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

Variety Boys & Girls Club of Queens Rezoning
Zoning Map & Text Amendment

21-12 30th Road
Astoria (Queens), NY 11102

Prepared for:
Variety Boys & Girls Club of Queens
21-12 30th Road
Astoria, NY, 11102

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

CEQR Number: 18DCP121Q

AECOM Project No. 60505356

May 4, 2018

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

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

Part I: GENERAL INFORMATION

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

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

2. *Project Name* Variety Boys & Girls Club of Queens Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
18DCP121Q	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
N 180086 ZRQ, I 180085 ZMQ	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
New York City Department of City Planning			Variety Boys & Girls Club of Queens		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Robert Dobruskin			Jaclyn Calcagno		
ADDRESS 120 Broadway			ADDRESS Akerman LLP, 666 Fifth Avenue, 20th Floor		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10103
TELEPHONE (212) 720-3423	EMAIL rdobrus@planning.nyc.gov		TELEPHONE (212) 880-3800	EMAIL jaclyn.calcagno@akerman.com	

5. *Project Description*

The Applicant, Variety Boys and Girls Club of Queens, is seeking a zoning map amendment to rezone Block 550, Lots 7, 10 and small portions of Lots 5 and 27 in the Astoria neighborhood of Queens (the "rezoning area" or "affected area") from split-lot R7A/C2-3 and R6B zoning districts to an R7X/C2-3 zoning district. The proposed rezoning would facilitate the Applicant's proposed development of a new mixed-use building comprised of one 14-story component containing 112 residential units with ground-floor retail and 39 parking spaces, and one 5-story community facility component that would include a replacement facility for the existing Variety Boys and Girls Club of Queens, on the property located on Block 550, Lot 7 at 21-12 30th Road (the "development site" or "project site"). The Applicant is also requesting a zoning text amendment to the New York City Zoning Resolution Appendix F to designate the rezoning area as a Mandatory Inclusionary Housing Area. See attached Supplemental Studies for additional information. The Applicant intends to provide approximately 34 units of affordable housing (30 percent of the residential floor area) for households averaging 80 percent of area median income.

Project Location

BOROUGH Queens	COMMUNITY DISTRICT(S) 1	STREET ADDRESS 21-12 30th Road
TAX BLOCK(S) AND LOT(S) Block 550, Lots 7, 10 and p/o Lots 5 and 27		ZIP CODE 11102

DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The rezoning area is located on the east side of 21st Street between 30th Road and 30th Drive.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY	ZONING SECTIONAL MAP NUMBER
R7A/C2-3 and R6B	9a

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

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

☐ CITY MAP AMENDMENT	☐ ZONING CERTIFICATION	☐ CONCESSION
☒ ZONING MAP AMENDMENT	☐ ZONING AUTHORIZATION	☐ UDAAP
☒ ZONING TEXT AMENDMENT	☐ ACQUISITION—REAL PROPERTY	☐ REVOCABLE CONSENT
☐ SITE SELECTION—PUBLIC FACILITY	☐ DISPOSITION—REAL PROPERTY	☐ FRANCHISE
☐ HOUSING PLAN & PROJECT	☐ OTHER, explain:	

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

***Board of Standards and Appeals*:** ☐ YES ☒ NO
☐ VARIANCE (use)
☐ VARIANCE (bulk)
☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

Other City Approvals Subject to CEQR (check all that apply)
☐ LEGISLATION
☐ RULEMAKING
☐ CONSTRUCTION OF PUBLIC FACILITIES
☐ 384(b)(4) APPROVAL
☐ OTHER, explain:
☐ FUNDING OF CONSTRUCTION, specify:
☐ POLICY OR PLAN, specify:
☐ FUNDING OF PROGRAMS, specify:
☐ PERMITS, specify:

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

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

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

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

☒ SITE LOCATION MAP ☒ 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.): Approx. 57,938 (rezoning area) Waterbody area (sq. ft) and type: N/A
Roads, buildings, and other paved surfaces (sq. ft.): Approx. 57,938 Other, describe (sq. ft.): N/A

8. *Physical Dimensions and Scale of Project* (if the project affects multiple sites, provide the total development facilitated by the action)
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 285,043
NUMBER OF BUILDINGS: 1 GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 285,043
HEIGHT OF EACH BUILDING (ft.): 145 feet NUMBER OF STORIES OF EACH BUILDING: 14

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: 57,938
The total square feet non-applicant owned area: 0

Does the proposed project involve in-ground excavation or subsurface disturbance, including, but not limited to foundation work, pilings, utility lines, or grading? ☒ YES ☐ NO
If "yes," indicate the estimated area and volume dimensions of subsurface permanent and temporary disturbance (if known):
AREA OF TEMPORARY DISTURBANCE: Approx. 37,670 sq. ft. (width x length) VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: Approx. 37,670 sq. ft. (width x length)

Description of Proposed Uses (please complete the following information as appropriate)

	Residential	***Commercial***	***Community Facility***	***Industrial/Manufacturing***
Size (in gross sq. ft.)	133,088	7,779	114,430	0
Type (*e.g.,* retail, office, school)	112 units	local retail	Variety Boys & Girls Club of Queens	

Does the proposed project increase the population of residents and/or on-side workers? ☒ YES ☐ NO
If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 262 NUMBER OF ADDITIONAL WORKERS: 281
Provide a brief explanation of how these numbers were determined: Residential population estimate based on US Census data (ave. household size); employee population estimate based on industry standard rates used in certified EAS/EIS documents.

Does the proposed project create new open space? ☐ YES ☒ NO If "yes," specify size of project-created open space: sq. ft.
Has a No-Action scenario been defined for this project that differs from the existing condition? ☐ YES ☒ NO If "yes," see Chapter 2, "Establishing the Analysis Framework" and describe briefly:
9. *Analysis Year* CEQR Technical Manual Chapter 2
ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2021
ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 16-20
WOULD THE PROJECT BE IMPLEMENTED IN A SINGLE PHASE? ☒ YES ☐ NO | IF MULTIPLE PHASES, HOW MANY?
BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:
10. *Predominant Land Use in the Vicinity of the Project* (check all that apply) ☒ RESIDENTIAL ☐ MANUFACTURING ☒ COMMERCIAL ☐ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Public Facilities/Institutions, mixed-use (commercial/residential) development

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

	YES	NO
1. *LAND USE, ZONING, AND PUBLIC POLICY*: CEQR Technical Manual Chapter 4		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	☐	☒
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	☐	☒
o If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☒	☐
o If "yes," complete the Consistency Assessment Form.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
o Generate a net increase of 200 or more residential units?	☐	☒
o Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
o Directly displace more than 500 residents?	☐	☒
o Directly displace more than 100 employees?	☐	☒
o Affect conditions in a specific industry?	☐	☒
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, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
o **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☐	☒
o **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
o **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☒	☐
o **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☒	☐
o If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☒	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
o If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☐	☐
5. *SHADOWS*: CEQR Technical Manual Chapter 8		

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

	YES	NO
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 11,789		
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?	☐	☒
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 45,671,771 Million BTUs (MTUS)		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
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.*	☒	☐
o Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
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, or bus stop?	☒	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
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)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☒	☐
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☐
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☒	☐
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		

	YES	NO
(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 attached Supplemental Studies		
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 attached Supplemental Studies		
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 attached Supplemental Studies		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	DATE
AECOM - Stacey Barron, AICP	May 4, 2018

SIGNATURE



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

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

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

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

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

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

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, acting on behalf of the City Planning Commission
NAME	DATE
Olga Abinader	May 4, 2018

SIGNATURE Olga Abinader

NEGATIVE DECLARATION (Use of this form is optional)

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 project. Based on a review of information about the project contained in this environmental assessment statement and any attachments hereto, which are incorporated by reference herein, the lead agency has determined that the proposed project 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 have no significant effect on the quality of the environment. Reasons supporting this determination are noted below.

Hazardous Materials, Air Quality, and Noise

1. An (E) designation (E-478) for Hazardous Materials, Air Quality and Noise has been incorporated into the proposed actions. Refer to "Determination of Significance Appendix: (E) Designation" for a list of the sites affected by the proposed (E) designation and applicable (E) designation requirements. This (E) designation will supersede the (E) designation (E-245) for hazardous materials and air quality placed on one lot in the affected area as part of the Astoria Rezoning (CEQR No. 10DCP019Q). With these measures in place, the proposed actions would not result in significant adverse impacts to Hazardous Materials, Air Quality or Noise.

Land Use, Zoning and Public Policy

2. This EAS includes a detailed Land Use, Zoning and Public Policy section, which analyzes the potential significance of the proposed map and text amendments on land use, zoning and public policy in the study area. The proposed actions would rezone the affected area from R7A/C2-3 and R6B zoning districts to an R7X/C2-3 zoning district. The analysis 1concludes that the proposed actions would not result in significant adverse impacts on Land Use Zoning or Public Policy.

Urban Design and Visual Resources

3. This EAS includes a detailed Urban Design and Visual Resources section. This section analyzes whether the proposed actions, which would facilitate a new mixed-use residential and community facility building on the Project Site would have the potential to affect urban design and visual resources in the study area. The analysis concludes that the proposed actions would not result in significant adverse impacts related to Urban Design or Visual Resources.

Transportation

4. This EAS includes a detailed Transportation section. This section analyzed whether the proposed actions would have the potential to affect transportation networks in the study area. The analysis indicates that the proposed actions are expected to generate 54, 86, 66, and 65 new vehicle trips per hour during the Weekday AM, Midday, PM, and Saturday Midday peak hours respectively. The project generated traffic was assigned to the local roadways, traffic from other nearby developments including the Cornell Tech project was accounted for, and a detailed intersection capacity analysis was performed at key intersections. The analysis concludes that the proposed actions would not result in significant adverse Transportation impacts.

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).

TITLE	LEAD AGENCY
Deputy Director, Environmental Assessment and Review Division	Department of City Planning
NAME	DATE
Olga Abinader	5/4//2018
SIGNATURE	

TITLE Chair, City Planning Commission	
NAME Marisa Lago	DATE 5/7/2018
SIGNATURE	

Project Name: Variety Boys and Girls Club Rezoning
CEQR #: 18DCP121Q
SEQRA Classification: Unlisted

Determination of Significance Appendix: (E) Designation (E-478)

To ensure that there would be no significant adverse hazardous materials, air quality or noise impacts associated with the proposed project, an (E) designation (E-478) will be placed on the project site (Block 550, Lots 7 and 10). This (E) designation will supersede the (E) designation (E-245) for hazardous materials and air quality placed on Lot 7 as part of the Astoria Rezoning (CEQR No. 10DCP019Q).

Hazardous Materials

Task 1
The applicant submits to OER, for review and approval, a Phase 1A of the site along with a soil and groundwater testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.

If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2
A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.

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

An OER-approved construction-related health and safety plan would be implemented during evacuation and construction and activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.

Project Name: 69-02 Queens Boulevard Rezoning and LSGD
CEQR #: 18DCP132Q
SEQRA Classification: Unlisted

Air Quality

Block 550, Lots 7 and 10: Any new residential, commercial and/or community facility development on the property must ensure that the proposed development is limited to a single heating, ventilating, and air conditioning (HVAC) stack, which must be located at the highest tier of the proposed development, or at least 148 feet above grade, to avoid any potential significant adverse air quality impacts.

Noise

Block 550, Lots 7 and 10: In order to ensure an acceptable interior noise environment, new residential/community facility development on the above mentioned property must provide a closed-window condition with sufficient attenuation in order to maintain an interior noise level of 45 dBA; and new commercial development must provide a closed-window condition with sufficient attenuation in order to maintain an interior noise level of 50 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided.

The required attenuation for new development varies by building floor and façade; the required minimum composite building façade attenuation is shown in the following table:

Building Section	Floor	L_{10} (dBA)	Façade	CEQR Categories	Required Attenuation (dBA)
Residential	1-5	76 > L10 >= 73	Northwest, Northeast, Southwest	Marginally Unacceptable	31
	6-13	73 > L10 >= 70	Northwest, Northeast, Southwest	Marginally Unacceptable	28
	14	L10 < 70	Northwest, Northeast, Southwest	Marginally Acceptable	-
	1-9	78 > L10 >= 76	Southeast	Marginally Unacceptable	33
	10	76 > L10 >= 73	Southeast	Marginally Unacceptable	31
	11-13	73 > L10 >= 70	Southeast	Marginally Unacceptable	28
	14	L10 < 70	Southeast	Marginally Acceptable	-
Community Facility	1-5	77.1	Northwest	Marginally Unacceptable	33
	1-5	65.4	Southwest, Southeast, Northeast	Marginally Acceptable	-

Environment

Prepared for:
Variety Boys & Girls Club of Queens

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

AECOM No. 60505356

Variety Boys & Girls Club of Queens Rezoning

Supplemental Studies to the Environmental Assessment Statement

May 4, 2018

Proposed Development Site:

21-12 30th Road
Astoria (Queens), NY 11102

Prepared for:

Variety Boys & Girls Club of Queens
21-12 30th Road
Astoria, NY, 11102

Prepared by:

AECOM
125 Broad Street
New York, NY 10004

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Appendices

Appendix A – MIH Text Amendment Map

Appendix B – New York City Waterfront Revitalization Program Consistency Assessment Form

Appendix C – Phase I Environmental Assessment Statement

Appendix D – Agency Correspondence

1.0 PROPOSED ACTION

The Applicant, Variety Boys and Girls Club of Queens, is seeking a zoning map amendment to rezone Block 550, Lots 7, 10 and portions of (p/o) Lots 5 and 27 in the Astoria neighborhood of Queens (the "rezoning area" or "affected area") from split-lot R7A/C2-3 (within 100 feet of 21st Street; p/o Lots 7 and 10) and R6B (beyond 100 feet of 21st Street; p/o Lots 5, 7, 10 and 27) zoning districts to an R7X/C2-3 zoning district. The proposed rezoning would facilitate the development of a new mixed-use building comprised of one 14-story component containing 112 residential units with ground-floor retail and 39 parking spaces; and one five-story community facility component that would include a replacement facility for the existing Variety Boys and Girls Club of Queens, on the property located at 21-12 30th Road (Block 550, Lot 7). The Applicant is also requesting a zoning text amendment to the New York City Zoning Resolution (ZR) Appendix F to designate the rezoning area a Mandatory Inclusionary Housing (MIH) Area.

The proposed mixed-use building at 21-12 30th Road would house approximately 285,043 gross square feet (gsf) (219,365 zoning square feet [zsf]) of floor area in two sections. The 14-story residential portion would be comprised of 133,088 gsf (129,212 zsf) of residential floor area, 7,779 gsf (7,702 zsf) of retail floor area and 29,746 gsf (0 zsf) of parking floor area; while the five-story community facility portion would contain 114,430 gsf (82,452 zsf) of community facility floor area. The Applicant has selected MIH Option 2 and intends to provide approximately 34 units of affordable housing (30 percent of the residential floor area) for households averaging 80 percent of area median income (AMI). The residential portion of the proposed building would reach a height of approximately 145 feet.

Parking is required for 50 percent of market rate dwelling units in an R7X zoning district, and no parking is required for affordable units as the rezoning area is located within the Transit Zone. The proposed development would require approximately 39 parking spaces for the 78 market-rate dwelling units. Thus the Applicant intends to provide 39 accessory parking spaces in the subsurface portion of the proposed building. There are no parking requirements for the proposed community facility and retail uses.

1.1 Project Location

The project area was most recently rezoned to R7A/C2-3 and R6B zoning districts as part of the City-sponsored 2010 Astoria Rezoning (CEQR No. 10DCP019Q). The Astoria Rezoning rezoned 238 blocks generally bounded by 20th Avenue to the north, Steinway Street to the east, Broadway to the south, and Vernon Boulevard, 8th Street, 14th Street, and the East River to the west. As discussed in Section 2.1.2, Zoning, the Rezoning was intended to protect neighborhood character from out-of-scale development; to provide incentives for the production of affordable housing; to more closely reflect the established development patterns; and to direct opportunities for residential and commercial growth along wide street and transit resources.

The rezoning area is located in Queens Community District 1 (**Figure 1.1-1**) and encompasses a portion of Block 550 (within 200 feet of 21st Street; Lots 7, 10, p/o Lots 5 and 27) (**Figure 1.1-2**). The rezoning area is located within R7A/C2-3 and R6B zoning districts. The development site (also referred to as the project site) consists of two lots: Block 550, Lots 7 and 10. The Applicant controls both of these lots and intends to merge the lots into a single zoning lot which would then serve as the development site. Merging the lots will ensure compliance with the community facility lot coverage requirements due to the necessary minimum size requirements for the basketball courts and swimming pools on the zoning lot.

Tax Lot 7 is an approximate 37,670 square foot lot currently improved with a single-story community facility building that is currently owned and occupied by the Variety Boys and Girls Club, a large after-school program that provides youth programs. The Club has been operating at this site since 1955, when the building was constructed over 60 years ago.

Lot 10 is a 20,268 square foot lot currently improved with an eleven-story Use Group 2 multi-family residential building with 99 dwelling units of senior housing, and community facility and office uses on the ground floor. This 84,491-gsf building is also owned by the Applicant, the Boys and Girls Club of Queens. The proposed rezoning area also includes very small portions of Lots 5 (approximately 82 square feet) and 27 (approximately 620 square feet). Lot 5 is an approximately 9,800 square foot lot currently improved with a three-story community facility for the Islamic Congress Church. Lot 27 is a 2,400 square foot lot that is improved with a two-story, one-family building.

The proposed building would be located at 21-12 30th Road on the Lot 7 portion of the development site. The development site (Lots 7 and 10, proposed zoning lot) has a combined frontage on 21st Street of 292.63 feet with approximately 200 feet of frontage on 30th Road and approximately 200 feet of frontage on 30th Drive. The proposed zoning lot will have a combined lot area of approximately 57,938 square feet. A key to photographs of the rezoning area and surrounding area is shown in **Figure 1.1-3** with the photographs displayed in **Figure 1.1-4**.

