waters Edge Drive and a 1.50-acre park located at the northeast corner of Waters Edge Drive at 24th Avenue (refer to the *Proposed School at 23-50 Waters Edge Drive EAF & Supplemental Environmental Studies* (2021) and the *Cross Island Parkway Waters Edge Drive Playground EAS* (2023), respectively). The Applicant intends to coordinate with New York City School Construction Authority (SCA) and New York City Department of Parks and Recreation (Parks) on their adjacent construction projects described above if they are still active after the approval of the Proposed Actions during the Applicant's design process and permitting phase. The future No-Action traffic volumes also reflect annual background growth rates of 0.50 percent per year for the 2023 through 2027 period. These background growth rates, recommended in the 2021 *CEQR Technical Manual* for projects in Queens outside of Long Island City, are applied to account for smaller projects and as-of-right developments, and general increases in travel demand not attributable to specific development projects. **Figure J-4** shows total No-Action condition traffic volumes during the analyzed peak hours.

Please note that the *23-50 Waters Edge Drive EAF & Supplemental Environmental Studies* proposed a mitigation measure at the intersection of Bell Boulevard and 24th Avenue that consisted of signal phasing

adjustments. However, this mitigation measure was not included in the No-Action condition based on guidance from NYCDOT.

TABLE J-6
Existing Conditions Intersection Level of Service Analysis

Intersections	Existing AM Peak Hour					Existing MD Peak Hour					Existing PM Peak Hour					Existing SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersections																				
Bell Blvd (NB-SB) @	EB	LT	0.04	26.1	C	EB	LT	0.23	28.5	C	EB	LT	0.18	27.7	C	EB	LT	0.23	28.5	C
24th Ave (EB-WB)	EB	R	0.12	22.0	C	EB	R	0.34	25.0	C	EB	R	0.39	25.8	C	EB	R	0.43	26.6	C
	WB	LTR	0.22	39.7	D	WB	LTR	0.19	38.7	D	WB	LTR	0.22	39.4	D	WB	LTR	0.21	39.1	D
	NB	L	0.31	15.8	B	NB	L	0.57	23.6	C	NB	L	0.70	30.6	C	NB	L	0.77	35.0	D
	NB	TR	0.29	15.2	B	NB	TR	0.35	16.0	B	NB	TR	0.36	16.2	B	NB	TR	0.44	17.9	B
	SB	LT	0.39	24.3	C	SB	LT	0.35	23.6	C	SB	LT	0.42	24.6	C	SB	LT	0.40	24.3	C
	SB	R	0.08	20.2	C	SB	R	0.24	22.3	C	SB	R	0.22	22.1	C	SB	R	0.25	22.4	C
Bell Blvd (NB-SB) @	EB	L	0.24	22.2	C	EB	L	0.34	23.6	C	EB	L	0.44	25.3	C	EB	L	0.50	26.6	C
26th Ave (EB-WB)	EB	R	0.11	20.6	C	EB	R	0.11	20.6	C	EB	R	0.16	21.2	C	EB	R	0.13	20.8	C
	WB	LTR	0.01	19.4	B	WB	LTR	0.02	19.5	B	WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B
	NB	LT	0.29	11.8	B	NB	LT	0.41	13.2	B	NB	LT	0.49	14.8	B	NB	LT	0.60	17.2	B
	SB	TR	0.28	11.7	B	SB	TR	0.38	12.8	B	SB	TR	0.43	13.4	B	SB	TR	0.46	13.8	B
Unsignalized Intersections																				
Unsignalized Intersections	**Existing AM Peak Hour**					**Existing MD Peak Hour**					**Existing PM Peak Hour**					**Existing SAT Peak Hour**				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Water Edge Dr (NB-SB) @	EB	LT	0.01	7.3	A	EB	LT	0.02	7.3	A	EB	LT	0.03	7.3	A	EB	LT	0.02	7.3	A
24th Ave (EB)	SB	TR	0.02	8.4	A	SB	TR	0.04	8.5	A	SB	TR	0.04	8.6	A	SB	TR	0.04	8.6	A

Notes: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound, L-Left, T-Through, R-Right, DefL-Defacto Left
* - Denotes a congested movement

Intersection Capacity Analysis

The v/c ratios, delays, and levels of service at each analyzed intersection under the No-Action condition are shown in **Tables J-7a** and **J-7b**. As shown in **Tables J-7a** and **J-7b**, the westbound approach at the intersection of Bell Boulevard and 24th Avenue would operate at a congested LOS F under the No-Action conditions with a v/c ratio of 1.93 and 2.10 during the weekday AM and PM peak hours, respectively.

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

Future With-Action Traffic Growth

As shown in **Table J-4**, the Proposed Actions' RWCDS would generate approximately 125, 70, 122, and 121 vehicle trips (inbound and outbound auto, taxi, and truck trips combined) during the weekday AM, midday, PM, and Saturday peak hours, respectively. The assignments of these trips to the study area street network are discussed above in Section IV, "Level 2 Screening Assessment," and shown in **Figure J-2**. **Figure J-5** shows the total weekday AM, midday, PM, and Saturday peak hours in the 2027 With-Action condition. The With-Action condition volumes shown in **Figure J-5** are the combination of the incremental traffic generated by the Proposed Actions' RWCDS and the No-Action condition volumes.

Project Components Related to the Environment

In order to better accommodate the vehicle demand generated by the Proposed Development and the nearby No-Action development projects, a set of Project Components Related to the Environment (PCREs) are proposed in conjunction with the Proposed Action. The PCREs consist of (1) a traffic monitoring plan ("TMP") to determine if proposed modifications of the signal at the intersection of Bell Boulevard and 24th Avenue would be warranted and (2) installation of an all-way stop control at the intersection of Waters Edge Drive and 24th Avenue.

As shown in **Table J-8**, the proposed signal modification at the intersection of Bell Boulevard and 24th Avenue proposes changing the signal timing from a four-phase signal phasing to a three-phase signal phasing. The three-phase signal phasing is proposed to be a 90-second cycle with a northbound/southbound phase of 31/31/32/31 seconds of green time, an eastbound/westbound phase of 37/37/36/37 seconds of green time, and a northbound/eastbound right-turn phase of 7/7/7/7 seconds of green time during the AM/midday/PM/Saturday peak periods. The individual eastbound and westbound phases would be combined together into one eastbound/westbound phase to provide adequate time for the westbound With-Action traffic volumes.

In addition, per NYCDOT guidance, an all-way stop control is proposed to be implemented at the intersections of Waters Edge Drive and 24th Avenue.

Lastly, the Applicant will implement, at its own expense, a future traffic monitoring plan ("TMP"). The TMP would determine if the implementation of the proposed traffic improvement measures would be necessary in 2027 and would be undertaken in consultation with DOT after the Proposed Development is built and fully occupied. The Applicant has committed to conducting the TMP which will include all intersections with proposed improvements. The future TMP would allow for consideration of adjustments to the identified project-related improvement measures, as appropriate, based on actual conditions in 2027. The details of the TMP will be worked out between the Applicant and NYCDOT, and the purpose is to evaluate traffic conditions again upon completion of the Proposed Development, and to investigate alternative improvement measures at that time. NYCDOT will be contacted at the project opening to

report occupancy status to aid NYCDOT in determining when the TMP shall be conducted. Prior to undertaking the TMP, the Applicant will prepare and submit a scope of work for NYCDOT review and approval. The Applicant will submit a report summarizing the findings of the TMP as well as all necessary materials, for NYCDOT's review and approval.

In addition, the Applicant will submit plans following NYCDOT's standards for NYCDOT's review and approval as project design advances. A Restrictive Declaration (i.e., a legally binding mechanism) will be recorded at the time of approval of the Proposed Actions to ensure implementation and funding of the PCREs.

Table J-8
Proposed Traffic Improvement Measures

Intersection	Signal Phase	No-Action Signal Timing (Seconds) (1)				Proposed Signal Timing (Seconds) (1)				Recommended Improvement
		AM	MD	PM	SAT	AM	MD	PM	SAT	
Bell Boulevard(EB/WB) @ 24th Avenue (NB/SB)	NB/SB/Peds	36	36	36	36	36	36	37	36	- Three-phase signal phasing with a northbound / southbound phase, an eastbound / westbound phase, and a northbound / eastbound right-turn phase during the AM, midday, PM, and Saturday peak hours.
	EB/Peds	27	27	27	27					
	WB	15	15	15	15					
	NB-LT/EB-R	12	12	12	12					
	EB/WB/Peds					42	42	41	42	
	NB/EB-R					12	12	12	12	
Water Edge Dr (NB-SB) @ 24th Ave (EB)										- Implement an all-way stop control. (2)

Note:
1. Signal timings shown indicate green plus yellow (including all red) for each phase.
2. Per NYCDOT guidance, an all-way stop control is proposed to be implemented at the intersections of Waters Edge Drive and 24th Avenue.

TABLE J-7a

No-Action Condition Intersection Level of Service Analysis (Weekday AM and Midday)

Intersections	Existing AM Peak Hour					No-Action AM Peak Hour					Existing MD Peak Hour					No-Action MD Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersections																				
Bell Blvd (NB-SB) @	EB	LT	0.04	26.1	C	EB	LT	0.04	26.1	C	EB	LT	0.23	28.5	C	EB	LT	0.24	28.7	C
24th Ave (EB-WB)	EB	R	0.12	22.0	C	EB	R	0.12	22.0	C	EB	R	0.34	25.0	C	EB	R	0.35	25.1	C
	WB	LTR	0.22	39.7	D	WB	LTR	1.93	483.3	F *	WB	LTR	0.19	38.7	D	WB	LTR	0.20	39.0	D
	NB	L	0.31	15.8	B	NB	L	0.32	15.9	B	NB	L	0.57	23.6	C	NB	L	0.59	24.4	C
	NB	TR	0.29	15.2	B	NB	TR	0.34	15.9	B	NB	TR	0.35	16.0	B	NB	TR	0.35	16.1	B
	SB	LT	0.39	24.3	C	SB	LT	0.40	24.4	C	SB	LT	0.35	23.6	C	SB	LT	0.36	23.8	C
	SB	R	0.08	20.2	C	SB	R	0.08	20.3	C	SB	R	0.24	22.3	C	SB	R	0.24	22.3	C
Bell Blvd (NB-SB) @	EB	L	0.24	22.2	C	EB	L	0.27	22.7	C	EB	L	0.34	23.6	C	EB	L	0.34	23.7	C
26th Ave (EB-WB)	EB	R	0.11	20.6	C	EB	R	0.11	20.6	C	EB	R	0.11	20.6	C	EB	R	0.12	20.7	C
	WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B	WB	LTR	0.02	19.5	B	WB	LTR	0.02	19.5	B
	NB	LT	0.29	11.8	B	NB	LT	0.30	12.0	B	NB	LT	0.41	13.2	B	NB	LT	0.41	13.4	B
	SB	TR	0.28	11.7	B	SB	TR	0.29	11.8	B	SB	TR	0.38	12.8	B	SB	TR	0.39	12.9	B
Unsignalized Intersections																				
Intersections	Existing AM Peak Hour					No-Action AM Peak Hour					Existing MD Peak Hour					No-Action MD Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Water Edge Dr (NB-SB) @	EB	LT	0.01	7.3	A	EB	LT	0.03	7.3	A	EB	LT	0.02	7.3	A	EB	LT	0.02	7.4	A
24th Ave (EB)	SB	TR	0.02	8.4	A	SB	TR	0.26	9.7	A	SB	TR	0.04	8.5	A	SB	TR	0.04	8.9	A

Notes: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound, L-Left, T-Through, R-Right, DefL-Defacto Left

* - Denotes a congested movement

TABLE J-7b

No-Action Conditions Intersection Level of Service Analysis (Weekday PM And Saturday)

Intersections	Existing PM Peak Hour					No-Action PM Peak Hour						Existing SAT Peak Hour					No-Action SAT Peak Hour				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersections																					
Bell Blvd (NB-SB) @	EB	LT	0.18	27.7	C	EB	LT	0.19	28.0	C		EB	LT	0.23	28.5	C	EB	LT	0.25	28.8	C
24th Ave (EB-WB)	EB	R	0.39	25.8	C	EB	R	0.40	26.0	C		EB	R	0.43	26.6	C	EB	R	0.44	26.8	C
	WB	LTR	0.22	39.4	D	WB	LTR	2.10	558.3	F	*	WB	LTR	0.21	39.1	D	WB	LTR	0.22	39.3	D
	NB	L	0.70	30.6	C	NB	L	0.74	33.9	C		NB	L	0.77	35.0	D	NB	L	0.79	37.1	D
	NB	TR	0.36	16.2	B	NB	TR	0.38	16.4	B		NB	TR	0.44	17.9	B	NB	TR	0.45	18.1	B
	SB	LT	0.42	24.6	C	SB	LT	0.45	25.2	C		SB	LT	0.40	24.3	C	SB	LT	0.41	24.4	C
	SB	R	0.22	22.1	C	SB	R	0.23	22.1	C		SB	R	0.25	22.4	C	SB	R	0.26	22.5	C
Bell Blvd (NB-SB) @	EB	L	0.44	25.3	C	EB	L	0.45	25.5	C		EB	L	0.50	26.6	C	EB	L	0.50	26.8	C
26th Ave (EB-WB)	EB	R	0.16	21.2	C	EB	R	0.17	21.3	C		EB	R	0.13	20.8	C	EB	R	0.13	20.8	C
	WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B		WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B
	NB	LT	0.49	14.8	B	NB	LT	0.51	15.2	B		NB	LT	0.60	17.2	B	NB	LT	0.62	17.9	B
	SB	TR	0.43	13.4	B	SB	TR	0.44	13.6	B		SB	TR	0.46	13.8	B	SB	TR	0.47	14.0	B
Unsignalized Intersections																					
Intersections	**Existing PM Peak Hour**					**No-Action PM Peak Hour**						**Existing SAT Peak Hour**					**No-Action SAT Peak Hour**				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Water Edge Dr (NB-SB) @	EB	LT	0.03	7.3	A	EB	LT	0.03	7.4	A		EB	LT	0.02	7.3	A	EB	LT	0.02	7.5	A
24th Ave (EB)	SB	TR	0.04	8.6	A	SB	TR	0.32	10.4	B		SB	TR	0.04	8.6	A	SB	TR	0.04	9.1	A

Notes: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound, L-Left, T-Through, R-Right, DefL-Defacto Left

* - Denotes a congested movement

Intersection Capacity Analysis

The v/c ratios, delays, and levels of service at each analyzed intersection under the With-Action condition are shown in **Tables J-9a through J-9d**. As shown in **Tables J-9a through J-9d**, incremental vehicle trips generated under the With-Action condition with the project improvements would not, as compared to the No-Action condition, result in an increase in delay that would exceed the thresholds discussed above in Section V, "Transportation Analysis Methodologies" with the incorporation of the recommended improvement measures (PCREs), no individual movements will be significantly worse in delay to be considered significantly or adversely impacted pursuant to the *CEQR Technical Manual* impact criteria.

TABLE J-9a
With-Action Conditions with Improvements Intersection Level of Service Analysis (Weekday AM)

Intersections	No-Action AM Peak Hour					With-Action AM Peak Hour Without Improvement						With-Action AM Peak Hour With Improvement					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Signalized Intersections																	
Bell Blvd (NB-SB) @	EB	LT	0.04	26.1	C	EB	LT	0.04	26.1	C		EB	LT	0.03	15.9	B	
24th Ave (EB-WB)	EB	R	0.12	22.0	C	EB	R	0.12	22.0	C		EB	R	0.07	9.9	A	
	WB	LTR	1.93	483.3	F	WB	LTR	2.53	749.7	F	*	WB	LTR	0.79	35.4	D	
	NB	L	0.32	15.9	B	NB	L	0.33	16.1	B		NB	L	0.28	18.5	B	
	NB	TR	0.34	15.9	B	NB	TR	0.38	16.5	B		NB	TR	0.38	16.5	B	
	SB	LT	0.40	24.4	C	SB	LT	0.45	25.4	C		SB	LT	0.45	25.4	C	
	SB	R	0.08	20.3	C	SB	R	0.08	20.3	C		SB	R	0.08	20.3	C	
Bell Blvd (NB-SB) @	EB	L	0.27	22.7	C	EB	L	0.31	23.2	C		EB	L	0.31	23.2	C	
26th Ave (EB-WB)	EB	R	0.11	20.6	C	EB	R	0.11	20.6	C		EB	R	0.11	20.6	C	
	WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B		WB	LTR	0.01	19.4	B	
	NB	LT	0.30	12.0	B	NB	LT	0.31	12.1	B		NB	LT	0.31	12.1	B	
	SB	TR	0.29	11.8	B	SB	TR	0.35	12.4	B		SB	TR	0.35	12.4	B	
Unsignalized Intersections																	
Unsignalized Intersections	**No-Action AM Peak Hour**					**With-Action AM Peak Hour Without Improvement**						**With-Action AM Peak Hour With Improvement**					
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS		Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	
Water Edge Dr (NB-SB) @	EB	LT	0.03	7.3	A	EB	LTR	-	8.3	A		EB	LTR	-	8.3	A	
24th Ave (EB)						WB	LTR	-	7.7	A		WB	LTR	-	7.7	A	
						NB	LTR	-	8.3	A		NB	LTR	-	8.3	A	
	SB	TR	0.26	9.7	A	SB	LTR	-	8.3	A		SB	LTR	-	8.3	A	

Note: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound, L-Left, T-Through, R-Right, DefL-Defacto Left
* - Denotes an increase in the With-Action condition delay of five or more seconds for LOS E or four or more seconds for LOS F, as compared to the No-Action condition.

TABLE J-9b
With-Action Conditions with Improvements Intersection Level of Service Analysis (Weekday Midday)

Intersections	No-Action MD Peak Hour					With-Action MD Peak Hour Without Improvement					With-Action MD Peak Hour With Improvement				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersections															
Bell Blvd (NB-SB) @	EB	LT	0.24	28.7	C	EB	LT	0.24	28.7	C	EB	LT	0.18	17.6	B
24th Ave (EB-WB)	EB	R	0.35	25.1	C	EB	R	0.35	25.1	C	EB	R	0.20	11.0	B
	WB	LTR	0.20	39.0	D	WB	LTR	0.45	46.4	D	WB	LTR	0.15	17.3	B
	NB	L	0.59	24.4	C	NB	L	0.60	25.1	C	NB	L	0.50	22.7	C
	NB	TR	0.35	16.1	B	NB	TR	0.40	16.8	B	NB	TR	0.40	16.8	B
	SB	LT	0.36	23.8	C	SB	LT	0.39	24.3	C	SB	LT	0.39	24.3	C
	SB	R	0.24	22.3	C	SB	R	0.24	22.3	C	SB	R	0.24	22.3	C
Bell Blvd (NB-SB) @	EB	L	0.34	23.7	C	EB	L	0.38	24.3	C	EB	L	0.38	24.3	C
26th Ave (EB-WB)	EB	R	0.12	20.7	C	EB	R	0.12	20.7	C	EB	R	0.12	20.7	C
	WB	LTR	0.02	19.5	B	WB	LTR	0.02	19.5	B	WB	LTR	0.02	19.5	B
	NB	LT	0.41	13.4	B	NB	LT	0.42	13.5	B	NB	LT	0.42	13.5	B
	SB	TR	0.39	12.9	B	SB	TR	0.41	13.2	B	SB	TR	0.41	13.2	B
Unsignalized Intersections															
Unsignalized Intersections	**No-Action MD Peak Hour**					**With-Action MD Peak Hour Without Improvement**					**With-Action MD Peak Hour With Improvement**				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Water Edge Dr (NB-SB) @	EB	LT	0.02	7.4	A	EB	LTR	-	7.3	A	EB	LTR	-	7.3	A
24th Ave (EB)						WB	LTR	-	7.2	A	WB	LTR	-	7.2	A
						NB	LTR	-	7.5	A	NB	LTR	-	7.5	C
	SB	TR	0.04	8.9	A	SB	LTR	-	6.8	A	SB	LTR	-	6.8	B

Note: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound, L-Left, T-Through, R-Right, DefL-Defacto Left

* - Denotes an increase in the With-Action condition delay of five or more seconds for LOS E or four or more seconds for LOS F, as compared to the No-Action condition.

TABLE J-9c
With-Action Conditions With Improvements Intersection Level of Service Analysis (Weekday PM)

Intersections	No-Action PM Peak Hour					With-Action PM Peak Hour Without Improvement					With-Action PM Peak Hour With Improvement				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersections															
Bell Blvd (NB-SB) @	EB	LT	0.19	28.0	C	EB	LT	0.19	28.0	C	EB	LT	0.18	18.4	B
24th Ave (EB-WB)	EB	R	0.40	26.0	C	EB	R	0.40	26.0	C	EB	R	0.24	11.9	B
	WB	LTR	2.10	558.3	F	WB	LTR	2.51	739.1	F *	WB	LTR	0.83	40.7	D
	NB	L	0.74	33.9	C	NB	L	0.77	36.6	D	NB	L	0.61	27.8	C
	NB	TR	0.38	16.4	B	NB	TR	0.46	17.8	B	NB	TR	0.45	17.0	B
	SB	LT	0.45	25.2	C	SB	LT	0.51	26.4	C	SB	LT	0.49	25.3	C
	SB	R	0.23	22.1	C	SB	R	0.23	22.1	C	SB	R	0.22	21.3	C
Bell Blvd (NB-SB) @	EB	L	0.45	25.5	C	EB	L	0.51	26.9	C	EB	L	0.51	26.9	C
26th Ave (EB-WB)	EB	R	0.17	21.3	C	EB	R	0.17	21.3	C	EB	R	0.17	21.3	C
	WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B
	NB	LT	0.51	15.2	B	NB	LT	0.54	15.8	B	NB	LT	0.54	15.8	B
	SB	TR	0.44	13.6	B	SB	TR	0.47	14.0	B	SB	TR	0.47	14.0	B
Unsignalized Intersections															
Unsignalized Intersections	**No-Action PM Peak Hour**					**With-Action PM Peak Hour Without Improvement**					**With-Action PM Peak Hour With Improvement**				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Water Edge Dr (NB-SB) @	EB	LT	0.03	7.4	A	EB	LTR	-	8.4	A	EB	LTR	-	8.4	A
24th Ave (EB)						WB	LTR	-	7.9	A	WB	LTR	-	7.9	A
						NB	LTR	-	8.2	A	NB	LTR	-	8.2	A
	SB	TR	0.32	10.4	B	SB	LTR	-	8.8	A	SB	LTR	-	8.8	A

Note: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound, L-Left, T-Through, R-Right, DefL-Defacto Left

* - Denotes an increase in the With-Action condition delay of five or more seconds for LOS E or four or more seconds for LOS F, as compared to the No-Action condition.

TABLE J-9d
With-Action Conditions With Improvements Intersection Level of Service Analysis (Saturday)

Intersections	No-Action SAT Peak Hour					With-Action SAT Peak Hour Without Improvement					With-Action SAT Peak Hour With Improvement				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Signalized Intersections															
Bell Blvd (NB-SB) @	EB	LT	0.25	28.8	C	EB	LT	0.24	28.7	C	EB	LT	0.20	17.8	B
24th Ave (EB-WB)	EB	R	0.44	26.8	C	EB	R	0.44	26.8	C	EB	R	0.26	11.6	B
	WB	LTR	0.22	39.3	D	WB	LTR	0.60	52.7	D	WB	LTR	0.20	17.9	B
	NB	L	0.79	37.1	D	NB	L	0.82	40.8	D	NB	L	0.67	30.2	C
	NB	TR	0.45	18.1	B	NB	TR	0.54	20.2	C	NB	TR	0.54	20.2	C
	SB	LT	0.41	24.4	C	SB	LT	0.45	25.4	C	SB	LT	0.45	25.4	C
	SB	R	0.26	22.5	C	SB	R	0.26	22.5	C	SB	R	0.26	22.5	C
Bell Blvd (NB-SB) @	EB	L	0.50	26.8	C	EB	L	0.57	28.6	C	EB	L	0.57	28.6	C
26th Ave (EB-WB)	EB	R	0.13	20.8	C	EB	R	0.13	20.8	C	EB	R	0.13	20.8	C
	WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B	WB	LTR	0.01	19.4	B
	NB	LT	0.62	17.9	B	NB	LT	0.65	19.0	B	NB	LT	0.65	19.0	B
	SB	TR	0.47	14.0	B	SB	TR	0.51	14.5	B	SB	TR	0.51	14.5	B
Unsignalized Intersections															
Unsignalized Intersections	No-Action SAT Peak Hour					With-Action SAT Peak Hour Without Improvement					With-Action SAT Peak Hour With Improvement				
	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS	Approach	Lane Group	V/C Ratio	Delay (sec/veh)	LOS
Water Edge Dr (NB-SB) @	EB	LT	0.02	7.5	A	EB	LTR	-	7.3	A	EB	LTR	-	7.3	A
24th Ave (EB)						WB	LTR	-	7.2	A	WB	LTR	-	7.2	A
						NB	LTR	-	7.7	A	NB	LTR	-	7.7	A
	SB	TR	0.04	9.1	A	SB	LTR	-	7.0	A	SB	LTR	-	7.0	A

Note: EB-Eastbound, WB-Westbound, NB-Northbound, SB-Southbound, L-Left, T-Through, R-Right, DefL-Defacto Left
* - Denotes an increase in the With-Action condition delay of five or more seconds for LOS E or four or more seconds for LOS F, as compared to the No-Action condition.

VII. STREET USER SAFETY EVALUATION

Recent NYCDOT Initiatives

Vision Zero Queens Pedestrian Safety Action Plan

The city's Vision Zero initiative seeks to eliminate all deaths from traffic crashes regardless of whether on foot, bicycle, or inside a motor vehicle. In an effort to drive these fatalities down, NYCDOT and the New York City Police Department ("NYPD") developed a set of five plans, each of which analyzes the unique conditions of one New York City borough and recommends actions to address the borough's specific challenges to pedestrian safety. These plans pinpoint the conditions and characteristics of pedestrian fatalities and severe injuries; they also identify priority corridors, intersections, and areas that disproportionately account for pedestrian fatalities and severe injuries, prioritizing them for safety interventions. The plans outline a series of recommended actions comprised of engineering, enforcement, and education measures that intend to alter the physical and behavioral conditions on city streets that lead to pedestrian fatality and injury.

The *Vision Zero Queens Pedestrian Safety Action Plan* was first released on February 19, 2015 and was last updated in 2023. The Proposed Rezoning Area is not located in the vicinity of any "Priority Corridors," "Priority Intersections," or "Priority Areas." Actions recommended in the *Vision Zero Queens Pedestrian Safety Action Plan* to enhance pedestrian safety in Queens are summarized below.

ENGINEERING AND PLANNING

- Implement at least 50 Vision Zero safety engineering improvements at Priority Corridors, Intersections, and Areas citywide, informed by community input
- Expand exclusive pedestrian crossing time, install expanded speed limit signage, and modify signal timing to reduce off-speak speeding on Priority Corridors and Intersections where feasible
- Expand community outreach and engagement with regard to Priority Corridors, Intersections, and Areas
- Install additional lighting under elevated trains and around other key transit stops
- Coordinate with MTA to ensure bus operations contribute to a safe pedestrian environment
- Expand a bicycle network in Queens that improves safety for all road users
- Proactively design for pedestrian safety in high-growth areas in Queens

ENFORCEMENT

- Deploy speed camera at Priority Corridors, Intersections, and Areas
- Focus enforcement and deploy dedicated resources to Queens NYPD precincts that overlap substantially with Priority Areas
- Prioritize targeted enforcement at all Priority Corridors, Intersections, and Areas annually

EDUCATION AND AWARENESS CAMPAIGNS

- Target child and senior safety education at Priority Corridors and Priority Areas
- Launch multilingual public information campaigns in Priority Areas
- Target intensive street-level outreach at Priority Corridors, Intersections, and Areas

Study Area High Crash Locations

Under 2021 *CEQR Technical Manual* guidance, an evaluation of pedestrian and vehicular safety is needed for locations within the traffic and pedestrian study areas that have been identified as high crash locations. These locations are defined as locations along a Vision Zero intersection or where five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available. In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent three-year period for which data is available should be identified as a high crash location. Reportable crashes are defined as those involving injuries, fatalities, and/or $1,000 or more in property damage.

Table J-10 shows summary crash data for the three-year reporting period between January 1, 2017 and December 31, 2019 that were obtained from NYCDOT. This is the most recent three-year period for which data are available. The table shows the total number of crashes each year and the number of crashes each year involving pedestrians and cyclists at intersections within a quarter-mile radius of the Proposed Rezoning Area. During the three-year period, a total of 37 reportable and non-reportable crashes, zero fatalities, 19 total injuries, and 7 pedestrian/bicyclist-related crashes occurred at intersections within the quarter-mile study area. As shown in **Table J-10**, no intersections were found to have experienced a total of five or more pedestrian/bicyclist-related crashes in any one year during the three-year period. Therefore, no intersections were identified as high-crash locations in the quarter-mile study area.

TABLE J-10
Crash Data Summary 2017-2019

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicyclist Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
		2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
215 St	23rd Ave	0	1	0	0	0	0	0	1	0	0	1	1
	23rd Rd	0	0	0	0	0	0	0	0	0	0	0	1
	26th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	27th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Ave	0	0	0	0	0	0	0	0	0	0	1	0
Bell Blvd	23rd Ave	2	1	1	0	0	1	2	1	2	3	4	5
	24th Ave	0	0	0	0	0	0	0	0	0	2	5	0
	26th Ave	1	0	0	0	0	0	1	0	0	1	4	8
Waters Edge Dr	23rd Ave	0	0	0	0	0	0	0	0	0	0	0	0
	23rd Rd	0	0	0	0	0	0	0	0	0	0	0	1
	24th Ave	0	0	0	0	0	0	0	0	0	0	0	0
26th Ave	27th Ave	0	0	0	0	0	0	0	0	0	0	0	0
215 Pl	28th Ave	0	0	0	0	0	0	0	0	0	0	0	0
216th St	27th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Rd	0	0	0	0	0	0	0	0	0	0	0	0
Little Neck Rd	27th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Rd	0	0	0	0	0	0	0	0	0	0	0	0

Source: NYSDMV/NYCDOT

VIII. PARKING

Existing Conditions

It should be noted that there were no off-street public parking facilities identified within a quarter-mile radius of the Proposed Development Site.

On-Street Parking

An inventory of existing parking regulations within a quarter-mile radius of the Proposed Development Site was compiled from field surveys and on-line sources. On-street public parking is generally governed by alternate-side-of-the-street regulations to facilitate street cleaning, as well as more restrictive no standing regulations at locations where additional traffic flow capacity is needed. Based on existing curbside parking regulations and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, there are a total of approximately 321, 300, and 316 legal curbside parking spaces in the weekday AM, weekday overnight, and Saturday overnight peak hours, respectively, within a quarter-mile radius of the Proposed Development Site. Based on data collected during field surveys conducted in May and November 2023, on-street parking within the overall parking study area is approximately 60, 69, and 74 percent utilized in the weekday AM, weekday overnight, and Saturday overnight periods, respectively. Approximately 127, 92, and 83 on-street parking spaces are currently

available within the study area during the weekday AM, weekday overnight, and Saturday overnight periods, respectively.

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

Between 2023 and 2027, it is expected that transportation demands in the vicinity of the Proposed Development Site will increase due to long-term background growth and other planned developments unrelated to the Proposed Actions. As shown in **Table J-1**, no credit will be taken for the existing uses on the Proposed Development Site for conservative analysis purposes as the club, which operates from March to November, is not a year-round use.

The forecast of future No-Action condition parking conditions also considers the potential for new demand from planned No-Action development projects. It is anticipated that the proposed elementary school and 1.50-acre park would not generate auto trips during the overnight periods. In addition, the forecast of future No-Action condition parking conditions incorporates annual background growth rates of 0.50 percent per year for the 2023 through 2027 period. This background growth rate, recommended in the 2021 *CEQR Technical Manual* for projects in Queens outside of Long Island City, are applied to account for smaller projects and as-of-right developments, and general increases in parking demand not attributable to specific development projects.

On-Street Parking

After accounting for background growth and demand from No-Action condition land uses within the Proposed Development Site and in the surrounding area not otherwise accommodated by accessory parking, the demand for on-street parking within the study area is expected to increase to 240 spaces in the weekday AM period, 212 spaces in the weekday overnight period and 238 spaces in the Saturday overnight period. **Table J-11** shows that in the future without the Proposed Actions, on-street parking within a quarter-mile radius of the Proposed Development Site is expected to be operating at approximately 75 percent of capacity with a surplus of 81 spaces in the weekday AM period versus an existing surplus of 127 spaces, and 71 percent of capacity with a surplus of 88 spaces in the weekday overnight period versus an existing surplus of 92 spaces. Additionally, as shown in **Table J-11**, on-street parking within a quarter-mile radius of the Proposed Development Site is expected to be operating at approximately 75 percent of capacity with a surplus of 78 spaces in the Saturday overnight period versus an existing surplus of 83 spaces.