1.2 Required Approvals

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

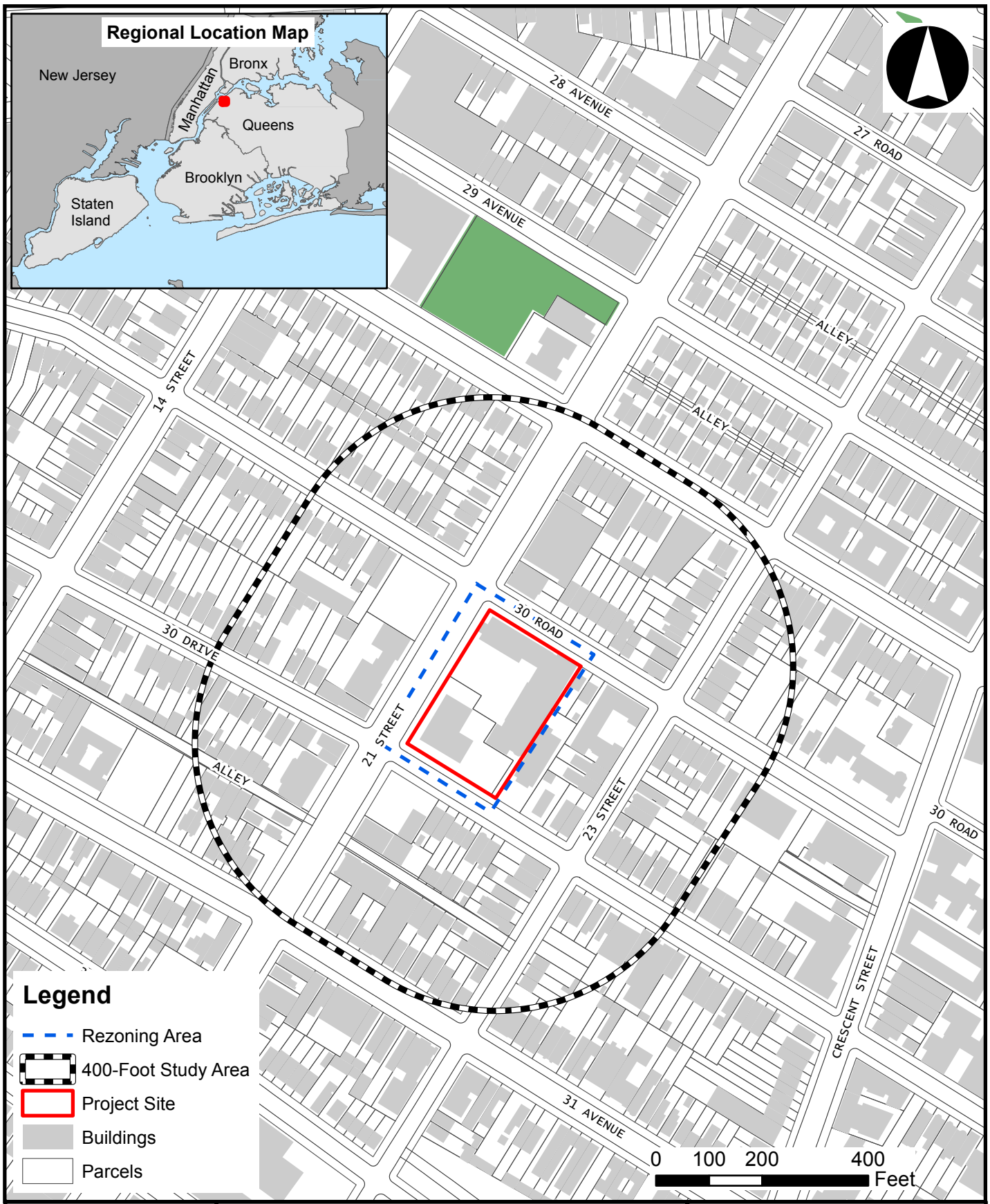
The Applicant proposes the following actions:

- A zoning map amendment to section 9a to rezone Block 550, Lots 7, 10, and a portion of (p/o) Lots 5 and 27 from an R7A/C2-3 and R6B zoning district to an R7X/C2-4 zoning district. (**See Figure 1.2-1** for the Proposed Zoning Change Map.)
- A zoning text amendment to Appendix F to establish MIHA, Options One and Two, that overlaps with the rezoning area. Option One requires 25 percent of residential floor area to be provided at 60 percent AMI, with 10 percent of residential floor area to be provided at 40 percent AMI; Option Two requires 30 percent of residential floor area to be provided at 80 percent AMI.

The Applicant proposes Option Two for the project area which is consistent with the Councilmember's preference to allow for a wider mix of incomes within this area of Astoria, Queens. (See **Appendix A** for the MIH Text Amendment Map.)

1.3 Purpose and Need for Proposed Action

The Variety Boys and Girls Club's existing facility, originally constructed in 1955, is in need of both expansion and an update to serve future generations. The Club is the largest after-school program in Western Queens that cares for nearly 200 children during the after school programs that run from 2:30 to 7:00 pm daily, with special programs that continue until 8:30 pm. The Club provides a broad range of youth programs in the following core areas: personal and educational development, citizenship and leadership, cultural enrichment, health and physical education and social recreation. Additionally, the Club partners with the Academy of the City charter school to provide a summer camp program that includes swimming instruction, field trips, art projects and sport activities for children.



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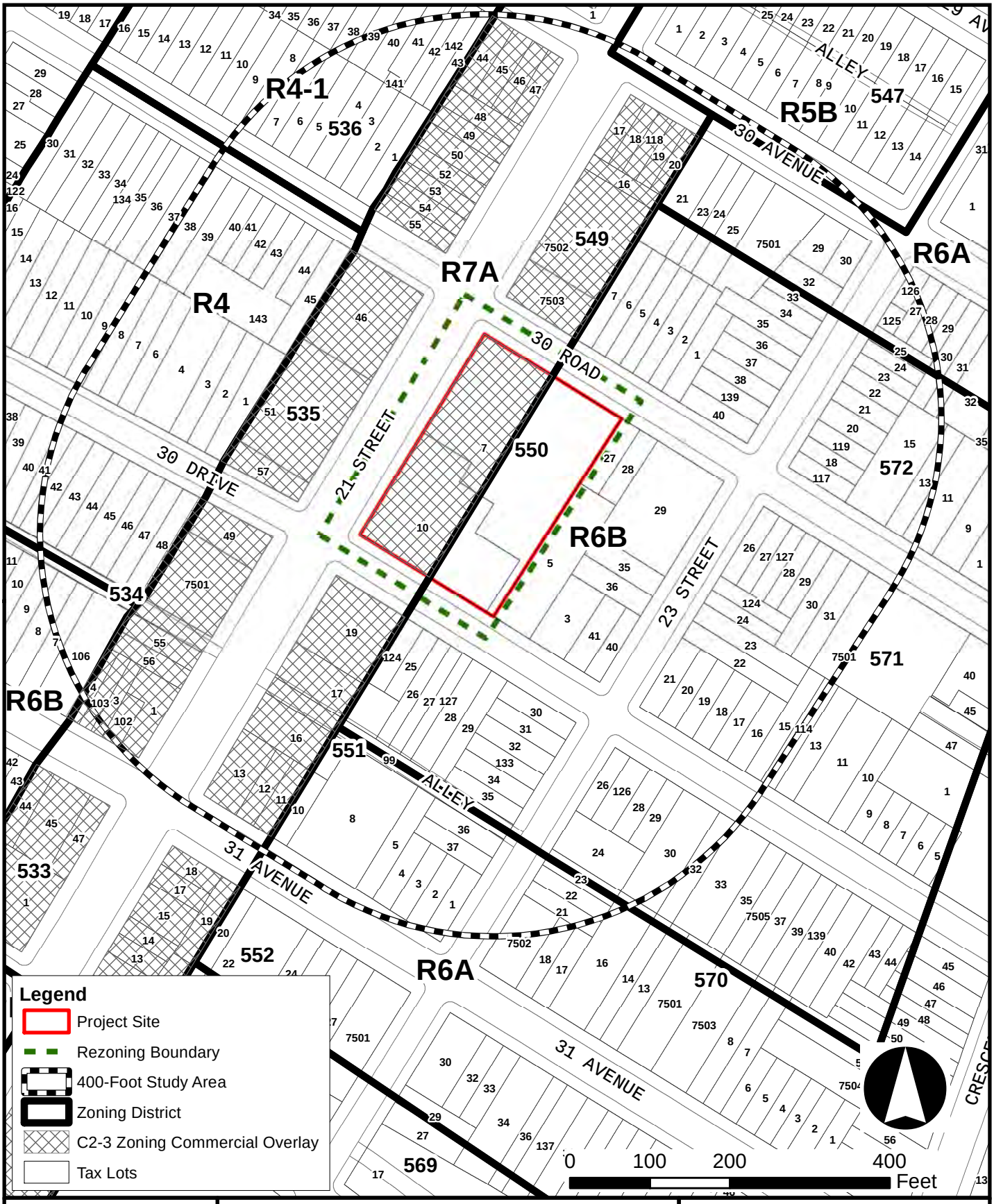
Environmental Assessment Statement
Variety Boys and Girls Club of Queens Rezoning
Astoria, NY

Project Location Map

Figure 1.1-1



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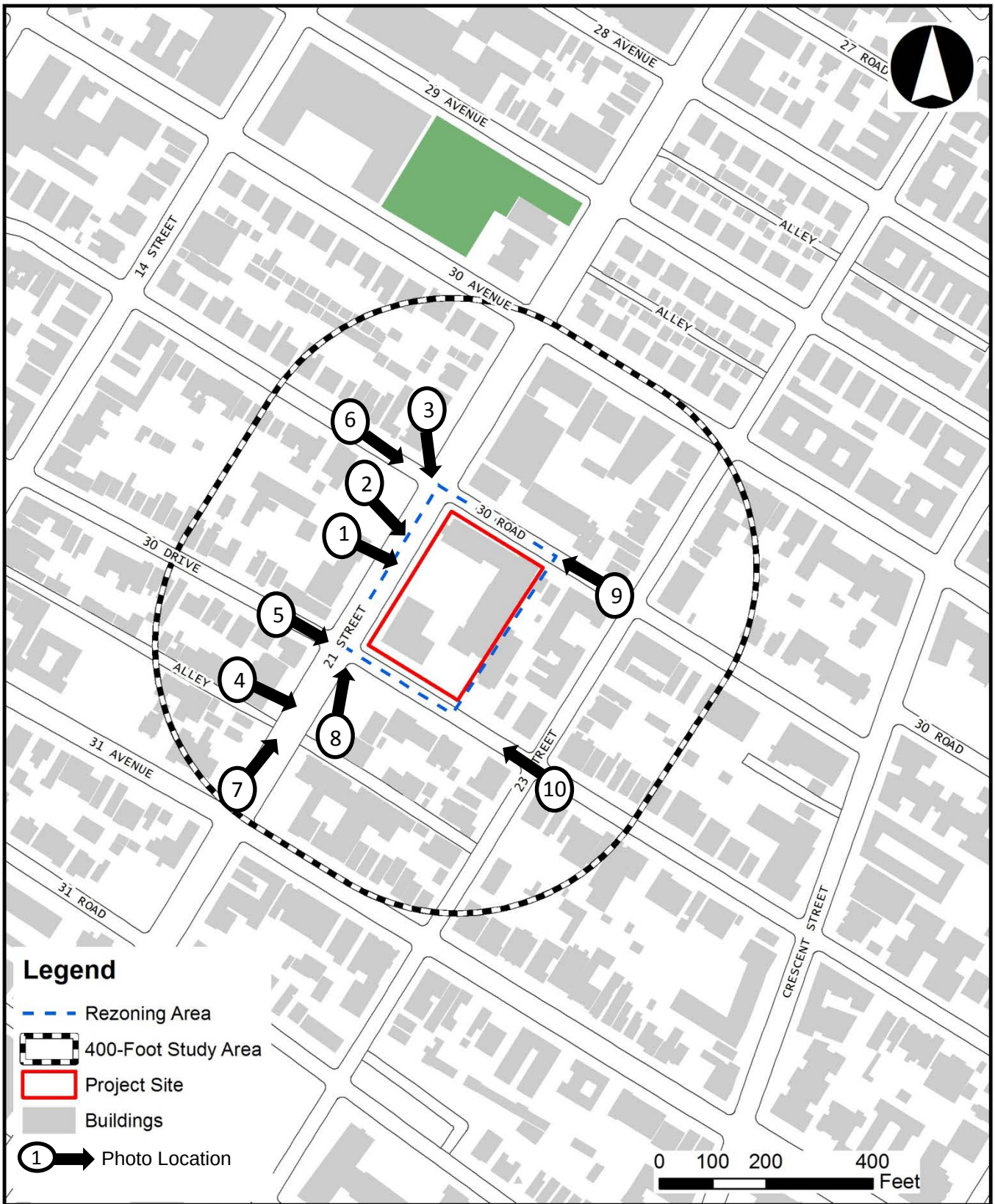
Environmental Assessment Statement
Variety Boys and Girls Club of Queens Rezoning
Astoria, NY

Tax Map with Zoning Districts

Figure 1.1-2



AECOM

Environmental Assessment Statement
Variety Boys and Girls Club
of Queens Rezoning
Astoria, NY

Photo Location Map

Figure 1.1-3

Figure 1.1-4 Photographs of the Project Site and Surrounding Area

Photograph 1



Looking east on 21st Street toward the existing Variety Boys and Girls Club and 11-story residential building located on the development site.

Photograph 2



Looking east on 21st Street at the existing Variety Boys and Girls Club.

Photograph 3



Looking south on 21st Street toward the existing Variety Boys and Girls Club and 11-story residential building.

Photograph 4



Midblock on 21st Street looking east, just south of 30th Drive.

Photograph 5



Looking east down 30th Drive from 21st Street. The existing residential building situated at southwestern end of the development site and is visible in the forefront.

Photograph 6



Looking east across 21st Street from 30th Road toward the Variety Boys and Girls Club situated at the northwestern end of the development site.

Photograph 7



Looking north on 21st Street from 31st Avenue toward the development site.

Photograph 8



Looking north on 21st Street from 30th Drive toward recent residential development located adjacent to the development site.

Photograph 9

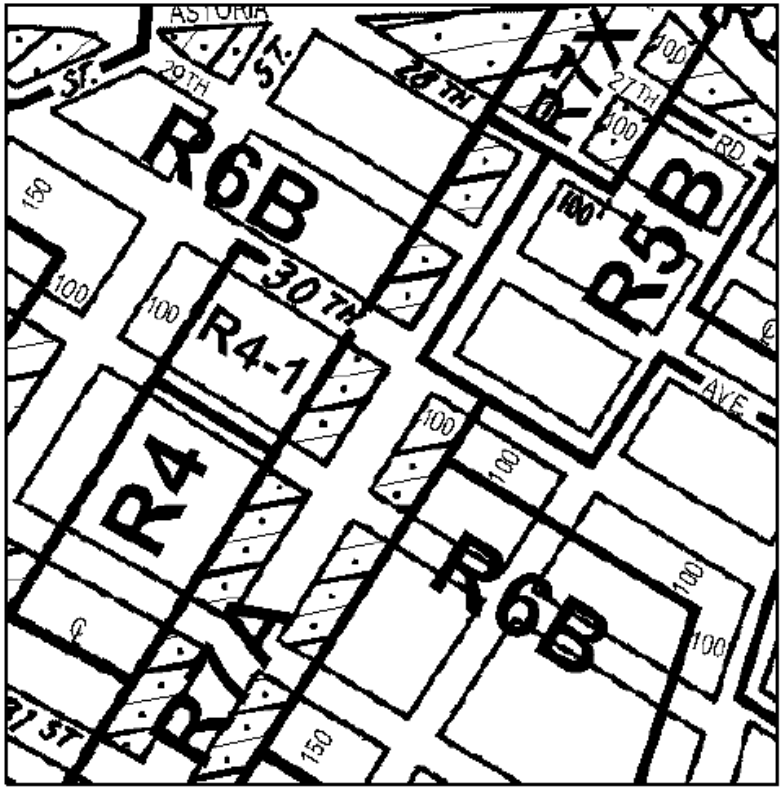


Looking west down 30th road from 23rd Street toward the development site and rezoning area.

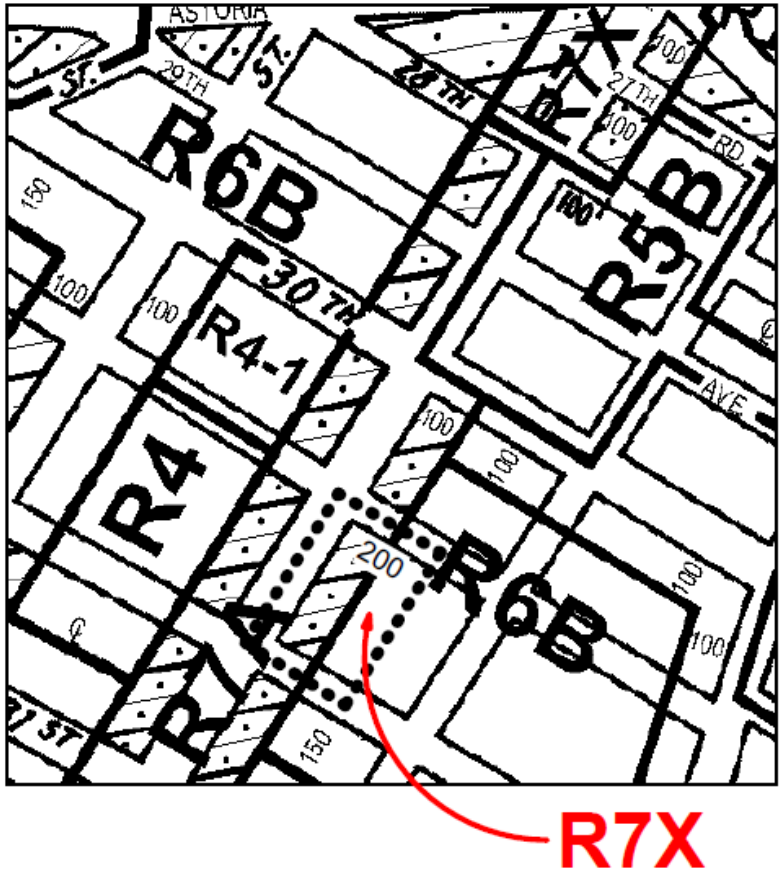
Photograph 10



Looking West down 30th Drive from 23rd Street toward the development site and rezoning area.



CURRENT ZONING MAP 9a



PROPOSED ZONING MAP 9a Area being rezoned is outlined with dotted lines

Changing a R7A& R6B to a R7X

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

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined
lanes) of the Zoning Resolution.

MARNERARCHITECTURE
330 West 42nd Street | New York, NY 10036 | 212 239 1030 | 212 239 0029 F

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Environmental Assessment Statement
Variety Boys and Girls Club
of Queens Rezoning
Astoria, NY

Proposed Zoning Change Map

Figure 1.2-1

Regarding the purpose and need for the proposed community facility space maintain its current location at 21-12 30th Road in Astoria, the Applicant offers the following rationale. First, the Club has been located in Astoria for the past 60 years, with a mission to serve the children of Western Queens specifically within the Astoria and Long Island City communities. In order to carry out its mission, the Club would need to remain within the community and there are no other options available for the Club to relocate within the community. The Applicant has stated that no suitably-sized parcels are available locally at a reasonable price, making relocation financially infeasible for the not-for-profit Club. The Club has been an anchor in the neighborhood and provides services within five core areas: Visual and Performing Arts, Sports, Fitness, and Recreation, Academic Enhancement, Leadership, and Health and Life Skills. Programs are offered to all children (ages 6-18) and include a full range: homework program, gymnasium and sports programs, swimming, game room activities, library and computer lab programming, arts and crafts, drama, and much more. Adolescents are offered special age appropriate programs, including Career Launch and Smart Girls, in a brand new, state of the art Teen Center (built in 2009). The facility is a home to many children seeking positive role models.

Second, the property currently receives a charitable tax exemption from New York State pursuant to the Not-for-Profit Corporation Law (§ 501-511) due to the Variety Boys and Girls Club of Queens, Inc.'s status as a not-for-profit corporation. This law requires that any sale, lease, exchange or disposition of the property be approved by the Attorney General and the New York State Supreme Court, who must find that the sale furthers the not-for-profit's mission. The Applicant has indicated that the process can be extremely time consuming, public and expensive for a not-for-profit to endure. The Variety Boys and Girls Club would not seek to undergo the disposition of the property and undertake this administrative burden to remove their beneficial not-for-profit tax exempt status.

Lastly, the Club has already obtained a grant from New York City to relocate the community facility space during the construction period, which will enable the Club to remain in operation while the current space is built out. This grant assumes that the Variety Boys and Girls Club will construct the new facility as set forth within the proposed action at the site located at 21-12 30th Road.

The Applicant believes that he proposed rezoning is necessary in order to facilitate construction of the proposed replacement facility and the redevelopment of the site. The development site currently has a split lot condition with the zoning lot split between an R6B zoning district with a maximum FAR of 2.0 and R7A/C2-3 zoning district in an Inclusionary Housing designated area with a maximum FAR of 4.6 zoning districts. This would not be sufficient amount of floor area to support the proposed mixed use development at the development site. The increased FAR for the entire development site from a 4.6 to a 6.0 is necessary in order to accommodate the proposed mixed use residential, community facility and commercial development at the site. Further, the existing R6B portion of the zoning lot does not permit commercial retail use which would prohibit the development from providing retail at the ground level on both 21st Road and 30th Road.

The proposed building is located on a wide street (21st Street), which the Applicant believes is able to support higher density development. In addition, the rezoning area is located within the Transit Zone in Astoria because it is served by multiple public transportation options. As such, the Applicant believes that the area can support the increase in density that would be permitted under the proposed R7X/C2-3 zoning district. The proposed project would create much needed housing opportunities in the Astoria neighborhood of Queens. In addition, a portion of the dwelling units will be permanently affordable pursuant to the Mandatory Inclusionary Housing program.

Additionally, the Applicant is of the opinion that the proposed R7X zone would be similar to/ would reflect the surrounding zoning districts. For example, an existing R7A/C2-3 district is mapped along 21st Street just three blocks north of the rezoning area at the corner of 21st Street and Astoria Boulevard.

Furthermore, from the Applicant's perspective the R7X zone's increased density is necessary for the overall project's financial feasibility of both the residential component and the expansion of the existing

Variety Boys and Girls Club. The R7X/C2-3 zoning district will provide much-needed additional floor area for the Variety Boys and Girls Club's proposed new swimming pool, basketball courts, etc., associated with the club's after school programming. The additional community facility floor area is necessary for the proposed development because there is a strong need for after school programming in this area as more and more residential housing stock is developed. The Boys and Girls Club has existing relationships with both public and private schools due to the nature of the after school programming that the club provides to students in this neighborhood of Astoria.

The proposed zoning text amendment to Appendix F of the Zoning Resolution is requested to map the project area as an MIH designated area. The Applicant proposes to map Option 2 on for the Mandatory Inclusionary Housing Designated Area where 30 percent of the floor area, approximately 34 dwelling units, must be permanently designated for affordable housing and rented to tenants with an income at or below 80 percent of the Area Median Income (AMI). Through this zoning text amendment, the development site will have an increased FAR and the ability to provide an increased number of permanently affordable housing units that can be provided on-site. The City is in need of dwelling units at all income levels but is particularly short of affordable housing units and has looked to private developers to provide these units through new developments. By making the development site an MIH site, the Applicant and all future owners will be required to provide a percentage of permanently affordable housing units.

The proposed rezoning would encourage new mixed-used, moderate-density development along 21st Street, one of Astoria's wider streets and a commercial corridor that is within close proximity to transit hubs.

1.4 Proposed Development

The Applicant proposes to change the existing zoning of the project area from R7A/C2-3 and R6B districts to an R7X/C2-3 zoning district to facilitate the development of a new mixed use building with ground floor retail, community facility and residential uses on the development site. The Applicant intends to build one new building located on Block 550, Lot 7 that would contain a 14-story, 112-unit residential component with ground floor retail and accessory parking, and a separate five-story community facility component that would house the replacement Variety Boys and Girls Club. The proposed building would include 133,088 gsf of residential floor area, 7,779 gsf of retail floor area, 114,430 gsf of community facility floor area, and 39 accessory parking spaces (FAR 5.2). Refer to **Figures 1.4-1 through 1.4-3** for three-dimensional representations of the proposed development

The proposed new mixed-use development is intended to be one building with two separate components that are interconnected by a one-story retail space on a single zoning lot. The proposed building would contain a 14-story component, with a retail qualifying ground floor that fronts on both 21st Street and 30th Road. The residential portion of the building is proposed to be located on floors 2 through 14. The residential and retail component would reach a maximum height of 145 feet. The accessory parking spaces would be provided in below grade parking with a total 39 accessory parking spaces. The parking would be accessed from a 30-foot curb cut to be located on 21st Street where there would be a driveway ramp to the below-grade parking levels. A one-story local retail component is proposed to connect to the five-story community facility component of the building. The ground floor retail would be tenanted by local neighborhood retail uses such as a restaurant. Above the one-story retail component there would be an approximate 3,620-sf, open recreational space with an outdoor seating area that would be available to residential tenants. This rooftop area would also include a separate, approximately 2,118-sf outdoor play area that would be utilized by the Club.



View Looking North on 21st Street

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Variety Boys and Girls Club
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Illustrative Three-Dimensional Representation of the Proposed Development

Figure 1.4-1



View Looking West on 30th Road

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Illustrative Three-Dimensional Representation of the Proposed Development

Figure 1.4-2



View Looking South on 21st Street

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Illustrative Three-Dimensional Representation of the Proposed Development

Figure 1.4-3

The five-story community facility component would front on 30th Road and house the new and improved space for the Variety Boys and Girls Club and its afterschool activities. A new swimming pool and basketball court are proposed below grade; while office space, daycare, and a community and medical research center (all related to the Club) are proposed for the ground floor. The proposed second floor would have conference/event space, a planetarium with a theater, a teen center and arts and video studios and school-based community organizational offices. The proposed third floor would have program space for afterschool activities, a theater, offices, and club-related activity rooms such as a library, teen center, keystone leadership center, and a non- profit conference room. The proposed fourth floor would have office space and the fifth floor will also have program space for afterschool activities, a library and additional conference rooms. The proposed roof above the five-story community facility component would contain an approximate 19,416-sf, active fenced-in play space for use by the Boys and Girls Club in addition to a rooftop garden, a STEM greenhouse/science lab and common outdoor space.

The Boys and Girls Club would maintain their current schedule for after-school programs from 2:30 pm until approximately 11:00 pm daily. It is intended that all outdoor activity even for special events would cease by 9:00 pm in consideration of the residential tenants. As discussed in Section 1.5, Build Year for Analysis, the Club intends to relocate to a nearby public school (I.S. 10 Horace Greeley) temporarily during the construction of the proposed replacement facility.

1.5 Build Year for Anaysis

Considering the time required for the environmental review and land use approval process, and assuming a construction period of approximately 20 to 24 months, the build year (or analysis year) for the proposed development is 2021.

As previously noted, the Boys and Girls Club has already secured a grant to temporarily relocate the community facility space so that it can remain operational while the current space is built out. During the construction and redevelopment of its proposed replacement facility, the Club intends to relocate to a nearby public school, IS 10 Horace Greeley. The Club was recently awarded a Beacon Grant from the Department of Youth and Community Development, which oversees and monitors a range of programs for young New Yorkers provided through contracts with local community-based organizations. This Beacon Grant would fund the interim programs of nearly identical size and scope at IS 10 Horace Greeley. The grant is intended to begin with construction and is for at least three years with the option to renew for an additional three years.

1.6 Analysis Framework (Reasonable Worst Case Development Scenario)

Existing Conditions

The rezoning area is comprised of Block 550, Lots 7, 10 and p/o of Lots 5 and 27. Lot 7 contains the current Boys and Girls Club building, which was built in 1955 and is housed in a single-story, L-shaped structure that has approximately 30,291 gsf of space, built to an approximate FAR of 0.8. The approximately 37,670-sf lot has approximately 200 feet of frontage along 30th Road and a depth of approximately 292 feet at its deepest point. This lot is currently owned by the Applicant. Lot 10 is improved with an 11-story, Use Group (UG) 2 multi-family, residential building that contains 99 units of senior housing and approximately 84,491 gsf (82,834 zsf) of floor area. With a lot area of approximately 20,268 square feet, this represents a built FAR of approximately 4.1.[1]

Additionally, small slivers (portions of) Lots 5 and 27 are included in the proposed rezoning area. Lot 5 is occupied by a three-floor religious institution. This 8,800-gsf facility is built on an approximately 9,800 square foot lot, with a built FAR of approximately 0.9. Lot 27 is 2,400 square feet in size, built to an FAR of approximately 0.5, and contains one two-story, 1,200-gsf single-family residence.

[1] Note that Lot 10 is a legal non-complying bulk condition that was constructed prior to the 2010 Astoria Rezoning.

Future No-Action Scenario

The rezoning area is located in the Astoria neighborhood of Queens, which is densely developed. The Lot 7 portion of the proposed development site was analyzed as Potential Development Site 8 in the 2010 Astoria Rezoning Study, with an assumed zoning of R7A/C2-3 and R6B and a development potential of 31,705 sf of community facility space and 84 dwelling units. However, the Applicant does not intend to construct a new development absent the current proposed action. Therefore for conservative analysis purposes, it is assumed that conditions on the development site would remain consistent with existing conditions, as described above.

Lots 5 and 27 would be minimally affected by the proposed rezoning, and are anticipated to remain in their current condition. In addition, the proposed rezoning is not expected to induce new development on the Lot 10 portion of the development site. This parcel is improved with an 11-story UG 2 multi-family residential building with 99 dwelling units and approximately 84,491 square feet of floor area (82,834 zsf). The development on Lot 10 is a legal non-complying building and therefore is not expected to be redeveloped absent the proposed action.

With respect to the 400-foot study area surrounding the development site, four new construction projects were observed. Based on data obtained from the NYCDOB's Building Information System (BIS), the following four projects are expected to be completed by the 2021 build year and thus will be considered as No-Action development sites in the EAS technical analyses:

- 21-13 31st Avenue (Block 551, Lot 8): This site will contain an approximately 54,879-gsf, seven-story residential building with 28 accessory parking spaces (in an at-grade parking lot). The building will include 56 dwelling units and approximately 1,413 sf of exterior (rooftop) recreation space.

- 21-03 31st Avenue (Block 551, Lot 13): The site is being developed with a mixed-use, seven-story, approximately 20,936-gsf building that will house 24 residential units, approximately 2,192 gsf of ground-floor commercial space and one accessory (enclosed) parking space.

- 14-53 31St Avenue (Block 534, Lot 1): The site will contain an eight-story, approximately 41,038-gsf residential building with 49 dwelling units and 25 accessory (enclosed) parking spaces.

- 14-45 31St Avenue (Block 534, Lot 106): The site is being developed with a five-story, approximately 14,260-gsf residential building with 18 dwelling units and nine accessory (unenclosed) parking spaces.

These No-Action projects will introduce approximately 344 residents in 147 dwelling units (based on an average of 2.34 persons per unit),[2] as well as an estimated 14 employees.[3]

Future With-Action Scenario

Under the Future With-Action Scenario, the proposed rezoning would amend the zoning map to change the existing R7A/C2-3 and R6B zoning districts to an R7X/C2-3 district on the eastern side of 21st Street between 30th Road and 30th Drive, primarily affecting Block 550, Lots 7 and 10. This would facilitate the Applicant's proposed development of a new mixed-use building on the development site containing a total

[2] U.S. Census data indicate that the 2010 average household size for Queens Community District 1 is 2.34.
[3] The estimated number of employees includes approximately six workers for residential development (based on a standard average of 0.04 employees per dwelling unit [superintendents, doormen, porters, etc.]; seven workers for the commercial use (assuming three employees per 1,000 square feet of retail use); and one worker for the accessory parking uses (assuming one employee per 50 parking spaces).

of 285,043 gsf (219,365 zsf) of floor area. Taking into account the existing building on Lot 10, the proposed rezoning would result in 369,543 gsf (302,119 zsf) of development (5.2 FAR) comprising: 114,430 gsf (82,452 zsf) of community facility space (1.4 FAR); 217,579 gsf (212,046 zsf) of residential space (211 units) (3.7 FAR); 7,779 gsf (7,702 zsf) of retail space (0.1 FAR); and 29,746 gsf (0 zsf) of parking space.

In order to present a conservative assessment, a Reasonable Worst Case Development Scenario (RWCDS) was developed for the Future With-Action Scenario, which differs slightly from the Applicant's proposed project because it assumes that the development site would be developed to the maximum allowable floor area ratio in an R7X/C2-3 district. In an R7X/C2-3 district, a maximum FAR of 6.0 is permitted, and an overall building height of 145 feet is allowed with provision of inclusionary housing and a qualifying ground floor to accommodate the permitted FAR. The RWCDS also assumes the induced residential, commercial and community facility development would build in conformance with the Mandatory Inclusionary Housing (MIH) standards. Under this proposal, the Applicant intends to allocate 30 percent of the total floor area to residents with incomes averaging 80 percent of the AMI, consistent with the Councilmember's preference to allow for a wider mix of incomes within this area. Similarly, the RWCDS assumes 30 percent of the residential floor area would be affordable (i.e., restricted to residents with incomes averaging 80 percent of the AMI).

On the approximately 57,938-square-foot combined lot, the RWCDS assumes that the proposed action would result in approximately 417,153 gsf (347,627 zsf) of total development (FAR 6.0), comprised of the 84,491 gsf (82,834 zsf) existing residential building (1.4 FAR) and a new 332,662 gsf (264,793 zsf) mixed-use building (4.6 FAR). The new building would contain 180,707 gsf (174,639 zsf) of residential floor area (FAR 3.0); 7,779 gsf (7,702 zsf) of retail floor area (0.1 FAR); 114,430 gsf (82,452 zsf) of community facility floor area (1.4 FAR); and 64 parking spaces (29,746 gsf).[4] Estimating 1,000 square feet per dwelling unit, it is assumed that 181 new residential units would be constructed in addition to the 99 existing units, bringing the total number of dwelling units to 280 for the development site. Under the 30 percent MIH option, the proposed rezoning would result in the creation of approximately 54 affordable units with incomes averaging 80 percent of the AMI.

Parking is required for 50 percent of the 127 market-rate dwelling units in an R7X zoning district, and no parking is required for affordable units as the development site is located in a Transit Zone. There are no parking requirements for the proposed retail and community facility components. Thus the new mixed-use building would require approximately 64 accessory parking spaces, which are assumed to be provided in the subsurface level of the development. The RWCDS also assumes that the existing 22 accessory parking spaces located on the on the Lot 10 portion of the development site would remain in the Future With-Action Scenario.

The proposed action would introduce approximately 424 residents in 181 new units (based on an average of 2.34 persons per unit) as well as an estimated 284 employees[5] who would work in the building.

Lots 5 and 27 would be minimally affected by the proposed rezoning, and are anticipated to remain in their current condition. In addition, the proposed rezoning is not expected to induce new development on the Lot 10 portion of the development site. As stated previously, this parcel is improved with an 11-story UG 2 multi-family residential building with 99 dwelling units at an FAR of approximately 4.1.[6] At this

[4] Note that the new residential gsf estimate is based on the grossing factor utilized in the Applicant's proposal.

[5] The estimated number of employees includes approximately seven workers for the residential element of the proposed action (based on a standard average of 0.04 employees per incremental residential unit [superintendents, doormen, porters, etc.]; 23 workers for the commercial element (assuming three employees per 1,000 square feet of retail use); 252 workers for the incremental amount of community facility use (84,139 gsf) (assuming three employee per 1,000 square feet of incremental community facility use); and one worker for the accessory parking uses (assuming one employee per 50 parking spaces). Note that worker numbers do not sum to 284 due to rounding.

[6] Note that Lot 10 is a legal non-complying bulk condition, constructed prior to the 2010 Astoria Rezoning. The proposed rezoning would bring Lot 10 into conformance.

existing density, Lot 10 is constructed to 68 percent of the development potential in the future with the proposed rezoning. It is assumed that this existing building would remain in the future with-action scenario. However, as discussed further below in the With-Action Scenario, to allow for a conservative analysis the RWCDS assumes that the merged lot would be developed to the maximum allowable FAR of 6.0. Accordingly, the RWCDS accounts for the full development potential of Lot 10 (or the full development potential of the merged lot) under the proposed R7X/C2-3 zoning district.

Site data for the proposed development site are shown in **Table 1.6-1**. **Table 1.6-2** provides a detailed description of the existing and proposed future conditions, including the incremental amount of development that would be expected to occur under the proposed action.

Table 1.6-1 Projected Development Under the Proposed Rezoning[7]

Block	Lot	Lot Area	Existing Zoning	Existing FAR	Proposed Zoning	Projected Residential Floor Area (zsf)	Projected Retail Floor Area (zsf)	Projected Community Facility Floor Area (zsf)	Projected FAR	DUs
550	7 and 10	57,938	R7A/C2-3 and R6B	2.0	R7X/C2-3	257,473	7,702	82,451	6.0	280
					Total:	**257,473**	**7,702**	**82,451**	**6.0**	**280**

Table 1.6-2 Description of Existing and Proposed 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	Multi-family (Lot 10) [8]	Multi-family (Lot 10)	Multi-family (Lots 7 and 10)	
No. of dwelling units	99	99	280	181
No. of low- to moderate-income units	0	0	54	54
Gross floor area (sq. ft.)	84,491	84,491	265,198	180,707
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)			Local retail (Lot 7)	
Gross floor area (sq. ft.)			7,779	7,779
Manufacturing/ Industrial	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use				
Gross floor area (sq. ft.)				
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				

[7] This table includes the existing residential building on the Lot 10 portion of the development site.
[8] Note that the gross and zoning square footage estimates for the existing building on Lot 10 are based on the architect's zoning analysis, which was included in the September 18, 2017 ULURP filing for the proposed Variety Boys and Girls Club of Queens rezoning.