TABLE J-11
No-Action Condition On-Street Parking Capacity, Demand, and Utilization – Quarter-Mile from Proposed Development Site

	Weekday AM	Weekday Overnight	Saturday Overnight
Capacity			
Existing Capacity[1]	321	300	316
Net Change in No-Action Condition Parking Supply[2]	0	0	0
Total No-Action Condition Capacity	321	300	316
Demand			
Existing Demand[1]	194	208	233
Demand From Background Growth[3]	4	4	5
Incremental Demand from the No-Action Condition RWCDS[4]	42	0	0
Total No-Action Condition Demand	240	212	238
Utilization			
No-Action Condition Utilization	75%	71%	75%
No-Action Condition On-Street Parking Surplus/(Deficit)	81	88	78

Notes:
1. Based on May 2023 field surveys. Excludes authorized vehicle parking.
2. No changes to on-street parking spaces existing are expected to be implemented in the No-Action condition.
3. Reflects annual background growth rates of 0.50 percent per year for the 2022 through 2027 period.
4. Demand from No-Action condition land uses within the Proposed Development Site not otherwise accommodated by accessory parking.

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

Under the Proposed Actions' RWCDS, 86 accessory parking spaces would be provided within the Proposed Development Site (under the proposed R6A zoning district, the Proposed Development would be required to provide a minimum of 76 accessory off-street parking spaces). **Tables J-12** and **J-13** show the forecasts of the total hourly parking demand that would be generated within the Proposed Development Site on a weekday and Saturday, respectively, under the Proposed Actions. The parking forecast was derived from the forecast of daily auto trips from the proposed uses within the Proposed Development Site. As shown in **Table J-12**, weekday parking demand generated by the Proposed Actions' RWCDS would peak with approximately 201 occupied spaces during the overnight period, which would not be fully accommodated on-site. As such, there would be a shortfall of approximately 115 spaces during this period. During the weekday AM period, the Proposed Actions' RWCDS would generate approximately 162 spaces, which would also not be fully accommodated on-site. As such, there would be a shortfall of approximately 76 spaces during this period. Additionally, as shown in **Table J-13**, the Saturday parking accumulation under the Proposed Actions would peak with approximately 219 occupied spaces during the overnight period. As the projected Saturday parking demand associated with the Proposed Actions would not be fully accommodated on-site, there would be a shortfall of approximately 133 spaces during this period. In addition, approximately four to five parking spaces adjacent to the 24th Avenue frontage would be removed from the existing on-street parking supply to provide adequate space for FDNY and truck turning.

TABLE J-12

Total Weekday Hourly Parking Accumulation Under the Proposed Actions' RWCDS

	Residential			Assisted Living					
	191 DU			68 DU			Total		
	In	Out	Accumulation	In	Out	Accumuation	In	Out	Accumulation
12-1 AM	9	4	200	0	0	0	9	4	200
1-2	3	2	201	0	0	0	3	2	**201**
2-3	1	2	200	0	0	0	1	2	200
3-4	1	2	199	0	0	0	1	2	199
4-5	1	4	196	0	0	0	1	4	196
5-6	3	8	191	2	0	2	5	8	193
6-7	6	19	178	3	0	5	9	19	183
7-8	13	44	147	16	6	15	29	50	162
8-9	23	77	93	9	2	22	32	79	115
9-10	18	41	70	7	1	28	25	42	98
10-11	15	25	60	4	1	31	19	26	91
11-12	20	23	57	5	4	32	25	27	89
12-1 PM	30	30	57	3	3	32	33	33	89
1-2	26	24	59	4	4	32	30	28	91
2-3	27	26	60	4	5	31	31	31	91
3-4	32	27	65	8	11	28	40	38	93
4-5	34	28	71	5	23	10	39	51	81
5-6	43	26	88	3	7	6	46	33	94
6-7	56	34	110	3	4	5	59	38	115
7-8	47	30	127	1	4	2	48	34	129
8-9	43	23	147	1	2	1	44	25	148
9-10	36	17	166	1	1	1	37	18	167
10-11	28	12	182	0	1	0	28	13	182
11-12	21	8	195	5	5	0	26	13	195

Notes: Shading denotes peak accumulation.

TABLE J-13
Total Saturday Hourly Parking Accumulation Under the Proposed Actions' RWCDS

	Residential			Assisted Living			Total		
	191 DU			68 DU					
	In	Out	Accumulation	In	Out	Accumuation	In	Out	Accumulation
12-1 AM	19	13	201	0	0	0	19	13	201
1-2	12	7	206	0	0	0	12	7	206
2-3	10	3	213	0	0	0	10	3	213
3-4	7	4	216	0	0	0	7	4	216
4-5	5	2	219	0	0	0	5	2	**219**
5-6	2	3	218	1	0	1	3	3	**219**
6-7	4	6	216	2	0	3	6	6	**219**
7-8	7	16	207	15	7	11	22	23	218
8-9	13	28	192	9	2	18	22	30	210
9-10	19	38	173	8	1	25	27	39	198
10-11	24	40	157	4	1	28	28	41	185
11-12	30	42	145	5	4	29	35	46	174
12-1 PM	36	46	135	3	3	29	39	49	164
1-2	36	39	132	4	3	30	40	42	162
2-3	39	37	134	4	6	28	43	43	162
3-4	39	39	134	9	15	22	48	54	156
4-5	43	35	142	7	10	19	50	45	161
5-6	55	45	152	3	10	12	58	55	164
6-7	40	31	161	2	7	7	42	38	168
7-8	36	31	166	1	5	3	37	36	169
8-9	37	29	174	1	3	1	38	32	175
9-10	32	22	184	1	1	1	33	23	185
10-11	27	21	190	0	1	0	27	22	190
11-12	23	18	195	5	5	0	28	23	195

Notes: Shading denotes peak accumulation.

On-Street Parking

As shown in **Table J-14**, on-street parking demand within a quarter-mile radius of the Proposed Development Site would total approximately 316 spaces in the weekday AM peak period and utilization would increase from 75 percent in the No-Action condition to 100 percent under the With-Action condition, with a surplus of one space. Therefore, the Proposed Actions are not expected to result in significant adverse parking impacts during the weekday AM peak period.

On-street parking demand within the study area would total approximately 327 spaces in the weekday overnight peak hour and utilization would increase from 71 percent in the No-Action condition to 110 percent under the With-Action condition, with a shortfall of 31 spaces. Additionally, as shown in **Table J-14**, on-street parking demand within the study area would total approximately 371 spaces in the Saturday overnight peak hour, and utilization would increase from 75 percent in the No-Action condition to 119 percent under the With-Action condition, with a shortfall of 60 spaces.

TABLE J-14
With-Action Condition On-Street Public Parking Capacity, Demand, and Utilization – Quarter-Mile Radius from the Proposed Development Site

	Weekday AM	Weekday Overnight	Saturday Overnight
Capacity			
No-Action Condition Capacity	321	300	316
Net Change in With-Action Condition Parking Supply [1]	(4)	(4)	(5)
Total With-Action Condition Capacity	317	296	311
Demand			
No-Action Condition Demand	240	212	238
Incremental Demand from the Proposed Actions[2]	76	115	133
Total With-Action Condition Demand	316	327	371
Utilization			
With-Action Condition Utilization	100%	110%	110%
With-Action Condition On-Street Parking Surplus/(Deficit)	1	(31)	(60)

Notes:
1. Changes to on-street parking capacity expected to result from the Proposed Actions.
2. Demand from With-Action condition land uses in the Proposed Development Site not otherwise accommodated by on-site accessory parking.

Expanded Parking Study Area (Half-Mile from the Proposed Development Site)

As there would be an on-street parking deficit within quarter-mile of the Proposed Development Site in the weekday and Saturday overnight periods in the With-Action condition, off-street and on-street parking conditions within an expanded study area extending half-mile from the Proposed Development Site are also assessed, consistent with *CEQR Technical Manual* guidance.

Existing Conditions

It should be noted that there were no off-street public parking facilities identified within a half-mile radius of the Proposed Development Site.

On-Street Parking

An inventory of existing parking regulations within a half-mile radius of the Proposed Development Site was compiled from field surveys and on-line sources. On-street public parking is generally governed by alternate-side-of-the-street regulations to facilitate street cleaning, as well as more restrictive no standing regulations at locations where additional traffic flow capacity is needed. Based on existing curbside parking regulations and taking into account curb space obstructed by curb cuts, fire hydrants, and other impediments, there are a total of approximately 1,712 and 1,713 legal curbside parking spaces in the weekday and Saturday overnight peak hours, respectively, within a half-mile radius of the Proposed Development Site. Based on data collected during field surveys conducted in May 2023, on-street parking within the overall parking study area is approximately 61 percent utilized in the weekday overnight period, and approximately 65 percent utilized in the Saturday overnight period. Approximately 665 and 605 on-street parking spaces are currently available within the study area during the weekday and Saturday overnight periods, respectively.

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

On-Street Parking

As shown in **Table J-15,** after accounting for background growth and demand from No-Action condition land uses within the Proposed Development Site and in the surrounding area not otherwise accommodated by accessory parking, the demand for on-street parking within the study area is expected to increase to 1,068 spaces in the weekday overnight period and 1,130 spaces in the Saturday overnight period. **Table J-15** shows that in the future without the Proposed Actions, on-street parking within a half-mile radius of the Proposed Development Site is expected to be operating at approximately 62 percent of capacity with a surplus of 644 spaces in the weekday overnight period versus an existing surplus of 665 spaces. Additionally, as shown in **Table J-15**, on-street parking within a half-mile radius of the Proposed Development Site is expected to be operating at approximately 66 percent of capacity with a surplus of 583 spaces in the Saturday overnight period versus an existing surplus of 605 spaces.

TABLE J-15
No-Action Condition On-Street Parking Capacity, Demand, and Utilization – Half-Mile from Proposed Development Site

	Weekday Overnight	Saturday Overnight
Capacity		
Existing Capacity[1]	1,712	1,713
Net Change in No-Action Condition Parking Supply[2]	0	0
Total No-Action Condition Capacity	1,712	1,713
Demand		
Existing Demand[1]	1,047	1,108
Demand From Background Growth[3]	21	22
Incremental Demand from the No-Action Condition RWCDS[4]	0	0
Incremental Demand from Off-Site No-Action Development Projects[5]	0	0
Total No-Action Condition Demand	1,068	1,130
Utilization		
No-Action Condition Utilization	62%	66%
No-Action Condition On-Street Parking Surplus/(Deficit)	644	583

Notes:
1. Based on May 2023 field surveys. Excludes authorized vehicle parking.
2. No changes to on-street parking spaces existing are expected to be implemented in the No-Action condition.
3. Reflects annual background growth rates of 0.50 percent per year for the 2022 through 2027 period.
4. Demand from No-Action condition land uses within the Proposed Development Site not otherwise accommodated by accessory parking.
5. Demand from unrelated developments in the vicinity of the Proposed Development Site not otherwise accommodated by accessory parking.

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

As previously mentioned, under the Proposed Actions, approximately four to five parking spaces adjacent to the 24th Avenue frontage would be removed from the existing on-street parking supply to provide adequate space for FDNY and truck turning.

On-Street Parking

As shown in **Table J-16**, on-street parking demand within a half-mile radius of the Proposed Development Site would total approximately 1,183 spaces in the weekday overnight peak hour and utilization would increase from 62 percent in the No-Action condition to 70 percent under the With-Action condition, with a surplus of 525 spaces. Additionally, as shown in **Table J-16**, on-street parking demand within the study

area would total approximately 1,263 spaces in the Saturday overnight peak hour, and utilization would increase from 66 percent in the No-Action condition to 74 percent under the With-Action condition, with a surplus of 445 spaces.

In summary, in the future with the Proposed Actions, there would be a surplus of approximately 525 and 445 spaces of on-street public parking capacity within a half-mile radius of the Proposed Development Site in the weekday and Saturday overnight periods, respectively. Therefore, the Proposed Actions are not expected to result in significant adverse parking impacts during the weekday and Saturday overnight peak hours.

TABLE J-16
With-Action Condition On-Street Public Parking Capacity, Demand, and Utilization – Half-Mile Radius from the Proposed Development Site

	Weekday Overnight	Saturday Overnight
Capacity		
No-Action Condition Capacity	1,712	1,713
Net Change in With-Action Condition Parking Supply [1]	(4)	(5)
Total With-Action Condition Capacity	1,708	1,708
Demand		
No-Action Condition Demand	1,068	1,130
Incremental Demand from the Proposed Actions[2]	115	133
Total With-Action Condition Demand	1,183	1,263
Utilization		
With-Action Condition Utilization	70%	74%
With-Action Condition On-Street Parking Surplus/(Deficit)	525	445

Notes:
1. Changes to on-street parking capacity expected to result from the Proposed Actions.
2. Demand from With-Action condition land uses in the Proposed Development Site not otherwise accommodated by on-site accessory parking.

ATTACHMENT K

AIR QUALITY

I. INTRODUCTION

The potential for air quality impacts from the Proposed Actions is examined in this chapter. Air quality impacts can be either direct or indirect. Direct impacts result from emissions generated by stationary sources at a development site, such as emissions from on-site fuel combustion for heat and hot water systems. Indirect impacts are caused by off-site emissions associated with emission sources generally near the development site, such as existing stationary sources or by on-road vehicle trips generated by the Proposed Actions or other changes to future traffic conditions due to a project.

The Proposed Actions would facilitate a proposal by the Applicant to develop a new, approximately 254,171 gross-square-feet (gsf) predominantly residential development (the "Proposed Development") on approximately 55,614 square-feet (sf) of lot area (the "Proposed Development Site") on Block 6008, Lot 95 in Queens Community District (CD) 11. The Proposed Development would be comprised of approximately 162,026 gsf of residential uses (approximately 167 dwelling units [DUs], of which 42-50 DUs would be affordable pursuant to the city's Mandatory Inclusionary Housing (MIH) program), approximately 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking garage (up to 86 accessory off-street spaces). The Proposed Development is anticipated to be completed and operational by 2027.

As described in **Attachment A, "Project Description,"** for conservative analysis purposes, a Reasonable Worst-Case Development Scenario (RWCDS) was established. As described in **Attachment A**, the RWCDS will assume an average DU size of 850 square feet (sf) and that all assisted living space be analyzed as residential DUs. Thus, under the RWCDS, the Proposed Development could be redeveloped with up to 259 DUs (of which, approximately 65-78 units would be designated as permanently affordable pursuant to MIH), 58,194 gsf of assisted living space, and 86 accessory, off-street parking spaces. It should be noted that while the total DUs and residential population generated by the RWCDS would be based on a project absent the assisted living facilities (resulting in up to 259 DUs), for conservative analysis purposes the nonresidential population generated by the RWCDS will be based on the inclusion of the proposed 58,194 gsf of assisted living uses.

As the Proposed Actions would introduce a new accessory below-grade parking garage on the Proposed Development Site, a detailed analysis was required. Per the *City Environmental Quality Review* (CEQR) *Technical Manual*, the pollutants of concern associated with emissions of vehicles using the parking garage are carbon monoxide ("CO") and particulate matter smaller than 2.5 microns ("$PM_{2.5}$"). The air dispersion analysis predicted pollutant (CO and $PM_{2.5}$) concentrations in the vicinity of the parking garage and evaluated whether pollutant concentrations associated with the garage comply with the CEQR *de minimis* criteria and the National Ambient Air Quality Standards (NAAQS) for $PM_{2.5}$ and CO.

The Proposed Actions would generate heavy-duty diesel vehicles (HDDVs) or its equivalent in $PM_{2.5}$ emission exceeding the *CEQR Technical Manual* threshold. Therefore, a detailed $PM_{2.5}$ analysis is required. The air dispersion analysis predicted $PM_{2.5}$ concentrations near the most affected intersection and evaluated whether $PM_{2.5}$ concentrations comply with the CEQR *de minimis* criteria and the NAAQS.

II. POLLUTANT FOR ANALYSIS

Air quality is affected by air pollutants produced by both motor vehicles and stationary sources. Emissions from motor vehicles are referred to as mobile source emissions, while emissions from fixed facilities are referred to as stationary source emissions. Ambient concentrations of CO are predominantly influenced by mobile source emissions. PM, volatile organic compounds (VOCs), and nitrogen oxides (nitric oxide [NO] and NO_2, collectively referred to as NOx) are emitted from both mobile and stationary sources. Fine PM is also formed when emissions of NOx, sulfur oxides (SOx), ammonia, organic compounds, and other gases react or condense in the atmosphere. Emissions of sulfur dioxide (SO_2) are associated mainly with stationary sources, and some sources utilizing non-road diesel such as large international marine engines. On-road diesel vehicles currently contribute very little to SO_2 emissions since the sulfur content of on-road diesel fuel, which is federally regulated, is extremely low. Ozone is formed in the atmosphere by complex photochemical processes that include NOx and VOCs. Ambient concentrations of CO, PM, NO_2, SO_2, ozone, and lead are regulated by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act (CAA), and are referred to as criteria pollutants; emissions of VOCs, NOx, and other precursors to criteria pollutants from certain source categories are also regulated by EPA.

As stated above, a detailed HDDV and parking garage analysis were required, where CO and $PM_{2.5}$ are the pollutants of concern. The air dispersion analysis evaluated the pollutant concentrations in the immediate vicinity of the parking garage's ventilation outlets and at the intersection of 24th Avenue and Water Edge Drive. Pollutant concentrations were evaluated with the CEQR *de minimis* criteria and the NAAQS.

Carbon Monoxide

CO, a colorless and odorless gas, is produced in the urban environment primarily by the incomplete combustion of gasoline and other fossil fuels. In urban areas, approximately 80 to 90 percent of CO emissions are from motor vehicles. CO concentrations can diminish rapidly over relatively short distances; elevated concentrations are usually limited to locations near crowded intersections, heavily traveled and congested roadways, parking lots, and garages. Consequently, CO concentrations must be analyzed on a local (microscale) basis.

The Proposed Actions would include a new parking facility at the Proposed Development Site. Therefore, an analysis was conducted to evaluate future CO concentrations resulting from the operation of the proposed parking facility.

Respirable Particulate Matter

PM is a broad class of air pollutants that includes discrete particles of a wide range of sizes and chemical compositions, as either liquid droplets (aerosols) or solids suspended in the atmosphere. The constituents of PM are both numerous and varied, and they are emitted from a wide variety of sources (both natural and anthropogenic). Natural sources include: the condensed and reacted forms of naturally occurring VOCs; salt particles resulting from the evaporation of sea spray; wind-borne pollen, fungi, molds, algae, yeasts, rusts, bacteria, and material from live and decaying plant and animal life; particles eroded from beaches, soil, and rock; and particles emitted from volcanic and geothermal eruptions and from forest fires. Naturally occurring PM is generally greater than 2.5 micrometers in diameter. Major anthropogenic sources include the combustion of fossil fuels (e.g., vehicular exhaust, power generation, boilers, engines, and home heating), chemical and manufacturing processes, all types of construction, agricultural activities, as well as wood-burning stoves and fireplaces. PM also acts as a substrate for the adsorption

(accumulation of gases, liquids, or solutes on the surface of a solid or liquid) of other pollutants, often toxic, and some likely carcinogenic compounds.

As described below, PM is regulated in two size categories: particles with an aerodynamic diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$) and particles with an aerodynamic diameter of less than or equal to 10 micrometers (PM_{10}, which includes $PM_{2.5}$). $PM_{2.5}$ has the ability to reach the lower regions of the respiratory tract, delivering with it other compounds that adsorb to the surfaces of the particles, and is also extremely persistent in the atmosphere. $PM_{2.5}$ is mainly derived from combustion material that has volatilized and then condensed to form primary PM (often soon after the release from a source) or from precursor gases reacting in the atmosphere to form secondary PM.

Gasoline-powered and diesel-powered vehicles, especially heavy-duty trucks and buses operating on diesel fuel, are a significant source of respirable PM, most of which is $PM_{2.5}$; PM concentrations may, consequently, be locally elevated near roadways. The Proposed Actions' project-generate HDDVs or its equivalent in $PM_{2.5}$ emission exceeds the *CEQR Technical Manual* threshold. Therefore, a detailed $PM_{2.5}$ analysis was conducted for the most affected intersection. Since the Proposed Actions would introduce a new accessory parking garage, an analysis was conducted to evaluate future PM concentrations with the operation of the parking facility assumed to be developed with the Proposed Actions.

III. APPLICABLE AIR QUALITY STANDARDS AND SIGNIFICANT IMPACT CRITERIA

National and State Air Quality Standards

As required by the Clean Air Act (CAA), primary and secondary National Ambient Air Quality Standards (NAAQS) have been established[1] for six major air pollutants: CO, NO_2, ozone, respirable PM (both $PM_{2.5}$ and PM_{10}), SO_2, and lead. The primary standards represent levels that are requisite to protect the public health, allowing an adequate margin of safety. The secondary standards are intended to protect the nation's welfare, and account for air pollutant effects on soil, water, visibility, materials, vegetation, and other aspects of the environment. The primary standards are generally either the same as the secondary standards or more restrictive. The NAAQS are presented in **Table K-1**. The NAAQS for CO, annual NO_2, and 3-hour SO_2 have also been adopted as the ambient air quality standards for New York State, but are defined on a running 12-month basis rather than for calendar years only. New York State also has standards for total suspended particles, settleable particles, non-methane hydrocarbons, 24-hour and annual SO_2, and ozone which correspond to federal standards that have since been revoked or replaced, and for the noncriteria pollutants beryllium, fluoride, and hydrogen sulfide.

Effective February 7, 2024, EPA strengthened the annual PM2.5 NAAQS at 9.0 micrograms per cubic meter from 12.0 micrograms per cubic meter. Effective December 2015, EPA lowered the 2008 ozone NAAQS from 0.075 parts per million (ppm) to 0.070. EPA issued final area designations for the revised standard on April 30, 2018.

Federal ambient air quality standards do not exist for noncriteria pollutants; however, as mentioned above, New York State has issued standards for three noncriteria compounds. The New York State Department of Environmental Conservation (NYSDEC) has also developed a guidance document DAR-1[2]

[1] EPA. National Ambient Air Quality Standards. 40 CFR part 50.

[2] DEC. DAR-1: Guidelines for the Evaluation and Control of Ambient Air Contaminants Under Part 212. February 2021.

(February 2021), which contains a compilation of annual and short-term (1-hour) guideline concentrations for numerous other noncriteria compounds. The NYSDEC thresholds represent ambient levels that are considered safe for public exposure.

TABLE K-1:
National Ambient Air Quality Standards (NAAQS)

Pollutant	Primary		Secondary	
	ppm	µg/m³	ppm	µg/m³
Carbon Monoxide (CO)				
8-Hour Average	9 [1]	10,000	None	
1-Hour Average	35 [1]	40,000		
Lead				
Rolling 3-Month Average	NA	0.15	NA	0.15
Nitrogen Dioxide (NO_2)				
1-Hour Average [2]	0.100	188	None	
Annual Average	0.053	100	0.053	100
Ozone (O_3)				
8-Hour Average [3]	0.070	140	0.070	140
Respirable Particulate Matter (PM_{10})				
24-Hour Average [4]	NA	150	NA	150
Fine Respirable Particulate Matter ($PM_{2.5}$)				
Annual Mean [5]	NA	9.0	NA	15
24-Hour Average [6]	NA	35	NA	35
Sulfur Dioxide (SO_2)				
1-Hour Average [7]	0.075	196	NA	NA
Maximum 3-Hour Average [1]	NA	NA	0.50	1,300

Notes:
ppm—parts per million (unit of measure for gases only)
µg/m³—micrograms per cubic meter (unit of measure for gases and particles, including lead)
NA—not applicable
All annual periods refer to calendar year.
Standards are defined in ppm. Approximately equivalent concentrations in µg/m³ are presented.
1. Not to be exceeded more than once a year.
2. 3-year average of the annual 98th percentile daily maximum 1-hr average concentration.
3. 3-year average of the annual fourth-highest daily maximum 8-hr average concentration.
4. Not to be exceeded more than once a year on average over three years.
5. 3-year average of annual mean.
6. Not to be exceeded by the annual 98th percentile when averaged over 3 years.
7. 3-year average of the annual 99th percentile daily maximum 1-hr average concentration.
Source: 40 CFR Part 50: National Primary and Secondary Ambient Air Quality Standards.

NAAQS Attainment Status and State Implementation Plans

The CAA, as amended in 1990, defines non-attainment areas (NAA) as geographic regions that have been designated as not meeting one or more of the NAAQS. When an area is designated as non-attainment by EPA, the state is required to develop and implement a State Implementation Plan (SIP), which delineates In 2002, EPA re-designated New York City as in attainment for CO. Under the resulting maintenance plans, New York is committed to implementing site-specific control measures throughout the city to reduce CO

levels, should unanticipated localized growth result in elevated CO levels during the maintenance period. The second CO maintenance plan for the region was approved by EPA on May 30, 2014.

The five New York City counties and Nassau, Suffolk, Rockland, Westchester, and Orange Counties had been designated as a $PM_{2.5}$ NAA (New York Portion of the New York–Northern New Jersey–Long Island, NY–NJ–CT NAA) since 2004 under the CAA due to exceedance of the 1997 annual average standard, and were also nonattainment with the 2006 24-hour $PM_{2.5}$ NAAQS since November 2009. The area was redesignated as in attainment for that standard effective April 18, 2014 and is now under a maintenance plan. EPA lowered the annual average primary standard to 12 $\mu g/m^3$ effective March 2013. EPA designated the area as in attainment for the 12 $\mu g/m^3$ NAAQS effective April 15, 2015. EPA lowered the annual average primary standard to 9.0 $\mu g/m^3$ effective February 7, 2024.

Effective June 15, 2004, EPA designated Nassau, Rockland, Suffolk, Westchester, and the five New York City counties (NY portion of the New York–Northern New Jersey–Long Island, NY-NJ-CT, NAA) as a moderate non-attainment area for the 1997 8-hour average ozone standard. In March 2008 EPA strengthened the 8-hour ozone standards, but certain requirements remain in areas that were either nonattainment or maintenance areas for the 1997 ozone standard ('anti-backsliding'). EPA designated the same NAA as a marginal NAA for the 2008 ozone NAAQS, effective July 20, 2012. On April 11, 2016, as requested by New York State, EPA reclassified the area as a "moderate" NAA. On July 19, 2017 NYSDEC announced that the New York Metro Area (NYMA) is not projected to meet the July 20, 2018 attainment deadline and NYSDEC therefore requested that EPA reclassify the NYMA to "serious" nonattainment. EPA reclassified the NYMA from "moderate" to "serious" NAA, effective September 23, 2019, which imposes a new attainment deadline of July 20, 2021 (based on 2018-2020 monitored data). On April 30, 2018, EPA designated the same area as a moderate NAA for the revised 2015 ozone standard. SIP revisions has submitted to EPA, pending to final approval.

New York City is currently in attainment of the annual-average NO_2 standard. EPA has designated the entire state of New York as "unclassifiable/attainment" of the 1-hour NO_2 standard effective February 29, 2012. Since additional monitoring is required for the 1-hour standard, areas will be reclassified once three years of monitoring data are available.

EPA has established a 1-hour SO_2 standard, replacing the former 24-hour and annual standards, effective August 23, 2010. In December 2017, EPA designated the entire State of New York as in attainment for this standard, with the exception of Monroe County, which was designated "unclassifiable".

Determining the Significance of Air Quality Impacts

The State Environmental Quality Review Act (SEQRA) regulations and *CEQR Technical Manual* state that the significance of a predicted consequence of a project (i.e., whether it is material, substantial, large or important) should be assessed in connection with its setting (e.g., urban or rural), its probability of occurrence, its duration, its irreversibility, its geographic scope, its magnitude, and the number of people affected.[3] In terms of the magnitude of air quality impacts, any action predicted to increase the concentration of a criteria air pollutant to a level that would exceed the concentrations defined by the NAAQS (see **Table K-1**) would be deemed to have a potential significant adverse impact.

[3] New York City. CEQR Technical Manual. Chapter 1, Section 222. December 2020; and SEQR Regulations. 6 NYCRR § 617.7

In addition, to maintain concentrations lower than the NAAQS in attainment areas, or to ensure that concentrations would not be significantly increased in non-attainment areas, threshold levels have been defined for certain pollutants; any action predicted to increase the concentrations of these pollutants above the thresholds would be deemed to have a potential significant adverse impact, even in cases where violations of the NAAQS are not predicted.

CO De Minimis Criteria

New York City has developed *de minimis* criteria to assess the significance of the increase in CO concentrations that would result from the impact of proposed projects or actions on mobile sources, as set forth in the *CEQR Technical Manual*. These criteria set the minimum change in CO concentration that defines a significant environmental impact. Significant increases of CO concentrations in New York City are defined as:

- An increase of 0.5 ppm or more in the maximum 8-hour average CO concentration at a location where the predicted No-Action 8-hour concentration is equal to or between 8 and 9 ppm; or

- An increase of more than half the difference between baseline (i.e., No-Action) concentrations and the 8-hour standard, when No-Action concentrations are below 8.0 ppm.

$PM_{2.5}$ De Minimis Criteria

In addition, New York City uses *de minimis* criteria to determine the potential for significant adverse $PM_{2.5}$ impacts under CEQR are as follows:

- Predicted 24-hour maximum $PM_{2.5}$ concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or

- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.1 $\mu g/m^3$ at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or for mobile sources, at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations).

- Predicted annual average $PM_{2.5}$ concentration increments greater than 0.3 $\mu g/m^3$ at any receptor location for stationary sources.

Actions under CEQR predicted to increase $PM_{2.5}$ or CO concentrations by more than the above *de minimis* criteria will be considered to have a potentially significant adverse impact. The above *de minimis* criteria have been used to evaluate the significance of the predicted impacts associated with the Proposed Actions on $PM_{2.5}$ concentrations.

IV. MOBILE SOURCE ANALYSIS

According to the *CEQR Technical Manual*, projects may result in significant mobile source air quality impacts when they increase or cause a redistribution of traffic, create any other mobile sources of pollutants (e.g., diesel trains, helicopters, boats), or add new uses near mobile sources (e.g., roadways, garages, parking lots). Certain types of projects may require further analysis, including microscale analyses.

Screening Assessment

Based on the projected traffic volumes (see **Attachment J, "Transportation"**) under the Proposed Actions, there would be a net increase of 125 (123 cars and 2 trucks), 70 (68 cars and 2 trucks), 122, and 121 vehicle trips (including auto, taxi, and truck trips) in the weekday AM, midday, and PM and Saturday peak hours, respectively. Therefore, the projected traffic volumes would not exceed the CO screening threshold defined in the 2021 *CEQR Technical Manual* (170 peak-hour vehicle trips at an intersection in the study area).

A heavy-duty diesel vehicles (HDDVs) screen was conducted for the project-generated peak hour traffic increment at the intersection of 24th Avenue and Water Edge Drive using the New York City Department of Environmental Protection's ("DEP's") Equivalent Truck Calculation Matrix. The DEP's Equivalent Truck Calculation Matrix $PM_{2.5}$ vehicular emission screening threshold ranges from 12 to 23 HDDVs depending on the type of roadway. For analysis purposes, all autos were assumed to be LDGT1 class vehicles based on guidance from the New York City Department of City Planning (DCP) for other projects under CEQR, and the total project-generated trucks (2 trucks) were assumed to traverse each roadway. 24th Avenue and Water Edge Drive are local roads (12 HDDV threshold). **Table K-2** shows the Proposed Actions HDDV screen at the most affected intersection.

TABLE K-2:
HDDV Screen at the Most Affected Intersection

Peak Hour	Auto Increment	Truck Increment	Equivalent Truck	HDDV Threshold
AM	123	2	61	12
Midday	68	2	34	12
PM	122	0	59	12
Saturday Midday	121	0	58	12

As shown in **Table K-2**, the Proposed Actions HDDV or its equivalent in $PM_{2.5}$ emission exceeds the *CEQR Technical Manual* HDDV screen at all peak-hour periods. Therefore, a detailed analysis is required.

The Proposed Development includes an approximately 33,951 gsf below-grade enclosed parking garage accommodating 86 accessory parking spaces. Therefore, a detailed parking analysis is required.

Detailed Analysis

Heavy-Duty Diesel Vehicle (HDDV) Analysis

A detailed HDDV analysis was conducted for the intersection of 24th Avenue and Water Edge Drive. Traffic volumes and characteristics (vehicle class and speed) were prepared by the transportation engineer for this project. The AM peak-hour traffic was applied for both the annual and short-term analyses. With-Action traffic on the access roadways (see **Attachment A, "Project Description," Figure A-3**) to the Proposed Development was included in the analysis, where a vehicle speed similar to that in a parking facility was assumed.

The EPA's Mobile Vehicle Emission Simulator (MOVES4 version) was utilized to predict vehicular emissions. MOVES county data input (inspection/maintenance, fuel data, age distribution, and meteorology) was obtained from NYSDEC.[4] 2026 Average vehicle fuel technology (AVFT) was applied from 2026 to the project Build year (2027) as the database did not include 2027 data. Queens County's projected vehicle population dataset, part of the MOVES4 database, was used to augment the vehicle classification (e.g., intercity bus, transit bus, and school bus). The MOVES4 model was run for each season (January, April, July, and October). Maximum emission was predicted during the summer month. In addition, $PM_{2.5}$ emissions of dust generated by vehicles traveling on paved roadways were added to estimate total particulate matter emissions for the short-term analysis (annual fugitive dust emission is negligible, based on similar types of analysis under CEQR). Fugitive dust emissions were calculated using the EPA's AP-42 manual methodology,[5] where a conservative assumption of "dry" road conditions (precipitation reduces silt loading) was used. A silt loading factor of 0.4 grams per meter square (g/m^2), applicable to local roadways, was applied in the analysis based on the *CEQR Technical Manual* specification.