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
Community Facility	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Type	Boys & Girls Club (Lot 7)	Boys & Girls Club (Lot 7)	Boys & Girls Club (Lot 7)	
Gross floor area (sq. ft.)	30,291	30,291	114,430	84,139
Vacant Land	☐ YES ☒ NO	☐ YE ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
PARKING				
Garages	☐ YES ☒ NO	☐ Y ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces			0	0
No. of accessory spaces			64	64
Lots	☒ YES ☐ NO	☒ YES ☐ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces	0	0	0	0
No. of accessory spaces	22	22	22	0
ZONING				
Zoning classification	R7A/C2-3 and R6B	R7A/C2-3 and R6B	R7X/C2-3	
Maximum amount of floor area that can be developed	**R7A/C2-3:** 4.0 Residential FAR; 4.0 Community Facility FAR 2.0 Commercial FAR (overlay) **R6B:** 2.0 Residential FAR; 2.0 Community Facility FAR	**R7A/C2-3:** 4.0 Residential FAR; 4.0 Community Facility FAR 2.0 Commercial FAR (overlay) **R6B:** 2.0 Residential FAR; 2.0 Community Facility FAR	6.0 Residential FAR; 5.0 Community Facility FAR 2.0 Commercial FAR (overlay)	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Single-family residential, multi-family residential, commercial, community facility; R7A/C2-3, R6B, R4/C2-3, R4	Single-family residential, multi-family residential, commercial, community facility; R7A/C2-3, R6B, R4/C2-3, R4	Single-family residential, multi-family residential, commercial, community facility; R7X/C2-3, R7A/C2-3, R6B, R4/C2-3, R4	

2.0 ENVIRONMENTAL REVIEW

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

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

- Land Use
- Community Facilities
- Open Space
- Shadows
- Historic and Cultural Resources
- Urban Design and Visual Resources
- Hazardous Materials
- Transportation
- Air Quality
- Noise
- Public Health
- Neighborhood Character
- Construction

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

2.1 LAND USE, ZONING AND PUBLIC POLICY

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

2.1.1 Land Use

The *CEQR Technical Manual* defines land use as the activity that is occurring on the land and within the structures that occupy it. Types of land use can include single- and multi-family residential, commercial (retail and office), community facility/institutional and industrial/manufacturing uses, as well as vacant land and public parks (open recreational space). The 2014 *CEQR Technical Manual* recommends that a proposed action be assessed in relation to land use, zoning, and public policy. For each of these areas, a determination is made of the potential for significant impact by the proposed action. If the action does have a potentially significant impact, appropriate analytical steps are taken to evaluate the nature of the impact, possible alternatives and possible mitigation.

Existing Conditions

The *CEQR Technical Manual* recommends a land use; zoning and public policy study area extending 400 feet from the site of a proposed action. This study area is generally bound by 30th Avenue to the north, 31st Avenue to the south, the midblock point between 14th and 21st Streets to the west, and the midblock point between 23rd and Crescent Streets to the east (**Figure 2.1-1**).

A field survey was conducted to determine the existing land use patterns and neighborhood characteristics of the study area. The existing land uses in the area immediately surrounding the rezoning area are a mix of single- and multi-family residential uses, mixed-use commercial and residential, warehouse/ distribution, and community facility. The commercial uses include restaurants, automobile-oriented commercial and some local retail. The prevailing built form of the area is a mix of two- to seven-story residential buildings and single-story warehouse buildings. There are also a few vacant lots and parking facilities within the study area.

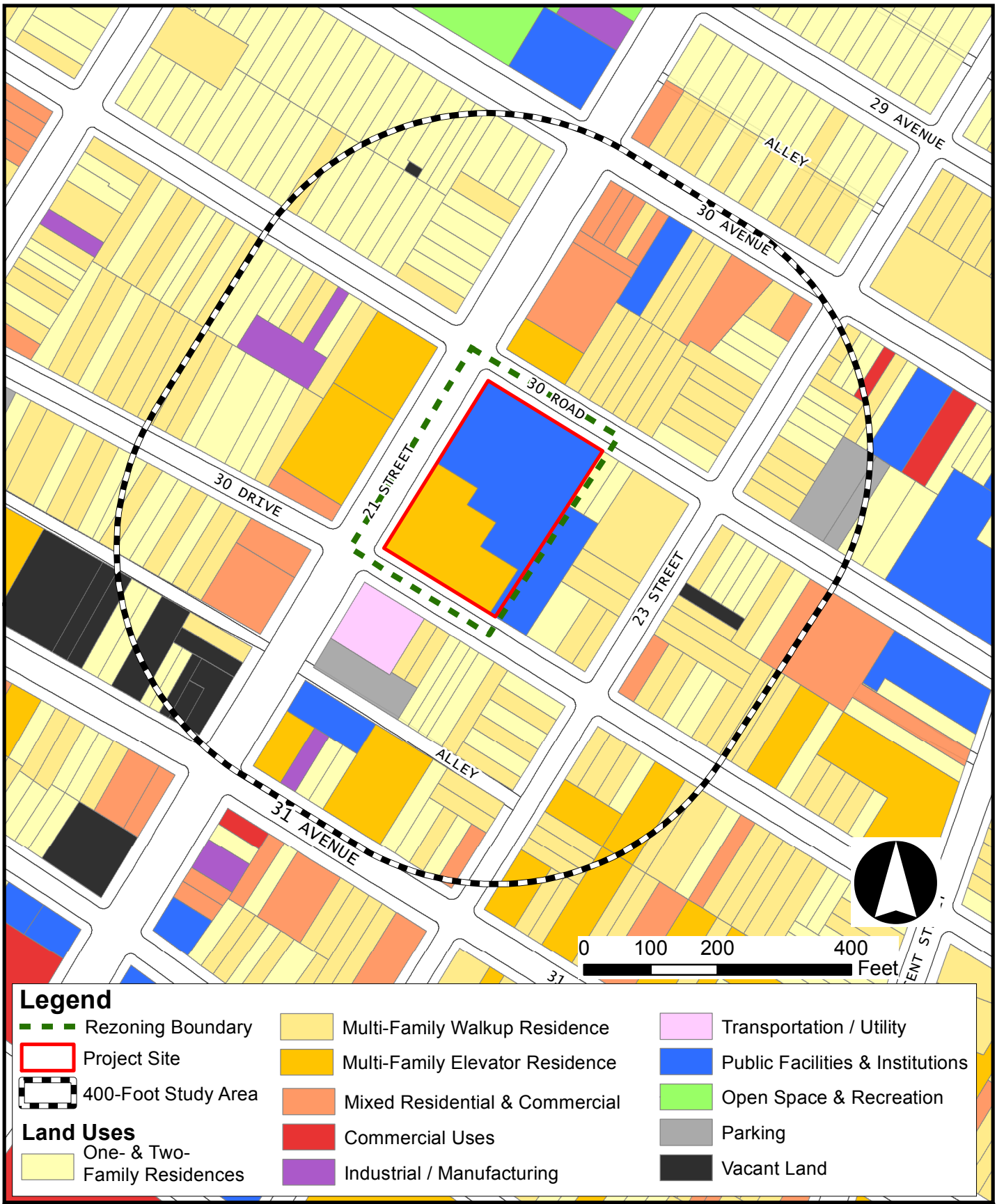
The project site comprises Lots 7 and 10 on Block 550. Tax Block 550, bound by 30th Road to the north, 21st Street to the west, 30th Drive to the south, and 23rd Street to the east; is comprised of residential and community facility uses. The southwest corner of the block houses an 11-story mixed-use building dating to 2004 that includes community facilities, offices, and 99 units of senior housing. The property also contains 22 accessory parking spaces. The existing Variety Boys and Girls Club, a community facility use, occupies the northwest corner of the block. The remaining eastern portion of the block is comprised of one- to two-family houses, multi-family walk-up buildings, and a house of worship.

The properties within the study area that front along 21st Street, a wide and busy thoroughfare, include several seven-and eight-story residential and mixed-use buildings, most of which have been recently constructed. These include a seven-story, mixed-use building at 30-11 21st Street (Block 549, Lot 7502, built 2007); a seven-story residential building at 30-25 21st Street (Block 549, Lot 7503, built 2014); a seven-story residential building at 30-20 21st Street (Block 535, Lot 46, built 2014); an eight-story residential building at 30-50 21st Street (Block 535, Lot 51, built 2012); and a seven-story mixed-use building at 30-80 21st Street (Block 534, Lot 7501, built 2006).

Older, low-rise buildings are also located in the study area along 21st Street. These include an auto body shop, a service station, and mixed-use buildings with ground-floor uses that include construction contracting companies, laundromats and restaurants. The recent trend of residential and mixed-use development is indicative of the changes that have occurred in the study area over the past ten years; and represents a shift from formerly-predominant uses such as auto-body shops and building supply companies, to mixed-use and residential development.

Van Alst Playground, operated by the City's Department of Parks and Recreation, is located on the northwest corner of 21st Street and 30th Avenue, one block northwest of the study area. Peter G. Van Alst School (P.S. 171), an institutional use, is located just west of the playground on the same block. An FDNY firehouse (Engine 262) is located one block south of the rezoning area along 21st Street. In addition, a few construction sites were identified during field work. These No-Action sites were previously noted in Section 1.6, Analysis Framework, and are discussed in the following Future No-Action Scenario.

The general mix of land use observed in the study area generally reflects the distribution of land use observed throughout Queens CD 1, which is summarized in **Table 2.1-1.** The most prominent land use within Queens CD 1 is multi-family residences, followed by institutional use and one- to two- family residences.



AECOM

Environmental Assessment Statement
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Land Use

Figure 2.1-1

Table 2.1-1 2014 Land Use Distribution - Queens Community District 1

LAND USE	PERCENT OF TOTAL
Residential Uses	
1-2 Family	16.6
Multi-Family	23.3
Mixed Residential/Commercial	4.7
Subtotal of Residential Uses	*44.6*
Non-Residential Uses	
Commercial/Office	6.6
Industrial	9.4
Transportation/Utility	8.5
Institutions	19.2
Open Space/Recreation	7.1
Parking Facilities	2.3
Vacant Land	1.9
Miscellaneous	0.4
Subtotal of Non-Residential Uses	*55.4*
TOTAL	**100.0**

Source: *Community District Profiles,* NYC Department of City Planning.
Note: Percentages may not add up to 100.0 percent due to rounding.

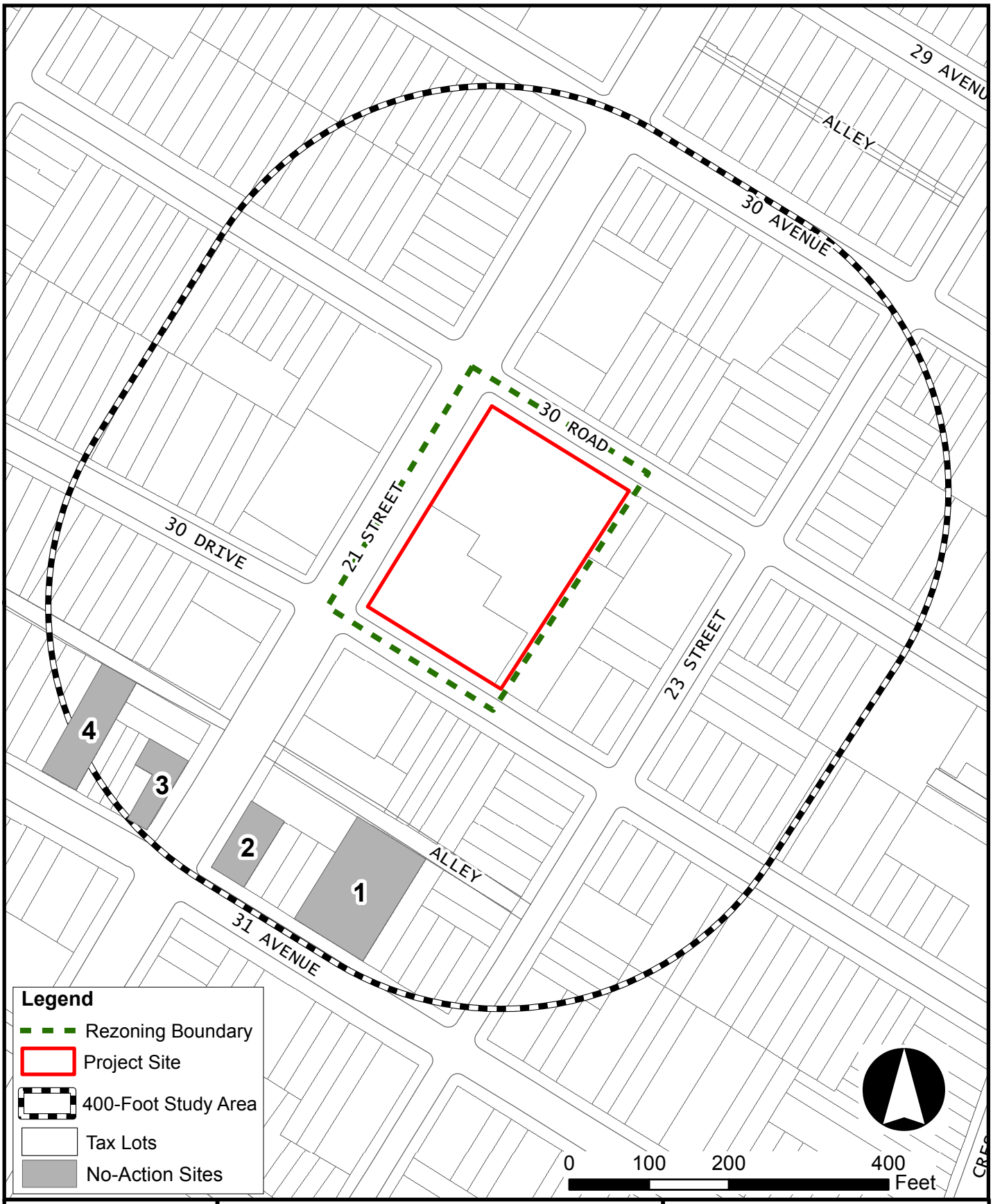
Future No-Action Scenario

The Future No-Action Scenario assumes that conditions on the project site and in the 400-foot study area would remain generally consistent with existing conditions, with the exception of the four No-Action sites. Refer to **Figure 2.1-2** for a map of the No-Action development sites. These No-Action projects are expected to be constructed by the 2021 build year.

According to data obtained from the NYCDOB's BIS, the No-Action sites are expected to result in the following development. No-Action Site 1, located at 21-13 31st Avenue (Block 551, Lot 8), will contain an approximately 54,879-gsf, seven-story residential building with 28 accessory parking spaces in an at-grade parking lot. The building will include 56 dwelling units and approximately 1,413 sf of exterior (rooftop) recreation space. No-Action Site 2, 21-03 31st Avenue (Block 551, Lot 13), is being developed with a mixed-use, seven-story, approximately 20,936-gsf building that will house 24 residential units, approximately 2,192 gsf of ground-floor commercial space and one accessory (enclosed) parking space. No-Action Site 3, located at 14-53 31St Avenue (Block 534, Lot 1), will contain an eight-story, approximately 41,038-gsf residential building with 49 dwelling units and 25 accessory (enclosed) parking spaces. No-Action Site 4, 14-45 31St Avenue (Block 534, Lot 106), will contain a five-story, approximately 14,260-gsf residential building with 18 dwelling units and nine accessory (unenclosed) parking spaces. These No-Action projects will introduce approximately 344 residents in 147 dwelling units (based on an average of 2.34 persons per unit),[9] as well as an estimated 14 employees.[10]

These No-Action sites are located in the southern portion of the study area. In the remainder of the study area, it is expected that while tenants within surrounding area buildings may change, the overall use of

[9] U.S. Census data indicate that the 2010 average household size for Queens Community District 1 is 2.34.
[10] The estimated number of employees includes approximately six workers for residential development (based on a standard average of 0.04 employees per dwelling unit [superintendents, doormen, porters, etc.]; seven workers for the commercial use (assuming three employees per 1,000 square feet of retail use); and one worker for the accessory parking uses (assuming one employee per 50 parking spaces).



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No-Action Development Sites

Figure 2.1-2

these buildings would remain the same, and any physical changes would comply with designated zoning regulations.

Future With-Action Scenario

Under the Future With-Action Scenario, the proposed rezoning would amend the zoning map to change the existing R7A/C2-3 and R6B zoning districts to an R7X/C2-3 district, which would facilitate the Applicant's development of a new mixed-use building comprised of one 14-story component containing 112 residential units with ground-floor retail and 39 parking spaces, and one five-story community facility component. However, in order to present a conservative assessment, the Future With-Action Scenario assumes that the project site (Lots 7 and 10 combined) would be constructed to the maximum FAR of 6.0 allowed under the proposed zoning district.

Under the Future With-Action Scenario therefore, it is assumed that the proposed action would result in approximately 413,753 gsf (347,627 zsf) of total development (FAR 6.0), comprised of the 84,491 gsf (82,834 zsf) existing residential building (1.4 FAR) and a new 332,662 gsf (264,793 zsf) mixed-use building (4.6 FAR). The new building would contain 180,707 gsf (174,639 zsf) of residential floor area (FAR 3.0); 7,779 gsf (7,702 zsf) of retail floor area (0.1 FAR); 114,430 gsf (82,452 zsf) of community facility floor area (1.4 FAR); and 92 parking spaces (29,746 gsf).[11] Estimating 1,000 square feet per dwelling unit, it is assumed that the proposed new mixed-use building would contain 181 residential units. These units would be in addition to the 99 existing units, bringing the total number of dwelling units to 277 for the project site. Under the 30 percent MIH option, the proposed rezoning would result in the creation of approximately 54 affordable units with incomes averaging 80 percent of the AMI. Parking is required for 50 percent of the 127 market-rate dwelling units in an R7X zoning district, and no parking is required for affordable units as the project site is located in a Transit Zone. There are no parking requirements for the proposed retail and community facility components. Thus the new mixed-use building would require approximately 64 accessory parking spaces, which are assumed to be provided in the subsurface level of the development. It is assumed that the existing 22 accessory parking spaces located on the on the Lot 10 portion of the project site would remain in the With-Action Scenario. The proposed action would introduce approximately 424 residents in 181 new units (based on an average of 2.34 persons per unit) as well as an estimated 284 employees[12] who would work in the proposed building.

Recent years have seen some commercial, residential and community facility development in close proximity to the rezoning area. As discussed above in the Future No-Action Scenario, three new residential buildings and one mixed residential/commercial building are currently under construction on 31st Avenue, one block south of the project site. The proposed action would reinforce this trend toward more active residential uses, which are common in the surrounding residentially-zoned areas. Further, the proposed development would be consistent with development found roughly five blocks (0.25 mile) north of the proposed rezoning area, including the 14-story mixed-use building located at the intersection of 21st Street and 27th Avenue/ Astoria Boulevard.

The proposed facility would contribute to the community's affordable housing stock and replace the existing Boys and Girls Club with a new, enlarged modern facility. The proposed development would generate an estimated 282 workers and 424 new residents, thus contributing to the local economy and tax base. The proposed mixed-use development would be compatible with existing uses and current land use trends. Therefore, the proposed action is not expected to have an adverse impact on surrounding land use.

[11] Note that the new residential gsf estimate is based on the Applicant's proposal grossing factor.

[12] The estimated number of employees includes approximately seven workers for the residential element of the proposed action (based on a standard average of 0.04 employees per incremental residential unit [superintendents, doormen, porters, etc.]; 23 workers for the commercial element (assuming three employees per 1,000 square feet of retail use); 252 workers for the incremental amount of community facility use (84,139 gsf) (assuming three employee per 1,000 square feet of incremental community facility use); and one worker for the accessory parking uses (assuming one employee per 50 parking spaces). Note that worker numbers do not sum to 284 due to rounding.

2.1.2 Zoning

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

Background

The project site has been zoned R6 since the 1961 enactment of the Zoning Resolution. The rezoning area was most recently rezoned to R7A/C2-3 and R6B zoning districts under the 2010 Astoria Rezoning (CEQR No. 10DCP019Q) adopted by the City Council on May 25, 2010. The Astoria Rezoning rezoned 238 blocks generally bounded by 20th Avenue to the north, Steinway Street to the east, Broadway to the south, and Vernon Boulevard, 8th Street, 14th Street, and the East River to the west. The Rezoning from R4, R5, R6, and R6B districts to R4, R4-1, R4B, R5, R5B, R5D, R6A, R6B, R7A, C4-2, C4-3, and C4-4A districts was intended to protect neighborhood character from out-of-scale development; to provide incentives for the production of affordable housing; to more closely reflect the established development patterns; and to direct opportunities for residential and commercial growth along wide street and transit resources.

The 2010 Astoria Rezoning rezoned the project site from an R6 to R7A/C2-3 and R6B districts. The Lot 7 portion of the proposed development site was analyzed as Potential Development Site 8 in the 2010 Astoria Rezoning study, with an assumed zoning of R7A/C2-3 and R6B, a development potential of 31,705 sf of community facility space and 84 dwelling units (7 affordable, 77 market rate), and a building height of 80 feet. The rezoning also included an (E) Designation for hazardous materials and air quality impacts on Block 550, Lot 7.[13] The voluntary Inclusionary Housing Program was applied in R7A districts to provide incentives for the production of affordable housing units on wide streets.

Existing Conditions

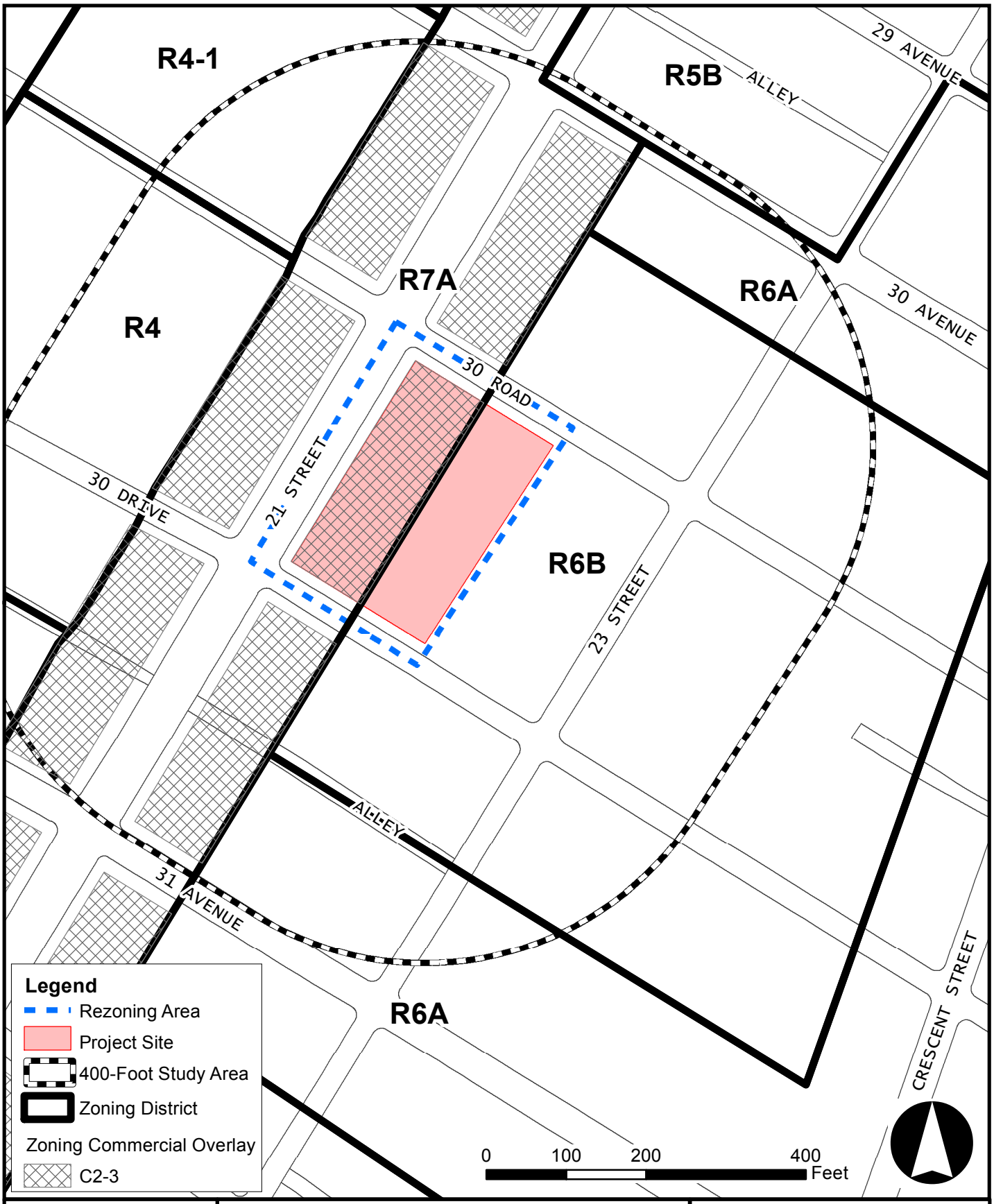
Zoning designations within and around the study area are depicted in **Figure 2.1-3**, while **Table 2.1-2** summarizes use, floor area and parking requirements for the zoning districts in the study area.

Table 2.1-2 Summary of Zoning Regulations

Zoning District	Type and Use Group (UG)	Floor Area Ratio (FAR)	Parking (Required Spaces)
R4	Residential UGs 1-4	0.75 FAR – Residential	One per dwelling unit
R4-1	Residential UGs 1-4	0.75 FAR – Residential	One per dwelling unit
R6A	Residential UGs 1-4	3.0 FAR – Residential 2.0 FAR – Community Facility	50 percent of dwelling units (waived if 5 or fewer spaces required)
R6B	Residential UGs 1-4	2.0 FAR – Residential 2.0 FAR – Community Facility	50 percent of dwelling units (waived if 5 or fewer spaces required)
R7A	Residential UGs 1-4	3.4 - 4.0 FAR – Residential 2.0 FAR – Community Facility	50 percent of dwelling units (waived if 5 or fewer spaces required)
C2-3	Commercial Overlay UGs 1-9 & 14	1.0 - 2.0 FAR – Commercial	Generally Not Required

Source: *Zoning Handbook*, NYC Department of City Planning, 2011

[13] As explained in the *CEQR Technical Manual*, the (E) Designation is an institutional control that is implemented through CEQR review of a zoning map or text amendment or action pursuant to the Zoning Resolution. It provides a mechanism to ensure that measures aimed at avoiding a significant adverse impact, including remediation if necessary, are completed as part of future development.



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Zoning

Figure 2.1-3

Two different zoning districts, as well as a commercial overlay, are mapped within the proposed rezoning area. An R7A district and C2-3 commercial overlay is mapped on the western portion of the rezoning area, while the eastern part lies within an R6B district. Surrounding zoning districts are mostly contextual residential districts, including R7A districts to the north and south of the rezoning area along 21st Street.

R7A zoning districts adhere to mandatory Quality Housing regulations and produce high-lot coverage, seven- and eight-story apartment buildings. Residential uses (Use Groups 1 and 2) and community facility uses (Use Groups 3 and 4) are permitted in the R7A district. This zoning district has a maximum residential floor area ratio (FAR) of 4.0, bonusable to 4.6 pursuant to the Inclusionary Housing Program, and a maximum building height of 80 feet. The maximum height for a development providing income-restricted units with a qualifying ground floor of at least 13 feet is 95 feet with a maximum of nine stories. Community facility uses in the R7A district also have a maximum FAR of 4.0. Off-street parking is required for 50 percent of dwelling units.

An R6B district is mapped on the eastern portion of the project site and rezoning area, as well as on the eastern end of the block and on portions of nearby blocks. R6B districts are often characterized by traditional, 19th century, four-story, attached row houses. Many residences in this district are set back from the street with stoops and small front yards, and often referred to as “brownstone” development. R6B districts have a maximum FAR of 2.0 for residential and community facility uses, and a maximum building height of 50 feet. Off-street parking is required for 50 percent of dwelling units.

Commercial overlays are mapped within residential districts along streets that serve local retail needs. They are found extensively throughout the city’s lower- and medium-density areas and occasionally in higher-density districts. The C2-3 commercial overlay allows for local retail (neighborhood grocery stores, restaurants and beauty parlors) and local service uses (i.e., funeral homes, repair services). When mapped in R1 through R5 districts, the C2-3 overlay permits a maximum commercial FAR of 1.0. When mapped in in R6 through R10 districts, as is the case for the proposed rezoning area, a maximum commercial FAR of 2.0 is allowed. Commercial buildings are subject to commercial bulk regulations. Parking requirements vary by use and are often exempt.

The western and northwestern portions of the study area, west of the project site and 21st Street, are mapped as R4 and R4-1 districts. R4 districts have a maximum residential FAR of 0.75, with a 20 percent attic allowance and a maximum building height of 35 feet; which typically results in three-story detached and semi-detached residential buildings. For community facility uses, the maximum allowable FAR increases to 2.0. One off-street parking space is required for each dwelling unit. The R4-1 zoning district only permits one- and two- family detached and semi-detached houses. Like the R4 zoning district, R4-1 districts have a maximum residential FAR of 0.75 with a 20 percent attic allowance, a maximum community facility FAR of 2.0, and a maximum building height of 35 feet. One parking space is required for each dwelling unit, and in-house garages are permitted within semi-detached houses.

The eastern borders of the study area are mapped in an R6A zoning district. R6A districts adhere to mandatory Quality Housing regulations and produce high-lot coverage, six- and seven-story apartment buildings. R6A districts have a maximum FAR of 3.0 for residential and community facility uses, and a maximum building height of 70 feet. Accessory parking is required for 50 percent of dwelling units.

The proposed rezoning area is located within the Astoria neighborhood of Queen’s Community District 1 and lies within the Transit Zone. The portion of the site located within the R7A zoning district is also located in an area of CD 1 designated as being eligible for the Voluntary Inclusionary Housing Program. In addition, the proposed rezoning area is located in the FRESH Program Designated Area for tax incentives (but not a zoning bonus).

Future No-Action Scenario

Absent the proposed action, given the use, floor area and lot coverage requirements of the existing R7A/C2-3 and R6B districts, the Applicant would be unable to proceed with the development of the proposed 285,043 gsf, mixed-use building with 112 dwelling units, ground-floor retail, 39 parking spaces, and program space for the Variety Boys and Girls Club. In the Future No-Action Scenario, no changes to zoning are expected. The existing zoning designations mapped within the study area are expected to remain the same in the future without the proposed rezoning.

Future With-Action Scenario

As illustrated in **Figure 2.1-4**, the proposed action would rezone the project site from its current split lot R7A/C2-3 and R6B zoning designation, to an R7X/C2-3 district. The R7X/C2-3 district permits residential uses (Use Groups 1 and 2), community facility uses (Use Groups 3 and 4), local retail and service establishments (Use Group 6), home maintenance or repair services (Use Group 7), amusement or service establishments (Use Group 8), retail and service establishments that serve a larger area (Use Group 9) and special services related to boating (Use Group 14).

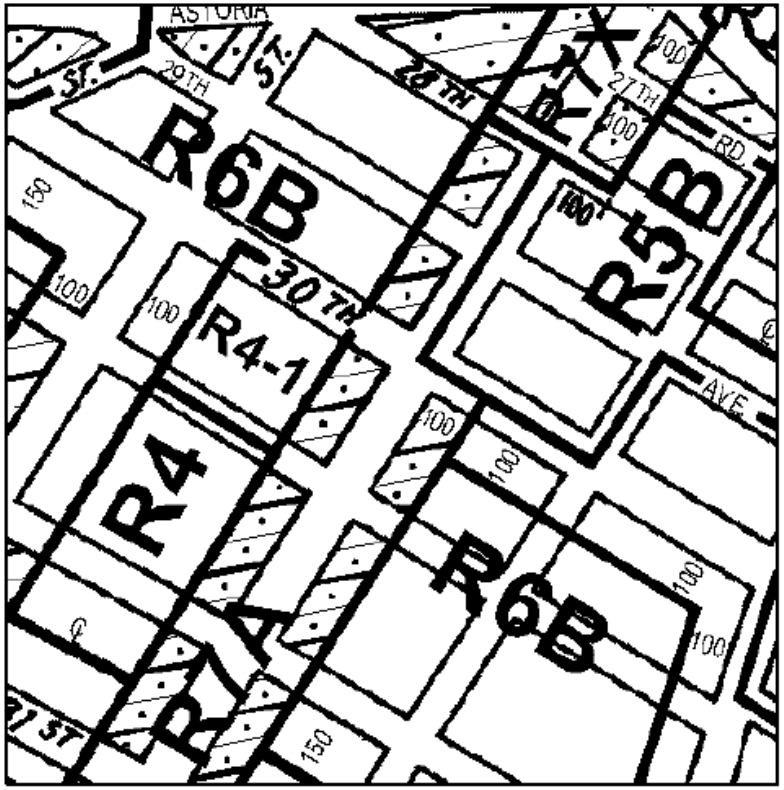
The proposed zoning district permits a maximum FAR for residential use of 6.0 pursuant to the Mandatory Inclusionary Housing program. The maximum community facility FAR is 5.0 and the maximum FAR for commercial uses is 2.0. The maximum permitted base height in the R7X/C2-3 zone is 105 feet before a setback is required to achieve a maximum building height of 145 feet. The required setback distance above maximum base height is 10 feet for wide streets and 15 feet for narrow streets. The R7X/C2-3 zoning district requires parking spaces for 50 percent of all market-rate dwelling units. No parking spaces are required for the affordable housing units because the project site is located within the Transit Zone.

The project site is situated on a wide street, 21st Street, and is in line with DCP's policy to locate higher density developments along wide streets that can support such development. In addition, the project site lies within the Transit Zone because it is served by multiple public transportation options that can support the proposed increase in density. The proposed project would create much needed housing opportunities. In addition, a portion of the dwelling units would be permanently affordable pursuant to the Mandatory Inclusionary Housing program.

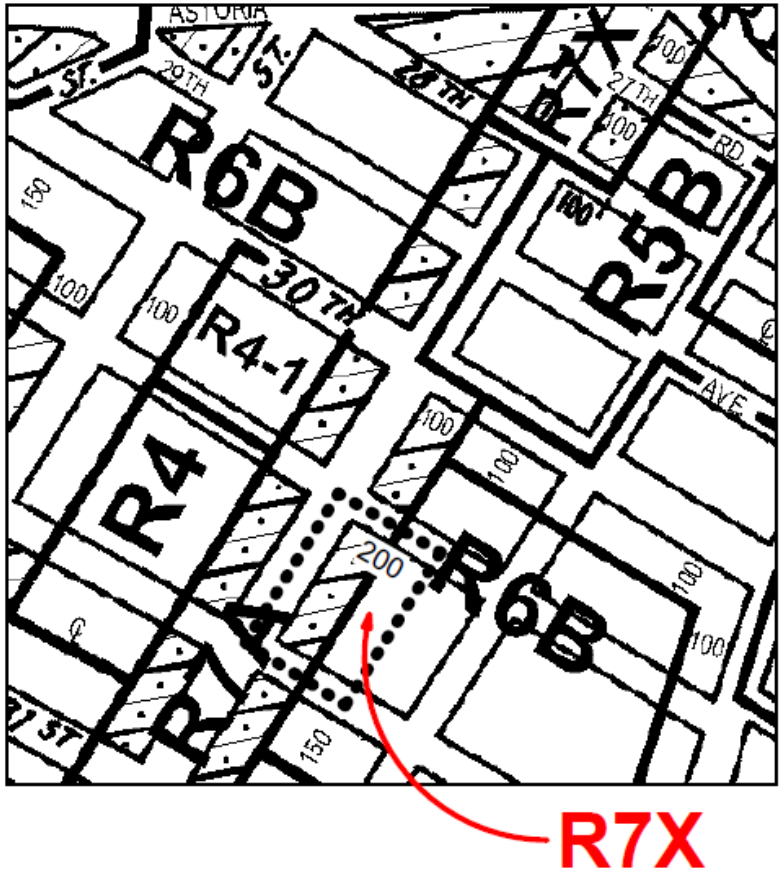
The proposed action would not have a significant impact on the extent of conformity with the current zoning in the surrounding area, and it would not adversely affect the viability of conforming uses on nearby properties. In addition, the rezoning would be consistent with the existing R7X/C2-3 district that is mapped five blocks north along 21st Street at Astoria Boulevard/ 27th Avenue. Significant adverse impacts to zoning are not anticipated and further zoning analysis is not warranted.

2.1.3 Public Policy

The project site is not part of, or subject to, an Urban Renewal Plan, adopted community 197-a Plan, Solid Waste Management Plan, Business Improvement District, Industrial Business Zone, or the New York City Landmarks Law. The proposed action is also not a large publically sponsored project, and as such, consistency with the City's *PlaNYC 2030* for sustainability is not warranted. The rezoning area is located in the Coastal Management Zone; therefore a consistency review is warranted.



CURRENT ZONING MAP 9a



PROPOSED ZONING MAP 9a Area being rezoned is outlined with dotted lines

Changing a R7A& R6B to a R7X

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

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined
lanes) of the Zoning Resolution.

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Proposed Zoning Change Map

Figure 2.1-4

Waterfront Revitalization Program

The rezoning area is located within New York City's designated coastal zone and, as such, is subject to review for its consistency with the City's Waterfront Revitalization Program (WRP). In accordance with the guidelines of the 2014 *CEQR Technical Manual*, a preliminary evaluation of the proposed action's potential for inconsistency with the new WRP policies was undertaken. Actions located within the City's Coastal Zone generally require submission of the WRP Consistency Assessment Form (CAF). This form is intended to assist an applicant in certifying that a proposed action is consistent with the WRP. The completed CAF and accompanying information is used by City and State agencies to review the applicant's certification of consistency.