Pollutant concentrations were predicted with AERMOD. AERMOD MPI version 23132 executable was used in the dispersion analysis. Lakes Environmental, Inc. adjusted the EPA AERMOD source code and recompiled the model to parallelize the processing of receptors, reducing run-time significantly. The MPI executable (used in the analysis) modified the EPA AERMOD executable model version 23132. The AERMOD model incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources and simple and complex terrain. The model was run with the regulatory default option, where applicable. All models used five consecutive years of meteorological data (2017-2021) from the NYSDEC. According to the NYSDEC, due to nationwide helium shortage, a fair amount of 2022 upper air data was missing, and therefore, 2017-2021 meteorology data should be used. Meteorology surface data is from LaGuardia Airport, and upper air data is from Brookhaven station, New York. The meteorological data provided hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the five years. Population in New York City was specified to account for the effects of increased surface heating from an urban area on pollutant dispersion under stable atmospheric conditions. The map application in Urchin Tracking Module (UTM) coordinates (zone 18), built into Lakes Environmental, Inc.'s commercial application of AERMOD (AERMOD View), was used to locate features spatially. Elevation at 24th Avenue and Water Edge Drive[6] was applied for all AERMOD features.

[4] NYSDEC. 2021. "Air Emission Inventories." NYSDEC, dec.ny.gov/environmental-protection/air-quality/air-emission-inventories#Non-Road

[5] EPA. Compilation of Air Pollutant Emission Factors AP-42 Fifth Edition, Vol. 1: Paved Roads Chapter 13: Miscellaneous Sources. epa.gov/ttn/chief/ap42. January 2011.

[6] NYC Open Data. 2024. "NYC Planimetric Database: Elevation Points." NYC Open Data, June 18, 2024.

Receptors around the intersection were placed in spaced intervals in the middle of the sidewalks for the short-term analysis and 15 meters from the curb for the annual time frame. On-street emission was simulated as line area sources dominated by light-duty 1.53-meter-high vehicles (heavy-duty vehicles comprise less than 5 percent). Dispersion parameters of the line area source were calculated using the EPA's guidance manual.[7]

Predicted concentrations were evaluated with the *de minimis* for mobile source and total With-Action concentration with the NAAQS. **Table K-3** shows the dispersion analysis results for the $PM_{2.5}$ intersection analysis. **Table K-3** shows that the Proposed Actions' HDDVs incremental $PM_{2.5}$ concentration would not exceed the *CEQR Technical Manual de minimis* criteria, and the With-Action total concentration will be within the NAAQS. Therefore, the heavy-duty vehicles or its equivalent in PM2.5 emission associated with the Proposed Actions will not result in significant adverse air quality impact(s) at the local scale.

TABLE K-3:
$PM_{2.5}$ HDDV Dispersion Analysis Results – 24th Avenue and Water Edge Drive

Pollutant	Background Concentration ($\mu g/m^3$)	Modeled Concentration ($\mu g/m^3$)		*De minimis* Threshold ($\mu g/m^3$)		NAAQS Threshold ($\mu g/m^3$)	
		No-Action	With-Action	Increment Concentration	*de minimis*	Total With-Action	NAAQS
24-Hour $PM_{2.5}$	17.7	4.195	5.497	1.30	8.65 (1)	23.2	35
Annual $PM_{2.5}$	7.0	0.044	0.063	0.019	0.1	7.06	9.0

Notes:
1. Background concentration Queen College Site ID 36-081-0124, NYSDEC New York State Ambient Air Quality Report for 2020.

Parking Garage Analysis

The Proposed Development includes an approximately 33,951 gsf below-grade parking garage for 86 cars. Vehicles will access (enter or exit) the parking garage through a driveway located east of the Proposed Development (an extension of Water Edge Drive) as shown in **Attachment A.** Parking accumulation (ingress and egress) (see **Attachment J, "Transportation," Figures J-12 and J-13**) derived by the transportation engineer for this project was used in the analysis. Vehicular emission at the intersection of 24th Avenue and Water Edge Drive was accounted for in the analysis. Traffic characteristics (vehicle volume, classification, and speed) at the intersection are discussed in the HDDV detailed analysis section above.

Based on the *CEQR Technical Manual*, cars in the parking garage (incoming/outgoing vehicles) were assumed to travel half the width and two-thirds the length of the garage, and outgoing vehicles were assumed to idle for 1 minute before exiting the parking facility. Emissions of cars traveling to, from, or on the ramp and vehicle start (engine ignition) emissions were accounted for in the analysis. All starting vehicles were assumed to soak for at least 720 minutes (based on the parking accumulation, not all outgoing cars can soak for 8 hours or longer). On-street AM peak-hour period traffic at 24th Avenue and Water Edge Derive was included in the analysis. The EPA's MOVES4 was utilized to predict vehicular

[7] EPA. 2021. *PM Hot-spot Guidance, Transportation Conformity Guidance for Quantitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas*. EPA-420-B-21-037, Transportation and Regional Programs Division, Office of Transportation and Air Quality, U. S. Environmental Protection Agency, October 2021.

emissions. The MOVES model and accompanying dataset are discussed in the HDDV detailed analysis section above. However, based on the *CEQR Technical Manual*, a garage temperature of 45 degrees Fahrenheit was utilized in the modeling. Vehicular emissions in the parking garage were predicted for the summer season when the maximum on-street CO and $PM_{2.5}$ emissions were predicted. Emission calculated with MOVES shows that start emissions comprise approximately 95 percent of the total emissions in the parking garage.

Pollutant concentrations at sensitive receptors resulting from the parking garage vent and on-street traffic were modeled with AERMOD. The AERMOD modeling application is discussed in the HDDV detailed analysis section above. The model (AERMOD) was run with the regulatory default option, where applicable, and for both with and without downwash effects options, where the Building Profile Input Program (BPIP) was run with the downwash effect enabled. Receptors were placed on the sidewalks around the intersection to predict pollutant concentrations (CO and $PM_{2.5}$) resulting from the on-street traffic. The parking garage vents were situated 12 feet above grade. The *CEQR Technical Manual* default stack parameters were specified in the AERMOD model. Sensitive receptors (1,907 receptors) were placed around the Proposed Development over sidewalks, open accessible spaces, at existing buildings, and on the Proposed Development wall façades 5 feet above the parking garage vent heights simulating window receptors. Predicted concentrations were evaluated with the *de minimis* for stationary source and total With-Action concentration with the NAAQS. **Table K-4** shows the parking garage dispersion analysis results.

TABLE K-4:
Dispersion Analysis Results for the Proposed Development Parking Garage

Pollutant	Scenario	Background Conc. (1)	Modeled Concentration		Increment		With-Action		Conc. Unit
			P. Garage Vent (2)	On-road	Conc.	*de minimis*	Conc.	NAAQS	
1-Hour CO	With-Action	2.13	4.268	0.212	4.48	---	6.61	35	ppm
8-Hour CO	With-Action	1.60	1.071	0.096	1.17	3.70	2.77	9	ppm
24-Hour $PM_{2.5}$	No-Action	17.7	---	4.195	2.07	8.65	---		$\mu g/m^3$
	With-Action		0.772	5.497			24.0	35	
Annual $PM_{2.5}$	No-Action	7.0	---	0.075	0.20	0.3			$\mu g/m^3$
	With-Action		0.169	0.110			7.3	9.0	

Notes:
1. Background concentration Queen College Site ID 36-081-0124, NYSDEC New York State Ambient Air Quality Report for 2020.

Table K-4 shows that the pollutant With-Action concentrations would not exceed the NAAQS and that the 8-hour CO and $PM_{2.5}$ concentrations do not exceed the *de minims.* Therefore, no significant adverse air quality impact is predicted from the Proposed Development parking facility with some restriction measures adhered to.

V. STATIONARY SOURCE ANALYSIS

Stationary source impacts could occur with actions that create new stationary sources or pollutants, such as emission stacks for industrial plants, hospitals, or other large institutional uses, or a building's boiler stacks used for heating/hot water, ventilation, and air conditioning ("HVAC") systems, that can affect surrounding uses. Impacts from boiler emissions associated with a development are a function of fuel type, stack height, minimum distance of the stack on the source building to the closest building of similar or greater height, building use, and the square footage size of the source building. In addition, stationary source impacts can occur when new uses are added near existing or planned emissions stacks, or when new structures are added near such stacks and those structures change the dispersion of emissions from the stacks so that they affect surrounding uses.

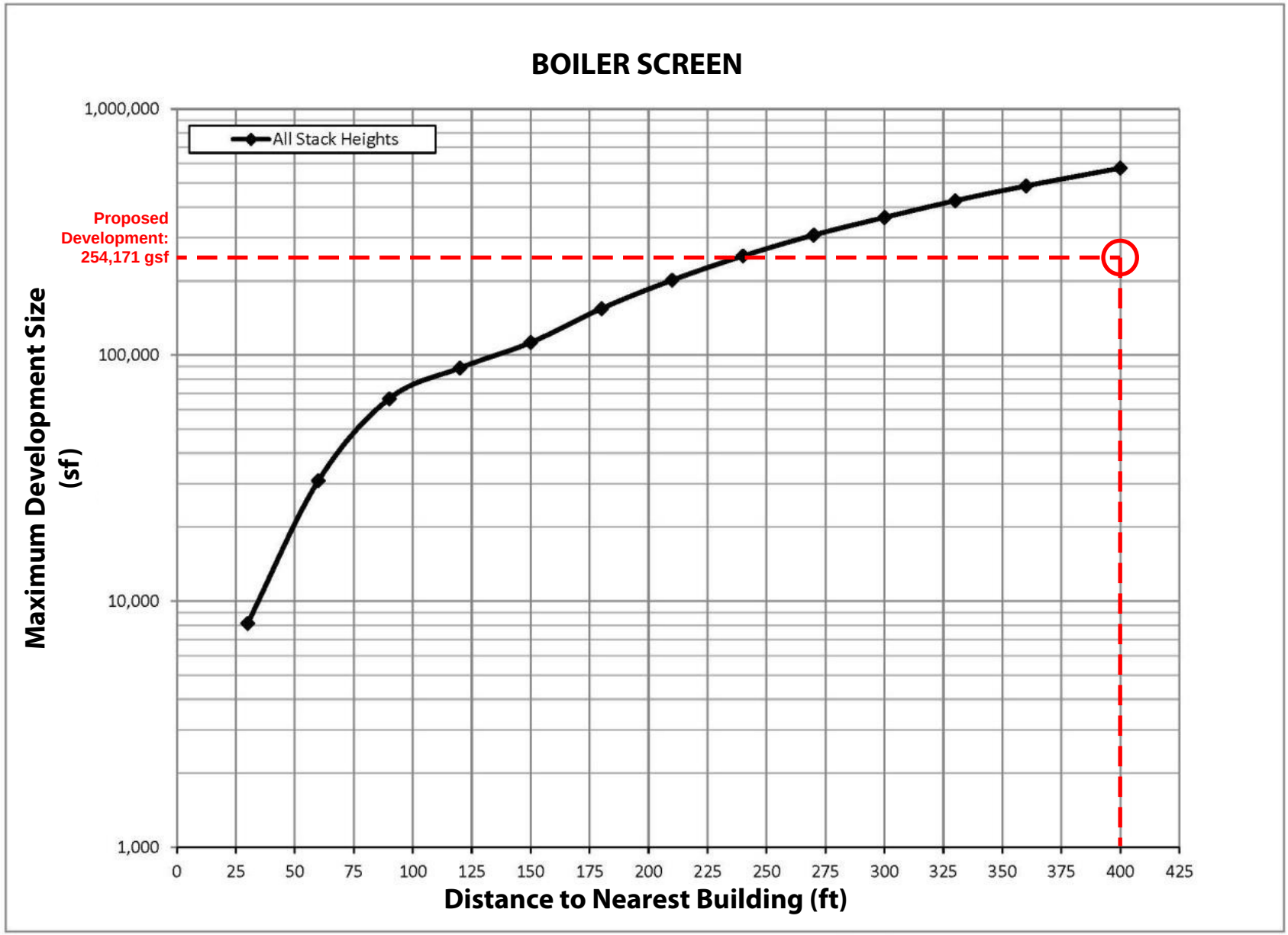
To determine whether a detailed project-on-existing or project-on-project HVAC analysis is warranted, an air quality nomograph screening was performed using Figure 17-3 of the CEQR Technical Manual. The RWCDS resulting from the Proposed Actions would include an eight-story building (approximately 85 feet tall) on the Proposed Development Site (Block 6008, Lot 95). A review of existing land uses within approximately 400 feet of the Proposed Development Site via the New York City Open Accessible Space Information System (OASIS) Land Use interactive mapping application and Google imaging map shows that no taller existing residential buildings are located within 400 feet of the Proposed Development Site– with the tallest nearby existing building being six-stories tall at 23-50 Waters Edge Drive (Block 5958, Lot 140) approximately 420 feet northwest of the Project Area; and the future public elementary school planned for 23-50 Waters Edge Drive (Block 5958, Lot 30), which is expected to be five-stories tall, would be located approximately 120 feet northwest of the Project Area. The 16-story building located at 18-15 215 Street is the nearest existing building that would exceed the height of the Proposed Development, and is located approximately 1,200 feet northwest of the Project Area.

The air quality assessment of boiler HVAC emissions is based on the screening procedures and methodologies provided in Sub-Section 322.1 of the CEQR Technical Manual. This assessment uses a nomograph procedure based on the size of the development (i.e., floor area square footage), fuel type, and distance to the nearest receptor or buildings of a height similar to or greater than the stack height of the RWCDS. The nomograph figure was specifically developed through detailed mathematical modeling to predict the threshold of development size below which a project would not be likely to have a significant impact. This procedure is only appropriate for buildings at least 30 feet or more from the nearest building of similar or greater height. If a proposed project passes the screening analysis, then there is no potential for a significant adverse air quality impact from the project's boiler, and a detailed analysis may not need to be conducted. According to the CEQR Technical Manual, if a building of similar or greater height is beyond 400 feet of the development site, 400 feet is used.

Based on Figure 17-3 of the CEQR Technical Manual, the HVAC systems for the RWCDS would not result in any air quality impacts to existing or future planned sensitive receptors. As there are no existing or planned buildings that are taller than the RWCDS within 400 feet of the Project Area, emissions from the RWCDS would fall below the applicable curve and would therefore not result in any adverse air quality impacts related to stationary sources (see **Figure K-1**).

To ensure that there is no potential for significant adverse impacts from the Proposed Development's HVAC system(s) emissions, an Air Quality (E) designation [E-812] would be mapped on the Proposed Development Site (Block 6008, Lot 95) in connection with the Proposed Actions. The proposed (E) designation text is as follows:

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



Block 6008, Lot 95 (Proposed Development Site): Any new residential development on the above-referenced property must ensure the heating, ventilation, and air conditioning (HVAC) system and hot water equipment stack is located at the highest tier and at least 88 feet above grade to avoid any potential significant adverse air quality impacts.

As such, a detailed analysis of emissions as a result of the Proposed Actions and associated RWCDS are not warranted.

ATTACHMENT L

NOISE

I. INTRODUCTION

This chapter assesses the potential for the Proposed Actions to result in significant adverse noise impacts. As described in **Attachment A, "Project Description,"** the Proposed Actions includes a zoning map and text amendment to facilitate the development of a single new eight-story residential building with senior living facilities on the first and second floors (the "Proposed Development") at 217-14 24th Avenue (Queens Block 6008, Lot 95), an irregular-shaped, 55,614-sf lot (the "Proposed Development Site") with frontage on 24th Avenue in the Bay Terrace neighborhood of Queens Community District (CD) 11. Specifically, the Applicant is seeking (i) a zoning map amendment to rezone the "Proposed Rezoning Area" (Queens Block 6008, portions of Lots 84, 95, and 150) from a R1-2 district to a R6A district; and (ii) a zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing (MIH) area. The Proposed Development would comprise of approximately 162,026 gross square feet (gsf) of residential uses (167 dwelling units [DUs]), 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space (86 spaces), for a total of approximately 254,171 gsf. As a Reasonable Worst-Case Development Scenario (RWCDS), it is assumed that the With-Action conditions would maximize the permitted FAR (3.6 FAR) on the Proposed Development Site under the requested R6A (MIH) zoning. However, for conservative analysis purposes, the RWCDS will assume an average DU size of 850 square feet (sf) and that all assisted living space be analyzed as residential DUs. Thus, under the RWCDS, the Proposed Development could be redeveloped with up to 259 DUs, 58,194 gsf of assisted living space, and 86 accessory, off-street parking spaces. It should be noted that while the total DUs and residential population generated by the RWCDS would be based on a project absent the assisted living facilities (resulting in up to 259 DUs), for conservative analysis purposes the non-residential population generated by the RWCDS will be based on the inclusion of the proposed 58,194 gsf of assisted living uses.

As discussed in **Attachment J, "Transportation,"** approval of the Proposed Actions would change traffic patterns and volumes in the general vicinity of the Project Area, which could lead to changes in the ambient noise levels. According to the 2021 *CEQR Technical Manual*, if existing noise passenger car equivalent (PCE) values are increased by 100 percent or more due to a proposed action (which is equivalent to an increase of 3.0 dBA or more) a detailed analysis is generally warranted. Conversely, if existing noise PCE values are not increased by 100 percent or more it is likely that a proposed action would not cause a significant adverse vehicular noise impact, and therefore no further vehicular noise analysis is needed. Additionally, as the Proposed Actions would create new noise-sensitive uses within the Project Area, an analysis was conducted in order to determine the level of building attenuation required, if any, to ensure that future interior noise levels would satisfy applicable noise criteria. Further, as the site directly north of the Proposed Development Site is planned to be redeveloped as a new playground and expected to be completed by 2025, a play area noise assessment was also conducted to determine exterior noise levels at project-generated noise-sensitive uses facing and with a direct line of site to the future play area.

The noise analysis for the Proposed Actions was carried out in compliance with *CEQR Technical Manual* guidelines and has two components:

1. An analysis to determine whether traffic generated by the Proposed Actions would have the potential to result in significant adverse noise impacts on existing sensitive receptors;

2. An analysis to determine the level of building attenuation necessary to ensure that interior noise levels for the Proposed Development satisfy applicable interior noise criteria. This attachment does not include an analysis of mechanical equipment because such mechanical equipment would be designed to meet all applicable noise regulations and, therefore, would not result in adverse noise impacts.

II. ACOUSTICAL FUNDAMENTALS

Sound is a fluctuation in air pressure. Sound pressure levels (SPLs) are measured in units called "decibels" ("dB"). The particular character of the sound that we hear (a whistle compared with a French horn, for example) is determined by the speed, or "frequency," at which the air pressure fluctuates, or "oscillates." Frequency defines the oscillation of sound pressure in terms of cycles per second. One cycle per second is known as one Hertz ("Hz"). People can hear over a relatively limited range of sound frequencies, generally between 20 Hz and 20,000 Hz, and the human ear does not perceive all frequencies equally well. High frequencies (e.g., a whistle) are more easily discernible and, therefore, more intrusive than many of the lower frequencies (e.g., the lower notes on the French horn).

"A"-Weighted Sound Level (dBA)

In order to establish a uniform noise measurement that simulates people's perception of loudness and annoyance, the decibel measurement is weighted to account for those frequencies most audible to the human ear. This is known as the A-weighted sound level, or "dBA," and it is the descriptor of noise levels most often used for community noise. As shown in **Table L-1**, the threshold of human hearing is defined as 0 dBA; very quiet conditions (as in a library, for example) are approximately 40 dBA; levels between 50 dBA and 70 dBA define the range of noise levels generated by normal daily activity; levels above 70 dBA would be considered noisy, and then loud, intrusive, and deafening as the scale approaches 130 dBA.

TABLE L-1
Noise Levels of Common Sources

Sound Source	SPL (dBA)
Air raid siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of hearing	0

Note: A change n 3 dBA is a just noticeable change in SPL. A change in 10 dBA is perceived as a doubling or halving of SPL.
Source: Cowan, James P. *Handbook of Environmental Acoustics,* Van Nostrand Reinhold, New York, 1994. Egan, M. David, Architectural Acoustics. McGraw-Hill Book Company, 1988.

In considering these values, it is important to note that the dBA scale is logarithmic, meaning that each increase of ten dBA describes a doubling of perceived loudness. Thus, the background noise in an office, at 50 dBA, is perceived as twice as loud as a library at 40 dBA. For most people to perceive an increase in noise, it must be at least three dBA. At three dBA, the change will be readily noticeable.

Noise Descriptors Used In Impact Assessment

As the SPL unit of dBA describes a noise level at just one moment and very few noises are constant, other ways of describing noise over extended periods have been developed. One way of describing fluctuating sound is to describe the fluctuating noise heard over a specific time period as if it had been a steady, unchanging sound. For this condition, a descriptor called the "equivalent sound level," L_{eq}, can be computed. L_{eq} is the constant sound level that, in a given situation and time period (e.g., one hour, denoted by $L_{eq(1)}$, or 24 hours, denoted as $L_{eq(24)}$), conveys the same sound energy as the actual time-varying sound. The Day-Night Sound Level (L_{dn}) refers to a 24-hour average noise level with a ten dB penalty applied to the noise levels during the hours between 10 PM and 7 AM, due to increased sensitivity to noise levels during these hours. Statistical sound level descriptors such as L_1, L_{10}, L_{50}, L_{90}, and L_x, are used to indicate noise levels that are exceeded one, ten, 50, 90, and x percent of the time, respectively.

The relationship between L_{eq} and levels of exceedance is worth noting. Because L_{eq} is defined in energy rather than straight numerical terms, it is not simply related to the levels of exceedance. If the noise fluctuates very little, L_{eq} will approximate L_{50} or the median level. If the noise fluctuates broadly, the L_{eq} will be approximately equal to the L_{10} value. If extreme fluctuations are present, the L_{eq} will exceed L_{90} or the background level by ten or more decibels. Thus the relationship between L_{eq} and the levels of exceedance will depend on the character of the noise. In community noise measurements, it has been observed that the L_{eq} is generally between L_{10} and L_{50}.

For purposes of the Proposed Actions and resultant RWCDS, the maximum one-hour equivalent sound level ($L_{eq(1)}$) has been selected as the noise descriptor to be used in this noise impact evaluation. $L_{eq(1)}$ is the noise descriptor recommended for use in the *CEQR Technical Manual* for vehicular traffic and is used to provide an indication of highest expected sound levels. The one-hour L_{10} is the noise descriptor used in the *CEQR Technical Manual* noise exposure guidelines for city environmental impact review classification where vehicular traffic is the dominant source of noise. As the Proposed Project and non-Applicant-owned projected development sites are not anticipated to include federal sources of funding in the future, only the required attenuation levels to meet CEQR noise guidelines are provided in this chapter.

III. APPLICABLE NOISE CODES AND NOISE STANDARDS AND CRITERIA

New York City Noise Code

The New York City Noise Control Code, which was enacted in December 2005 and became effective July 2007, defines "unreasonable and prohibited noise standards and decibel levels" for the City of New York. The Noise Code generally seeks to reduce ambient noise, prohibiting all unreasonable and unnecessary noise and addressing construction hours and activities. It also (1) establishes sound level standards for specific noise sources, such as motor vehicles, air compressors, and construction activities; (2) requires that all exhausts be muffled; and (3) prohibits all unnecessary noise adjacent to schools, hospitals, or

courts. It specifies maximum allowable SPLs for designated octave bands emanating from a commercial or business enterprise as measured within a receiving property (such as a mixed-use and residential property). The Noise Code's enforcement is driven by complaints of violations.

New York CEQR Technical Manual Noise Standards

The *CEQR Technical Manual* sets external noise exposure standards, which are shown in **Table L-2** below. Noise exposure is classified into four categories based on the L_{10}: Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable. The *CEQR Technical Manual* Noise Exposure Guidelines shown in **Table L-2** are guidelines, not a law. However, City reviewing agencies use the guidelines in determining potential impacts when a project comes under their review.

TABLE L-2
Noise Exposure Guidelines for Use in City Environmental Impact Review[1]

Receptor Type	Time Period	Acceptable General External Exposure	Airport[3] Exposure	Marginally Acceptable General External Exposure	Airport[3] Exposure	Marginally Unacceptable General External Exposure	Airport[3] Exposure	Clearly Unacceptable General External Exposure	Airport[3] Exposure
1. Outdoor area requiring serenity and quiet[2]		L_{10} £ 55 dBA	---------- DNL £ 60 dBA ----------						
2. Hospital, Nursing Home		L_{10} £ 55 dBA		55 < L_{10} £ 65 dBA	---------- 60 < DNL £ 65 dBA ----------	65 < L_{10} £ 80 dBA	(1) 65 < DNL £ 75 dBA,	L_{10} > 80 dBA	---------- 75 dBA < DNL ----------
3. Residence, residential hotel or motel	7 AM to 10 PM	L_{10} £ 65 dBA		65 < L_{10} £ 70 dBA		70 < L_{10} £ 80 dBA		L_{10} > 80 dBA	
	10 PM to 7 AM	L_{10} £ 55 dBA		55 < L_{10} £ 70 dBA		70 < L_{10} £ 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-10PM)	
6. Industrial, public areas only[4]	Note 4	Note 4		Note 4		Note 4		Note 4	

Source: New York City Department of Environmental Protection (DEP); adopted policy 1983.
Notes:
(i) In addition, any new activity shall comply with the Impact Thresholds detailed in Section 410 of Chapter 19, "Noise," of the *CEQR Technical Manual*.

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

[2] Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and old-age homes.

[3] One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.

[4] External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

The *CEQR Technical Manual* also defines attenuation requirements for buildings based on exterior noise levels (see **Table L-3**). For dominant traffic noise, recommended noise attenuation values for buildings are designed to maintain interior noise levels of 45 dBA or lower for residential, hotel, or community facility uses and interior noise levels of 50 dBA or lower for commercial office uses, and are determined based on exterior $L_{10(1)}$ noise levels.

TABLE L-3
Required Attenuation Values to Achieve Acceptable Interior Noise Level

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	$70<L_{10}\leq73$	$73<L_{10}\leq76$	$76<L_{10}\leq78$	$78<L_{10}\leq80$	$80<L_{10}$
Aircraft[A]	$65<DNL\leq68$	$68<DNL\leq71$	$71<DNL\leq73$	$73<DNL\leq75$	$75<DNL$
Train	$65<L_{dn}\leq68$	$68<L_{dn}\leq71$	$71<L_{dn}\leq73$	$73<L_{dn}\leq75$	$75<L_{dn}$
Attenuation[B]	(I) 28 dB(A)	(II) 31 dB(A)	(III) 33 dB(A)	(IV) 35 dB(A)	See note[C]

Source: DEP; 2021 *CEQR Technical Manual*, Table 19-3.
Notes:
[A] DNL descriptor based on average values of Ldn over a year period.
[B] The above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5.0 dB(A) less in each category. All the above categories require a closed window situation and, hence, an alternate means of ventilation.
[C] The required attenuation value is the difference between L_{huild} and $L_{interior}$, using the appropriate noise descriptor
Where:
L_{build} is the projected noise level under the build condition rounded up to the whole number
$L_{interior}$ is the designed interior noise level (45 dBA for vehicular noise, 40 dBA for aircraft and train noise)

IV. METHODOLOGY

Future No-Action and With-Action noise levels can be calculated using either the proportional modeling technique or the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) version 2.5. As stated in the *CEQR Technical Manual*, the proportional modeling technique may be employed for most projects. However, TNM modeling should be used when: (a) conditions result in new or significant changes in roadway or street geometry; (b) roadways currently carry no or very low traffic volumes; (c) ambient noise is the result of multiple sources including traffic; or (d) a detailed analysis of changes due to the traffic component of the total ambient noise levels is necessary. As 24th Avenue and Waters Edge Drive carry very low traffic volumes under existing conditions, TNM modeling was used at Receptor Locations 1 and 2 to account for noise associated with the additional project-generated traffic along 24th Avenue and Waters Edge Drive.

Analyses for the Proposed Actions were conducted for three typical time periods: the weekday AM peak hour (7:00 AM to 8:00 AM), the weekday midday peak hour (12 PM to 1 PM), and the weekday PM peak hour (5 PM to 6 PM). In addition, due to the location of the future public school at 23-50 Waters Edge Drive (Block 5958, Lot 30), supplemental monitoring was conducted at Receptor Location 1 during the school PM dismissal/bus departure peak hour (2:30 PM to 3:30 PM) to determine whether higher (worst-case) noise levels occurred outside of the identified AM, midday, and PM peak hours.

For this analysis, during the noise recording, vehicles were counted and classified. To calculate the 2027 No-Action PCE values at the Project Area, an annual background growth rate of 0.50 percent for years 1 through 5, plus the estimated incremental travel demand from new development within the vicinity of the Project Area (refer to **Attachment C, "Land Use, Zoning, and Public Policy"**) was applied to the PCE

noise values based on the existing vehicle volumes presented in **Attachment J, "Transportation."**[1] In order to obtain the necessary With-Action PCE values to calculate the With-Action noise levels, the 2027 With-Action traffic increment assignments presented in **Attachment J, "Transportation,"** were converted into PCE values and added to the calculated No-Action PCE values.

The proportional modeling and TNM procedures used for the noise analysis are described below.

Noise Prediction Methodology

Future No-Action and With-Action noise levels were initially calculated using a proportional modeling technique, which is used as a screening tool to estimate changes in noise levels. The proportional modeling technique is an analysis methodology recommended for analysis purposes in the *CEQR Technical Manual.*

Using the proportional modeling technique, the prediction of future noise levels where traffic is the dominant noise source is based on a calculation using measured existing noise levels and predicted changes in traffic volumes to determine noise levels in the future without the Proposed Actions (the No-Action condition) and with the Proposed Actions (the With-Action condition). Vehicular traffic volumes are converted into noise PCE values, for which one medium-duty truck (cargo vehicles with two axles and six tires) is assumed to generate the noise equivalent of 13 cars, one heavy-duty truck (cargo vehicles with three or more axles) is assumed to generate the noise equivalent of 47 cars, and one bus (vehicles having two or three axles and designed to carry more than nine passengers) is assumed to generate the noise equivalent of 18 cars. Future noise levels are calculated using the following equation:

F NL - E NL = 10 * log10 (F PCE / E PCE)

where:

F NL = Future Noise Level
E NL = Existing Noise Level
F PCE = Future PCEs
E PCE = Existing PCEs

Sound levels are measured in decibels and, therefore, increase logarithmically with sound source strength. In this case, the sound source is traffic volumes measured in PCEs. For example, assume that traffic is the dominant noise source at a particular location. If the existing traffic volume on a street is 100 PCEs and if the future traffic volume were increased by 50 PCEs (to a total of 150 PCEs), the noise level would increase by 1.8 dBA. Similarly, if the future traffic were increased by 100 PCEs, or doubled to a total of 200 PCEs, the noise level would increase by 3.0 dBA.

Traffic Noise Modeling (TNM)

As the existing traffic volumes along 24th Avenue (Receptor Locations 1 and 2) at the Proposed Development Site's northern frontages are very low, a preliminary assessment using the proportional modeling technique indicated that the future traffic along these roads may have the potential to cause noticeable increases in noise levels. Therefore, to more accurately forecast noise at these locations, a refined analysis was performed using TNM.

[1] Background growth rate calculations based on information provided in Table 16-4 of the *CEQR Technical Manual.*

TNM is a computerized model developed for the FHWA that calculates the noise contribution of each roadway segment to a given noise receptor. The noise from each vehicle type is determined as a function of the reference energy-mean emission level, corrected for vehicle volume, speed, roadway grade, roadway segment length, and source-receptor distance. Further considerations in modeling the propagation path include identifying the shielding provided by rows of buildings, analyzing the effects of different ground types, identifying source and receptor elevations, and analyzing the effects of any intervening noise barriers. The less refined proportional modeling technique could not account for the noise contributions from adjacent roadways, and thus, over-predicts the project-generated traffic noise levels by attributing all noise due to traffic and traffic changes to the immediately adjacent street. As such, TNM provided more accurate results than proportional modeling for Receptor Locations 1 and 2.

Play Area Noise

While people are not usually thought of as stationary noise, children in playgrounds or spectators at outdoor sporting events or concerts can introduce additional sources of noise within communities. According to the *CEQR Technical Manual*, noise generated by children in playgrounds or people using parks is considered a stationary source of noise. As detailed in the *Cross Island Parkway Waters Edge Drive Playground EAS (2023)* (CEQR No. 23DPR003Q), a publicly accessible play area is planned for development at the northeastern corner of the 24th Avenue and Waters Edge Drive intersection, directly north of the Proposed Development Site (see **Figure L-1**). As such, a play area noise analysis was conducted to determine the need for additional attenuation requirements for the building facades with frontage facing the planned play area.