A copy of the completed CAF has been attached to this document as **Appendix B**. The Waterfront Open Space Division, on behalf of the New York City Coastal Commission, reviewed the waterfront aspect of the proposed action and has found that the actions will not substantially hinder the achievement of any WRP policy and determines the project consistent with the WRP policies. The project has been assigned WRP #16-117.

The City's WRP is comprised of ten principal 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. A proposed action may be deemed consistent with the WRP when it would not substantially hinder and, where possible, would promote one or more of the ten WRP policies dealing with: (1) residential and commercial development; (2) water-dependent and industrial uses; (3) commercial and recreation boating; (4) coastal ecological systems; (5) water quality; (6) flooding and erosion; (7) solid waste and hazardous substances; (8) public access; (9) scenic resources; and (10) historical and cultural resources.

The CAF requires a proposed action to be characterized according to a list of 45 sub-policies that fall under the ten major policy objectives. For each sub-policy the action is to be characterized as to whether it will "promote," "hinder," or have no relevance to the policy. A "Promote" or "Hinder" response to any of the CAF questions indicates that a particular policy of the WRP may be relevant, thus warranting further examination. An "N/A" response indicates the particular policy is not applicable to the proposed action. Per the CAF, the following policies warranted further assessment: 1.1, 1.3, 1.5, 5.2, 5.5, 6.2 and 7.1. An assessment of the proposed action's consistency with each of these policies is provided below.

POLICY ONE **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.

The proposed action would create opportunities for new housing, community facility and commercial development on an underutilized parcel formerly where strong demand for housing exists. The rezoning area does not contain any natural or topographic features that would hinder redevelopment. Therefore, this area is appropriate for the residential and commercial redevelopment that would be facilitated by the proposed action, and is consistent with WRP Policy 1.1.

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

The proposed action encourages the redevelopment of residential, commercial and community facility uses in a portion of the coastal zone where infrastructure and public facilities are adequate. The rezoning area is well served by transit; it is located less than 0.5 mile west of the 30th Avenue station on the N and W subway lines and is served by the Q69 and Q100 bus lines, which are routed along 21st Street. Three additional bus routes serve the rezoning area, with stops located a block away from the project site: the Q18, and Q102 lines along 30th Avenue, and Q19 along Astoria Boulevard.

The project site is connected to the City's sewer system and is served by the Bowery Bay Wastewater Treatment Plant (WWTP). The Plant has a capacity of 150 million gallons per day (MGD) and an approximate 15,200-acre drainage area, and would be able to accommodate flows from the proposed mixed use building. Further, the proposed action is not located in one of the drainage areas specified in the *CEQR Technical Manual* (i.e., Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, and Westchester Creek), and would not require improvements to existing public infrastructure. As such, the proposed action would encourage redevelopment in an appropriate area within the coastal zone and is supportive of WRP Policy 1.3.

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.

See response to Policy 6.2, below.

POLICY FIVE Protect and improve water quality in the New York City coastal area.

5.2 Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.

Currently the project site is largely covered by impervious surfaces, with the potential exception of the playground area. It is assumed that the entire project site would be covered by impervious surfaces (building footprint and paved service yard area) as a result of the proposed action, resulting in a slight increase in the overall volume of stormwater runoff. The proposed action is expected to include sustainable stormwater management practices to reduce nonpoint source pollution and discharge into coastal water, and to control stormwater runoff from developed areas. Stormwater management would be designed in accordance with New York City Department of Environmental Protection (NYCDEP) and New York State Department of Environmental Conservation (NYSDEC) guidance and regulations, including NYSDEC's New York State Stormwater Management Design Manual (2015). Erosion and sediment control measures would meet the New York Standards and Specifications for Erosion and Sediment Control.

Sustainable stormwater practices that may be incorporated into the project design include various types of green infrastructure. Green infrastructure comprises an array of practices that use or mimic natural systems to manage urban stormwater runoff, controlling stormwater by using it as a resource rather than a waste. Water is either directed to engineered systems for infiltration or detained at a slower rate before it enters the combined sewer system. The specific types of green infrastructure that may be incorporated into the proposed project include green roofs, blue roofs, rain gardens, and possibly subsurface detention with infiltration and rain barrels. An overview of these practices follows.

- Green roofs are made up of a top vegetative layer that grows in an engineered soil, which sits on top of a drainage layer;
- Blue roofs are designed without vegetation for the primary purpose of detaining stormwater, and include weirs at the roof drain inlets to create temporary ponding and gradual release of stormwater;
- Rain gardens are vegetated/ landscaped depressions designed with an engineered soil layer that promotes infiltration of stormwater runoff into the underlying soil.
- Subsurface detention systems with infiltration capability provide temporary storage of stormwater runoff underground, have an open-bottom and can incorporate perforated pipe and stormwater chambers for added detention volume.

In addition, to prevent the run-off of pollutants and potentially contaminated sediment into waterways, accepted best design and management practices (also referred to as BMPs) would be utilized during

construction activities. (See also the response to Policy 7.1.) The proposed action would promote WRP Policy 5.2 via implementation of stormwater BMPs.

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

As discussed above in the response to Policy 5.2, the proposed action is expected to develop a network of stormwater BMPs to help offset the increase in runoff and reduce the volume of untreated combined sewer overflow (CSO). Such BMPs may include green roofs, rain gardens, subsurface open bottom detention systems that allow for infiltration while slowing the release of stormwater to the sewer system, and blue roofs. Stormwater capture through green infrastructure reduces CSO volumes and improves water quality, while providing additional sustainability benefits such as reducing energy use and mitigating the urban heat island effect. Sewer backflow preventers would be part of the proposed building's system design. In addition, the Applicant may consider the construction of any necessary sewer system improvements to support current residents, future growth and system optimization.

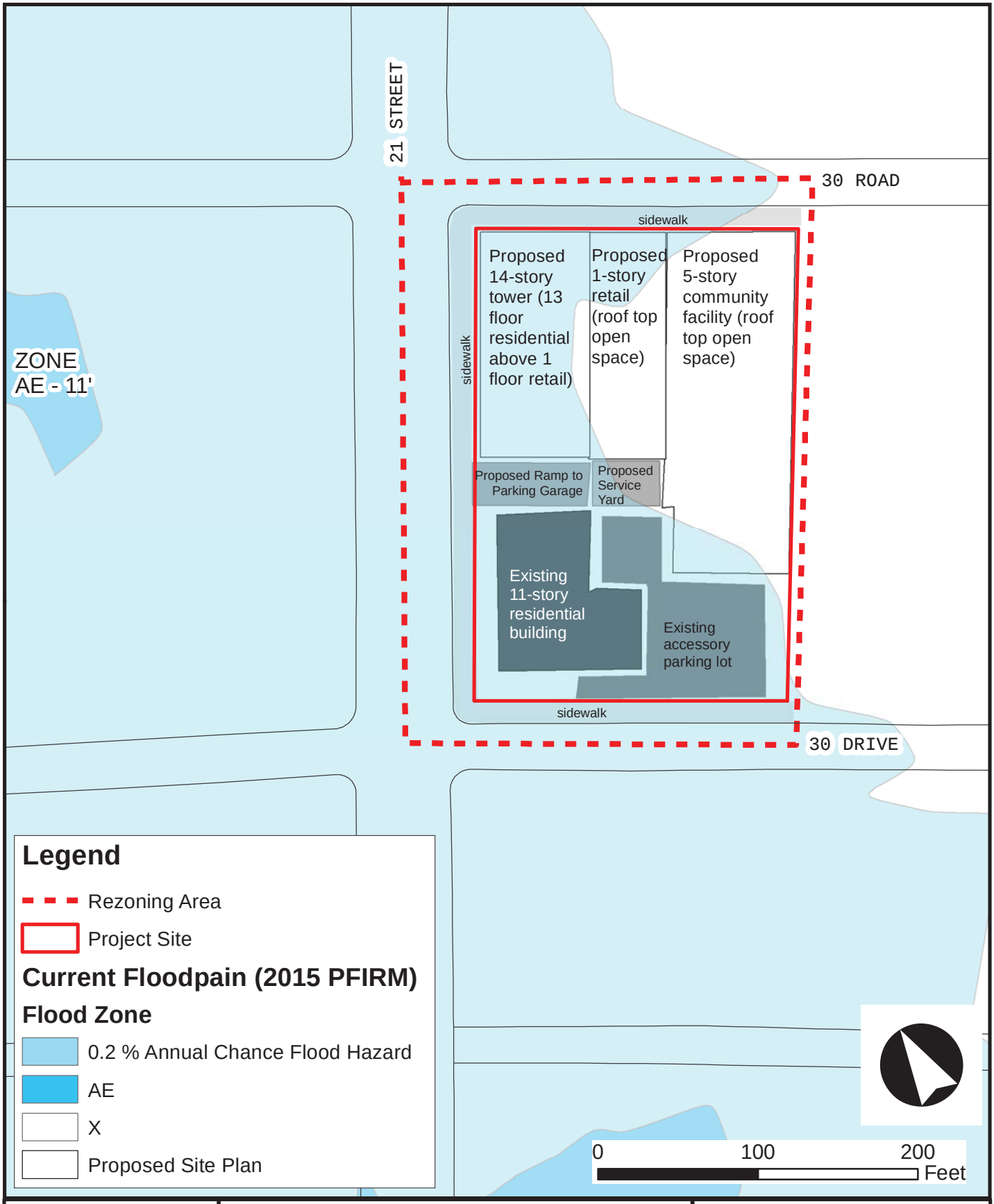
POLICY SIX **Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**

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

The WRP Climate Change Adaptation Guidance document and corresponding Flood Elevation Worksheet were used to complete the Policy 6.2 detailed assessment. Note that this detailed assessment evaluates the Applicant's proposed project, which differs slightly from the RWCDS that is evaluated in the other sections of the EAS. As illustrated in **Figure 2.1-5**, FEMA's 2015 Preliminary Flood Insurance Rate Map (FIRM) indicates that the western portion of the project site is located within the 500 year flood zone. However, during the lifespan of the proposed building, climate change and sea level rise projections indicate that the project site would be within the 1% annual chance floodplain by the 2080s (see **Figure 2.1-6**). According to projections and as illustrated in **Figure 2.1-7**, the project site would not be affected by future high tides throughout the proposed project's lifespan. As the proposed project would be within the 1% annual chance floodplain over the course of the proposed building's lifespan, the detailed methodology for a site-specific WRP Policy 6.2 assessment was followed. The results of the detailed analysis are discussed below.

The critical building systems would be located on the first floor of the mixed-use building component, and on the roof of the fifth floor of community facility component. Refer to **Figure 2.1-8** for a sectional elevation drawing that depicts the building elevations as well as the elevations of the current and future 1% annual chance floodplain and current and future Mean Higher High Water (MHHW), over the proposed project's lifespan.

The gymnasium, pool and parking garage are below the current 1% annual chance floodplain and would be throughout its lifespan under all sea level rise (SLR) projections. If flooded, potential consequences include property damage to the community facility's gymnasium, pool and support areas; damage to cars and bicycles; and structural damage to the building. However, as noted below in the Resiliency Planning Goals section, the Applicant will consider employing dry flood proofing measures in the below-grade portions of the proposed development. The design of below-grade space is currently not required to comply with the NYC Building Code requirements for flood resistant construction (i.e., Appendix G), since it is not located within the 1% annual chance floodplain. However, the Applicant is considering the use of flood-resistant construction measures to minimize the potential for property and structural damage.



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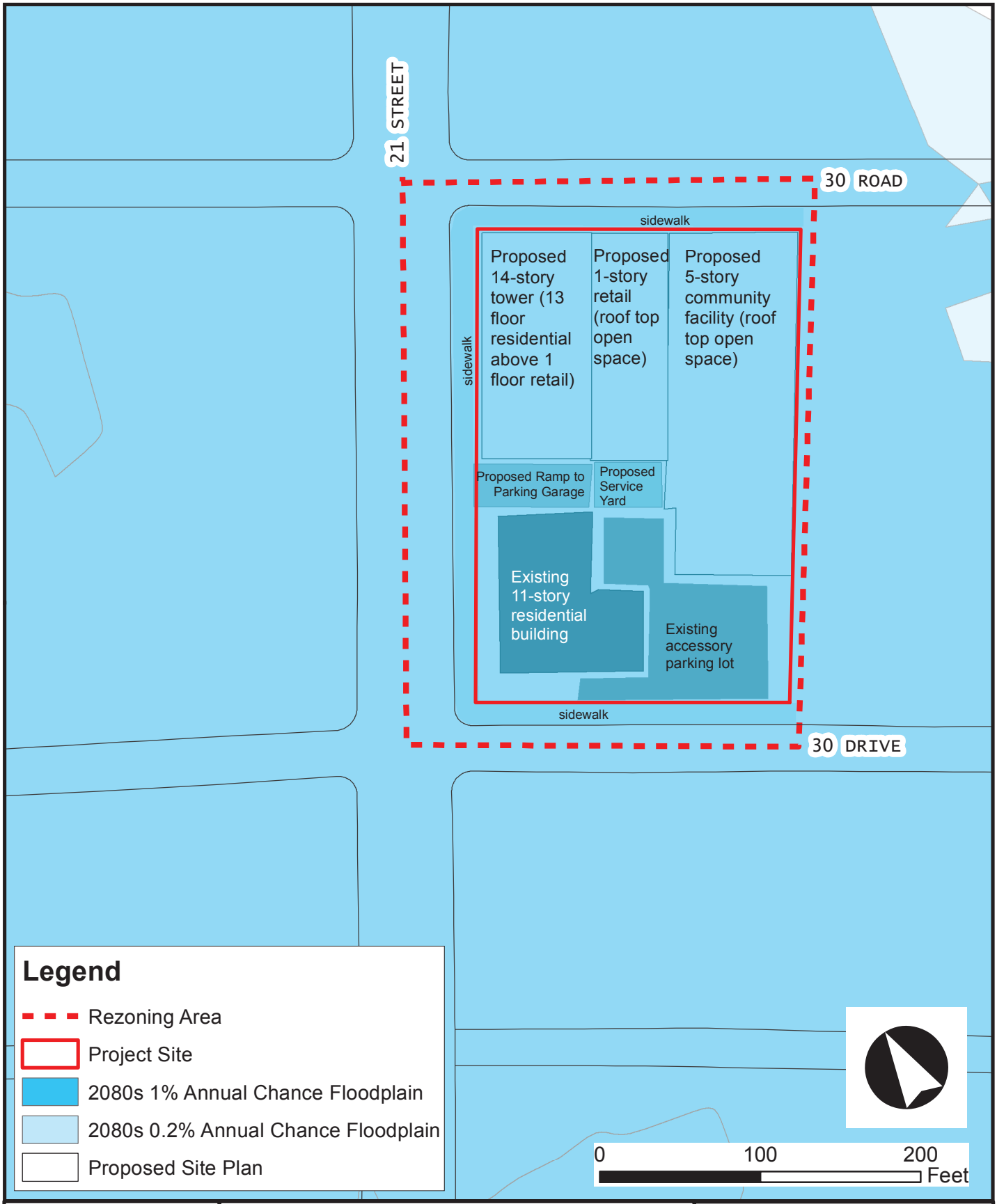
Illustrative Site Plan - Current Floodplain (2015 FEMA PFIRM)

Figure 2.1-5



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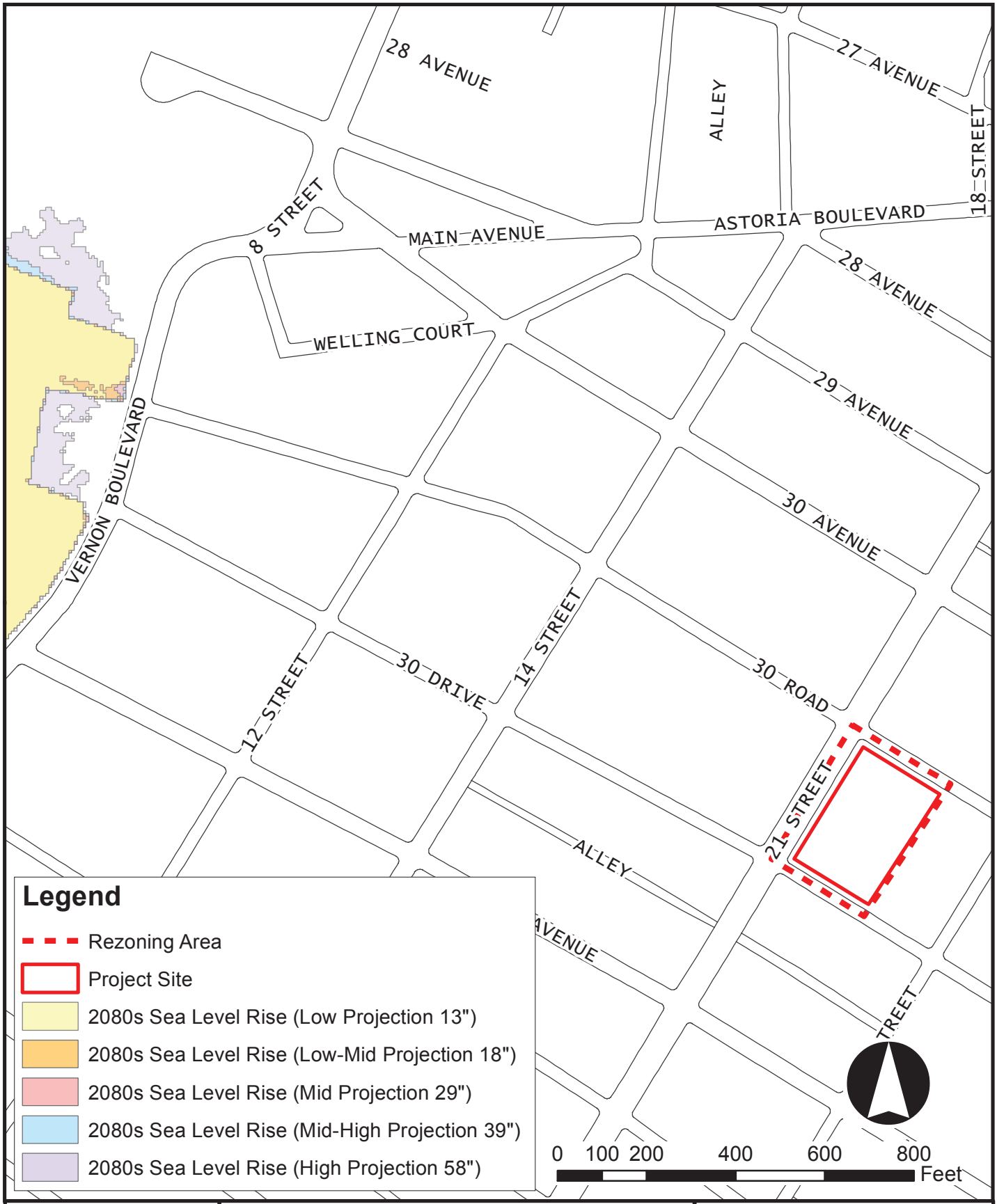
Illustrative Site Plan - Future Floodplain