Potential noise impacts for the proposed actions due to the use of these existing and future play areas were determined using methodology based on the measurements and procedures outlined in a study entitled, "SCA Playground Noise Study" (1992).[2] This study was conducted for the New York City School Construction Authority (SCA), and included intensive noise monitoring programs at a total of nine schools – one early childhood center, four elementary schools, three intermediate schools, and one high school. Based on the noise monitoring results, hourly equivalent (L_{eq}) noise levels were determined for the various types of schools. To predict potential noise impacts at a given distance from a play area boundary, the study suggests a 4.5 dBA reduction in L_{eq} noise levels per doubling of distance at a distance between 40 and 300 feet, with initial reductions of 4.8 dBA at 20 feet, 6.8 dBA at 30 feet, and 9.1 dBA at 40 feet. Noise levels can be estimated with the following equation at sensitive receptors with a direct line of sight to the play area between 40 to 300 feet:

$$Lp1 = Lp2 - 15*\log(d/10)$$

Where:

Lp1 = the predicted noise level at a specific distance.

Lp2 = the maximum L_{eq} at the boundary of the school play area.

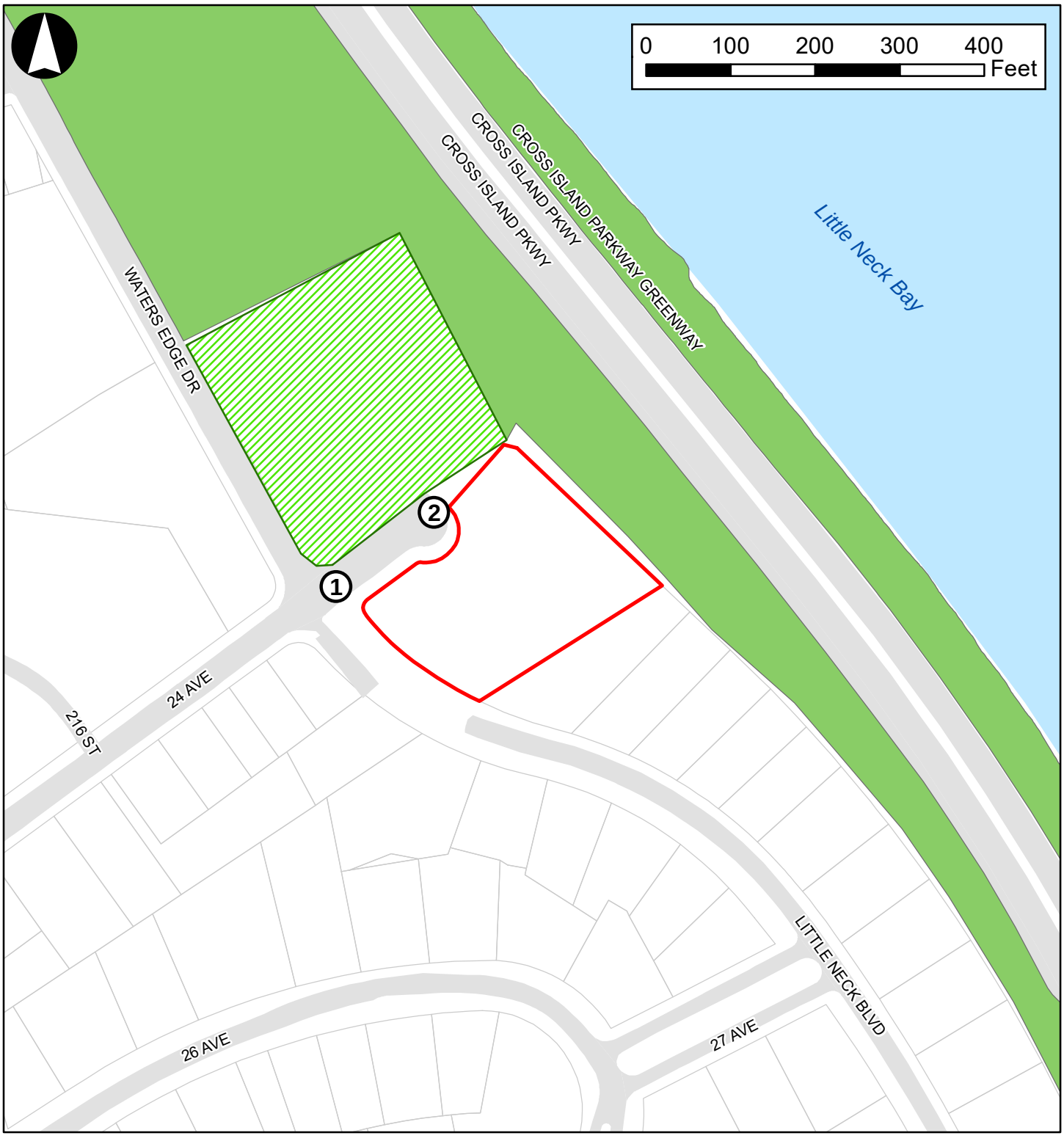
d = the distance from the play area boundary to the sensitive receptor in feet.

In certain situations these values may overstate play area noise levels.

The Proposed Development Site would have the greatest potential for noise level impacts due to noise from the planned play area on the northeast corner of 24th Avenue and Waters Edge Drive. Specifically,

[2] Cowan, James P. & Holley, Stephen J., AKRF, Inc. "SCA Playground Noise Study," October 23, 1992.

Figure L-1
Noise Receptor Locations



Legend

- Proposed Development Site
- Existing Open Space
- Future Open Space (Waters Edge Playground)
- ① Noise Receptor Locations

the northern-facing façades of the Proposed Development would be the most likely to experience noticeable noise level increases during certain limited periods due to the planned play area, as they are adjacent to the play space and would have a direct line of sight.

As the exact location of playground equipment for the planned play area is not known, no horizontal distance between play area and building façade is assumed. Since the lowest residential floor of the building at the Development Site would be at a height of 15 feet from the property line, a distance of 10 feet serves as a conservative minimum estimate of distance from the play area. An additional location at least 25 feet from the lot line is also considered. **Table L-4** shows the estimated maximum level of playground noise exposure at the proposed building. The predicted play area noise levels presented in **Table L-4** will be utilized to determine the maximum predicted cumulative L_{eq} and L_{10} noise levels by combining the predicted play area noise values with predicted No-Action and With-Action vehicular traffic noise levels, further detailed in Sections VI and VII below.

TABLE L-4
Highest Predicted Noise Levels due to the Planned Publicly Accessible Play Area Only (in dBA)

Receptor Location	Approximate Distance (feet) to Proposed Play Area	Play Area L_{eq} at Receptor (in dBA)
Nearest Residential Façade Location	10	69.1
At least 25 feet from Lot Line	25	65.2

Notes: Play Area L_{eq} noise levels presented in this table do not factor in background noise levels.

Building Attenuation Analysis Procedure

In general, the following procedure was used in performing the *CEQR Technical Manual* building attenuation analysis:

- Noise-sensitive receptor locations that have the greatest potential for being adversely affected by action-generated noise in the 2027 analysis year and the location of dominant sources of ambient noise were identified;
- Noise receptor locations were selected based on the following criteria: (1) locations where the highest noise levels are likely to occur based upon the consideration of existing land use patterns (e.g., locations near major commercial roadways, industrial uses, or stationary sources, etc.); and (2) along future street frontages of the Proposed Development Site;
- Existing noise levels were determined through field measurements of ambient noise adjacent to the Proposed Development Site; if there were significant differences between existing traffic from noise measurement and existing traffic from the traffic study, measured noise levels were adjusted accordingly;
- Future (2027) noise levels without the Proposed Actions were predicted using the PCE-based proportionality equation and/or TNM (per *CEQR Technical Manual* guidelines) for all locations where local traffic is the dominant source of noise and were based on the 2027 No-Action vehicle trip assignments presented in **Attachment J, "Transportation**";
- Future (2027) noise levels with the Proposed Actions were predicted using the PCE-based proportionality equation and/or TNM (per *CEQR Technical Manual* guidelines) based on

the 2027 With-Action vehicle trip assignments presented in **Attachment J, "Transportation"**;

- Future (2027) noise levels with the Proposed Actions were compared with future noise levels without the Proposed Actions to determine, by applying *CEQR Technical Manual* impact criteria, whether the Proposed Actions and resultant RWCDS would have the potential to result in a significant adverse impact;
- Noise levels were determined for exterior building façades at the Proposed Development Site based on the combination of predicted noise levels due to traffic and noise resulting from use of the adjacent playground; and
- In compliance with CEQR requirements to determine an acceptable interior space noise environment, façade-based composite window/wall attenuation specifications for the Proposed Development Site were estimated based on future predicted maximum exterior noise exposure at the projected development sites; for dominant traffic noise, CEQR requirements are based on the maximum L_{10} values.

V. EXISTING NOISE LEVELS

According to the RWCDS, the Proposed Development Site is a known development site and no other development is anticipated within the Project Area. The Proposed Development Site (Block 6008, Lot 95) is an Applicant-owned corner-lot located on the southeast corner of 24th Avenue and Waters Edge Drive/Little Neck Boulevard, with frontages along 24th Avenue to the north, Little Neck Boulevard (which is a mapped and unimproved street) to the west, and the Cross Island Parkway to the east (see **Figure L-1**). The approximately 55,614-sf development site is currently occupied by a private swimming and sports club that features a pool, playgrounds, and concessions. There is single structure on the site, a club house building with a total of approximately 2,800 gsf of commercial space.

Noise Monitoring Locations

As traffic along 24th Avenue, Waters Edge Drive, and the Cross Island Parkway is the dominant source of noise in the vicinity of the Project Area, the noise receptor locations were selected based upon the assumption that the future Proposed Development within the Proposed Development Site would be built to its respective lot lines. As such, existing noise levels at the Proposed Development Site were measured at two locations: one along the midpoint of the Proposed Development Site's 24th Avenue frontage to capture mobile source noise levels generated by vehicles along 24th Avenue and Waters Edge Drive, and one towards the east side of the Proposed Development Site to capture mobile source noise levels generated by the adjacent Cross Island Parkway. These locations are presented in **Table L-5** and shown in **Figure L-1** below:

TABLE L-5
Noise Receptor Locations

Receptor Location/Map Number [1]	Duration	Monitoring Location
1	20 minutes	24th Avenue (midpoint of the Proposed Development Site's 24th Avenue frontage – approximately 80 feet west from Waters Edge Drive)
2	20 minutes	Eastern frontage facing Cross Island Parkway (approximately 200 feet east of Waters Edge Drive)

[1] Noise receptor locations are keyed to **Figure L-1**.

Noise Monitoring

Monitoring was conducted during the typical midweek conditions. At each of the receptor locations, 20-minute spot measurements of existing noise levels were performed for the weekday AM peak hour (7:00 AM to 8:00 AM), weekday midday (MD) peak hour (12:00 PM to 1:00 PM), and weekday PM peak hour (5:00 PM to 6:00 PM). Additional noise measurements were performed at Receptor Location 1 during the school dismissal/bus departure (SC PM) peak period (2:30 PM to 3:30 PM), due to the proximity of a future public school on Block 5958, Lot 30 and future playground directly north of the Project Area. Noise measurements were performed on Tuesday September 20, 2022. On September 20th, the weather was mostly clear with high temperatures in the mid-70s ºF and average wind speeds of 10 miles-per-hour. Traffic volumes and vehicle classifications were documented during the noise monitoring.

Equipment Used During Noise Monitoring

Measurements were performed using Brüel & Kjær Sound Level Meters (SLM) Type 2250 and 2260, Brüel & Kjær ½-inch microphones Type 4189, and Brüel & Kjær Sound Level Calibrators Type 4231. The Brüel & Kjær SLMs are Type 1 instruments according to ANSI Standard S1.4- 1983 (R2006). The SLMs had a laboratory calibration date within one year of the time of use. For the three receptor locations, the microphones were mounted at a height of approximately five feet above the ground surface on a tripod and approximately six feet or more away from any large sound-reflecting surface to avoid major interference with sound propagation. The SLMs were calibrated before and after readings with a Brüel & Kjær Type 4231 Sound Level Calibrator using the appropriate adaptor. Measurements at each location were made on the A-scale (dBA). The data were digitally recorded by the SLMs and displayed at the end of the measurement period in units of dBA. Measured quantities included the L_{eq}, L_1, L_{10}, L_{50}, and L_{90} values, as well as ⅓-octave bands. A windscreen was used during all sound measurements except for calibration. All measurement procedures were based on the guidelines outlined in ANSI Standard S1.13-2005.

Existing Noise Levels At Noise Receptor Locations

Measured Noise Levels

The noise monitoring results are shown in **Table L-6**. Based on the noise monitoring results, no specific dominant noise source, such as vehicular traffic, was identified. Therefore, ambient noise was the dominant noise source at each receptor location. The highest existing Leq noise level was observed at Receptor Location 2 during the weekday midday monitoring period (60.49 dBA).

TABLE L-6
Existing Noise Levels (in dBA) at the Receptor Locations

Receptor Location[1]	Time	L_{max}	L_{min}	L_{eq}	L_1	L_{10}[2]	L_{50}	L_{90}	CEQR Noise Exposure Category
1	AM	68.98	53.92	56.96	63.50	58.44	55.97	54.57	Acceptable
	MD	72.25	55.62	58.76	61.56	**59.77**	58.53	57.28	
	SC PM	84.33	52.61	59.42	64.73	58.39	56.38	54.79	
	PM	61.10	52.14	55.89	59.30	57.16	55.72	54.08	
2	AM	65.67	54.18	57.82	62.50	59.50	57.33	55.78	Acceptable
	MD	63.30	56.17	59.34	61.75	**60.49**	59.22	57.89	
	PM	67.59	53.69	57.03	60.37	58.23	56.64	55.56	

Notes: [1] Refer to **Figure L-1** for noise monitoring receptor location.
[2] The highest L_{10} noise levels at each monitoring location are shown in **bold**.

As shown in **Table L-6**, the highest L_{10} value at Receptor Location 1 was recorded in the weekday midday peak hour (59.77 dBA), placing this receptor location in the "Acceptable" CEQR Noise Exposure category pursuant to the guidance of the *CEQR Technical Manual*. The highest L_{10} value at Receptor Location 2 was also recorded in the weekday midday peak hour (60.49 dBA), placing this receptor location in the "Acceptable" CEQR Noise Exposure category as well.

Adjusted Existing Noise Levels With Traffic Volumes from Transportation Analysis

Receptor Location 1 was selected to represent future noise at the Project Site because Receptor Location 1, located near the intersection of 24th Avenue and Waters Edge Drive, has comparable exposure to vehicular traffic noise, including future increments in noise levels due to vehicular traffic. Using the TNM modelling methodology described above, existing noise levels at Receptor Location 1, as well as at nearby sensitive receptors, were calculated based on existing-condition traffic volumes from the Transportation study. Traffic counts during the noise measurement indicate that there were barely any traffic along 24th Avenue during the time of noise measurements and, in this specific case, it was conservatively assumed that the measured noise levels represents ambient noise level without traffic noise. Due to the significant difference between existing traffic from the noise measurement and existing traffic from the traffic study, the predicted existing noise levels were calculated using measured noise levels for Receptor Location 1 and logarithmically added to the TNM modeled values, as is shown in **Table L-7**.

TABLE L-7
Predicted Existing Noise Levels (in dBA) at the Receptor Location 1

Receptor Location	Time	Existing L_{eq} (Measured)	Existing L_{eq} (TNM)	Predicted Existing L_{eq} (Cumulative)
1	AM	56.96	49.70	57.71
	MD	58.76	48.40	59.14
	SC PM	59.42	48.40	59.75
	PM	55.89	50.30	56.95

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

Mobile Source Noise Analysis

In the 2027 future without the Proposed Actions (the No-Action condition), it is assumed that while no new construction would be planned for the Applicant-owned Proposed Development Site, a portion of the currently vacant, unimproved City-owned parkland directly north of the Project Area is slated for

development by the NYC Department of Parks and Recreation (NYC Parks), as shown in **Figure L-1**. NYC Parks plans to construct a new playground, the Cross Island Parkway Waters Edge Drive Playground, which is expected to be completed by 2025. The new approximately 1.5-acre park would contain an array of multigenerational recreational opportunities for the surrounding neighborhood, including play areas, fitness equipment, open lawns, picnic areas, a comfort station, and pedestrian paths, among other amenities. Additionally, at 23-50 Waters Edge Drive (Block 5958, Lot 30; directly northwest of the Project Area), the NYC School Construction Authority (SCA) is planning to construct a new public elementary school building. The school is anticipated to be complete and fully operational in 2026. The new, five-story, approximately 84,000-gsf public school is anticipated to have a capacity of approximately 572 elementary seats with a main entrance on Waters Edge Drive. There are no other known developments anticipated within the vicinity of the Project Area in the future 2027 analysis year without the Proposed Actions.

Using the TNM methodology described in Section IV above, future noise levels in the No-Action condition were calculated for the identified analysis periods for the 2027 analysis year. **Table L-8** shows the existing noise levels and future No-Action condition noise levels at Receptor Location 1. Existing and future No-Action noise levels were calculated using the measured noise levels for Receptor Location 1 (refer to **Table L-6**) and logarithmically added to the TNM modeled values. Results for Receptor Location 1 have been applied to the entire northern façade of the Proposed Development Site, and thus Receptor Location 2 was removed from further analysis.

Considering there is a potential for significant adverse noise impacts at receptors not introduced by the Proposed Actions, a detailed analysis of five nearby sensitive receptors located close to the Project Area, including the above-mentioned future public elementary school at 23-50 Waters Edge Drive, was conducted (refer to **Figure L-2**). Refer to **Table L-8** for estimated noise levels at the five sensitive receptors in the 2027 No-Action condition.

TABLE L-8
2027 No-Action Condition Mobile Source Noise Levels (dBA)

Noise Receptor Location[1]		Time[2]	Predicted Existing L_{eq}	Predicted No-Action L_{eq}	Change in L_{eq}[3]	Predicted No-Action L_{10}[4]	CEQR Noise Exposure Category
1	217-14 24th Avenue	AM	57.71	60.36	2.65	**61.84**	Acceptable
		MD	59.14	59.15	0.01	60.16	
		SC PM	59.75	59.76	0.01	58.73	
		PM	56.95	60.21	3.26	61.48	
A	215-46 23rd Road	AM	57.22	58.51	1.29	**59.99**	Acceptable
		MD	58.94	58.94	0.00	59.95	
		SC PM	59.57	59.57	0.00	58.54	
		PM	56.20	57.41	1.21	58.68	
B	Bay Vista Apartments	AM	57.17	58.51	1.34	**59.99**	Acceptable
		MD	58.90	58.93	0.03	59.94	
		SC PM	59.54	59.56	0.02	58.53	
		PM	56.18	57.62	1.44	58.89	
C	23-50 Waters Edge Drive	AM	59.43	65.20	5.77	66.68	Marginally Acceptable
		MD	60.17	60.29	0.12	61.30	
		SC PM	60.66	60.76	0.10	59.73	
		PM	59.55	65.77	6.22	**67.04**	
D	23-45 Bell Boulevard	AM	57.26	58.58	1.32	**60.06**	Acceptable
		MD	58.93	58.92	-0.01	59.93	
		SC PM	59.56	59.55	-0.01	58.52	
		PM	56.54	58.43	1.89	59.70	

E	215-48 24th Avenue	AM	58.24	61.89	3.65	63.37	Acceptable
		MD	59.45	59.42	-0.03	60.43	
		SC PM	60.02	59.99	-0.03	58.96	
		PM	58.10	62.24	4.14	**63.51**	

Notes: Existing and Future No-Action noise levels were calculated using existing L_{eq} and TNM values.
[1] Receptor location 1 and existing sensitive receptor locations (A-E) shown in **Figure L-2**.
[2] AM = weekday AM peak period; MD = weekday midday peak period; SC PM = weekday School dismissal/bus departure peak period; PM = weekday PM peak period.
[3] Change in L_{eq} = No-Action L_{eq} – Existing L_{eq}.
[4] The highest No-Action L_{10} noise level at each receptor is indicated in **bold.**

Comparing future predicted No-Action noise levels with predicted existing noise levels, the change in L_{eq} noise levels would range from 0.00 to 6.22 dBA across all receptor locations during each of the analysis peak periods over existing conditions.[3] According to *CEQR Technical Manual* guidelines, increases of less than 3.0 dBA would be barely perceptible. Therefore, the increase under No-Action conditions at Receptor Locations 1 (3.26 dBA), C (6.22 dBA), and E (4.14 dBA) would be perceptible. The predicted No-Action L_{10} noise levels at Receptor Location 1 would range from 58.73 dBA to 61.84 dBA and would remain in the "Acceptable" CEQR Noise Exposure category. The predicted No-Action L_{10} noise levels at Receptor Location C would range from 59.73 dBA to 67.04 dBA and would therefore fall in the "Marginally Acceptable" CEQR Noise Exposure category. All other sensitive receptor locations would have highest predicted No-Action L_{10} noise levels below 65 dBA, thus falling in the "Acceptable" CEQR Noise Exposure category.

No-Action Play Area Noise

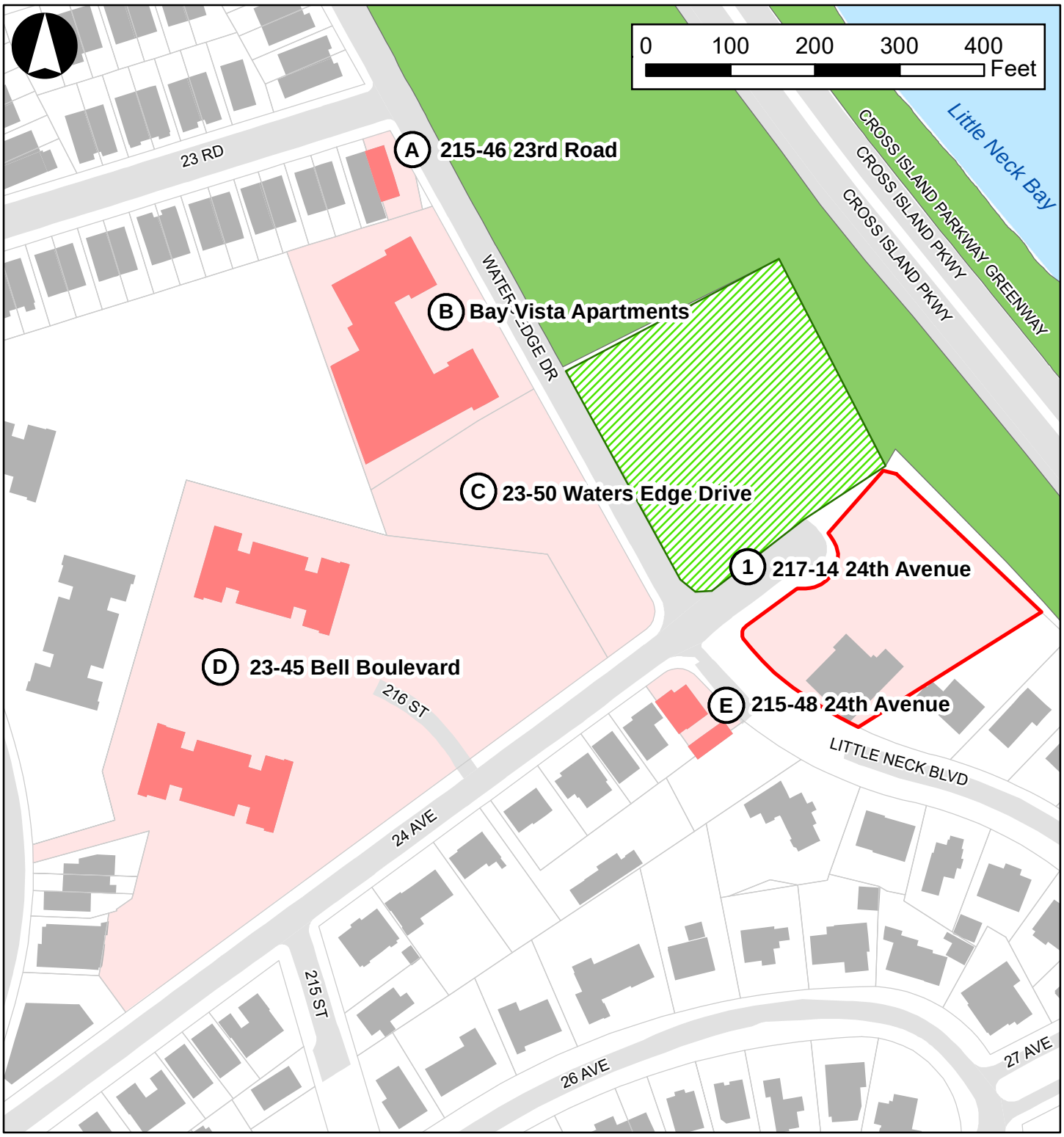
As described above in Section IV, due to the location of the nearby planned NYC Parks play area directly north of the Project Area, the No-Action play area noise assessment will utilize the playground noise level presented in **Table L-4**. As presented in **Table L-9**, due to the location of the planned play area, the Proposed Development Site would experience combined No-Action L_{eq} play area noise levels of up to 69.64 dBA at the northern facades of the Proposed Development Site with a direct line of the site to the neighboring planned play area. After calculating the predicted No-Action L_{10} noise levels due to the nearby planned playground stationary noise source (refer to **Table L-9**), the northern façades of the Proposed Development Site fronting the planned play area would fall in the "Marginally Unacceptable" CEQR Noise Exposure category under No-Action conditions.

TABLE L-9
Predicted No-Action Noise Levels at the Proposed Development Site due to the Planned Cross Island Parkway Waters Edge Drive Playground (in dBA)

Sensitive Receptor			Approximate Distance (feet) to Planned Play Area	Playground L_{eq} at Receptor	Predicted Combined No-Action L_{eq} at Receptor	Predicted Combined No-Action L_{10} at Receptor[1,2]
Building	Facade	Time				
Proposed Development Site	North and East/West within 25 feet of Lot Line	AM	10	69.1	69.64	**72.64**
		MD			69.52	72.52
		SC PM			69.58	72.58
		PM			69.63	72.63
Proposed Development Site	At least 25 feet from Lot Line	AM	25	65.2	66.43	**69.43**
		MD			66.16	69.16
		SC PM			66.29	69.29

[3] This disregards the decreases shown for Sensitive Receptor Locations D and E as these stem from discrepancies in traffic noise modeling.

Figure L-2
Sensitive Receptor Locations



Legend

- Proposed Development Site
- Future Open Space (Waters Edge Playground)
- Existing Open Space
- Sensitive Noise Receptors (Lots)
- Sensitive Noise Receptors (Buildings)

		PM			66.40	69.40

Notes:

[1] For conservative purposes, predicted L_{10} play area noise levels were calculated by adding 3 dBA to the predicted cumulative L_{eq} noise levels.

[2] The highest No-Action L_{10} noise level at each receptor is indicated in **bold.**

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

In the 2027 future with the Proposed Actions (the With-Action scenario), the proposed zoning map and text amendments would be approved, allowing the Applicant to construct the Proposed Development at the Proposed Development Site.

Mobile Source Noise Analysis

Using the methodology described in Section IV, future noise levels in the With-Action condition were calculated for each of the identified analysis periods for the 2027 analysis year, which are presented in **Table L-10**. As presented in the table, after accounting for additional traffic introduced by the Proposed Actions, the maximum predicted L_{10} noise level in the With-Action condition would be 68.41 dBA during the weekday PM peak period at the Receptor Location C. Therefore, the highest noise level would remain in the "Marginally Acceptable" CEQR Noise Exposure category, as under No-Action conditions. The maximum predicted noise levels in the With-Action condition at Receptor Location E would be 65.29 dBA and thus would now fall in the "Marginally Acceptable" CEQR Noise Exposure category. All other sensitive receptor locations would have highest predicted With-Action L_{10} noise levels below 65 dBA, thus remaining in the "Acceptable" CEQR Noise Exposure category.

Changes in predicted L_{eq} noise levels under the With-Action condition were determined in comparison to predicted L_{eq} noise levels under No Action conditions. Comparing the future With-Action noise levels with No Action noise levels, increases in L_{eq} noise levels would vary at the receptor locations, ranging from 0.21 dBA to 1.94 dBA across all receptor locations during each of the analysis peak periods over No Action conditions. According to *CEQR Technical Manual* guidelines, increases of less than 3.0 dBA would be barely perceptible. Therefore, the project-generated noise impact at and within the vicinity of the Proposed Development Site is not considered a significant adverse noise impact, and no further mobile source noises analyses are warranted.

TABLE L-10
2027 No-Action and With-Action Condition Mobile Source Noise Levels (dBA)

Noise Receptor Location[1]		Time[2]	No-Action L_{eq}	With-Action L_{eq}	Change in L_{eq}[3]	With-Action L_{10}[4]	CEQR Noise Exposure Category
1	217-14 24th Avenue	AM	60.36	62.30	1.94	**63.78**	Acceptable
		MD	59.15	60.75	1.60	61.76	
		SC PM	59.76	61.18	1.42	60.15	
		PM	60.21	62.09	1.88	63.36	
A	215-46 23rd Road	AM	58.51	59.43	0.92	**60.91**	Acceptable
		MD	58.94	59.49	0.55	60.50	
		SC PM	59.57	60.06	0.49	59.03	
		PM	57.41	59.16	1.75	60.43	
B	Bay Vista Apartments	AM	58.51	59.34	0.83	**60.82**	Acceptable
		MD	58.93	59.40	0.47	60.41	
		SC PM	59.56	59.98	0.42	58.95	
		PM	57.62	59.11	1.49	60.38	

C	23-50 Waters Edge Drive	AM	65.20	66.51	1.31	67.99	Marginally Acceptable
		MD	60.29	62.21	1.92	63.22	
		SC PM	60.76	62.52	1.76	61.49	
		PM	65.77	67.14	1.37	**68.41**	
D	23-45 Bell Boulevard	AM	58.58	59.10	0.52	**60.58**	Acceptable
		MD	58.92	59.15	0.23	60.16	
		SC PM	59.55	59.76	0.21	58.73	
		PM	58.43	59.16	0.73	60.43	
E	215-48 24th Avenue	AM	61.89	63.34	1.45	64.82	Marginally Acceptable
		MD	59.42	60.98	1.56	61.99	
		SC PM	59.99	61.39	1.40	60.36	
		PM	62.24	64.02	1.78	**65.29**	

Notes: Future With-Action noise levels were calculated were calculated using existing L_{eq} and TNM values.
[1] Receptor location 1 and existing sensitive receptor locations (A-E) shown in **Figure L-2**
[2] AM = weekday AM peak period; MD = weekday midday peak period; SC PM = weekday School dismissal/bus departure peak period; PM = weekday PM peak period.
[3] Change in L_{eq} = With-Action L_{eq} – No-Action L_{eq}.
[4] The highest L_{10} With-Action noise level at each receptor is indicated in **bold.**

With-Action Play Area Noise

As described above in Section IV, due to the location of the nearby planned NYC Parks play area directly north of the Project Area, the With-Action play area noise assessment will utilize the playground noise level presented in **Table L-4**. As presented in **Table L-11**, due to the location of the planned play area, the Proposed Development Site would experience combined With-Action L_{10} play area noise levels of up to 72.92 dBA at the second floor of the northern, eastern, and western facades within 25 feet of the Lot Line west of the 24th Street cul-de-sac, and 70.00 dBA throughout the remainder of the Site. These With-Action L_{10} noise levels due to the nearby planned playground stationary noise source (refer to **Table L-11**) would be in the "Marginally Unacceptable" and the "Marginally Acceptable" CEQR Noise Exposure category, respectively.

After comparing the future With-Action play area noise levels with No-Action play area noise levels, increases in L_{eq} noise levels would vary at the two receptor locations, ranging from 0.17 to 0.57 dBA. Increases of these magnitudes would not be perceptible as they are lower than 3.0 dBA, and based upon CEQR impact criteria a significant adverse noise impact is not expected.

TABLE L-11
Predicted No-Action and With-Action Noise Levels at the Proposed Development Site due to the Planned Cross Island Parkway Waters Edge Drive Playground (in dBA)

Sensitive Receptor								
Building	**Facade**	**Time**	**Approx. Distance (feet) to Planned Play Area**	**Playground L_{eq} at Receptor**	**Predicted Combined No-Action L_{eq} at Receptor**	**Predicted Combined With-Action L_{eq} at Receptor**	**Change in L_{eq} b/w No-Action and With-Action[1]**	**Predicted Combined With-Action L_{10} at Receptor[2,3]**
Proposed Development Site	North and East/West within 25 feet of Lot Line	AM	10	69.1	69.64	69.92	0.28	**72.92**
		MD			69.52	69.69	0.17	72.69
		SC PM			69.58	69.75	0.17	72.75
		PM			69.63	69.89	0.26	72.89
		AM	25	65.2	66.43	67.00	0.57	**70.00**
		MD			66.16	66.53	0.37	69.53

Proposed Development Site	At least 25 feet from Lot Line	SC PM			66.29	66.65	0.36	69.65
		PM			66.40	66.93	0.53	69.93

Notes:

[1] Change in L_{eq} = With-Action L_{eq} – No-Action L_{eq}.

[2] Predicted L_{10} play area noise levels calculated by adding 3 dBA to the predicted cumulative L_{eq} noise levels.

[3] The highest No-Action L_{10} noise level at each receptor is indicated in **bold.**

VIII. NOISE ATTENUATION REQUIREMENTS

As shown in **Table L-3**, the *CEQR Technical Manual* has noise attenuation guidance for buildings based on exterior noise levels. For dominant traffic noise, which includes play area noise in this analysis, recommended noise attenuation values for buildings are designed to maintain a maximum interior noise level of 45 dBA or lower for residential and community facility uses and 50 dBA or lower for commercial office uses, and are determined based on exterior L_{10} noise levels.

The attenuation of a composite structure is a function of the attenuation provided by each of its component parts and how much of the area is made up of each part. Typically, a building façade is composed of the wall, windows, and any vents or louvers for HVAC systems in various ratios of area. Since the proposed project would most likely be of masonry construction, which typically provides a high level of sound attenuation, the attenuation requirements for CEQR purposes apply primarily to the windows, but may also represent a composite window/wall attenuation value. Window/Wall attenuation can be described in terms of sound transmission class (STC), transmission loss (TL), and outdoor-indoor transmission class (OITC). Although these terms are sometimes used interchangeably, they are unique from each other. Transmission loss refers to how many decibels of sound a façade (wall) or façade accessory (window or door) can stop at a given frequency. The TL for a given construction material varies with the individual frequencies of the noise.

To simplify the noise attenuation properties of a wall, the STC rating was developed. It is a single number that describes the sound isolation performance of a given material for the range of test frequencies between 125 and 4,000 Hz. These frequencies sufficiently cover the range of human speech. Higher STC values reflect greater efficiency to block airborne sound. HUD uses the STC when identifying the required sound attenuation for a façade.

The OITC is similar to the STC, except that it is weighted more towards the lower frequencies associated with aircraft, rail, and truck traffic. The OITC classification is defined by the American Society of Testing and Materials (ASTM E1332-90 (Reapproved 2003)) and provides a single-number rating that is used for designing a building façade including walls, doors, glazing, and combinations thereof. The OITC rating is designed to evaluate building elements by their ability to reduce the overall loudness of ground and air transportation noise. NYCDEP uses the OITC when identifying the required sound attenuation for a façade.

For dominant traffic noise, all façades that would experience an L_{10} greater than 70.0 dBA must provide an alternate means of ventilation ("AMV") permitting a closed window condition during warm weather. This can be achieved by installing double-glazed windows on a heavy frame for masonry structures or windows consisting of laminated glass, along with AMV such as central air conditioning, through-wall sleeve-fitted air conditioners, packaged terminal air conditioning ("PTAC") units, trickle vents integrated into window frames, or other approved means. Where the required window/wall attenuation is above 40 dBA, special design features may be necessary that go beyond the normal double-glazed window and air conditioning. These may include specially designed windows (e.g., windows with small sizes, windows with air gaps, windows with thicker glazing, etc.) and additional building insulation.

Noise Attenuation Measures

As described above and presented in **Table L-11**, combined With-Action L_{10} play area noise levels of up to 72.92 dBA at the second floor of the northern, eastern, and western facades within 25 feet of the southern lot line of Block 6008, Lot 150, and 70.00 dBA throughout the remainder of the Site. The composite building attenuation requirement for the Proposed Development Site's 24th Avenue frontage was calculated based on the maximum L_{10} noise level and is presented in **Table L-12** and illustrated in **Figure L-3** .

TABLE L-12
Required Attenuation at the Proposed Development Site (CEQR)

Site	Frontage	Receptor #	Maximum L_{10} Noise Level in dBA	CEQR Noise Exposure Category	CEQR Minimum Required Attenuation in dBA[1]
Proposed Development Site (Block 6008, Lot 95)	All Floors within 25 feet of southern lot line of Block 6008, Lot 150	2	72.92	Marginally Unacceptable	28
	At least 25 feet from southern lot line of Block 6008, Lot 150	2	70.00	Marginally Acceptable	N/A

Note: [1] Attenuation values are shown for residential and community facility uses; commercial office uses would require 5 dBA less attenuation. Utility, corridor, stairwell, and other non-noise-sensitive uses would not require any specific level of attenuation. "N/A" indicates that the L_{10} value is less than 70 dBA and therefore has no minimum attenuation requirement.

(E) Designation

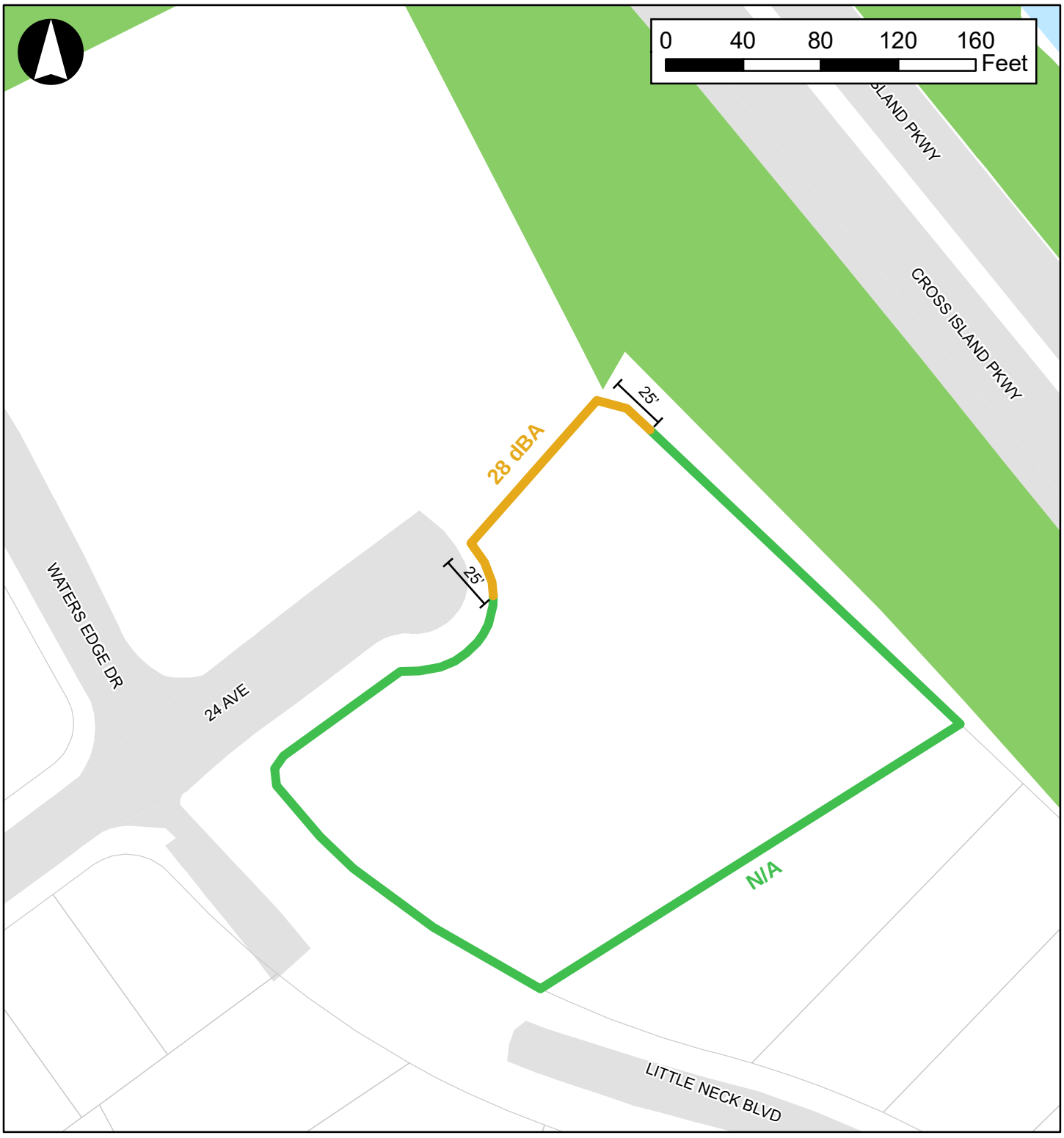
The composite window/wall noise attenuation outlined above would be required through the assignment of an (E) Designation (E-812) for noise to the Proposed Development Site (Block 6008, Lot 95) in conjunction with the Proposed Actions. With the implementation of this composite window/wall noise attenuation, no significant adverse noise impacts would occur as a result of the Proposed Actions.

Block 6008, Lot 95 (Proposed Development Site)

In order to ensure an acceptable interior noise environment, future residential uses must provide a closed-window condition with a minimum of 28 dB(A) window/wall attenuation on the facades within 25 feet of the southern lot line of Block 6008, Lot 150 to maintain an interior noise level not greater than 45 dB(A) for residential 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 implementation of the attenuation levels outlined above and described in **Table L-12**, the Proposed Actions would provide sufficient attenuation to achieve *CEQR Technical Manual* interior noise level guidance. Therefore, the Proposed Actions would not result in any significant adverse noise impacts related to building attenuation.

Figure L-3
Noise Attenuation Requirements



Legend

Proposed Development Site

Existing Open Space

CEQR Window/Wall Attenuation Requirements

N/A 28 dBA

Note: Attenuation values are shown for residential and community facility uses; commercial office uses would require 5 dBA less attenuation. Utility, corridor, stairwell, and other non-noise-sensitive uses would not require any specific level of attenuation.

IX. CONCLUSIONS

Noise from the increased traffic volumes generated by the Proposed Actions would not result in exceedances of the CEQR impact criteria. Therefore, the project-generated noise impact at and within the vicinity of the Proposed Development Site is not considered a significant adverse noise impact, and no further mobile source noises analyses are warranted. In addition, the Proposed Development Site is located near the planned off-site stationary (play area) noise source – the Cross Island Parkway Waters Edge Drive Playground. Due to the planned play area, the Proposed Development Site's northern frontage facing 24th Avenue would experience L_{10} noise levels up to 72.92 dBA. However, by implementing an E-Designation requiring 28 dBA of window/wall attenuation, interior noise levels would remain below the CEQR interior noise level guideline of 45 dBA for residential uses. Therefore, the Proposed Actions would not result in any significant adverse noise impacts related to building attenuation.

X. OTHER NOISE CONCERNS

Mechanical Equipment

The Proposed Actions would not include any unenclosed mechanical equipment for building ventilation purposes and would not include any active outdoor recreational space that could result in stationary source noise impacts to the surrounding area. All mechanical equipment would be located either inside the building or would be enclosed on the roof of the structures, and should be designed to meet all applicable noise regulations and requirements (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code, the New York City Department of Buildings Code). Therefore, the Proposed Actions would not result in any significant increase in ambient noise levels in the vicinity of the Applicant-owned Proposed Development Site, the Project Area, or the surrounding study area.

Train Noise

An initial train noise impact screening analysis could be warranted if a new receptor would be located within 1,500 feet of existing rail activity and have a direct line of sight to that activity. As the Project Area is not within 1,500 feet of an existing rail line nor does the site have a direct line of sight to a rail activity, no initial train noise impact screening analysis is warranted.

Aircraft Noise

An initial aircraft noise impact screening analysis would be warranted if the new receptor would either generate or reroute aircraft or introduce a new receptor that is within a 65 dBA DNL contour. Since the Proposed Actions would not generate or reroute aircraft, and as the Project Area is not within a 65 dBA DNL contour, no initial aircraft noise impact screening analysis is warranted.

APPENDIX I

Waterfront Revitalization Program (WRP)

Consistency Assessment Form

FOR INTERNAL USE ONLY	WRP No. _____
Date Received: _____	DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the *New York City Waterfront Revitalization Program (WRP)* which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: BMBT LLC

Name of Applicant Representative: John Silviano

Address: 1044 Northern Boulevard, Suite 302

Telephone: 646-476-9228 Email: js@baronemanagement.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The Applicant, BMBT LLC, is seeking a zoning map and text amendment (collectively, the "Proposed Actions") to facilitate the development of a single, new eight-story residential building with senior living facilities on the first and second floors (the "Proposed Development") at 217-14 24th Avenue (Queens Block 6008, Lot 95; a.k.a. the "Proposed Development Site") in the Bay Terrace neighborhood of Queens Community District (CD) 11. The Applicant is seeking several discretionary actions, including: (i) a zoning map amendment to rezone the Proposed Rezoning Area (Block 6008, Lot 95) from a R1-2 district to a R6A district; and (ii) a zoning text amendment to Appendix F of the New York City Zoning Resolution (ZR) to establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing (MIH) area. The Proposed Actions would facilitate the development of the Proposed Development, which would comprise of approximately 162,026 gross square feet (gsf) of residential uses (170 dwelling units [DUs]; of which, approximately 43-51 units would be designated as permanently affordable pursuant to the City's MIH program), 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade accessory parking space, for a total of approximately 254,171 gsf. As the Applicant intends to pursue Option 2 of the City's MIH program, 30 percent of the 170 DUs (or approximately 51 units) would be designated as permanently affordable at an average affordability level not exceeding 80 percent of area median income (AMI). Additionally, the proposed below-grade parking garage would include up to 86 accessory off-street parking spaces. It is anticipated that the Proposed Development would be completed and operational by 2027.

2. Purpose of activity

The Proposed Actions would facilitate the development of new, multi-family housing, including income-restricted housing pursuant to the City's MIH program, and a senior long-term care facility at an underutilized site adjacent to an existing R5 district. The proposed zoning map amendment presents an opportunity to bring new housing and assisted senior living space to an area with aging housing stock, limited new production of housing, and low vacancy rates. According to American Community Survey (ACS) data, 83 percent of the housing units in CD 11 were built before 1970 and only 1.2 percent were built since 2010. The rental vacancy rate is 4.5 percent, approximately 43.6 percent of rental households are rent-burdened, and CD 11 has the third highest senior population in New York City at 20.7 percent. The Proposed Actions would promote the production of new housing and senior assisted living facilities to serve these needs. Additionally, the site is adjacent to the boundary of CD 7, which is similarly underserved in terms of new housing and senior living facilities. It should also be noted that a new public school and public park are planned directly northeast and north of the Proposed Rezoning Area, respectively, further emphasizing the potential for growth in the area.

C. PROJECT LOCATION

Borough: Queens Tax Block/Lot(s): Block 6008; Lot 95

Street Address: 217-14 24th Avenue

Name of water body (if located on the waterfront): N/A

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

- ☐ City Map Amendment
- ☑ Zoning Map Amendment
- ☑ Zoning Text Amendment
- ☐ Site Selection – Public Facility
- ☐ Housing Plan & Project
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____
- ☐ Zoning Certification
- ☐ Zoning Authorizations
- ☐ Acquisition – Real Property
- ☐ Disposition – Real Property
- ☐ Other, explain: _____
- ☐ Concession
- ☐ UDAAP
- ☐ Revocable Consent
- ☐ Franchise

Board of Standards and Appeals ☐ Yes ☑ No

- ☐ Variance (use)
- ☐ Variance (bulk)
- ☐ Special Permit
  (if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

- ☐ Legislation
- ☐ Rulemaking
- ☐ Construction of Public Facilities
- ☐ 384 (b) (4) Approval
- ☐ Other, explain: _____
- ☐ Funding for Construction, specify: _____
- ☐ Policy or Plan, specify: _____
- ☐ Funding of Program, specify: _____
- ☐ Permits, specify: _____

State Actions/Approvals/Funding

- ☐ State permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Federal Actions/Approvals/Funding

- ☐ Federal permit or license, specify Agency: _____ Permit type and number: _____
- ☐ Funding for Construction, specify: _____
- ☐ Funding of a Program, specify: _____
- ☐ Other, explain: _____

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1.	Does the project require a waterfront site?	☐ Yes	☑ No
2.	Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters?	☐ Yes	☑ No
3.	Is the project located on publicly owned land or receiving public assistance?	☐ Yes	☑ No
4.	Is the project located within a FEMA 1% annual chance floodplain? *(6.2)*	☑ Yes	☐ No
5.	Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)*	☑ Yes	☐ No
6.	Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).*	☐ Yes	☑ No

- ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)
- ☐ Special Natural Waterfront Area (SNWA) (*4.1*)
- ☐ Priority Maritime Activity Zone (PMAZ) (*3.5*)
- ☐ Recognized Ecological Complex (REC) (*4.4*)
- ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		Promote	Hinder	N/A
1	**Support and facilitate commercial and residential redevelopment in areas well-suited to such development.**	☑	☐	☐
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	☑	☐	☐
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	☐	☐	☑
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	☑	☐	☐
1.4	In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	☐	☐	☑
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	☑	☐	☐

		Promote	Hinder	N/A
2	**Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.**	☐	☐	☑
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	☐	☐	☑
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	☐	☐	☑
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	☐	☐	☑
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	☐	☐	☑
3	**Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**	☐	☐	☑
3.1.	Support and encourage in-water recreational activities in suitable locations.	☐	☐	☑
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	☐	☐	☑
3.3	Minimize conflicts between recreational boating and commercial ship operations.	☐	☐	☑
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	☐	☐	☑
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	☐	☐	☑
4	**Protect and restore the quality and function of ecological systems within the New York City coastal area.**	☐	☐	☑
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	☐	☐	☑
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	☐	☐	☑
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	☐	☐	☑
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	☐	☐	☑
4.5	Protect and restore tidal and freshwater wetlands.	☐	☐	☑
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	☐	☐	☑
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	☐	☐	☑
4.8	Maintain and protect living aquatic resources.	☐	☐	☑

		Promote	Hinder	N/A
5	**Protect and improve water quality in the New York City coastal area.**	☑	☐	☐
5.1	Manage direct or indirect discharges to waterbodies.	☑	☐	☐
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	☐	☐	☑
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	☐	☐	☑
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	☐	☐	☑
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	☑	☐	☐
6	**Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**	☑	☐	☐
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	☑	☐	☐
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in *New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms*) into the planning and design of projects in the city's Coastal Zone.	☑	☐	☐
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	☐	☐	☑
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	☐	☐	☑
7	**Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.**	☐	☐	☑
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	☐	☐	☑
7.2	Prevent and remediate discharge of petroleum products.	☐	☐	☑
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	☐	☐	☑
8	**Provide public access to, from, and along New York City's coastal waters.**	☐	☐	☑
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	☐	☐	☑
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	☐	☐	☑
8.3	Provide visual access to the waterfront where physically practical.	☐	☐	☑
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	☐	☐	☑

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☑
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☑
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☑
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☑
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☐	☐	☑
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☐	☐	☑
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☑

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Philip Habib

Address: 432 Park Avenue South 6th Floor

Telephone: 212-929-5656 Email: phabib@akrf.com

Applicant/Agent's Signature: 

Date: 6/25/25

Submission Requirements

For all actions requiring City Planning Commission approval, materials should be submitted to the Department of City Planning.

For local actions not requiring City Planning Commission review, the applicant or agent shall submit materials to the Lead Agency responsible for environmental review. A copy should also be sent to the Department of City Planning.

For State actions or funding, the Lead Agency responsible for environmental review should transmit its WRP consistency assessment to the Department of City Planning.

For Federal direct actions, funding, or permits applications, including Joint Applicants for Permits, the applicant or agent shall also submit a copy of this completed form along with his/her application to the NYS Department of State Office of Planning and Development and other relevant state and federal agencies. A copy of the application should be provided to the NYC Department of City Planning.

The Department of City Planning is also available for consultation and advisement regarding WRP consistency procedural matters.

New York City Department of City Planning
Waterfront and Open Space Division
120 Broadway, 31st Floor
New York, New York 10271
212-720-3696
wrp@planning.nyc.gov
www.nyc.gov/wrp

New York State Department of State
Office of Planning and Development
Suite 1010
One Commerce Place, 99 Washington Avenue
Albany, New York 12231-0001
518-474-6000
www.dos.ny.gov/opd/programs/consistency

Applicant Checklist

- ☑ Copy of original signed NYC Consistency Assessment Form
- ☑ Attachment with consistency assessment statements for all relevant policies
- ☐ For Joint Applications for Permits, one (1) copy of the complete application package
- ☑ Environmental Review documents
- ☑ Drawings (plans, sections, elevations), surveys, photographs, maps, or other information or materials which would support the certification of consistency and are not included in other documents submitted. All drawings should be clearly labeled and at a scale that is legible.
- ☑ Policy 6.2 Flood Elevation worksheet, if applicable. For guidance on applicability, refer to the WRP Policy 6.2 Guidance document available at www.nyc.gov/wrp

APPENDIX II

New York City Landmarks Preservation Commission (LPC)

Review Letter

Landmarks Preservation Commission
1 Centre Street
9th Floor North
New York, NY 10007
Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: LA-CEQR-Q (DEPARTMENT OF CITY PLANNING)
Project: 24TH AVENUE REZONING
Address: 217-14 24 AVENUE BBL: 4060080095
Date Received: 4/13/2023

[X] No architectural significance

[X] No archaeological significance

[ ] Designated New York City Landmark or Within Designated Historic District

[ ] Listed on National Register of Historic Places

[ ] Appears to be eligible for National Register Listing and/or New York City Landmark Designation

[ ] May be archaeologically significant; requesting additional materials

Gina Santucci 4/21/2023

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 37047_FSO_DNP_04212023.docx

APPENDIX III

Phase I Environmental Site Assessment (ESA) Report Summary

ALC ENVIRONMENTAL
CONSULTING | MANAGEMENT | TRAINING

March 24, 2023

Jason Diaz
Philip Habib & Associates
432 Park Avenue South, 6th Floor
New York, NY 10016
P:212-929-5656

Re: Phase I Environmental Site Assessment for
217-14 24th Avenue
Bayside, New York 11360

Dear Mr. Diaz:

In accordance with your authorization, ALC Environmental has completed a Phase I Environmental Site Assessment (ESA) of the property located at 217-14 24th Avenue, Bayside, Queens County, NY 11360. The objective of this assessment was to evaluate the past and current environmental conditions at the site and identify any potential areas of environmental concern or recognized environmental conditions that could affect the environmental integrity of the property. This Phase I ESA was performed in general conformance with the scope and limitations of the ASTM International (ASTM) Practice E1527-21.

The Phase I ESA did not identify any recognized environmental conditions (RECs) that might require mitigation prior to acquisition or transfer of the Subject Property. However, *de minimis* conditions were identified. Details are provided in the report. Please call 212-675-5544 or e-mail (sanchita.bm@alcenvironmental.com) if you have any questions regarding this report.

Respectfully submitted,

Reviewed by: Sanchita Basu Mallick, Asst. Director,
EHS Division
ALC Environmental

Identify

Evaluate

PHASE I ENVIRONMENTAL SITE ASSESSMENT



217-14 24th Avenue
Bayside, NY 11360
Block 6008, Lot 95

Prepared by

ALC Environmental
39 West 29th Street, 8th Floor
New York, NY 10001

Prepared for

Philip Habib & Associates
432 Park Avenue South, 6th Floor
New York, NY 10016

March 24, 2023

Solve

Execute

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1.0 EXECUTIVE SUMMARY

ALC Environmental (ALC) was contracted by Philip Habib & Associates, the Client, to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 217-14 24th Avenue, Bayside, Queens County, NY 11360 (the **"Subject Property"**). The Subject Property consists of a one-story commercial building located on an irregular-shaped parcel of land that is approximately 1.27-acres in size. The Subject Property is identified by the New York City (NYC) Department of Finance as Block 6008 and Lot 95.

The subject lot is located on the northeastern corner of the intersection of Little Neck Boulevard and 24th Avenue.

The objective of this assessment was to evaluate past and current environmental conditions at the Subject Property and to identify any potential areas of environmental concern or recognized environmental conditions that could affect the property's environmental integrity. This Phase I ESA was performed in general conformance with the scope and limitations of the ASTM International Practice E1527-21.

On March 3, 2023, ALC's Field Technician Colin Eckhardt conducted a site reconnaissance at the Subject Property. The information included in this report was gathered from state and municipal offices and officials, site interviews, the environmental database search, and from the site inspection.

The Subject Property is located in the Bay Terrace neighborhood of the NYC Borough of Queens. The general vicinity of the property consists of recreational areas and residential buildings. Below is a summary of the Phase I ESA findings:

	Acceptable	Corrective Action	Further Investigation	Reference Section
USER PROVIDED INFORMATION				
Environmental Cleanup Liens	✓			**4.2**
Activity & Land Use Limitations (AULs)	✓			**4.3**
Specialized Knowledge or Experience	✓			**4.3**
Relationship of Purchase Price to Fair Market Value	✓			**4.0**
Commonly Known or Reasonable Ascertainable Information	✓			**4.0**
Degree of Obviousness	✓			**4.0**
RECORDS REVIEW				
Standard Environmental Record	✓			**5.1**
Physical Setting Records	✓			**5.3**

	Acceptable	Corrective Action	Further Investigation	Reference Section
HISTORICAL USE INFORMATION				
Subject Property	✓			**5.3**
Adjoining Properties	✓			**5.3**
Surrounding Areas	✓			**5.3**
GENERAL SITE SETTING				
Current Use(s) of the Subject Property	✓			**3.3**
Current Use(s) of Adjoining Properties	✓			**3.5**
Current or Past Use of the Surrounding Area	✓			**5.3**
Surficial & Subsurface Physical Conditions	✓			**6.0**
INTERIOR & EXTERIOR OBSERVATIONS				
Lead-Based Paint	✓			**6.3.1**
Asbestos Containing Materials	✓	✓		**6.3.2**
Hazardous Substance & Petroleum Products	✓			**6.3.3**
Storage Tanks	✓			**6.3.4**
Solid Waste	✓			**6.3.5**
Odors	✓			**6.3.6**
Hazardous Waste	✓			**6.3.6**
Vapor Encroachment	✓			**6.3.7**
Polychlorinated Biphenyls (PCBs)	✓			**6.3.8**
Wastewater	✓			**6.3.9**
Wetlands	✓			**6.3.10**
Flood Maps	✓			**6.3.11**
Radon	✓			**6.3.12**
Air Emissions	✓			**6.3.13**
Stressed Vegetation	✓			**6.3.14**
Heating/Cooling	✓			**6.3.15**
Stains or Corrosion	✓			**6.3.16**

	Acceptable	Corrective Action	Further Investigation	Reference Section
INTERIOR & EXTERIOR OBSERVATIONS				
Drains & Sumps	✓			**6.3.17**
Mold	✓			**6.3.18**

1.1 SUMMARY OF FINDINGS

RECOGNIZED ENVIRONMENTAL CONDITIONS

A recognized environmental condition (REC) is defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property 1) due to a release of any hazardous substances or petroleum products; 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- No RECs associated with the Subject Property were identified during the course of this assessment.

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITION

An historical recognized environmental condition (HREC) is defined as an environmental condition which in the past would have been considered a *recognized environmental condition*, but which may or may not be considered a *recognized environmental condition* currently. The final decision rests with the environmental professional and will be influenced by the current impact of the historical recognized environmental condition on the property.

- No HRECs associated with the Subject Property were identified during the course of this assessment.

CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITION

Controlled recognized environmental conditions (CRECs) refer to sites that have achieved regulatory closure, where no further remediation is required but residual contamination still exists and the site is subject to some sort of control or use restrictions.

- No CRECs associated with the Subject Property were identified during the course of this assessment.

HISTORICAL REVIEW

- As per the historical records reviewed, the Subject Property was previously improved with a 2-story residential building prior to the construction of the current improvements from at least 1917 to 1960. According to the NYC Department of Buildings, the subject building was constructed in 1961, when it started being used for commercial purposes.

ENVIRONMENTAL DATABASE FINDINGS

- The Subject Property was not listed in the regulatory databases searched by Environmental Data Resources, Inc. (EDR).
-

ASBESTOS CONTAINING MATERIALS

- Suspect asbestos-containing materials in the form of sheetrock and joint compound were observed at the subject building. Damaged sheetrock panels were observed on the ceiling of the mechanical room. The remaining materials appeared to be in fair condition.

LEAD-BASED PAINT

- Commercial properties are not targeted for the identification of lead-based paint (LBP) and therefore LBP was not addressed.

MOLD

- Evidence of water intrusion was observed on the mechanical room ceiling sheetrock panels. Corrective action is warranted.

VAPOR ENCROACHMENT

- No Vapor Encroachment Conditions (VECs) that could not be ruled out were identified for the Subject Property or surroundings sites within the distances specified by ASTM E2600-10. The EDR Vapor Encroachment Screen report is included in Appendix 15.5.

2.0 INTRODUCTION

The following sections discuss the purpose, scope of services, limitations, and exceptions of assessment, and the information sources and methodology used in the preparation of this report.

2.1 PURPOSE

The purpose of a Phase I ESA is to evaluate a particular property for contamination that might have arisen from past property uses and assess whether any of these uses might have resulted in property contamination.

2.2 DETAILED SCOPE-OF-SERVICES

The purpose of this study was to evaluate past and existing environmental conditions at the Subject Property, including the storage, release, or disposal of hazardous substances on the property. In accordance with the ASTM Standard E1527-21, ALC has conducted the following scope of services:

- Interviews with ownership, operators and occupants;
- Reviews of historical sources of information;
- Reviews of federal, state, and local government records;
- Visual inspections of the facility and adjoining properties;
- Commonly known or reasonably ascertainable information;
- Degree of obviousness of the presence or likely presence of contamination at the property and the ability to detect the contamination;
- Assessments of any specialized knowledge related to environmental concerns at the Subject Property;
- Review of geologic and hydrogeologic literature pertaining to the site vicinity. The purpose of this review was to gain a basic understanding of subsurface conditions at the site;
- Evaluation of any potential sources of off-site contamination within a reasonable distance which may have impacted the site;
- Evaluation of past treatment, recycling, or disposal of hazardous materials on the site. An environmental records search of local, state, and federal environmental files was conducted. A copy of the records search conducted by Environmental Data Resources, Inc. (EDR) is included as Appendix 15.4 of this report;
- An assessment of the relationship of the purchase price to the fair market value of the property, if the property was not contaminated; and
- Recommendations for further study or work at the subject site will be made should potential problem areas be uncovered that could negatively impact property value. The client will be made aware of these conditions as soon as possible if they should arise.

2.3 *SIGNIFICANT ASSUMPTIONS*

This study is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the Subject Property, within reasonable limits of time and cost. It is assumed that the user has provided ALC with any specialized knowledge or experience that is material to recognized environmental conditions in connection with the property, including the reason why the property may have a significantly lower purchase price than comparable properties, if applicable. In general, groundwater flow direction has been determined based on topography in the vicinity of the Subject Property, i.e. the assumption that shallow groundwater flow will follow topography, or on other available resources. No site-specific field measurements of groundwater flow direction (e.g. installation of groundwater monitoring wells) have been performed.

Based on this interpretation, ALC has reviewed regulatory agency information for sites that are located in a presumed up-gradient direction, which based on proximity and knowledge of potential contaminant fate and transport, may present a potential to impact the Subject Property.

2.4 *LIMITATIONS AND EXCEPTIONS*

This assessment meets the requirements of the ASTM Standard E1527-21. The following limitations should be noted:

- Results of this investigation are valid as of the dates on which the investigation was performed;
- A visual inspection for the identification of suspect asbestos containing materials, lead-based paint, and mold growth was performed only in readily accessible areas of the subject building. No samples were collected as part of this assessment.
- The report has been prepared in accordance with generally accepted environmental methodologies referred to in ASTM E1527-21, and contains all of the limitations inherent in these methodologies. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included in this report.

2.5 *SPECIAL TERMS AND CONDITIONS*

There are no special terms and conditions for this assessment. ALC's standard terms and conditions are described in Appendix 15.6.

2.6 *USER RELIANCE*

This Phase I ESA report ("the Report") has been prepared for the benefit of and addressed to Philip Habib & Associates and such other persons as may be designated by Philip Habib & Associates, and their respective successors and assigns, employees and affiliates, and counsel and consultants. The report speaks only as of its date in the absence of a specific written update of the Report.

3.0 SITE DESCRIPTION

This section discusses the site location and description, site vicinity characteristics, description of structures, roads, and other improvements, physical setting, and current uses of the site and adjacent sites.

3.1 LOCATION AND LEGAL DESCRIPTION

Legal Description: A unit of land located in the State of New York, within Queens County, with a legal description of 217-14 24th Avenue, Queens, NY 11360. As per the NYC Department of Buildings, the Subject Property is alternatively addressed as 24-00 Little Neck Boulevard, Queens, NY 11360. The Subject Property is identified by the NYC Department of Finance as Block 6008 and Lot 95. A site map is included in Appendix 15.1.

3.2 SITE AND VICINITY GENERAL CHARACTERISTICS

As per the NYC Department of City Planning, the Subject Property is zoned R1-2: Residential. The general vicinity of the property consists of recreational spaces and residential buildings. No heavy manufacturing was observed in immediate proximity to the Subject Property.

3.3 FORMER USE OF THE PROPERTY

As per the historical and municipal records reviewed, prior to the construction of the current improvements, the Subject Property was previously improved with a 2-story residential building from at least 1917 to 1960. According to the NYC Department of Buildings, the subject building was constructed in 1961 and used for recreational and commercial purposes. No other prior uses were identified.