Figure 2.1-6



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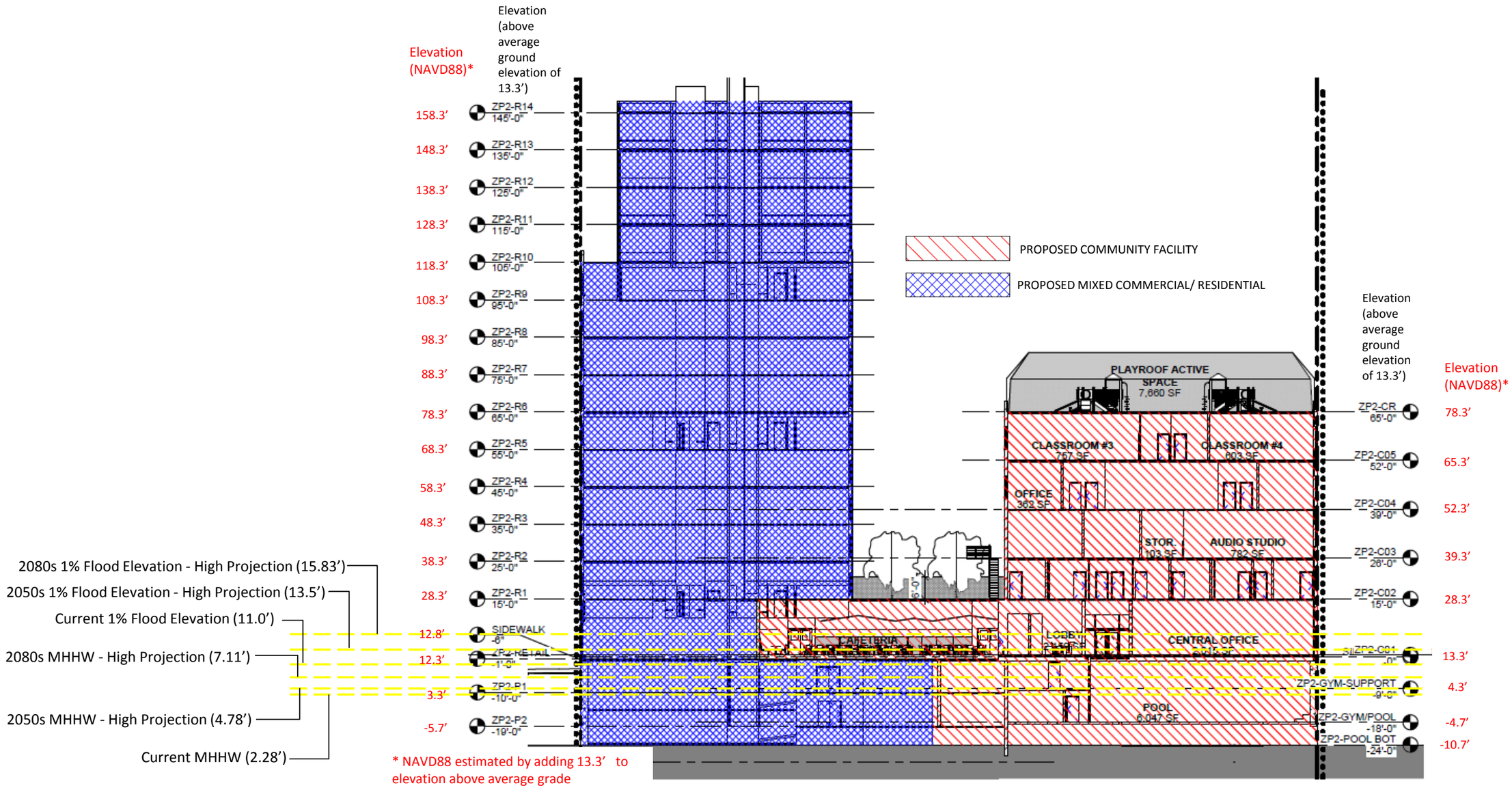
Illustrative Site Plan - Future Tides

Figure 2.1-7



As per the site survey, the project site elevation ranges from approximately 12.6' at the northwestern end along 21st Street to approximately 14.0' at the northeastern end along 30th Road, yielding an average site elevation of 13.3'.

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Building, Flood and MHHW Elevations

Figure 2.1-8

The service yard with ramp to parking garage and the ground-floor retail space could be below the elevation of the 1% annual chance floodplain by the 2050s under the middle projection, or the by the 2080s under the low-middle projection. If flooded, this could lead to property damage and the potential loss of inventory for retail uses. However, damage-resistant building materials (i.e., wet flood proofing and masonry construction) would be utilized in the at-grade areas of the proposed development, and pumps may be provided in the event of flooding. Accordingly, flooding of ground-floor retail uses is not expected as the space would be partially dry flood proofed (via use of 1'-6" high concrete knee-wall with deployable flood gates around entrances) and would feature mostly masonry construction. These measures would minimize structural and property damage.

The ground-floor community facility uses could be below the elevation of the 1% annual chance floodplain by the 2050s under the high projection, or by the 2080s under the middle projection. If flooded, potential consequences include property damage. However, as with ground-floor retail space, the use of resilient design features (i.e., the use of partial dry flood proofing, largely masonry construction materials and deployable flood gates) would eliminate/ substantially minimize flood hazard.

The critical building systems and lowest residential floor would remain above the elevation of the 1% annual chance floodplain through 2100 under all projection scenarios.

Project elements that are currently below the elevation of the MHHW are limited to those features located on the lowest level of the proposed development, which include the lower level of the gymnasium (with pool) and the lower level of the parking garage. The design of the proposed project would incorporate resiliency measures and construction methods, which are expected to substantially minimize the potential effects of anticipated climate change and SLR, including frequent flooding due to elevated groundwater tables.

The project site currently is outside of 1% annual chance floodplain, including the Coastal A or V zones. However, future coastal storms could bring high winds in addition to flood hazards described above.

The proposed building is outside of the current 1% annual chance floodplain and would not be required to meet NYC Building Code requirements for flood resistant construction. However, as previously noted and as summarized below, the Applicant plans to incorporate resilient design features as well as stormwater management measures.

The proposed project would not affect the flood protection of adjacent sites, nor would it be expected to increase flooding on adjacent sites or protect upland areas from costal hazards.

Overall, the proposed project advances Policy 6.2. Although the two lower levels of the building would be below the 2080s future 1% annual chance floodplain and may be flooded by high tide during the project's lifespan, the building's critical infrastructure and vulnerable (residential) population would remain above the future 1% annual chance floodplain and would not be flooded by high tide during the project's expected lifespan.

Resiliency Planning Goals of the Proposed Project

During the preliminary design of the Community Facility and the Residential building components, the design team went through a planning process that would flood proof where possible and reduce the risk of property damage in other areas. The resiliency goals for the proposed project are:

1. Building Planning
    a. All residential space would be above the first floor.
    b. The community facility would be above the ground floor except the pool and gym
    c. Parking would be below grade and retail would be at grade.
2. Building Mechanical Equipment
    a. Locate boilers, chillers, pumps and major mechanical equipment above the ground floor

b. Since parking, gym and pool need to be located low in the building profile and below grade, pumps should be provided in the event of flooding.
c. Any fuel tanks needed to be at grade would be anchored to the adjacent structure.
d. Sewer backflow preventers would be part of the system design.

3. Sustainable Storm Water Management

a. Where ground-floor exterior walls along 21st Street and along 30th Road would be partially glass, the glass would begin above a concrete knee-wall that is 1'-6" high. Entrance doors, such as for retail fronts, residential lobby and Boys and Girls Club entry, would incorporate deployable floodgates.
b. Green roofs would be constructed to retain and manage storm water.

4. Damage Resistant Materials

a. At-grade spaces would employ wet flood proofing designed to allow floodwaters to enter and leave a structure through openings and pumps, to prevent buildup of hydrostatic pressures against the structure.
b. At-grade would use mostly masonry construction as opposed to gypsum wallboard and similar materials that readily degrade from exposure to moisture.

POLICY SEVEN **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.

The proposed action would entail redevelopment in a historic industrial/ manufacturing area. A Phase I Environmental Site Assessment (ESA) was conducted for the project site (Block 550, Lot 7), which revealed no recognized environmental concerns (RECs) or controlled RECs (CRECs) or *de minimis* conditions (DMCs) in connection with the subject property, with the following exceptions: the presence of the 4,500-gallon No. 4 fuel oil Aboveground Storage Tank (AST) at the subject property and the lack of any physical or visual inspection of the tank to evaluate its integrity, making it a potential source for subsurface contamination; and the proximity of the Gulf Service Station at 30-75 21st Street approximately 100 feet southwest of the subject property across 30th Drive, and the known contamination to the soil and groundwater could have resulted in potential environmental impacts to the subject property. It is assumed that the Applicant would complete any necessary clean up or remediation that may be necessary to address the RECs, including Phase II testing protocol.[14] During construction, all excavated soils would be properly managed in accordance with all applicable local, State and Federal regulations.

If the Phase II investigation identifies the presence of hazardous materials onsite, and it appears that remedial measures would likely be necessary to mitigate the contamination, a Draft Remedial Action Plan (RAP) and site-specific Construction Health and Safety Plan (CHASP) would be prepared for implementation during construction. The CHASP would identify potential hazards that may be encountered during construction and specify appropriate health and safety measures to be undertaken to ensure that subsurface disturbance is performed in a manner protective of workers, the community, and the environment (such as personal protective equipment, air monitoring, and emergency response procedures).

In addition, as discussed above in the response to Policy 5.2, construction work would incorporate BMPs in order to prevent the run-off of pollutants and potentially contaminated sediment into waterways.

[14] The (E) Designation that was placed on the project site as a result of the 2010 Astoria Rezoning EIS includes Hazardous Materials Phase I and Phase II Testing Protocol.

Therefore the proposed action would protect public health, control pollution and prevent degradation of coastal ecosystems, and would be consistent with WRP Policy 7.1.

2.2 COMMUNITY FACILITIES AND SERVICES

The *CEQR Technical Manual* defines community facilities and services as public or publicly-funded schools, hospitals, libraries, day care centers and police and fire services. A community facilities analysis examines a proposed action's potential effect on the provision of services by those community facilities. Direct effects occur when a particular action physically alters or displaces a community facility; indirect effects result from increases in population which creates additional demand on service delivery. The proposed action would not result in physical alteration or displacement of any public community facilities, therefore no directs effect to existing community facilities are expected as a result of the proposed action.

The *CEQR Technical Manual* provides thresholds for analyses of indirect effects.[15] Based on these thresholds, the addition of 181 dwelling units (of which 54 would be classified as affordable at an average of 80 percent AMI) does not require detailed analyses of hospitals, libraries, publicly-funded day care centers, or police and fire services. However, if a proposed action could generate more than 50 public elementary and intermediate school students or 150 public high school students, a more detailed public schools analysis is required. As indicated in Table 2.2-1 below, the proposed action is expected to generate approximately 51 public elementary school students, 22 intermediate school students and 25 public high school students. Further analysis of the impacts of the proposed rezoning on public elementary and intermediate schools in this area is therefore warranted.

Table 2.2-1 Public School Students Generated by the Proposed Rezoning

	Project-generated DUs	Public School Students	Intermediate School Students	High School Students
CSD 30 Sub-district 3	181	51	22	25

Source: *CEQR Technical Manual*, Table 6-1a

2.2.1 Public Schools

Existing Conditions

Elementary and intermediate schools are located in geographically defined school districts, each divided into sub-districts for capital planning purposes. The proposed rezoning area falls within Community School District (CSD) 30 sub-district 3, as shown in **Figure 2.2-1**. Therefore CSD 30 sub-district 3 serves as the public schools analysis study area.

Tables 2.2-2 and **2.2-3** provide an overview of the utilization of public elementary and middle/intermediate schools within the study area, which are also mapped in **Figure 2.2-1**. According to data for the 2016-2017 school year, elementary schools within the study area have an overall utilization level of approximately 88 percent with 474 available seats. Middle/intermediate schools in the study area have an overall utilization level of approximately 77 percent, with 680 available intermediate school seats. As demonstrated in **Tables 2.2-2** and **2.2-3**, the utilization rates for both public elementary and intermediate schools within the sub-district study area are collectively operating well below capacity, although six elementary schools and four intermediate schools are operating over their capacities.

[15] See Table 6-1, Community Facility Thresholds for Detailed Analyses, on page 6-3 of the *CEQR Technical Manual*.

Table 2.2-2 Public Elementary Schools, CSD 30 / Sub-District 3: Enrollment, Capacity and Utilization (2016-2017 School Year)

Map Key	Facility Name	Facility Address	Enrollment	Target Capacity	Available Seats	Utilization (Percent)
1	P.S. 17 - Q	28-37 29th Street	573	485	-88	118%
2	P.S. 76 - Q	36-36 10th Street	508	690	182	74%
3	P.S. 78 - Q*****	46-08 5th Street	291	434	143	67%
4	P.S. 78 - Q*****	48-09 Center Blvd	247	188	-59	131%
5	P.S. 111 - Q*****	37-15 13th Street	208	410	202	51%
6	P.S. 112 - Q	25-05 37th Avenue	510	402	-108	127%
7	P.S. 171 - Q	14-14 29th Avenue	484	742	258	65%
8	P.S. 234 - Q	30-15 29th Street	558	555	-3	101%
9	P.S. 17 - Q (The 30th Avenue School)*	28-37 29th Street	130	79	-51	164%
10	I.S. 126 - Q (The 30th Avenue School)*	31-51 21st Street	89	87	-2	103%
		Total	**3,598**	**4,072**	**474**	**88%**

***** P.S. component of P.S./I.S. schools

Source: NYC DOE, NYC School Construction Authority, *Enrollment, Capacity & Utilization Report, Target Calculation, 2016-2017 School Year*.

Table 2.2-3 Public Intermediate Schools, CSD 30 / Sub-District 3: Enrollment, Capacity and Utilization (2016-2017 School Year)

Map Key	Facility Name	Facility Address	Enrollment	Target Capacity	Available Seats	Utilization (Percent)
11	P.S./I.S. 78 - Q*****	46-08 5th Street	60	89	29	67%
12	P.S. 78 - Q*****	48-09 Center Blvd	50	38	-12	133%
13	P.S. 111 - Q*****	37-15 13th Street	76	150	74	51%
14	I.S. 126 - Q	31-51 21st Street	625	780	155	80%
15	I.S. 204 - Q	36-41 28th Street	495	923	428	54%
16	P.S. 234 - Q	30-15 29th Street	149	200	51	75%
17	Young Women's Leadership Academy- Q******	23-15 Newtown Avenue	239	242	3	99%
18	Hunters Point Campus - Q	1-50 51st Avenue	410	398	-12	103%
19	P.S. 17 - Q (The 30th Avenue School)*****	28-37 29th Street	89	55	-34	162%
20	I.S. 126 - Q (The 30th Avenue School)*****	31-51 21st Street	62	60	-2	103%
		Total	**2,255**	**2,935**	**680**	**77%**

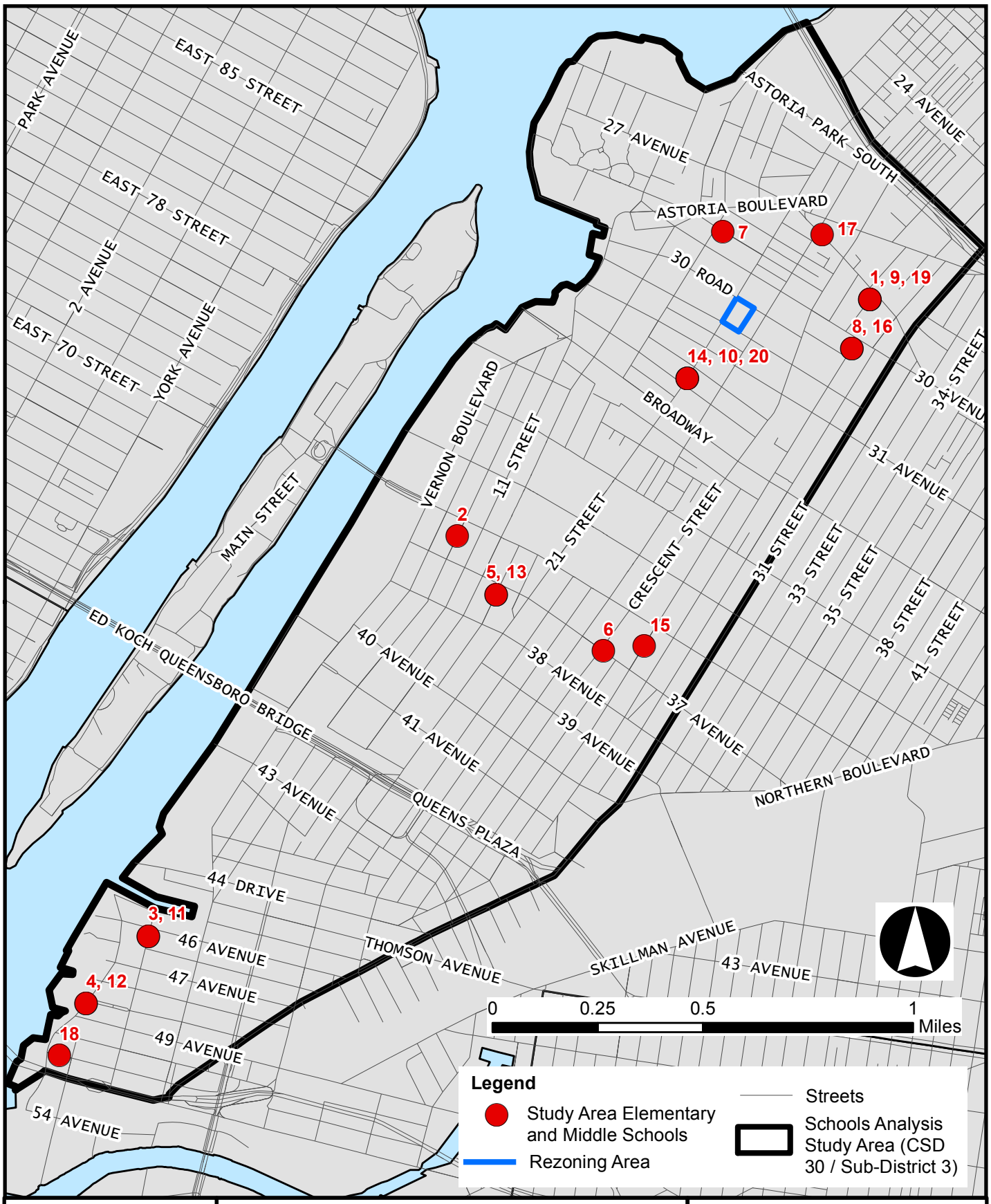
* I.S. component of P.S./I.S. schools
**I.S. component of P.S./H.S. schools

Source: NYC DOE, NYC School Construction Authority, *Enrollment, Capacity & Utilization Report, Target Calculation, 2016-2017 School Year*.