3.4 CURRENT USE OF THE PROPERTY

The Subject Property consists of a one-story commercial building comprising an office, restaurant, and swimming pool. Bay Terrace Country Club utilizes the Subject Property for recreational purposes. At the time of the assessment, the office and restaurant were closed for the season.

3.5 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE

The Subject Property is improved with a one-story commercial building, with a slab-on-grade foundation, located on an irregular-shaped parcel of land that is approximately 1.27-acres in size. The property features two pools, a pool shed containing pump equipment, a pump room, a security booth, a supply shed used by the restaurant for storage, a concrete paved walkway throughout the property, an asphalt-paved courtyard on the southwestern portion of the lot, a yard with playground equipment, and three concrete tennis courts. The Subject Property is secured by a fence with a gate entrance on the west side of the property, fronting 24th Avenue.

The subject building is approximately 2,800 square feet and contains an office and commercial restaurant. The roof is used as a lounge area/restaurant. The roof is accessed via two staircases on the southwestern and northeastern facades of the building. The office area contains mechanical equipment and storage areas. Primary access/egress into the building is via an entrance fronting 24th Avenue.

As per the municipal records reviewed, the subject building was constructed in 1961. The

structural improvements consist of a slab-on-grade foundation with masonry facades and a flat roof. The interior finishes of the building consist of concrete walls and corrugated ceilings, with sheetrock walls and ceiling in the mechanical room, and ceramic floor tiles in the restaurant and hallway, linoleum floor tiles in the office, and concrete flooring in the supply and mechanical areas.

No central heating, ventilation, and air conditioning (HVAC) systems were observed at the Subject Property. Cooling for the building is provided by individual through-window air conditioning units that plug into electrical outlets. Hot water is provided by an electric powered water heater. Heat is generated by two natural gas-fired burners and distributed to the interior of the building via air ducts.

Electricity is provided by Consolidated Edison. Domestic water is supplied by the municipal authority and overseen by the Department of Environmental Protection (DEP). Sanitary sewer services are tied into the municipal sewer system. No water wells or septic systems were observed on or in the immediate vicinity of the Subject Property.

3.6 CURRENT USES OF THE ADJOINING PROPERTIES

During the onsite reconnaissance, observations were made of the adjoining properties. These observations were made to identify recognized environmental conditions with the potential for impacting the Subject Property. The following is a list of adjoining properties and a summary of the observations made:

Direction	Name/Descriptions	Address	Topography
Northeast	Cross Island Parkway	Public thoroughfare	The topography of the parcel to the northeast is down-gradient, and at a slightly lower elevation than the Subject Property.
East	A 2-story single-family building	24-25 Little Neck Boulevard	The topography of the parcel to the east is cross-gradient and at approximately the same elevation as the Subject Property.
Southeast	Little Neck Boulevard	Public thoroughfare	The topography of the parcel to the southeast is cross-gradient and at approximately the same elevation as the Subject Property.
	One, 2-story single-family building	24-30 Little Neck Boulevard	
South	One, 2-story single-family building	24-20 Little Neck Boulevard	The topography of the parcel to the south is cross-gradient and at approximately the same elevation as the Subject Property.

Direction	Name/Descriptions	Address	Topography
Southwest	One, 2-story single-family building	215-48 24th Ave	The topography of the parcel to the southwest is up-gradient and at a slightly higher elevation than the Subject Property.
	Unimproved vacant lot	N/A	
Northwest	24th Avenue	Public thoroughfare	The topography of the parcel to the northwest is cross-gradient, and at approximately the same elevation as the Subject Property.
	A 7-story multi-family residential building	23-50 Waters Edge Drive	
	Unimproved vacant lot	N/A	

The current adjoining property uses do not appear to pose an environmental risk to the Subject Property.

4.0 USER PROVIDED INFORMATION

The following information is based upon information provided by the client. The type of information provided can include title records, environmental liens, specialized knowledge, reasons for performing the Phase I ESA, and prior environmental reports.

4.1 TITLE RECORDS

Below is a summary of the records obtained from the NYC Department of Finance (a copy of the most recent deed is provided in Appendix 15.5):

Name of Property Owner	Year Purchased
A Real YYZ L.P.	2019
Bay Terrace Country Club, Inc.	-

4.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

The Client did not report the existence of any environmental liens or use limitations for the Subject Property.

4.3 SPECIALIZED KNOWLEDGE

The user of this ESA report is not aware of any activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the Subject Property and/or have been filed or recorded in a registry under local, tribal, state, or federal law.

4.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION (40 CFR 312.30)

The Client did not report any particular concerns related to environmental issues at the Subject Property.

4.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

No property valuation reduction relating to environmental concerns was reported by the Client.

4.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

During the site reconnaissance, ALC Environmental was accompanied by Mr. Sergio Delgado, Superintendent of the Subject Property. Mr. Delgado has been associated with the Subject Property for seven years. He is not aware of any environmental concerns, reported spills, or underground storage tanks associated with the property.

Additionally, a standard environmental questionnaire was completed by Mr. Andrew Esposito, Contract Vendee of the Subject Property. Mr. Esposito has been associated with the Subject Property for one year. According to the questionnaire, the Subject Property has always been used as pool club and tennis courts. He is not aware of any environmental concerns, reported spills, or underground storage tanks associated with the property. A copy of the Pre-Survey Questionnaire is included in Appendix 15.5.

4.7 REASON FOR PERFORMING THE PHASE I

This Phase I ESA is being performed as a part of the due diligence process for the Subject Property. The preparation of the report was requested by the Client.

4.8 DEGREE OF OBVIOUSNESS (40 CFR 312.31)

The user of this Phase I ESA did not report any obvious indicators that point to the presence or likely presence of contamination at the Subject Property.

4.9 PREVIOUS REPORTS

No prior Phase I ESA reports were submitted for review during the preparation of this report.

5.0 RECORDS REVIEW

5.1 STANDARD ENVIRONMENTAL RECORD SOURCES

ALC conducted a review of the regulatory status of the Subject Property and surrounding properties within a 1-mile radius as it pertains to regulated activities involving the use of hazardous chemicals; the generation of hazardous waste; the treatment, storage, or disposal of hazardous waste; or the release of regulated substances. ALC utilized EDR to conduct the appropriate searches of federal and state sites identified within the radii specified by ASTM 1527-21.

- **The Subject Property was not listed in any of the databases searched by EDR.**

The following is a summary of the databases reviewed for this assessment. The regulatory database report is provided in Appendix 15.4:

Database	Search Radius	Site Listed	Adjacent	0-1/8 miles	1/8-¼ miles	¼-½ miles	½-1 miles
Federal Databases							
NPL	1 mile	No	0	0	0	0	0
SEMS	½ mile	No	0	0	0	0	
CORRACTS	1 mile	No	0	0	0	0	0
RCRA LQG	¼ mile	No	0	0	0		
RCRA SQG	¼ mile	No	0	0	0		
RCRA VSQG	¼ mile	No	0	0	0		
RCRA NonGen/NLR	¼ mile	No	0	5	7		
US BROWNFIELDS	½ mile	No	0	0	0	0	
FUDS	1 mile	No	0	0	0	0	1
FUSRAP	1 mile	No	0	0	0	0	1
UXO	1 mile	No	0	0	0	2	0
ERNS	Site	No					
FINDS	Site	No					
State Databases							
UST	¼ mile	No	1	0	3		
AST	¼ mile	No	1	0	6		
CBS	¼ mile	No	0	0	1		
CBS AST	¼ mile	No	0	0	1		
LTANKS	½ mile	No	0	2	3	7	
NY SHWS	1 mile	No	0	0	0	0	1
NY Spills	⅛ mile	No	2	2			
NY VCP	½ mile	No	0	0	0	0	
NY BROWNFIELDS	½ mile	No	0	0	0	0	
SWF/LF	½ mile	No	0	0	0	0	
NY DRYCLEANERS	¼ mile	No	0	0	0		
NY MANIFEST	¼ mile	No	0	5	7		

NJ MANIFEST	¼ mile	No	0	1	1		
EDR Property Records							
MGP	1 mile	No	0	0	0	0	0
Hist Cleaners	⅛ mile	No	0	0			
EDR Hits Auto	⅛ mile	No	0	1			

5.1.1 FEDERAL RECORDS

National Priority List (NPL)
The NPL is the Environmental Protection Agency's (EPA) database of some of the most serious uncontrolled or abandoned hazardous waste sites identified for probable remedial action under the Superfund Program. These sites may constitute an immediate threat to human health and the environment. Due to the amount of public attention focused on NPL sites, they pose a significant risk of stigmatizing surrounding properties and potentially impacting property values.

- No NPL sites were identified within a 1.0-mile radius of the Subject Property.

Superfund Enterprise Management System (SEMS)
SEMS is a compilation of hazardous wastes sites, potentially hazardous wastes sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), renamed to SEMS by the EPA in 2015. In addition, SEMS lists sites which are either proposed to or on the NPL and sites which are in the screening and assessment phase for the possible inclusion on the NPL.

- No SEMS sites were identified within a 0.5 mile radius of the Subject Property.

Resource Conservation and Recovery Act (RCRA)
The RCRA database is compiled by the EPA and contains notification, permitting, compliance, and corrective action data on facilities that generate, transport, store, treat, and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Facilities that receive hazardous waste from generators and other facilities for treatment, storage, or disposal of waste are known as TSDF's.

- None of the adjacent properties were identified as RCRA facilities, however, the search identified 12 RCRA-NonGen/NLR (Non-Generators/No Longer Regulated) facilities within a 0.25-mile radius of the Subject Property. There are no reported violations associated with any of the listed sites located within a 0.125-mile radius of the Subject Property. In addition, RCRA-NonGen/NLR facilities do not presently generate any hazardous waste. No further action or investigation is recommended.

CORRACTS
CORRACTS is a list of handlers with RCRA Corrective Action Activity.

- No CORRACTS sites were identified within a 1-mile radius of the Subject Property.

US BROWNFIELDS
The EPA's listing of Brownfields properties from the Cleanups in My Community program, which provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

- No US Brownfield sites were identified within a 1-mile radius of the Subject Property.

Formerly Used Defense Sites (FUDS)
The listing includes locations of Formerly Used Defense Sites Properties where the US Army Corps Of Engineers is actively working or will take necessary cleanup actions.

- None of the adjacent properties were listed, however the search identified one FUDS site within a 1-mile radius of the Subject Property. The listed site is located approximately 0.720 miles to the north-northwest of the Subject Property. According to the database, the site is listed with a closeout status. Based on the spatial distance and the information reviewed, no impacts to the Subject Property are anticipated from the listed FUDS site.

Formerly Utilized Sites Remedial Action Program (FUSRAP)
The Department of Energy established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

- None of the adjacent properties were listed, however the search identified one FUSRAP site within a 1-mile radius of the Subject Property. The listed site (Sylvania Corning Nuclear Corp., Inc. and Sylvania Lab) is located approximately 0.9 to 1.0 miles away to the northwest of the Subject Property. The site has been eliminated from consideration under FUSRAP. Based on the information reviewed, current status, and the spatial distance, no impacts to the Subject Property are anticipated from the listed FUSRAP site.

Unexploded Ordinance (UXO)
A list of unexploded ordnance site locations.

- None of the adjacent properties were listed, however the search identified two UXO sites within a 1-mile radius of the Subject Property. The listed sites are located approximately 0.4 to 0.5 miles away from the Subject Property. Based on a combination of factors such as information reviewed, topographic relations, distances, and, no impacts to the Subject Property are anticipated from the listed sites.

5.1.2 STATE RECORDS

Underground Storage Tanks (UST)
The UST database is compiled by the NYSDEC, and contains an inventory of facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons.

- The adjacent property to the northwest (across Water Edge Drive), known as 23-50 Water Edge Drive, was listed in regards to a Closed – In Place 5,000-gallon No. 2 fuel oil UST reportedly installed in January 1968 and closed in February 2008. The referenced tank was registered with the NYSDEC under PBS No. 2-289361 and the registration certificate expires in June 2024. At present, there are no reported releases associated with this tank. Based on the information reviewed, lack of reported spills, and closed status, the listed tank is not a concern to the SP.
- The search did not identify any additional registered USTs associated with the remaining adjacent properties. No further action or investigation is recommended.

Aboveground Storage Tanks (AST)
The AST database is compiled by the NYSDEC and contains an inventory of registered aboveground storage tanks. The AST database lists facilities that have aboveground petroleum storage capacities in excess of 1,100-gallons and less than 400,000 gallons.

- The adjacent property to the northwest (across Water Edge Drive), known as 23-50 Water Edge Drive, was listed in regards to an active 3,000-gallon No. 2 fuel oil AST reportedly installed in February 2008. The referenced tank is registered with the NYSDEC under PBS No. 2-252905. There are no reported releases associated with this site. Based on the lack of reported releases and the fact that the referenced tank is located aboveground and visually accessible, no further action or investigation is warranted at present.
- The search did not identify any additional registered ASTs associated with the adjacent properties. No further action or investigation is recommended.

Chemical Bulk Storage (CBS and CBS AST)
These facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

- None of the adjacent properties were listed, however the search identified one NY CBS site and one CBS AST site within a 0.25-mile radius of the Subject Property. Further review indicates that the listed site called Bayview Cleaners (Bay Ropa Corp.), located at 23-52 Bell Boulevard and 1,024 feet to the west, is registered with NYSDEC under CBS No. 2-000189 and has been granted a 'Unregulated/Closed' status (CBS) and a closed-removed status (CBS-AST). There are no reported releases associated with this site. Based on the lack of reported releases and the closed status, no further action or investigation is warranted at present.

Leaking Storage Tanks (LTANKS)
The LTANKS database is compiled by the NYSDEC and contains an inventory of leaking aboveground or underground tanks reported since April 1, 1986. The causes of the incidents are tank test failures, tank failure or overfill.

- None of the adjacent properties were listed, however the search identified 12 NY LTANKS sites within a 0.125-mile radius of the Subject Property. Further review indicates that the listed sites have been granted a 'case closed' status. The regulatory agency awards a 'case closed' status only when contamination, if any, has been investigated and/or remediated in accordance with currently accepted regulatory standards.
- The nearest listed site is located at 24-51 Little Neck Boulevard, approximately 232 feet to the southeast and up-gradient from the Subject Property. The incident (Spill No. 9008708) was reported on November 14, 1990 due to a tank test failure. As per the database, a line test failed at this location from a station to the east on Grand Central Parkway West. The spill location was reportedly excavated, isolated, repaired & retested. This spill case was closed by the NYSDEC on January 7, 1991. Based on the distance and regulatory closure, no significant impacts to the Subject Property are anticipated from.
- The remaining closed LTANKS sites are located over 300 feet away. Based on a combination of factors such as information reviewed, topographic relations, distances, and regulatory closure, no impacts to the Subject Property are anticipated from the listed NY LTANKS sites.

Spills Information Database (NY Spills)
The NY Spills database contains data regarding chemical and petroleum spill incidents reported to the NYSDEC. It includes spills that took place from April 1, 1986 to present.

- The adjacent property to the west, the intersection of 24th Avenue and 217th Street, is listed with two (2) spill cases as follows:
    - The first incident was reported on February 24, 1990 (Spill No. 8911194). As per the database, this incident was associated with a sewage spill of less than a gallon. The database indicates that Flushing Bay was investigated to determine if it was impacted. The spill case was closed by the NYSDEC on October 25, 2005. Based on the information reviewed, nature of the spill, and regulatory closure, no impacts to the Subject Property are anticipated from the listed spill case.
    - The second incident was reported on September 2, 2002 (Spill No. 0205699). As per the database, this incident was associated with a spill of an unknown quantity of raw sewage after a pump tripped out and impacted the water of Little Neck Bay. The spill case was closed by the NYSDEC on September 2, 2002. Based on a combination of factors such as information reviewed, nature of the spill and regulatory closure, no impacts to the Subject Property are anticipated from the listed spill case.
- None of the remaining adjacent properties were listed in the NY Spills database, however the search identified two additional NY Spills sites within a 0.125-mile radius of the Subject Property. Further review indicates that both listed sites have been granted a 'case closed' status and are located over 450 feet away from the Subject Property. Based on a combination of factors such as information reviewed, topographic relations, distances, and regulatory closure, no impacts to the Subject Property are anticipated from the listed NY Spills sites

State Hazardous Waste Sites (SHWS)
The SHWS program, also referred to as the State Superfund Program, is the cleanup program for inactive hazardous waste and now includes hazardous substances sites. These sites may or may not already be listed on the federal CERCLIS list.

- None of the adjacent properties were listed, however the search identified one SHWS site within a 1-mile radius of the Subject Property. The listed site, known as Fort Totten, located approximately 0.93 miles to the northwest and at a lower elevation than the Subject Property. According to the database, the site was originally listed due to the presence of mercury in Little Bay, however, the site investigations indicated that this mercury was not causing a significant threat. Additionally, access to the site is restricted. Based on the information reviewed, spatial distance, and the topographic location, no impacts to the Subject Property are anticipated from the listed SHWS site.

NY BROWNFIELDS
A Brownfields site is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant.

- The search did not identify any NY Brownfields sites within a 0.5-mile radius of the Subject Property.

Voluntary Cleanup Program (VCP)
New York established its VCP to address the environmental, legal and financial barriers that often hinder the redevelopment and reuse of contaminated properties. The Voluntary Cleanup Program was developed to enhance private sector cleanup of brownfields by enabling parties to remediate sites using private rather than public funds and to reduce the development pressures on "greenfield" sites. The search did not identify any dry-cleaning facilities within the study radius.

- The search did not identify any NY VCP sites within a 0.5-mile radius of the Subject Property.

Solid Waste Facilities/ Landfill Sites in New York State (SWF/LF)
SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

- The search did not identify any SWF/LF sites within a 0.5-mile radius of the Subject Property.

NY DRYCLEANERS
A listing of registered dry-cleaning facilities.

- The search did not identify any NY DRYCLEANERS sites within a 0.25-mile radius of the Subject Property.

Facility and Manifest data (NY & NJ MANIFEST)
The manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

- The search did not identify any MANIFEST sites associated with the adjacent properties; however, 12 NY MANIFEST sites and two (2) NJ MANIFEST sites were identified in a 0.25-mile radius of the Subject Property. Based on the nature of the MANIFEST database, which is not necessarily indicative of environmental concern but rather the types of activities occurring, the listed NY and NJ MANIFEST sites are not considered to represent an environmental concern.

5.1.3 EDR Property Records

US Historical Auto Stations (US Hist Auto Stat)
A listing of potential gas station/filling station/service station sites that were compiled by EDR through a search of national business directories. This database falls within a category of information EDR classifies as "High Risk Historical Records".

- None of the adjacent properties were identified as historical auto stations. However, the search identified one historical auto stations within a 0.125-mile radius of the Subject Property**.** The listed site, known as Astoria 44 Service Station and addressed 24-56 Little Neck Boulevard, is located in excess of 300 feet of the Subject Property. Based on a combination of factors such as information reviewed, topographic relations, distances, and regulatory closure, no impacts to the Subject Property are anticipated from the listed site.

5.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

1. ALC reviewed online records maintained by the NYSDEC for information concerning the Subject Property. The records reviewed did not identify any information pertaining to the Subject Property on the state databases related to spill incidents or site remediation.

2. NYC Department of Buildings (DOB) records were reviewed to determine whether there were any violations or other conditions that would pose an environmental risk to the Subject Property. The following pertinent records were located:

   - A Certificate of Occupancy issued in 1961 states the building was completed February 1, 1961, has a cellar on the ground floor, with a boiler room, locker room, filter room and storage. It also states the building has a deck used as a promenade and a swimming pool.
   - Boiler Records from May 24, 2017 indicated that the subject building's natural gas fired boiler had been removed and replaced by HVAC.

   Copies of the documents reviewed are provided in Appendix 15.5.

3. ALC reviewed the New York City Department of Environmental Protection Citywide Planning for Zoning and E-designation site list. The Subject Property is not listed as having any E-designations. A zoning map is provided in Appendix 15.1.

4. ALC reviewed online records maintained by the NYC Office of Environmental Remediation-Searchable Property Environmental E-Database (SPEED). No Voluntary Cleanup Program/Brownfields or hazardous waste sites were identified in the vicinity of the Subject Property.

5.3 PHYSICAL SETTING SOURCE

ALC reviewed the USGS Harlem, NY 15 Minute Series topographic maps dated 1897 through 1900, and USGS Flushing, NY 7.5 Minute Series topographic map dated 1947 through 2019, to determine physical setting information associated with the Subject Property. Representative copies of the topographic maps reviewed are included in Appendix 15.3.

5.4 HISTORICAL USE INFORMATION ON THE PROPERTY AND ADJOINING PROPERTIES

Historical use information is based on a review of historical aerial photographs (1924, 1951, 1954, 1962, 1966, 1971, 1975, 1984, 2006, 2011, 2015, and 2019); Sanborn maps (1903, 1917, 1934, 1951, 1980, 1982, 1985, 1988, 1991, 1992, 1993, 1994, 1995, 1999, 2001, 2002, 2003, 2004, 2005, and 2006); historical topographic maps (1897, 1898, 1900, 1947, 1954, 1955, 1966, 1968, 1979, 1995, 2013, 2016 and 2019); and city directories (1922, 1934, 1939, 1945, 1950, 1962, 1967, 1970, 1976, 1983, 1991, 1994, 1996, 1999, 2000, 2004, 2005, 2009, 2014, and 2017). The historical data is provided in Appendix 15.3.

5.4.1 AERIAL PHOTOGRAPHS

1924 - 1954

- **Subject Property:** An apparent residential building is depicted on the southern portion of the Subject Property.
- **Offsite:** The existing residential homes are depicted to the south. Little Neck Boulevard is depicted to the south and 24th Avenue is depicted to the west. The remaining adjacent properties are unimproved vacant land.

1961-1966

- **Subject Property:** The Subject Property is improved with existing commercial building and pools.
- **Offsite:** No major changes.

1971-2019

- **Subject Property:** The existing commercial/recreational building is depicted.
- **Offsite:** No major changes.

No areas of concern were identified from the aerial photographs reviewed.

5.4.2 HISTORICAL SANBORN MAPS

Subject Property

Year	Description
1903	The Subject Property consists of undeveloped vacant land
1917-1951	A two-story dwelling is located on the southern portion of the Subject Property.
1980-2006	The Subject Property is labeled as Bay Terrace Country Club and is improved with the existing 1-story commercial building and with a pool.

No areas of concern were identified from the Sanborn maps reviewed.

Adjacent Properties

Year	Description
North & Northeast – Cross Island Parkway	
1903-1934	The map depicts insufficient data
1951-2006	Undeveloped land followed by Cross Island Parkway.
Southeast – 24-25 & 24-30 Little Neck Boulevard	
1903-1951	The property consists of an undeveloped vacant lot.

Year	Description
1980-2006	The property is improved with the existing two, 2-story single-family homes.
South – 24-20 Little Neck Boulevard	
1903	The property consists of an undeveloped vacant lot.
1917-2006	The property is improved with the existing 2-story single-family home.
South – 24-23 Little Neck Boulevard/215-48 24th Avenue	
1903-1951	The property consists of an undeveloped vacant lot.
1980-2006	The property is improved with the existing 2-story single-family home.
West – 23-50 Waters Edge Drive	
1903-1951	The property is not depicted in the map.
1980-2006	The property is improved with the existing playground and 7-story multi-family residential building.
Northwest- Vacant Lot	
1903-1982	The property is an unimproved vacant lot.
1985-2006	The property is used for parking.

No areas of concern were identified from the Sanborn maps reviewed.

5.4.3 CITY DIRECTORIES

City directories can be useful in providing the names of businesses that have operated at a particular site. Historical city directories were obtained from EDR. Below is a summary of the findings:

Subject Property

Year	Uses
1922, 1934, 1939, 1945, 1950, 1962, 1967	Address not listed
1970, 1976	Residential listings
1994	Bay Terrace Country Club Inc.
1999, 2000, 2004	Bay Terrace Country Club Inc. and G cafe
2005, 2014, 2017	Bay Terrace Country Club Inc.

No areas of concern were identified from the city directories reviewed.

Adjacent Properties

None of the adjoining properties were found in the city directories reviewed.

No adverse impacts are anticipated from the historical uses of the adjacent properties.

5.4.4 TOPOGRAPHIC MAPS

Historical topographic maps can be useful in determining the nature of historic land use and presence of historical structures at a particular site. The following topographic maps were reviewed:

- **1897-1947**: The Subject Property and adjacent properties are located in an area that is shaded white, which is indicative of undeveloped areas.
- **1954-1995:** The Subject Property and the surrounding areas are located in a pink-shaded area, indicating the Subject Property is within a densely populated area where only landmark structures are delineated.
- **2013-2019:** The Subject Property is located in a gray-shaded area, indicating the Subject Property is within a built-up area where individual structures are not delineated.

6.0 SITE RECONNAISSANCE

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the property.

6.1 METHODOLOGY AND LIMITING CONDITIONS

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM International (ASTM) Practice E1527-21. All areas of the Subject Property were accessible at the time of the inspection.

6.2 GENERAL SITE SETTING

The Subject Property is located on the U.S.G.S. Flushing NY 7.5' Quadrangle topographic maps. The general site topographic gradient within a 1,000-foot radius of the Subject Property is in the northeast direction. Topographic conditions of the site vicinity are shown in Appendix 15.3. The Subject Property is approximately 10 feet above mean sea level. The nearest body of water is the Little Neck Bay, located approximately 270 feet to the east-northeast of the Subject Property.

The soils under and in the vicinity of the site are classified by the U.S. Department of Agriculture (USDA) as Urban Land. Urban land is noted to be comprised of surfaces covered by asphalt, concrete, buildings, or other impervious surfaces. Soils and foundation materials are highly variable. Urban structures and works cover so much of this land type that identification of the soils is not practical. Most areas have been smoothed and the original soil material has been disturbed, filled over, or otherwise destroyed prior to construction.

The Subject Property area is located within the Atlantic Coastal Plain physiographic province. The basic foundation of New York City is a sequence of Proterozoic Z to lower Paleozoic crystalline rocks. The Coastal Plain surface beneath Brooklyn and Queens is covered by unconsolidated Cretaceous sediments (gravel, sand and clay) of predominately terrestrial origin. The Coastal Plain province is characterized by many rivers, marsh and swampland and consists of sedimentary rock and unlithified sediments.

The principal aquifer system in this region consists of the North Atlantic Coastal Plain aquifer system, consisting of the Magothy and Lloyd aquifer. This aquifer primary consists of sand and gravel, with clay separating the two aquifers. The Magothy aquifer provides most of the water in the western half of Long Island. While groundwater in the vicinity of the Subject Property typically flows in a northeastern direction, local variations are possible due to intervening subsurface structures that could alter groundwater flow patterns. Groundwater at the Subject Property is not used as a source of drinking water.

6.3 EXTERIOR AND INTERIOR OBSERVATIONS

The periphery of the Subject Property, as well as the periphery of the onsite structure was visually inspected to identify recognized environmental conditions in connection with the Subject Property. ALC inspected exterior areas, the commercial kitchen and storage room, and pool storage areas.

The following conditions were observed:

6.3.1 LEAD

Commercial buildings are not targeted for the identification of lead-based paint and therefore LBP was not addressed at the subject building.

The scope of this study did not include water testing for the identification of lead. However, the Subject Property is supplied with public water which is routinely monitored by the NYCDEP. As such, impacts associated with lead in water are not anticipated.

6.3.2 ASBESTOS

Since the subject building was built prior to 1979, there is a possibility that the original construction materials contained asbestos. According to the EPA and included in the publication EPA560/5-85-025 "Guidance for Controlling Asbestos Containing Materials (ACM) in Buildings", asbestos containing materials are found in three forms: (1) Sprayed or troweled on ceilings and walls and structural steel; (2) in insulation around hot and cold piping, ducts, boilers, and tanks; and (3) in a non-friable state in products such as ceiling and floor tiles, wallboards and outside materials such as shingles and roofing materials. In general, ACM in a friable state (the first two categories) is of greatest concern because they are able to release asbestos fibers with only minimal disturbance.

We have used the 4-category system as defined by Asbestos Hazardous Emergency Response Act (AHERA) to designate the different conditions of asbestos notes throughout the areas of the site.

1. **Good Condition**
   Materials with no visible damage or deterioration to very limited damage or deterioration.

2. **Fair Condition**
   i. A few water stains or less than one tenth of insulation with missing jackets.
   ii. Crushed, heavily gouged, or punctured insulation, on at least one tenth of pipe runs/risers, boiler, tank duct, etc., if the damage is evenly distributed (one quarter if the damage is localized).

3. **Poor Condition**
   Material with one or more of the following characteristics:
   i. Missing jackets on at least one tenth of the piping equipment.
   ii. Crushed, heavily gouged or punctured insulation on at least one tenth of pipe runs/risers, boiler, tank duct, etc., if the damage is evenly distributed (one quarter if the damage is localized).

4. **Significantly Damaged**
   Thermal systems insulation on pipes, boilers, tanks, ducts, and other thermal system insulation equipment where the insulation has lost its structural integrity, or its covering, in whole or in parts, is crushed, water-stained, gouged, punctured, missing, or not intact such that is not able to contain fibers. Damage may be further illustrated by occasional punctures, gouges, or other signs of physical injury to ACM; occasional water damage on the protective

coverings/jackets; or exposed ACM ends or joints. Asbestos debris, originating from the ACM in question may also indicate damage.

Findings:

- The following suspect ACM was observed at the Subject Property:

Location	Material	Condition
Mechanical room	Sheetrock and joint compound	Slightly damaged
Office space	Linoleum floor tiles	Good

- Prior to any renovation/remodeling or repair work that will affect the above-referenced materials, asbestos sampling should be conducted. If determined to contain asbestos via laboratory analysis, the referenced materials should be abated by a certified asbestos abatement contractor as per all applicable local, state, and federal regulations.
- Suspect asbestos containing materials in good condition can remain in place, and should be managed under an Operations and Maintenance (O&M) plan.

This inspection was conducted solely to identify suspect ACM in accessible areas of the Subject Property. Additional asbestos containing materials/quantities may be present in concealed areas of the building, or areas not visually inspected during this assessment. Any suspect asbestos containing materials encountered during future construction activities should be tested or assumed to be ACM and treated as such.

6.3.3 NON-ASBESTOS HAZARDOUS MATERIALS

Below is a list of hazardous materials identified at the Subject Property during the site reconnaissance:

Type of Material	Quantity	Use
Accu-Tab (Calcium Hypochlorite tablets)	20-30, 5-gallon plastic container	Pool maintenance
Calcium Chloride Flakes (commercial grade)	Five, 20-lbs. plastic bags	Pool maintenance
Bleach and cleaning products	10, one-liter plastic containers	Building maintenance
Gasoline	One, 5-gallon plastic container	Snow removal equipment
Enamel	Five, 5-gallon plastic containers	Building maintenance

Type of Material	Quantity	Use
Oil Based Paint	Five, 1-gallon metal containers	Building maintenance

No evidence of spills, improper handling, or disposal of hazardous materials was observed at the time of the site visit.

ALC did not observe any evidence of radiological materials such as those found in laboratories, medical equipment, or industrial operations. Additionally, there was no evidence that past operations used hazardous substances that may have been released into the environment.

6.3.4 UNDERGROUND/ABOVEGROUND STORAGE TANKS

No underground or aboveground storage tanks, fuel oil fill pipes, or access ways indicative of underground storage tanks were observed at the Subject Property during the site visit or identified from the records reviewed.

6.3.5 NON-HAZARDOUS SOLID WASTE

Solid waste generated at the Subject Property is stored in the alleyway along the eastern façade the subject building, and is regularly collected by the NYC Department of Sanitation. No areas of concern were identified.

There was no evidence that the Subject Property may have been used for dumping or landfilling.

6.3.6 HAZARDOUS WASTE

The subject building is solely used for residential occupancy and therefore no hazardous wastes are generated onsite.

- **ODORS**
  No strong, pungent, or noxious odors were noted at the Subject Property at the time of the site visit.

- **POOLS OF LIQUID**

  No pools or sumps containing liquids likely to be hazardous substances or petroleum products were visually observed at the Subject Property at the time of the site visit.

- **DRUMS**
  No waste drums were observed at the Subject Property at the time of the site visit.

- **UNIDENTIFIED SUBSTANCE CONTAINERS**
  No open or damaged containers containing unidentified substances suspected of being hazardous substances or petroleum products were observed on the Subject Property.

6.3.7 VAPOR ENCROACHMENT

A Tier 1 Vapor Encroachment Screening for the Subject Property was performed, in accordance with the ASTM International Practice 2600-10. ALC utilized EDR to conduct the appropriate searches of federal and state sites identified within the area of concern (AOC) specified by ASTM 2600-10. The appropriate minimum search distances surrounding the Subject Property are as follows:

Standard Environmental Record Sources	Chemicals of Concern (miles)	Petroleum Hydrocarbon Chemicals of Concern (miles)
Registered storage tanks	Target property only	Target property only
Emergency Response Notification System (ERNS)	Target property only	Target property only
Federal and state institutional and engineering Controls list	Target property only	Target property only
Federal RCRA Generators	Target property only	Target property only
Federal NPL	1/3	1/10
State- and tribal-equivalent NPL	1/3	1/10
Federal SEMS	1/3	1/10
State- and tribal-equivalent SEMS	1/3	1/10
Federal RCRA CORRACTS facilities	1/3	1/10
State and tribal landfill and/or solid waste disposal sites	1/3	1/10
State and tribal voluntary cleanup sites (VCP)	1/3	1/10
State and tribal Brownfield sites	1/3	1/10

Minimum search distances when groundwater flow direction can be estimated:		
Up-gradient	**Cross-gradient**	**Down-gradient**
- 1/3 mile for chemicals of concern sources	- 100 feet for chemicals of concern sources/petroleum hydrocarbon *Light Non-Aqueous Phase Liquid (LNAPL) sources plus plume width consideration.*	- 100 feet for chemicals of concern sources/petroleum hydrocarbon *LNAPL sources.*
Minimum search distances when groundwater flow direction can be estimated:		
Up-gradient	**Cross-gradient**	**Down-gradient**
- 1/10 mile for petroleum hydrocarbon sources	- 30 feet for dissolved petroleum hydrocarbon sources *plus plume width consideration.*	- 30 feet for dissolved petroleum hydrocarbon sources. LNAPL sources.

Findings:

- No VECs that could not be ruled out were identified for the Subject Property or surroundings sites within the above specified distances. A VEC is defined by ASTM E2600-10 as "the presence or likely presence of chemicals of concern (COC) vapors in the sub-surface of the target property caused by the release of vapors from contaminated soil or groundwater either on, or near the target property". The EDR Vapor Encroachment Screen report is included in Appendix 15.5. No further action or investigation is warranted.

6.3.8 PCB-CONTAINING EQUIPMENT

Observation for electrical equipment or electrical components which contain dielectric fluid with the potential to contain polychlorinated biphenyls (PCBs) in excess of 50 parts per million (ppm) was conducted as part of this assessment. No suspect PCB-containing equipment (i.e. transformers or hydraulic lifts) was observed at the Subject Property.

6.3.9 STORM WATER AND WASTE WATER

The Subject Property is connected to a municipal-owned and maintained sewer system. Stormwater is drained from the Subject Property primarily by sheet flow action across paved surfaces and into onsite stormwater drains and catch basins located on the adjacent streets. No unusual ponding of storm waters was observed.

Industrial effluent is not known to have been generated at the Subject Property and, in any event, would not have been permitted to be discharged to the sewer system without the requisite Municipal Utility Authority (MUA) permits. Sanitary effluent discharges to the municipal sewer system generated at the Subject Property originate from the domestic bathroom facilities.

6.3.10 WETLANDS

Review of the National Wetlands Inventory published by USGS indicated that there are no recognized wetlands on or in the immediate vicinity of the Subject Property. A wetlands map is provided in Appendix 15.1.

6.3.11 FLOODPLAINS

As per the FEMA flood map reviewed (FEMA FIRM Panel No. 3604970117F and 3604970119F), the Subject Property is located in Flood Zone X- an area which is defined as areas of minimal flood hazard, typically above the 500-year flood level. A copy of the FEMA flood map is provided in Appendix 15.1.

6.3.12 RADON

Radon is a colorless, odorless gas produced by the radioactive decay of certain elements. The most common sources of radon are igneous and metamorphic rocks containing uranium (such as pitchblende), granite, shale, or phosphate, as well as soils or sediments derived from these parent materials. Radon may also be found in soils contaminated with certain industrial wastes (such as uranium or phosphate mine tailings) or in earth-derived building products which include

industrial wastes that contain phosphate slag. In areas where the potential for radon accumulation is high, special ventilation systems may offset potential health hazards.

Review of the EPA Map of Radon Zones places the Subject Property in Zone 3, where average predicted radon levels are less than 2.0 pCi/L (picocuries/liter). The USEPA recommended action level is 4.0 pCi/L. Based on the low predicted radon levels, adverse environmental impacts related to radon gas migration are not anticipated at the Subject Property.

6.3.13 AIR EMISSIONS

No potential sources of permitted air emissions were observed at the Subject Property during the site reconnaissance.

6.3.14 STRESSED VEGETATION

This inspection did not reveal any visual indication of environmental contamination immediately adjacent to the Subject Property nor within the boundaries of the Subject Property.

6.3.15 HEATING/COOLING

Cooling for the subject building is provided by individual through-window air conditioning units that plug into electrical outlets. Hot water is provided by an electric powered hot water heater. Heat is generated by two natural gas-fired burners and distributed to the interior of the building via air ducts.

6.3.16 STAINS OR CORROSION

No areas of stained soil or pavement were visually observed at the Subject Property at the time of the site visit.

6.3.17 DRAINS AND SUMPS

Floor drains observed at the subject building (throughout the pool area, tennis courts, and the restaurant's kitchen) are reported to discharge to the municipal sewer systems. No evidence of improper disposal of hazardous liquids was observed near the floor drains. A sump pump was observed in the meter room of the subject building. No oil sheens were observed inside the sump pit.

6.3.18 MOLD

Evidence of water intrusion was observed in the mechanical room on the ceiling sheetrock panels. Corrective action is warranted.

7.0 INTERVIEWS

7.1 INTERVIEW WITH OWNER

The building Owner was not available for interview at the time of the site visit.

7.2 INTERVIEW WITH SITE MANAGER

During the site reconnaissance, ALC Environmental was accompanied by Mr. Sergio Delgado, Superintendent of the Subject Property. Mr. Delgado has been associated with the Subject Property for seven years. He is not aware of any environmental concerns, reported spills, or underground storage tanks associated with the property.

Additionally, a standard environmental questionnaire was completed by Mr. Andrew Esposito, Contract Vendee of the Subject Property. Mr. Esposito has been associated with the Subject Property for one year. According to the questionnaire, the Subject Property has always been used as pool club and tennis courts. He is not aware of any environmental concerns, reported spills, or underground storage tanks associated with the property. A copy of the Pre-Survey Questionnaire is included in Appendix 15.5.

7.3 INTERVIEWS WITH OCCUPANTS

No occupants were interviewed during the time of the site visit.

7.4 INTERVIEWS WITH LOCAL GOVERNMENT OFFICIALS

A Freedom of Information Act (FOIL) request for information associated with the Subject Property was submitted to the NYSDEC. According to the Appeals Officer of the Office of General Counsel, a diligent search of the files maintained by DEC produced no responsive records.

7.5 INTERVIEW WITH OTHERS

No others were interviewed as part of this assessment.

8.0 FINDINGS

The Consultant did not identify any recognized environmental conditions (RECs) associated with the Subject Property:

However, the following noteworthy conditions, which include *de minimis* conditions, were identified:

- Suspect asbestos-containing materials in the form of sheetrock and joint compound were observed at the subject building. Damaged sheetrock panels were observed in the mechanical room. The remaining materials appeared in good to fair condition.

- Evidence of water intrusion was observed on the mechanical room ceiling sheetrock panels. Corrective action is warranted.

- No Vapor Encroachment Conditions (VECs) that could not be ruled out were identified for the Subject Property or surroundings sites within the distances specified by ASTM E2600-10. The EDR Vapor Encroachment Screen report is included in Appendix 15.5.

No additional conditions were observed at the site that could potentially present a significant environmental concern or recognized environmental condition.

9.0 CONCLUSIONS AND RECOMMENDATIONS

Based on a review of background data, regulatory agency records, aerial photographs, and observations made during the site reconnaissance, the following conclusions and recommendations are presented regarding the Subject Property. The scope of this study did not include subsurface exploration, sampling or analytical laboratory testing.

9.1 CONCLUSIONS

- The Subject Property is not identified as being evaluated by the State of New York or federal government for remedial action under SEMS or any other environmental regulations.

- There were fifty (50) sites listed on the regulatory database search within a 1-mile radius of the Subject Property. Based on available information, estimated flow direction of groundwater, and the nature of the database listings, it is unlikely that the Subject Property has been impacted by unauthorized releases of hazardous materials at this time, though it is impossible to entirely rule out the potential for contamination.

- Based on the estimated age of the subject building, asbestos containing materials are anticipated to be present at the subject building.

- ALC performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of the property located at 217-14 24th Avenue, Bayside, Queen's County, NY 11360. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has not revealed evidence of any recognized environmental conditions (REC's) in connection with the Subject Property.

9.2 RECOMMENDATIONS

- Suspect asbestos-containing materials in the form of sheetrock and joint compound are present at the subject building. Prior to any repair or renovation work that will affect the referenced materials, asbestos testing should be conducted. If determined to contain asbestos, the referenced materials should be abated by a certified asbestos abatement contractor prior to commencement of the renovation work, as per all applicable local, state, and federal regulations.
    - Suspect asbestos containing materials in good condition can remain in place, and should be managed under an Operations & Maintenance (O&M) plan.

- In regards to the evidence of water intrusion observed on the mechanical room ceiling sheetrock panels, the sources of the water intrusion should be investigated and permanently repaired to prevent further water damage and the proliferation of mold growth.

ALC has no additional recommendations for further study at the Subject Property at this time, other than the recommendations provided above.

10.0 DEVIATIONS

ALC did not interview the prior property owner as part of this assessment, and replies from certain municipal officials had yet to be received by the time of report completion. Beyond the aforementioned exceptions, there were no deletions or deviations from ASTM E1527-21. The client did not impose any constraints that required deviation from the standard practice and there were no conditions at the site that limited the scope of work.

Data Gaps: Request for public records associated with the Subject Property submitted to the NYSDEC was not received in time for inclusion in this report. This constitutes a data gap, however, based on the visual observations and records reviewed, this data gap is not considered significant to the findings and conclusions of this report.

11.0 ADDITIONAL SERVICES

ALC did not provide any additional services to the Client as part of this Phase I ESA.

12.0 REFERENCES

Environmental Data Resources (EDR) with Geocheck: 217-14 24th Avenue, Bayside, NY 11360, dated February 23, 2023.

EDR Aerial Photo Decade Package, dated February 24, 2023

EDR Certified Sanborn Map Report, dated February 23, 2023

EDR City Directory, dated February 24, 2023

EDR Historical Topographic Map Report, dated February 23, 2023

National Wetlands Inventory
http://www.fws.gov/wetlands/data/Mapper.html

USEPA Map of Radon Zones.
http://www.epa.gov/radon/zonemap.html

NYC Oasis
www.oasisnyc.net

Department of Buildings
http://www.nyc.gov/html/dob/html/bis/bis.shtml

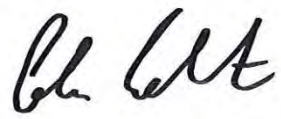
NYSDEC Environmental Site Database Search
http://www.dec.ny.gov/chemical/8437.html

NYC Department of Finance
http://www.nyc.gov/html/dof/html/jump/acris.shtml

NYS Searchable Property Environmental E-Database (SPEED)
https://gis.nyc.gov/moer/speed/

13.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM International Practice E1527-21. Ms. Sanchita Basu Mallick, of ALC Environmental, a qualified Environmental Professional, performed this Phase I ESA.



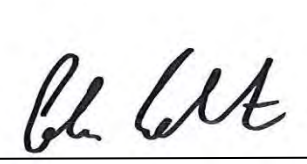
Surveyed & written by: Colin Eckhardt, Project Manager
Real Estate Due Diligence
ALC Environmental



Reviewed by: Sanchita Basu Mallick, Assistant Director
EHS Division
ALC Environmental

14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Surveyed & written by: Colin Eckhardt, Project Manager
Real Estate Due Diligence
ALC Environmental



Reviewed by: Sanchita Basu Mallick, Assistant Director
EHS Division
ALC Environmental

APPENDIX IV

Transportation Planning Factors (TPF) and Travel Demand Forecast (TDF) Memorandum

Philip Habib & Associates
Engineers and Planners • 432 Park Avenue South • New York, NY 10016 • 212 929 5656 • 212 929 5605 (fax)

TECHNICAL MEMORANDUM

TO: **New York City Department of City Planning (DCP)**

FROM: **Philip Habib & Associates (PHA)**

DATE: **June 12, 2023**

PROJECT: **217-14 24th Avenue Rezoning EAS (PHA No. 2275)**

RE: **Transportation Planning Factors and Travel Demand Forecast**

This memorandum summarizes the transportation planning factors to be used for the analyses of traffic, transit, pedestrian, and parking conditions for the *217-14 24th Avenue Rezoning EAS*. Estimates of the peak travel demand from the Proposed Actions' Reasonable Worst-Case Development Scenario ("RWCDS") are provided, along with a discussion of trip assignment methodologies and study area definitions.

THE PROPOSAL

The proposal involves an application by BMBT LLC (the "Applicant") for discretionary actions (the "Proposed Actions") to facilitate the development of a single new eight-story residential building with senior living facilities on the first and second floors (the "Proposed Development") at 217-14 24th Avenue (Block 6008, Lot 95; also known as ("aka") the "Proposed Development Site") in the Bay Terrace neighborhood of Queens Community District ("CD") 11 (refer to **Figure 1**).

The Proposed Actions include: (i) a zoning map amendment to rezone the "Proposed Rezoning Area" from a R1-2 district to a R6A district; and (ii) a zoning text amendment to Appendix F of the New York City Zoning Resolution ("ZR") to establish the Proposed Rezoning Area as a Mandatory Inclusionary Housing ("MIH") area. The Proposed Actions would facilitate the Proposed Development, which would contain approximately 162,026 gross square feet ("gsf") of residential uses, 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space, for a total of approximately 254,171 gsf. The Proposed Development's residential floor area would comprise approximately 170 dwelling units ("DUs"), of which approximately 43 to 51 would be affordable pursuant to the city's MIH program. Up to 86 accessory parking spaces would be provided in the proposed below-grade parking garage.

Figure 1
Project Site Location



The Proposed Development at 217-14 24th Avenue would be constructed in a single phase once the Proposed Actions are approved. Construction is expected to take up to 22 months, with building completion slated in 2027.

THE REASONABLE WORST-CASE DEVELOPMENT SCENARIO (RWCDS)

In order to assess the potential effects of the Proposed Actions, a RWCDS for both the "future without the Proposed Actions" (the "No-Action" condition) and the "future with the Proposed Actions" (the "With-Action" condition) are analyzed for an analysis year of 2027. The incremental difference between the No-Action and With-Action conditions will serve as the basis of the impact category analyses of the EAS.

In the future (2027) without the Proposed Actions, the Proposed Actions would not be approved, and no new development would occur on the Proposed Development Site, which is currently occupied by the Bay Terrace Country Club, a private swimming and sports club that features a pool, tennis courts, playgrounds, and concessions. The existing club house building at the Proposed Development Site contains approximately 2,800 gsf of commercial (Use Group 6) space, which would remain unchanged in the No-Action condition. However, for conservative analysis purposes, no credit will be taken for the existing uses on the Proposed Development Site as the club, which operates from March to November, is not a year-round use (refer to **Table 1**).

In the future (2027) with the Proposed Actions, the Proposed Actions would be approved, and the Applicant would proceed with the Proposed Development. The Proposed Development Site would be developed with an approximately 254,171-gsf development containing approximately 170 total DUs, 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space (86 spaces). However, for conservative analysis purposes, the RWCDS will assume an average DU size of 850 square feet. Therefore, under the RWCDS, the Proposed Development could be redeveloped with up to 191 DUs (of which approximately 65 to 78 units would be designated as permanently affordable pursuant to MIH), 58,194 gsf of assisted living space (68 beds), and 86 accessory, off-street parking spaces.

As shown in **Table 1**, compared to the No-Action condition, it is estimated that the Proposed Actions would result in the net incremental increase of approximately 191 total DUs, 58,194 gsf (68 beds) of assisted living space, and 86 accessory parking spaces.

Table 1: 2027 RWCDS No-Action and With-Action Land Uses

Land Use		No-Action Condition	With-Action Condition	Increment
Residential	Gross Square Feet (gsf)	0 gsf	162,026 gsf	+162,026 gsf
	Total DUs	0 DUs	191 DUs	+191 DUs
	Affordable DUs	0 DUs	65–78 DUs	+65–78 DUs
Community Facility	Assisted Living (gsf)	0 gsf	58,194 gsf	+58,194 gsf
	Assisted Living (Beds)	0 beds	68 beds	+68 beds
Accessory Parking	Spaces	0 spaces	86 spaces	+86 spaces
Total Gross Square Feet		***0 gsf***	***254,171 gsf***	***+254,171 gsf***

TRANSPORTATION PLANNING FACTORS

The transportation planning factors used to forecast the travel demand that would be generated in the With-Action condition are summarized in **Table 2** and discussed below. The trip generation rates, temporal distributions, modal splits, vehicle occupancies, and truck trip factors were primarily based on those cited in the 2021 *City Environmental Quality Review* ("CEQR") *Technical Manual*, 2015–2019 American Community Survey ("ACS") journey-to-work data for Queens census tracts in proximity to the Proposed Rezoning Area (census tracts 997.03, 997.04, and 1093), American Association of State Highway Transportation Officials (AASHTO) Census Transportation Planning Products (CTPP) reverse journey-to-work five-year data; and factors developed for recent environmental reviews. Factors are shown for the weekday AM and PM peak hours (the typical peak periods for commuter travel demand) and the weekday midday and Saturday peak hours (the typical peak periods for retail demand).

Table 2: Transportation Planning Factors

Land Use:	**Residential**		**Assisted Living**	
Trip Generation:	(1)		(6)	
Weekday	8.18		3.7	
Saturday	9.08		3.7	
	per DU		per DU	
Temporal Distribution:	(1)		(6)	
AM	9.3%		13.0%	
MD	5.6%		4.0%	
PM	8.5%		16.0%	
Saturday	8.4%		10.0%	
	(2)		(3)	
Modal Splits:	All Periods		All Periods	
Auto	74.0%		70.7%	
Taxi	1.0%		0.2%	
Subway-to-Bus	15.0%		6.1%	
Bus	8.0%		15.3%	
Walk/Other	2.0%		7.7%	
	100.0%		100.0%	
	(5)		(6)	
In/Out Splits:	In	Out	In	Out
AM	22%	78%	74%	26%
MD	50%	50%	55%	45%
PM	62%	38%	19%	81%
Saturday	55%	45%	38%	62%
Vehicle Occupancy:	(2)(4)		(3)(6)	
Auto	1.08		1.06	
Taxi	1.40		1.41	
Truck Trip Generation:	(1)		(6)	
	Weekday	SAT	Weekday	SAT
	0.06	0.02	0.07	0.07
	per DU		per DU	
	(1)		(6)	
AM	12.0%		17.0%	
MD	9.0%		13.0%	
PM	2.0%		0.0%	
SatMD	9.0%		0.0%	
	In	Out	In	Out
All Periods	50.0%	50.0%	50.0%	50.0%

Notes:

(1) 2021 *City Environmental Quality Review (CEQR) Technical Manual*
(2) Based on ACS journey-to-work 5-year (2015–2019) data for Queens census tracts 997.03, 997.04, and 1093.
(3) Based on AASHTO CTPP reverse journey-to-work 5-Year (2012-2016) data for Queens census tracts 997.03, 997.04, and 1093.
(4) Based on data from the *Innovation QNS FEIS* (2022).
(5) Based on data provided by NYCDOT.
(6) Based on *Brooklyn Developmental Center Mix-Use Project FEIS* (2021).

Residential

The residential travel demand forecasts were based on person trip and truck trip generation rates and temporal distributions cited in the 2021 *CEQR Technical Manual*. The modal splits and vehicle occupancies for residential uses were derived from 2015–2019 ACS journey-to-work data and data from the 2022 *Innovation QNS FEIS*. The directional in/out splits were based on data provided by NYCDOT. Although residential-based trips in the weekday midday and Saturday peak hours would likely be more local in nature than in the commuter peak hours (and therefore have a higher walk share, for example), the modal splits based on the ACS journey-to-work data were conservatively assumed for all periods.

Assisted Living

The trip generation rates, temporal distribution, directional in/out splits, and truck trip factors for the assisted living uses were based on data from the 2021 *Brooklyn Developmental Center Mix-Use Project FEIS*. The modal splits and auto vehicle occupancy were based on AASHTO CTPP reverse journey-to-work data for the Queens census tracts in close proximity to the Proposed Development Site.

TRIP GENERATION

The net incremental change in peak-hour person and vehicle trips expected to result from the Proposed Actions by the 2027 analysis year was calculated based on the net incremental change in land uses shown in **Table 1** and the transportation planning factors shown in **Table 2**.

Tables 3 and **4** show estimates of the total net incremental changes in peak-hour person and vehicle trips that would occur in 2027 with the implementation of the Proposed Actions. As shown in **Table 3**, the Proposed Actions would generate a net increase of 178 person trips (in and out combined) in the weekday AM peak hour, 97 person trips in the weekday midday peak hour, 173 person trips in the weekday PM peak hour, and 171 person trips in the Saturday peak hour.

Table 3: Travel Demand Forecast

Land Use:		Residential		Assisted Living		Total	
Size/Units:		191	DU	68	DU		
Peak Hour Person Trips:							
	AM	145		33		178	
	MD	87		10		97	
	PM	133		40		173	
	Saturday	146		25		171	
Person Trips:							
		In	Out	In	Out	In	Out
AM	Auto	24	83	17	6	41	89
	Taxi	0	1	0	0	0	1
	Subway-to-Bus	5	17	1	1	6	18
	Bus	3	9	4	1	7	10
	Walk/Other	1	2	2	1	3	3
	Total	33	112	24	9	57	121
		In	Out	In	Out	In	Out
MD	Auto	32	32	4	4	36	36
	Taxi	0	0	0	0	0	0
	Subway-to-Bus	7	7	0	0	7	7
	Bus	3	3	1	1	4	4
	Walk/Other	2	1	0	0	2	1
	Total	44	43	5	5	49	48
		In	Out	In	Out	In	Out
PM	Auto	60	37	5	24	65	61
	Taxi	1	1	0	0	1	1
	Subway-to-Bus	12	8	0	2	12	10
	Bus	7	4	1	5	8	9
	Walk/Other	2	1	1	2	3	3
	Total	82	51	7	33	89	84
		In	Out	In	Out	In	Out
Saturda	Auto	59	49	7	11	66	60
	Taxi	1	1	0	0	1	1
	Subway-to-Bus	12	10	1	1	13	11
	Bus	6	5	1	2	7	7
	Walk/Other	2	1	1	1	3	2
	Total	80	66	10	15	90	81
Vehicle Trips :							
		In	Out	In	Out	In	Out
AM	Auto (Total)	22	77	16	6	22	77
	Taxi Balanced	1	1	0	0	1	1
	Truck	1	1	0	0	1	1
	Total	24	79	16	6	24	79
		In	Out	In	Out	In	Out
MD	Auto (Total)	30	30	4	4	30	30
	Taxi Balanced	0	0	0	0	0	0
	Truck	1	1	0	0	1	1
	Total	31	31	4	4	31	31
		In	Out	In	Out	In	Out
PM	Auto (Total)	56	34	5	23	56	34
	Taxi Balanced	2	2	0	0	2	2
	Truck	0	0	0	0	0	0
	Total	58	36	5	23	58	36
		In	Out	In	Out	In	Out
Saturda	Auto (Total)	55	45	7	10	55	45
	Taxi Balanced	2	2	0	0	2	2
	Truck	0	0	0	0	0	0
	Total	57	47	7	10	57	47

Table 4: Travel Demand Forecast Summary

Peak Hour	Vehicle Trips			Person Trips														
				Subway-to-Bus			Bus-Only			Total Bus Trips			Walk/Other			Total Pedestrian Trips[1]		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
AM	24	79	103	6	18	24	7	10	17	13	28	41	3	3	6	16	31	47
MD	31	31	62	7	7	14	4	4	8	11	11	22	2	1	3	13	12	25
PM	58	36	94	12	10	22	8	9	17	20	19	39	3	3	6	23	22	45
Saturday	57	47	104	13	11	24	7	7	14	20	18	38	3	2	5	23	20	43

Notes:

1. Includes walk-only trips and pedestrians en route to/from nearby bus stops.

As shown in **Table 4**, the peak-hour vehicle trips (including auto, taxi, and truck trips) would increase by a net total of approximately 103, 62, 94, and 104 (in and out combined) during these same periods, respectively. Peak-hour subway trips would increase by a net total of approximately 24, 14, 22, and 24 trips, respectively, and bus trips (bus-only and subway-to-bus trips combined) would increase by approximately 41, 22, 39, and 38 respectively. Lastly, trips made entirely on foot (walk-only trips) would increase by a net total of approximately 6, 3, 6, and 5, during the weekday AM, midday, and PM peak hours, and Saturday peak hour, respectively.

LEVEL 1 SCREENING ASSESSMENT

The 2021 *CEQR Technical Manual* describes a two-level screening procedure for the preparation of a "preliminary analysis" to determine if quantified operational analyses of transportation conditions are warranted. As discussed in the following sections, the preliminary analysis begins with a trip generation (a Level 1 screening assessment) analysis to estimate the numbers of person and vehicle trips attributable to the Proposed Actions. According to the 2021 *CEQR Technical Manual*, if a proposed action is expected to result in fewer than 50 peak-hour vehicle and fewer than 200 peak-hour transit or pedestrian trips, further quantified analyses are not warranted. When these thresholds are exceeded, detailed trip assignments (a Level 2 screening assessment) are to be performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analysis. If the trip assignments show that a proposed action would generate 50 or more peak-hour vehicle trips at an intersection, 200 or more peak-hour subway trips at a station, 50 or more peak-hour bus trips in one direction along a bus route, or 200 or more peak-hour pedestrian trips traversing a sidewalk, corner area, or crosswalk, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic, transit, pedestrians, vehicular and pedestrian safety, and parking conditions.

Traffic

Based on 2021 *CEQR Technical Manual* guidance, a quantified traffic analysis is typically required if a proposed action would result in 50 or more vehicle trip ends in a peak hour at one or more intersections. As shown in **Table 4**, under the Proposed Actions, the number of incremental vehicle trips—103, 62, 94, and 104 in the weekday AM, midday, PM, and Saturday peak hours, respectively—would exceed the 50-trip threshold in all peak hours, and a Level 2 screening assessment is therefore warranted for these periods to determine if quantified analyses are warranted.

Transit

According to the general thresholds used by the Metropolitan Transportation Authority (MTA) and specified in the *CEQR Technical Manual*, detailed transit analyses are generally not required if a proposed action is projected to result in fewer than 200 peak-hour rail or bus transit riders. If a proposed action would result in 50 or more bus passengers being assigned to a single bus route in one direction, or if it would result in an increase of 200 or more passengers at a single subway station or on a single subway line, a detailed bus and/or subway analysis would be warranted. Transit analyses typically focus on the weekday AM and PM commuter peak hours as it is during these periods that overall demand on the subway and bus systems is usually highest.

As shown in **Table 4**, the Proposed Actions are expected to generate approximately 24 and 22 incremental subway trips in the weekday AM and PM peak hours, respectively. As these numbers of subway trips would not exceed the 200-trip *CEQR Technical Manual* analysis threshold, a Level 2 screening assessment is not warranted. In addition, as shown in **Table 4**, the Proposed Actions are expected to generate approximately 41 and 39 incremental trips by bus (bus-only and subway-to-bus trips combined) in both the weekday AM and PM peak hours. As these numbers of trips would not exceed the 50-trip threshold, a Level 2 screening assessment is not warranted.

Pedestrians

According to *CEQR Technical Manual* guidance, a quantified analysis of pedestrian conditions is typically required if a proposed action would result in 200 or more peak-hour pedestrian trips at any pedestrian element (sidewalk, corner area, or crosswalk). As shown in **Table 4**, the Proposed Actions would generate an incremental demand of approximately 47, 25, 45, and 43 total pedestrian trips (including walk-only trips and pedestrians en route to and from nearby bus stops) in the weekday AM, midday, PM, and Saturday peak hours, respectively. As these numbers of trips would not exceed the 200-trip threshold, a Level 2 screening assessment is not warranted.

LEVEL 2 SCREENING ASSESSMENT

As discussed above, when Level 1 screening assessment thresholds are exceeded, detailed trip assignments (a Level 2 assessment) are performed to estimate the incremental trips that could occur at specific transportation elements and to identify potential locations for further analysis. As the Level 1 screening assessment threshold was exceeded for traffic, a Level 2 screening assessment for this mode was prepared and is discussed below. If the trip assignments show that the Proposed Actions would generate 50 or more peak-hour vehicle trips at an intersection, then further quantified operational analyses may be warranted to assess the potential for significant adverse impacts on traffic conditions.

Traffic

As shown in **Figure 1**, the Proposed Development Site is a corner lot occupying the northern portion of Block 6008, which is bounded by 24th Avenue to the north, Little Neck Boulevard to the west, and 28th Avenue to the south. 24th Avenue operates as a two-way, east-west local street with parking along both

curbs. Little Neck Boulevard operates as a two-way, north-south street with parking along both curbs. 28th Avenue operates as a two-way, east-west local street with parking along both curbs. The portion of 24th Avenue fronting the Proposed Development Site contains a cul-de-sac and is the eastern terminus of that roadway, and the portion of Little Neck Boulevard fronting the Proposed Development Site is mapped and unimproved (a "paper street"), and is inaccessible to the public or traffic. To the east, the block is bounded by a strip of city-owned parkland, which separates the lots on Block 6008 from the Cross Island Parkway further east. Thus, there is no street frontage along the eastern boundary of any lots on this block.

The roadway system serving the Proposed Development Site includes the Clearview Expressway (I-295), the Cross Island Parkway, and local streets. The Clearview Expressway is located approximately 0.7 miles west of the Proposed Development Site and is accessible in both directions via 26th Avenue, located approximately 1,500 feet to the southwest. Access to the Cross Island Parkway is available via an eastbound on-ramp and a westbound off-ramp located approximately 0.7 miles to the north, as well as via an eastbound off-ramp and a westbound on-ramp located approximately 1.1 miles to the northwest.

Traffic Assignment and Analyzed Intersections

As shown in **Table 4** and discussed above, the Proposed Actions are expected to result in the incremental increase of approximately 103, 62, 94, and 104 vehicle trips in the weekday AM, midday, and PM peak hours, and the Saturday peak hour, respectively. As these traffic volumes exceed 50 trips in each peak hour (the 2021 *CEQR Technical Manual* Level 1 screening assessment threshold for a detailed analysis), a preliminary assignment of these incremental traffic volumes was prepared for each period to assist in identifying individual intersections for analysis (a Level 2 screening assessment).

The assignments of auto trips to the street network in proximity to the Proposed Rezoning Area are based on their anticipated origins and destinations. The origins/destinations of the residential trips used for the assignments were based upon 2012–2016 ACS journey-to-work data for Queens census tracts 997.03, 997.04, and 1093, while those for the assisted living trips were based on 2012 ACS reverse journey-to-work data. Using these distributions, auto trips were first assigned to various portals on the periphery of the Bay Terrace neighborhood, and from there via the most direct route to the Proposed Rezoning Area. **Table 5** shows the directional distributions of auto trips based on the origin/destination data. As accessory parking would be provided at the Proposed Development Site, auto trips were assigned to the proposed parking entrance.

Table 5: Directional Distribution of Residential Auto Trips

Land Use	Queens	Manhattan	Bronx	Brooklyn	Long Island	New Jersey	Upstate NY	Connecticut
Residential[1]	55.0%	7.5%	5.6%	9.7%	20.0%	0.5%	0.8%	0.9%
Assisted Living[2]	78.5%	1.3%	1.8%	0.4%	16.6%	1.2%	0.2%	0.0%

Notes:

[1] Based on 2012-2016 ACS journey-to-work 5-Year data for Queens Census Tracts 997.03, 997.04, and 1093.

[2] Based on 2012-2016 ACS reverse journey-to-work 5-Year data for Queens Census Tracts 997.03, 997.04, and 1093.

Taxis were assigned to the porte-cochere located along the 24th Avenue frontage. Trucks were assigned to the Clearview Expressway, a NYCDOT-designated Through Truck Route, and then to the most direct paths to and from the Proposed Rezoning Area. The resulting assignment of incremental peak-hour vehicle trips at intersections in proximity to the Proposed Rezoning Area is shown in **Figure 2**.

As shown in **Figure 2**, a total of three intersections (two signalized and one unsignalized) would exceed the 50-trip 2021 *CEQR Technical Manual* analysis threshold in one or more peak hours, and therefore would require a detailed traffic analysis. The intersections selected for analysis are listed below and shown in **Figure 2**. The turning movement counts (TMCs) for the analyzed intersections were collected in April 2023 on one Saturday during the 12-3 PM period and on one mid-weekday during the AM (7:30-9:30 AM), midday (12-2 PM), and PM (4:30-6:30 PM) peak periods.

Traffic Analysis Locations

- 24th Avenue and Waters Edge Drive (unsignalized)
- Bell Boulevard and 26th Avenue (signalized)
- Bell Boulevard and 24th Avenue (signalized)

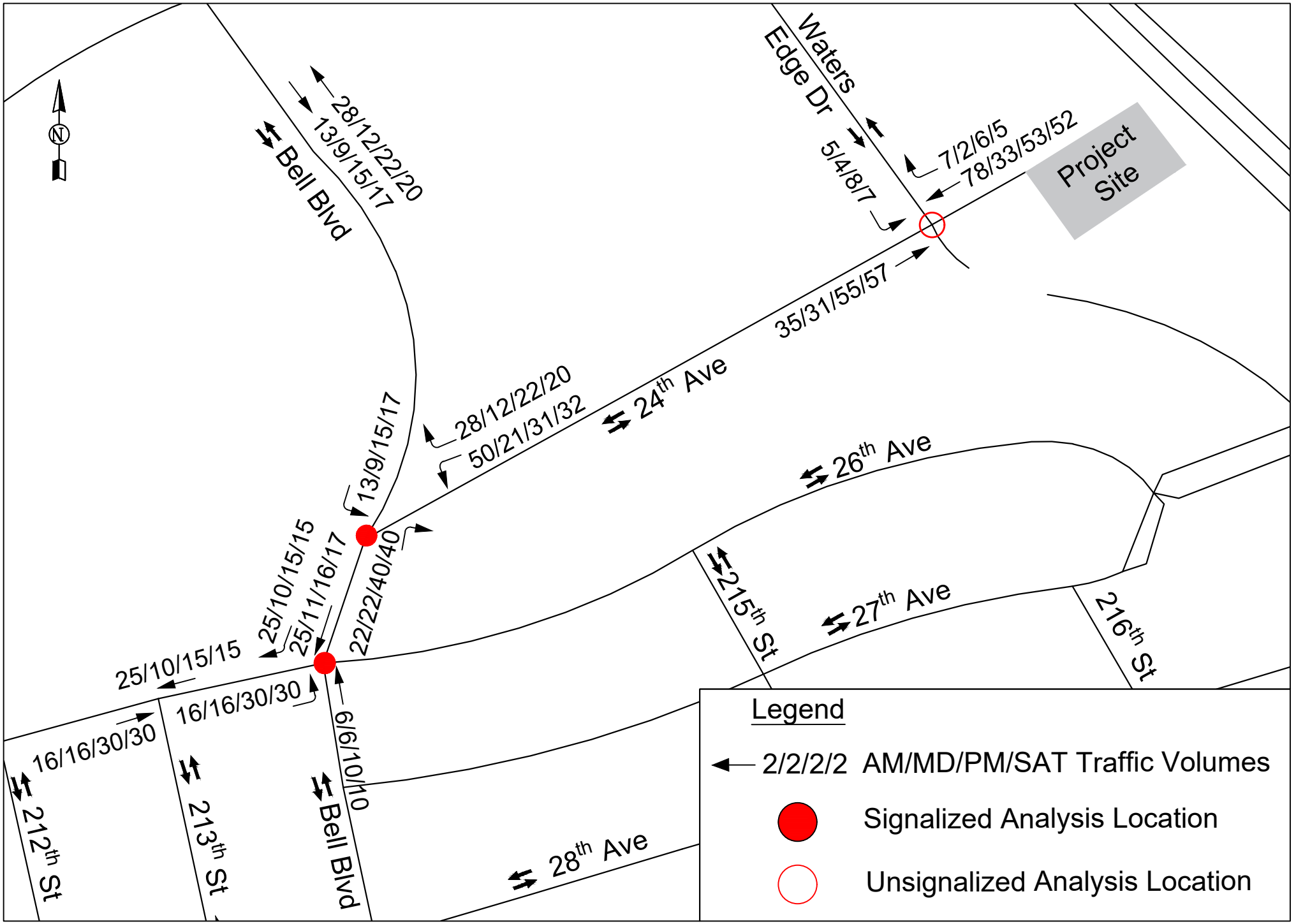
Street User Safety

Under 2021 *CEQR Technical Manual* guidance, an evaluation of street user safety is needed for locations within the traffic and pedestrian study areas that have been identified as high-crash locations. These are defined as locations identified along a Vision Zero intersection or where five or more pedestrian/bicyclist injury crashes have occurred in any consecutive 12 months of the most recent three-year period for which data are available.[1] In addition, any location along a Vision Zero priority corridor with three or more pedestrian/bicyclist injury crashes in any consecutive 12 months of the most recent three-year period for which data is available should be identified as a high crash location. For these locations, crash trends will be identified to determine whether projected vehicular and pedestrian traffic would further impact safety, or whether existing unsafe conditions could adversely impact the flow of the projected new trips.

No Vision Zero Priority Corridors or Priority Intersections are located within the traffic and pedestrian study areas. Additionally, as shown in **Table 6** below, no high-crash locations are located within the traffic and

[1] Vision Zero seeks to eliminate all deaths from traffic crashes regardless of whether on foot, bicycle, or inside of a motor vehicle. Vision Zero corridors and intersections are identified as locations that disproportionately account for pedestrian fatalities and severe injuries, thus prioritizing them for safety interventions.

Incremental Project Peak Hour Traffic Volumes



pedestrian study areas. Therefore, no intersections were identified as high-crash locations within the quarter-mile study area.

Table 6: Crash Data Summary (2017-2019)

Intersection		Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/Bicyclist Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
		2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
215 St	23rd Ave	0	1	0	0	0	0	0	1	0	0	1	1
	23rd Rd	0	0	0	0	0	0	0	0	0	0	0	1
	26th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	27th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Ave	0	0	0	0	0	0	0	0	0	0	1	0
Bell Blvd	23rd Ave	2	1	1	0	0	1	2	1	2	3	4	5
	24th Ave	0	0	0	0	0	0	0	0	0	2	5	0
	26th Ave	1	0	0	0	0	0	1	0	0	1	4	8
Waters Edge Dr	23rd Ave	0	0	0	0	0	0	0	0	0	0	0	0
	23rd Rd	0	0	0	0	0	0	0	0	0	0	0	1
	24th Ave	0	0	0	0	0	0	0	0	0	0	0	0
26th Ave	27th Ave	0	0	0	0	0	0	0	0	0	0	0	0
215 Pl	28th Ave	0	0	0	0	0	0	0	0	0	0	0	0
216th St	27th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Rd	0	0	0	0	0	0	0	0	0	0	0	0
Little Neck Rd	27th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Ave	0	0	0	0	0	0	0	0	0	0	0	0
	28th Rd	0	0	0	0	0	0	0	0	0	0	0	0

Shading denotes a high-crash location based on 2021 *CEQR Technical Manual* criteria.

Parking

Under the Proposed Actions, 86 accessory parking spaces would be provided on the Proposed Development Site, as compared to no spaces under the No-Action condition. **Tables 7** and **8** show forecasts of the total hourly parking demand that would be generated at the Proposed Development Site on a weekday and on a Saturday, respectively, under the Proposed Actions. The parking forecasts were derived from the forecast of daily auto trips from the RWCDS land uses at the Proposed Development Site.

As shown below in **Table 7**, the weekday parking accumulation under the Proposed Actions would peak with approximately 201 occupied spaces during the overnight period. During the weekday midday period, the parking demand on the Proposed Development Site would drop to 91 occupied spaces.

Table 7: Weekday Parking Accumulation

	Residential			Assisted Living			Total		
	191 DU			68 DU					
	In	Out	Accumulation	In	Out	Accumuation	In	Out	Accumulation
12-1 AM	9	4	200	0	0	0	9	4	200
1-2	3	2	201	0	0	0	3	2	**201**
2-3	1	2	200	0	0	0	1	2	200
3-4	1	2	199	0	0	0	1	2	199
4-5	1	4	196	0	0	0	1	4	196
5-6	3	8	191	2	0	2	5	8	193
6-7	6	19	178	3	0	5	9	19	183
7-8	13	44	147	16	6	15	29	50	162
8-9	23	77	93	9	2	22	32	79	115
9-10	18	41	70	7	1	28	25	42	98
10-11	15	25	60	4	1	31	19	26	91
11-12	20	23	57	5	4	32	25	27	89
12-1 PM	30	30	57	3	3	32	33	33	89
1-2	26	24	59	4	4	32	30	28	91
2-3	27	26	60	4	5	31	31	31	91
3-4	32	27	65	8	11	28	40	38	93
4-5	34	28	71	5	23	10	39	51	81
5-6	43	26	88	3	7	6	46	33	94
6-7	56	34	110	3	4	5	59	38	115
7-8	47	30	127	1	4	2	48	34	129
8-9	43	23	147	1	2	1	44	25	148
9-10	36	17	166	1	1	1	37	18	167
10-11	28	12	182	0	1	0	28	13	182
11-12	21	8	195	5	5	0	26	13	195

Note: Shading denotes peak accumulation.

Additionally, as shown in **Table 8**, the Saturday parking accumulation under the Proposed Actions would peak with approximately 219 occupied spaces during the overnight period, with parking demand dropping to 164 occupied spaces during the midday period.

As the projected weekday and Saturday parking demand associated with the Proposed Actions would not be fully accommodated on the Proposed Development Site, a detailed analysis of parking conditions within a quarter-mile radius of the Proposed Rezoning Area will be provided in the EAS. Existing on-street and off-street parking inventories will be provided to document the existing supply and demand, and changes in the parking supply and utilization under both No-Action and With-Action conditions will be forecasted.

Table 8: Saturday Parking Accumulation

	Residential			Assisted Living			Total		
	191 DU			68 DU					
	In	Out	Accumulation	In	Out	Accumuation	In	Out	Accumulation
12-1 AM	19	13	201	0	0	0	19	13	201
1-2	12	7	206	0	0	0	12	7	206
2-3	10	3	213	0	0	0	10	3	213
3-4	7	4	216	0	0	0	7	4	216
4-5	5	2	219	0	0	0	5	2	**219**
5-6	2	3	218	1	0	1	3	3	**219**
6-7	4	6	216	2	0	3	6	6	**219**
7-8	7	16	207	15	7	11	22	23	218
8-9	13	28	192	9	2	18	22	30	210
9-10	19	38	173	8	1	25	27	39	198
10-11	24	40	157	4	1	28	28	41	185
11-12	30	42	145	5	4	29	35	46	174
12-1 PM	36	46	135	3	3	29	39	49	164
1-2	36	39	132	4	3	30	40	42	162
2-3	39	37	134	4	6	28	43	43	162
3-4	39	39	134	9	15	22	48	54	156
4-5	43	35	142	7	10	19	50	45	161
5-6	55	45	152	3	10	12	58	55	164
6-7	40	31	161	2	7	7	42	38	168
7-8	36	31	166	1	5	3	37	36	169
8-9	37	29	174	1	3	1	38	32	175
9-10	32	22	184	1	1	1	33	23	185
10-11	27	21	190	0	1	0	27	22	190
11-12	23	18	195	5	5	0	28	23	195

Note: Shading denotes peak accumulation.

APPENDIX V

Technical Memorandum for City of Yes for Housing Opportunity

Technical Memorandum for City of Yes for Housing Opportunity

A. INTRODUCTION

City of Yes for Housing Opportunity (CHO) was approved by the City Planning Commission on September 25, 2024, and adopted by the City Council on December 5, 2024. This text amendment expands housing options through zoning reforms that would address the housing crisis. Key components included: updates to the Mandatory Inclusionary Housing (MIH) program; the introduction of the Universal Affordability Preference (UAP) program which provides a preferential FAR that is available for affordable housing developments located outside of MIH applicable areas; and modifications to parking requirements that balances between housing development and the need for parking in some parts of the city. These modifications, in addition to low-density zoning reforms such as allowing Accessory Dwelling Units and modest apartment buildings, aim to enable a little more housing in every neighborhood. This technical memorandum assesses whether the conclusion of the project's environmental review would by altered by CHO.

BMBT LLC (the "Applicant") is seeking approval for two discretionary actions (the "Proposed Actions") to facilitate development of the Applicant-owned site at 217-14 24th Avenue (Block 6008, Lot 95, a.k.a. the "Proposed Development Site") in the Bay Terrace neighborhood of Queens Community District (CD) 11. Specifically, the Proposed Actions include a zoning map amendment to rezone the Proposed Development Site from R1-2 to R6A and a zoning text amendment to designate the Proposed Development Site as a Mandatory Inclusionary Housing (MIH) area. Approval of the Proposed Actions would allow the Applicant to develop a new eight-story (85-foot-tall), approximately 254,171 gsf residential building with assisted living facilities on the first and second floors, comprising approximately 162,026 gsf of residential floor area (167 dwelling units, of which approximately 42-50 units would be designated as permanently affordable pursuant to the City's MIH program),[1] 58,194 gsf of assisted living uses (65 beds), and 33,951 gsf of below-grade parking space. The proposed below-grade parking garage would include up to 86 accessory off-street parking spaces.

As a Reasonable Worst-Case Development Scenario (RWCDS), it is assumed that the Applicant's Proposed Development would maximize the permitted FAR (3.6 FAR) on the Proposed Development Site under the requested R6A (MIH) zoning. However, for conservative analysis purposes, the RWCDS assumes an average DU size of 850 sf and that all assisted living space be analyzed as residential DUs. Thus, under the RWCDS, the Proposed Development could be redeveloped with up to 259 DUs (of which, approximately 65-78 units would be designated as permanently affordable pursuant to MIH) and 86 accessory, off-street parking spaces. It should be noted that while the total DUs and residential population generated by the RWCDS would be based on a project absent the assisted living facilities (resulting in up to 259 DUs), for conservative analysis purposes the non-residential population generated by the RWCDS (i.e., the number of workers) will be based on the inclusion of the proposed 58,194 gsf of assisted living uses.

[1] The range of permanently affordable units generated by the Proposed Actions pursuant to MIH (i.e., 42-50 affordable units) assumes Options 1 and 2 of the MIH program. Option 1 requires 25 percent of residential floor area to be affordable at or below 60 percent of area median income (AMI), whereas Option 2 requires 30 percent at or below 80 percent of AMI.

B. ANALYSIS FRAMEWORK

This technical memorandum provides a preliminary assessment of the effects of CHO on the Proposed Actions and evaluates whether CHO would affect the analyses and conclusions presented in the EAS. The City of Yes for Housing Opportunity proposal as presented in the Draft Scope of Work would change the allowable floor area ratio (FAR) and building heights for the 217-14 24th Avenue Rezoning project's proposed zoning district. In the proposed R6A district, the allowable residential FAR would increase from 3.6 (pursuant to MIH) to 3.9 (pursuant to CHO). Additionally, CHO would increase the maximum building height analyzed in the EAS for the proposed R6A district from 85-feet to 95-feet. No parking spaces would be required because CHO proposes to eliminate parking requirements for new residential developments.

Future No-Action Condition

In the 2027 No-Action condition, the Proposed Development Site's existing R1-2 zoning would remain in place and City of Yes for Housing Opportunity would be approved. Under the existing zoning, no changes are anticipated to occur. All existing structures and land uses located on the Proposed Development Site are anticipated to remain unchanged from existing conditions.

Future With-Action Condition

As shown in **Table 1**, in the 2027 With-Action condition, City of Yes for Housing Opportunity would modify the With-Action condition analyzed in the EAS for the Proposed Development Site by facilitating the incremental development of approximately 16,685-zsf (approximately 18,365-gsf) of additional total residential floor area (resulting in the incremental development of an additional 22 total DUs pursuant to CHO; of which 25 or 30 percent of DUs would be affordable).

Table 1: Comparison of No-Action, EAS With-Action, & CHO With-Action Development Scenarios

	No-Action	EAS With-Action	CHO With-Action	CHO Increment
Land Use				
Residential	0 gsf	220,220 gsf	238,585 gsf	+18,365 gsf
Total DU	*0 DU*	*259 DUs[1]*	*281 DU*	*+22 DU*
Market-Rate DU[2]	*0 DU*	*181-194 DUs*	*197-211 DU*	*+16 or +17 DU*
Affordable DU[2]	*0 DU*	*65-78 DU*	*70-84 DU*	*+5 or +6 DU*
Commercial	2,800 gsf	0 gsf	0 gsf	0 gsf
Parking Spaces	0 spaces	86 spaces	86 spaces	0 spaces
Population				
Residents[3]	0 residents	697 residents	756 residents	+59 residents
Workers[4]	3 workers	71 workers	72 workers	+1 worker

Notes:

[1] While the Applicant proposes to develop up to 167 DUs and 58,194 gsf of assisted living space, for CEQR analysis purposes, the RWCDS will assume no assisted living uses and an average DU size of 850 sf, resulting in a total of 259 DUs.

[2] Market-rate vs. affordable units depends on MIH Option 1 or 2.

[3] Based on 2020 US Census data for average persons per household in Queens Community District 11 (2.69p/hh).

[4] Number of workers assumes 1 worker per 900 gsf of private sports club space (in No-Action); 1 worker per 25 DUs; 1 worker per 50 attended parking spaces; and 1 worker per 1,000 gsf of community facility (assisted living) space.

As also shown in **Table 1**, the changes facilitated by CHO would generate an additional 59 residents and one worker compared to the project analyzed in the EAS. For the Proposed Development Site, CHO would increase the maximum building height analyzed in the EAS by an increment of 10 feet.

C. SUPPLEMENTAL SCREENING PROPOSED ACTIONS WITH CHO

The changes facilitated by CHO would not substantially alter the site-specific characteristics of the Proposed Development Site, nor would they trigger analysis of any new density-based technical areas that were not already analyzed in the EAS. The changes, which would result in an additional 22 DUs with approximately 59 residents, would not exceed the 2021 *CEQR Technical Manual* thresholds requiring analysis for Historic Resources, Natural Resources, Solid Waste and Sanitation Services, Energy, Air Quality, Greenhouse Gas Emissions and Climate Change, Public Health, Neighborhood Character, or Construction. As such, the conclusions presented in the EAS would not change and no further analysis related to the above impact categories is warranted.

Land Use, Zoning, and Public Policy

The potential changes that would be facilitated by CHO would not change the conclusion of the Land Use, Zoning, and Public Policy attachment in the EAS. The changes facilitated by CHO would continue to result in land uses that are compatible with the residential character of the secondary study area. The proposed R6A would be compatible with nearby residential zoning districts and comparable to existing uses in the adjacent R5 district across 24th Avenue. The addition of 22 DUs facilitated by CHO would be supportive of the City's housing goals as identified in *Housing Our Neighbors: A Blueprint for Housing and Homelessness*. As such, the incorporation of changes facilitated by CHO would not result in a significant adverse impact on Land Use, Zoning, and Public Policy and no further analysis is warranted.

Socioeconomic Conditions

The potential changes that would be facilitated by CHO would not require new analysis nor change the conclusion of the Socioeconomic Conditions attachment in the EAS. Compared to the With-Action condition analyzed in the EAS for the Proposed Development Site, the addition of 22 DUs facilitated by CHO would generate five additional income-restricted units under MIH Option 1 (25% of DUs at an average of 60% AMI) and six additional income-restricted units under MIH Option 2 (30% of DUs at an average of 80% AMI). As described in **Attachment D, "Socioeconomic Conditions"** of the EAS, based on the *Step 1 Analysis* of the indirect residential displacement analysis, the Proposed Actions' generated population would not introduce a population with higher average income than the future population within the study area. The 65-78 income-restricted units introduced by the Proposed Actions' RWCDS under the MIH program would maintain a more diverse demographic composition within the study area, further expanding the supply of affordable housing for current and future residents. Therefore, the Proposed Actions' RWCDS would not introduce or accelerate a trend of changing socioeconomic conditions that would potentially lead to the displacement of vulnerable populations and, according to 2021 *CEQR Technical Manual* guidance, Steps 2 and 3 of the indirect residential displacement analysis are not warranted for the Proposed Actions. Therefore, the Proposed Actions would not result in any significant adverse impacts in regard to indirect residential displacement of Socioeconomic Conditions.

Compared to the With-Action condition analyzed in the EAS for the Proposed Development Site, the addition of five or six income-restricted units under MIH Options 1 or 2, respectively, facilitated by CHO would not alter the conclusions of **Attachment D, "Socioeconomic Conditions"** of the EAS. The five or six additional income-restricted units facilitated by CHO would further support a more diverse demographic composition within the study area, and would not introduce or accelerate a trend of changing socioeconomic conditions that would potentially lead to the displacement of vulnerable populations. As such, the incorporation of changes facilitated by CHO would not result in a significant adverse impact on Socioeconomic Conditions and no further analysis is warranted.

Community Facilities and Services

The potential changes that would be facilitated by CHO would not require new analysis nor change the conclusion of the Community Facilities and Services attachment in the EAS. Compared to the With-Action condition analyzed in the EAS, the addition of 22 DUs facilitated by CHO would not exceed the applicable 2021 *CEQR Technical Manual* thresholds requiring assessment of Community Facilities and Services, including 50 or more elementary/middle school students and/or 150 or more high school students, 20 or more eligible children under age five, 663 DUs of new housing units in Queens (for libraries), or a sizeable new neighborhood where none existed before.

For public schools, the addition of 22 DUs would generate approximately six elementary school students, four middle school students, and three high school students.[2] As displayed in **Table E-6** of **Attachment E, "Community Facilities and Services"** of the EAS, the With-Action condition utilization rate of study area public elementary schools in CSD 26 would be equal to or greater than 100 percent; however, the Proposed Actions' RWCDS would generate 76 new elementary students in CSD 26, which does not exceed the *CEQR Technical Manual* threshold of 100 or more new students. Therefore, the Proposed Actions would not meet both of the impact criteria for public elementary schools and would not result in any significant adverse impacts on public elementary schools in CSD 26.[3] In addition, as displayed in **Table E-6** of **Attachment E, "Community Facilities and Services"** of the EAS the With-Action condition utilization rates of public middle schools in CSD 26 would not be equal to or greater than 100 percent and the Proposed Actions would not generate 100 or more new middle school students in CSD 26. Compared to the With-Action condition analyzed in the EAS for the Proposed Project, the addition of six elementary school students and four middle school students facilitated by CHO would not alter the conclusions of **Attachment E, "Community Facilities and Services"** of the EAS and the incorporation of changes facilitated by CHO would not result in a significant adverse impact on public elementary schools in CSD 26.

For early childhood programs, the addition of 22 DUs would generate approximately one additional eligible child under age five[4], and the incorporation of changes facilitated by CHO would not result in a significant adverse impact on early childhood programs. Therefore, analysis of Community Facilities and

[2] Per the SCA's Projected Public School Ratio student generation rates, residential units in CSD 26 generate approximately 0.29 elementary school students per DU, approximately 0.13 middle school students per DU, and approximately 0.10 high school students per DU.

[3] It should be noted that the *CEQR Technical Manual* states that "Projects that would add residential units designed exclusively for seniors or single adults (HPD supportive housing) need not assess public school impacts"; however, for conservative analysis purposes, the RWCDS analyzed in the EAS included assisted living units as regular DUs, and they were included in the community facilities analysis.

[4] Assuming 20 percent of 22 DUs (~ 4 DU). A multiplier 0.140, applicable to projects located in Queens per Table 6-1a of the 2021 *CEQR Technical Manual*, was applied to the 4 DUs.

Services is not warranted for the changes facilitated by CHO, and the incorporation of changes facilitated by CHO would not result in a significant adverse impact on Community Facilities and Services.

Open Space

The potential changes that would be facilitated by CHO would not require new analysis nor change the conclusion of the Open Space attachment in the EAS. Compared to the With-Action condition analyzed in the EAS for the Proposed Development Site, the addition of 22 DUs facilitated by CHO would generate approximately 59 residents. As displayed in **Table F-11** of **Attachment F, "Open Space"** of the EAS, in the With-Action condition, the residential total, active, and passive open space ratios would each decrease by approximately 8.88 percent from the No-Action condition. Compared to the With-Action condition analyzed in the EAS for the Proposed Development, the addition of 59 residents facilitated by CHO would decrease the residential total, active, and passive open space ratios by an additional approximately 0.68 percent from the With-Action condition, to approximately 9.56 percent. However, this additional reduction would not constitute a significant adverse impact. As described in **Attachment F, "Open Space,"** of the EAS, the half-mile open space study area's total and passive open space ratios would exceed the city's optimal planning guidelines for total and passive open space ratios in the With-Action condition, while the half-mile open space study area's active open space ratio would fall slightly below the city's optimal planning guideline for the active open space ratio of two in the With-Action condition with an open space ratio of 1.82. The potential changes that would be facilitated by CHO would not alter these conclusions. Therefore, the incorporation of changes facilitated by CHO would not result in a significant adverse impact on Open Space and no further analysis is warranted.

Shadows

The potential changes that would be facilitated by CHO would not change the conclusion of the Shadows attachment in the EAS. For the Proposed Development Site, the Tier 1 Screening Assessment (i.e., the longest shadow study area) provided in the EAS was determined based on the maximum building height of 85 feet (105 feet including rooftop bulkhead) applicable in the proposed R6A district. The Tier 1 Screening Assessment identified potentially sunlight-sensitive resources of concern within the 451.5-foot longest shadow study area. Based on the Tier 2 and 3 Screening Assessments, four sunlight-sensitive public open space resources (Cross Island Parkway Waters Edge Drive Playground, Cross Island Parkway, Joe Michaels Mile, and Little Neck Bay) would receive project-generated shadows. For the Proposed Development, CHO would increase the maximum building height analyzed in the EAS by an increment of 10 feet in the proposed R6A district. Therefore, the additional 10 feet of maximum building height potentially enabled by CHO would expand the 451.5-foot longest shadow study area to 494.5 feet (i.e., Tier 1 Screening Assessment). There were no additional sunlight sensitive resources of concern identified as a result of the increase of the longest shadow study area.

An analysis of the incremental shadows resulting from the taller building facilitated by CHO was performed, with results shown in **Table 2**. As shown in **Table 2**, incremental shadows generated by the Proposed Development in the future CHO With-Action condition would vary depending on the sunlight-sensitive resources. As compared to the With-Action condition analyzed under the EAS, incremental shadows facilitated by CHO at the future Cross Island Parkway Waters Edge Drive Playground would range between six additional minutes on the May 6/August 6 and June 21 analysis days and 18 additional minutes on the December 21 analysis day. Incremental shadows would be limited to the southeastern corner of Cross Island Parkway Waters Edge Drive Playground and would move continuously east before existing the resource. No part of the play area/spray shower would be cast in incremental shadow and the vegetation along the southeastern edge of the open space would continue to receive six to eight hours

of direct sunlight. As shown in **Table 2**, incremental shadows facilitated by CHO over the natural area on the western side of the Cross Island Parkway would range between zero minutes on the December 21 analysis day and 16 additional minutes on the May 6/August 6 and June 21 analysis days, compared to the With-Action condition analyzed in the EAS. No specific vegetation or area would receive incremental shadow coverage for an extended period of time. Vegetation in the area will continue to receive six to eight hours of direct sunlight during the growing season.

Incremental shadow coverage facilitated by CHO over Joe Michaels Mile would occur for approximately 16 additional minutes on the December 21 analysis day, compared to the With-Action condition analyzed in the EAS. Based on the limited duration and coverage of incremental shadow, the Proposed Development is not anticipated to negatively impact the use or enjoyment of the running/biking trail along the waterfront as users of these amenities would generally be passing through the area quickly. In addition, the Proposed Development would cast incremental shadow on Little Neck Bay for approximately 12 additional minutes under CHO compared to the With-Action condition analyzed in the EAS. Based on the limited duration and coverage of incremental shadow, the Proposed Development is not anticipated to negatively impact this sunlight-sensitive resource.

Because incremental shadows generated by the Proposed Development in the future CHO With-Action condition would be limited in duration and coverage, and because vegetation would continue to receive significantly more than the minimum six to eight hours of direct sunlight established in the *CEQR Technical Manual*, no significant adverse impact is expected as a result of CHO for the four sunlight-sensitive resources. Therefore, the additional maximum building heights potentially enabled by CHO would not result in significant adverse shadows impacts and no further analysis is warranted.

Table 2: Duration of Incremental Shadows on Sunlight Sensitive Resources

Sunlight-Sensitive Resource	Shadow Enter-Exit/ Incremental Shadow Duration	Analysis Days			
		March 21/Sept. 21	**May 6/August 6**	**June 21**	**December 21**
		7:36 AM – 4:29 PM	**6:27 AM – 5:18 PM**	**5:57 AM – 6:01 PM**	**8:51 AM – 2:53 PM**
Cross Island Parkway Waters Edge Drive Playground	Shadow enter-exit time	7:36 AM – 1:31 PM	6:27 AM – 12:05 PM	5:57 – 11:07 AM	8:51 AM – 2:39 PM
	Incremental shadow duration in EAS	5 hours 47 minutes	5 hours 26 minutes	5 hours 4 minutes	5 hours 30 minutes
	Additional Shadows from CHO	**+8 minutes**	**+6 minutes**	**+6 minutes**	**+18 minutes**
Cross Island Parkway	Shadow enter-exit time	11:32 AM – 4:29 PM	1:25 – 5:18 PM	2:16 – 6:01 PM	9:34 – 2:53 PM
	Incremental shadow duration in EAS	4 hours 43 minutes	3 hours 37 minutes	3 hours 29 minutes	5 hours 19 minutes
	Additional Shadows from CHO	**+14 minutes**	**+16 minutes**	**+16 minutes**	**0 minutes**
Joe Michaels Mile	Shadow enter-exit time	-	-	-	2:18 – 2:53 PM
	Incremental shadow duration in EAS	-	-	-	19 minutes
	Additional Shadows from CHO				**+16 minutes**
Little Neck Bay	Shadow enter-exit time	-	-	-	2:40 – 2:53 PM
	Incremental shadow duration in EAS	-	-	-	1 minute
	Additional Shadows from CHO				**+12 minutes**

Note: All times are Eastern Standard Time; Daylight Savings Time was not accounted for per *2021 CEQR Technical Manual* guidance.
The table indicates the entry and exit times and total duration of incremental shadow for each sunlight-sensitive resource.

Urban Design and Visual Resources

The potential changes that would be facilitated by CHO would not change the conclusion of the Urban Design and Visual Resources attachment in the EAS. The additional maximum building height potentially enabled by CHO, which would be 10-feet taller than what was assumed in the EAS, would result in a negligible change in the appearance of buildings that would not negatively affect the pedestrian

experience adjacent to the Proposed Development Site. The additional 10 feet potentially enabled by CHO would not obstruct important visual resources or be incompatible with the established character of the surrounding study area. Therefore, the additional maximum building height potentially enabled by CHO on the Proposed Development Site would not result in significant adverse impacts on Urban Design and Visual Resources and no further analysis is warranted.

Water and Sewer Infrastructure

The potential changes that would be facilitated by CHO would not require new analysis nor change the conclusion of the Water and Sewer Infrastructure attachment in the EAS. As described in the 2021 *CEQR Technical Manual*, for wastewater and stormwater conveyance and treatment, a preliminary sewer analysis is warranted if a project is located in a separately sewered area, is zoned R6-R10, C, M, or MX under existing conditions, and would result in the incremental development of at least 100 residential units or 100,000-sf or more of commercial, public and institution, and/or community facility space. As described in the EAS, the Proposed Development Site is located in a separately sewered area and is located in an existing R1-2 zoning district. Compared to the With-Action condition analyzed in the EAS for the Proposed Development, the addition of 22 DUs facilitated by CHO would not exceed the applicable 25-unit 2021 *CEQR Technical Manual* threshold requiring a preliminary sewer analysis. Therefore, analysis of Water and Sewer Infrastructure is not warranted for the changes facilitated by CHO, and the incorporation of changes facilitated by CHO would not result in a significant adverse impact on Water and Sewer Infrastructure.

Transportation

The potential changes that would be facilitated by CHO would not change the conclusion of the Transportation attachment in the EAS. Compared to the With-Action condition analyzed in the EAS for the Project Site, the addition of 22 DUs facilitated by CHO would add up to 12 vehicle trips and up to 17 pedestrian trips in any peak hour. As discussed in **Attachment J, "Transportation,"** signal timing changes are proposed in conjunction with the Proposed Action at the intersection of Bell Boulevard and 24th Avenue. To determine if the proposed signal timing changes are feasible in the With-Action condition, a Traffic Monitoring Program (TMP) is proposed to be included as part of the Proposed Actions. The TMP would evaluate traffic conditions upon the completion of the Proposed Project and determine if the proposed signal timing changes are feasible, and if any alternative measures would be required. The incremental peak hour trips potentially facilitated by CHO would be incorporated under the TMP. Therefore, the incorporation of changes facilitated by CHO would not result in a significant adverse impact on Transportation and no further analysis is warranted.

Noise

The potential changes that would be facilitated by CHO would not require new analysis nor change the conclusion of the Noise attachment in the EAS. Noise levels would continue to be below the level requiring additional window and wall attenuation to maintain interior noise levels of 45 dB(A) or lower for residential uses. The incorporation of changes facilitated by CHO would not result in a significant adverse impact on Noise and no further analysis is warranted.

D. SUMMARY CONCLUSION

This technical memorandum assesses whether City of Yes for Housing Opportunity would potentially alter the analysis of the Proposed Actions and conclusions presented in the corresponding EAS for the 217-14 24th Avenue Rezoning project. City of Yes for Housing Opportunity was approved by the City Planning Commission on September 25, 2024, and adopted by the City Council on December 5, 2024 would increase the allowable residential FARs for this project's proposed zoning district by up to 0.3 FAR, as well as increase the allowable maximum building height by 10 feet.

This technical memorandum concludes that the potential changes facilitated by CHO would not exceed thresholds nor create conditions that require new analysis, nor would the proposed changes affect the conclusions presented in the EAS.