Future No-Action Scenario

In the Future No-Action Scenario, it is assumed that the existing uses within the rezoning area – the current Boys and Girls Club of Queens and existing 11-story, multi-family senior residence – would operate under their present conditions. The 2021 No-Action total enrollment projection is based on the latest enrollment projections made available by the New York City Department of Education (DOE)[16] as well as additional increases in student enrollment based on housing projections. As shown in **Table 2.2-4**, based on the 2021 No-Action total projected number of students and assuming no increase in school capacity, it is estimated that public elementary schools within CSD 30 sub-district 3 would operate at 167 percent utilization in the Future No-Action Scenario with a deficit of 2,719 seats. Public intermediate schools would operate at 100 percent utilization with a deficit of 12 seats.

[16] Enrollment Projections 2016 to 2025 New York City Public Schools by Statistical Forecasting



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Public Schools

2.2-1

Table 2.2-4 Future No-Action Scenario, CSD 30 / Sub-District 3: Enrollment, Capacity and Utilization

CSD 30 Sub-District 3	DOE 2021 Projected Enrollment[1]	Students Introduced by No-Action Residential Development	2021 No-Action Total Projected Enrollment[2]	Target Capacity	Available Seats	Utilization (Percent)
Elementary Schools (Pre-K through Grade 5)	3,792	2,999	6,791	4,072	-2,719	167%
Intermediate/ Middle (Grades 6-8)	2,080	867	2,947	2,935	-12	100%

Notes:
[1]Enrollment Projections 2016 to 2025 New York City Public Schools by Statistical Forecasting
[2]No-Action Total Student Projection is the sum of the 2021 projected enrollment plus students introduced by No-Action residential development.

Note that new capacity is expected to be added in CSD 30, sub-district 3 through two elementary schools at Hunter's Point South Parcel C (572 seats) and Parcel F (612 seats).[17] However, in accordance with *CEQR Technical Manual* methodology, the increased capacity has not been included in the quantitative analysis as construction has not started yet.[18] This planned capacity increase would reduce the level of overcrowding that is projected for study area elementary schools under the Future No-Action Scenario

Future With-Action Scenario

For CEQR analysis purposes, a utilization rate of 100 percent is the utilization threshold for overcrowding. As indicated in the *CEQR Technical Manual* a significant adverse impact may result, warranting consideration of potential mitigation, if a proposed project would result in both of the following conditions:

- A collective utilization rate of the elementary and/or intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the Future With-Action Scenario; and
- An increase of five percent or more in the collective utilization rate between the Future No-Action and Future With-Action Scenarios.

In the Future With-Action Scenario, up to 181 new dwelling units would be developed on the project site. It is estimated that the new units would generate an estimated 51 elementary and 22 intermediate school students by the 2021 analysis year.

As exhibited in **Table 2.2-5** and assuming no additional school capacity, elementary schools in the study area are projected to have an collective utilization level of approximately 143 percent in the Future With-Action Scenario, with a deficit of 1,774 seats. It is projected that intermediate schools in the study area would have an overall utilization level of approximately 99 percent, with a surplus of 41 available seats. Overall, study area elementary schools would be considered overcrowded given the projected utilization rate of more than 100 percent.

Table 2.2-5 Future With-Action Scenario, CSD 30 / Sub-District 3: Enrollment, Capacity and Utilization

CSD 30 Sub-District 3	2021 No-Action Projected Enrollment	2021 With-Action Projected Enrollment	Target Capacity	Available Seats	Utilization (Percent)
Elementary Schools (Pre-K through Grade 5)	6,791	6,842	4,072	-2,770	168%
Intermediate/ Middle (Grades 5-8)	2,947	2,969	2,935	-34	101%

[17] *FY 215-2019 Proposed Five-Year Capital Plan Amendment*, February 2018, NYC School Construction Authority.
[18] NYC School Construction Authority Quarterly Status of Projects in Process, Quarter Ending December 31, 2017.

In the Future With-Action Scenario, the incremental 51 elementary school students added by the proposed action would result in a less than one percent (0.75 percent) increase in the collective utilization rate for study area elementary schools. Thus although overcrowding is projected for study area elementary schools, a significant adverse impact is not expected. Similarly, the incremental 22 intermediate school-aged students introduced by the proposed action would result in a less than one percent (0.75 percent) increase in the collective utilization rate for study area intermediate schools. Therefore, while overcrowding is also projected for study area intermediate schools, a significant adverse impact is not expected.

In addition, as noted above, two new school projects are expected to add new capacity to the study area by the 2021 build year. According to NYC School Construction Authority projections, a total of approximately 1,184 elementary school seats will be added to CSD 30, sub-district 3 by 2021. This additional capacity would reduce the level of overcrowding that is projected for study area elementary schools under the Future With-Action Scenario.

Therefore, based on the results of the schools analysis, the proposed action is not expected to result in significant adverse impacts to elementary or intermediate schools in the study area.

2.3 OPEN SPACE

Open space is defined as publicly or privately owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. According to the *CEQR Technical Manual*, an analysis of open space is conducted to determine whether or not a proposed action would have a direct impact resulting from the elimination or alteration of open space and/or indirect impacts resulting from overtaxing available open space. An open space analysis focuses on officially designated existing or planned public open space. An open space assessment may be necessary if a project potentially has a direct or indirect effect on open space.

For the majority of new projects in New York City, an open space assessment is generally conducted if the proposed action would generate more than 200 residents or 500 employees. However, the need for an open space assessment may vary for areas of the city that are considered either “underserved” or “well-served” by open space. Underserved areas are areas of high population density in the City that are usually the greatest distance from parkland where the amount of open space per 1000 residents is currently less than 2.5 acres. Conversely, well-served areas exhibit an open space ratio above 2.5 acres per 1000 residents or are located within 0.25 mile (an approximate ten minute walk) from developed and publicly accessible portions of regional parks.

The project site is located in an area that has been designated as “underserved” for open space. Accordingly, an open space assessment is warranted for projects that would generate more than 50 residents or 125 workers. The proposed action would potentially add approximately 424 residents in 181 units (based on an average of 2.34 persons per unit),[19] as well as an estimated 284 employees[20] who would work in the building. The residential and working populations expected to be introduced by the proposed action exceed the CEQR preliminary screening threshold levels for a preliminary assessment of open space. Therefore the preliminary open space assessment considers both the residential and worker populations.

[19] Based on U.S. Census data, the 2010 average household size for Queens Community District 1 is 2.34.

[20] The estimated number of employees includes approximately seven workers for the residential element of the proposed action (based on a standard average of 0.04 employees per incremental residential unit [superintendents, doormen, porters, etc.]; 23 workers for the commercial element (assuming three employees per 1,000 square feet of retail use); 252 workers for the incremental amount of community facility use (84,139 gsf) (assuming three employee per 1,000 square feet of incremental community facility use); and one worker for the accessory parking uses (assuming one employee per 50 parking spaces). Note that worker numbers do not sum to 284 due to rounding.

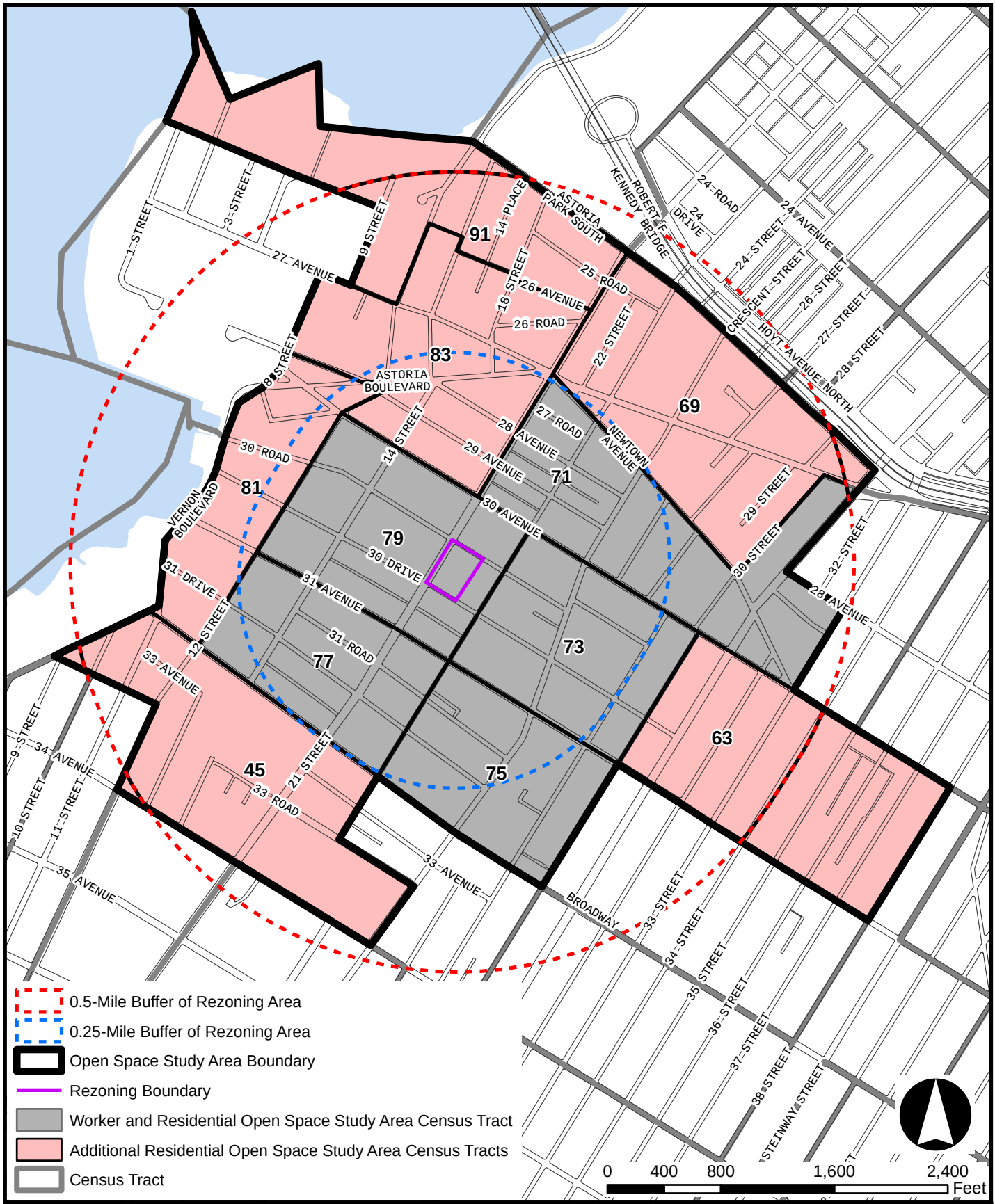
2.3.1 Preliminary Open Space Assessment

The project site is located within Queens Census Tract 79, and the half-mile study area lies within Queens Community District 1. As shown in **Figure 2.3-1**, the residential open space study area includes all U.S. Census Tracts that have 50 percent or more of the tract within a half-mile radius of the project site, while the worker open space study area includes all Census Tracts where 50 percent or more of the tract lies within a quarter-mile radius of the project site. As indicated in **Table 2.3-1**, the worker open space study area is comprised of five Census Tracts, while the residential open space study area includes an additional six Census Tracts for a total of eleven Census Tracts.

Residential (0.5-Mile) Study Area
As illustrated in **Figure 2.3-2** and indicated in **Table 2.3-2**, the residential study area contains a total of four resources that provide approximately 5.953 acres of publicly-accessible open space, comprised of 0.866 acres (15 percent) of passive space and 5.087 acres (85 percent) of active space.

The existing population for the residential (0.5-mile) open space study area is estimated at approximately 38,897 residents. The residential study area has an overall open space ratio of 0.153 acres per 1,000 residents, as shown in **Table 2.3-3**. The existing residential open space ratio is well below the citywide average of 1.5 acres per 1,000 residents and even further below the City's planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents. The residential study area's passive and active open space ratios are 0.022 and 0.131 acres of per 1,000 residents, respectively, which are also well below CEQR guidelines of 0.5 acres of passive open space and 2.0 acres of active open space per 1,000 residents. These ratios indicate that the residential study area has an existing shortfall of passive and active open space.

It is important to note that several additional open space resources are located within and/or adjacent to the 0.5 mile radius of the rezoning area, but have not been accounted for in the open space ratio calculation because they lie outside of the open space census tract area. These resources, labelled in **Figure 2.3-2**, include larger open spaces such as Astoria Park (59.96 acres), Triborough Bridge Playground (2.67 acres, areas B through E), Socrates Sculpture Park (4.89 acres), Rainey Park (8.09 acres), Hallets Cove Playground (5.84 acres) and Ravenswood Playground (2.76-acre). These additional, proximate resources help to alleviate the study area's existing shortfalls of passive and active open space.



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Open Space Study Areas

Figure 2.3-1



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Open Space Resources

Figure 2.3-2

Table 2.3-2 Open Space Resources in the Study Areas

Key No.	Open Space Resource	Location	Size (acres)	Passive acres (%)	Active acres (%)
Worker (0.25-mile) Open Space Study Area					
1	Astoria Health Playground	14 St, 31 Ave, 31 Drive	0.207	0.021 (10%)	0.186 (90%)
2	Athens Square	30 Ave, 29 St, 30 St	1.093	0.328 (30%)	0.765 (70%)
		Worker Study Area Totals	1.300	***0.349 (27%)***	***0.951 (73%)***
Residential (0.5-mile) Open Space Study Area					
3	Van Alst Playgound	21 St, 29 Ave, 30 Ave	1.033	0.155 (15%)	0.878 (85%)
4	Whitey Ford Field	26 Ave, 1 St, 2 St	3.620	0.362 (10%)	3.258 (90%)
		Residential Study Area Totals	5.953	***0.866 (15%)***	***5.087 (85%)***
Resources Not Included in Quantitative Assessment Residential (0.5-mile) Open Space Study Area					
5	Two Coves Community Garden	Astoria Blvd, 30 Ave, Main Ave, 8 St	0.778	0.778 (100%)	0.000 (0%)

Sources: Community District Profiles, NYC Department of City Planning; New York City Department of Parks and Recreation.

Table 2.3-3 Existing Open Space Ratios

	Population	Open Space Acreage			Open Space Ratios per 1,000 users		
		Total	Passive	Active	Total	Passive	Active
Worker (0.25-mile) Open Space Study Area							
Workers	6,745	1.30	0.35	0.95	N/A	0.052	N/A
Residential (0.5-mile) Open Space Study Area							
Residents	38,897	5.95	0.87	5.09	0.153	0.022	0.131

Future No-Action Scenario

In the Future No-Action Scenario, the project site is not expected to undergo any changes or development. Similarly, no proposed new public open spaces have been identified and no substantive changes to open space resources are anticipated. To estimate the 2021 residential population, a standard annual background growth rate of 0.5 percent was applied to the 2016 population projection, plus the projected number of residents (344) that will be added by the four No-Action projects. The No-Action number of employees was calculated based on CTPP reverse journey-to-work census data, plus the estimated number of workers (14) introduced by the four No-Action projects.

Worker (0.25-Mile) Study Area

The estimated worker (non-residential) population for the worker open space study area in the Future No-Action Scenario is estimated to be approximately 6,759 employees (see **Table 2.3-4)**. The Future No-Action passive open space ratio for the worker study area is 0.052 acres per 1,000 workers. Thus, similar to existing conditions, a deficit of passive open space is projected for the Future No-Action Scenario. When compared to existing conditions, the current shortfall of passive open space would be slightly exacerbated in the Future No-Action Scenario as a result of anticipated growth in the number workers.

Residential (0.5-Mile) Study Area

The estimated residential population for the residential open space study area in the Future No-Action Scenario is approximately 40,223 residents. As exhibited in **Table 2.3-4**, the Future No-Action open space ratio for the residential study is approximately 0.148 acres per 1,000 residents, which is well below the citywide average of

1.5 acres per 1,000 residents as well as the City's planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents. The residential study area's Future No-Action passive and active open space ratios are 0.022 and 0.126 acres of per 1,000 residents, respectively, which are also well below CEQR guidelines of 0.5 acres of passive open space and 2.0 acres of active open space per 1,000 residents. As a result of anticipated growth in the residential population without the creation of additional open space, the existing shortfall of passive and active open space is expected to increase slightly in the residential study area.

Note that the No-Action Site 1, located one block south of the project site at 21-31 31st Avenue, will include approximately 1,413 sf (0.03 acre) of rooftop open space. While not publicly accessible, this private recreational area will be available to future building residents and will help to alleviate demand on existing public open space resources in the study area in the Future No-Action Scenario.

Table 2.3-4 Future No-Action Open Space Ratios

	Population	Open Space Acreage			Open Space Ratios per 1,000 users		
		Total	Passive	Active	Total	Passive	Active
Worker (0.25-mile) Open Space Study Area							
Workers	6,759	1.30	0.35	0.95	N/A	0.052	N/A
Residential (0.5-mile) Open Space Study Area							
Residents	40,223	5.95	0.87	5.09	0.148	0.022	0.126

Future With-Action Scenario

In the Future With-Action Scenario, no changes to open space resources are expected and it is assumed that no new public open space would be created. The proposed action would generate an estimated 424 residents and 284 employees.

Preliminary screening procedures from the *CEQR Technical Manual* indicate that impacts may occur if a project would reduce an open space ratio by more than five percent. In areas that are lacking in open space resources, a reduction as small as one percent may be considered significant.

Worker (0.25-Mile) Study Area

In the Future With-Action Scenario, the worker study area's estimated worker population would increase to approximately 7,043 (see **Table 2.3-5)**. A shortfall of passive open space is projected to continue in the Future With-Action Scenario, similar to the Existing and No-Action Scenarios. The Future With-Action passive open space ratio for the worker study area is 0.050 acres per 1,000 workers. Like the Existing and No-Action Scenarios, the worker study area's passive open space ratio in the Future With-Action Scenario is projected to remain well below the City's guideline of 0.15 acres of passive open space per 1,000 workers.

Relative to the Future No-Action Scenario, the working study area's passive open space ratio for the working population would decrease by approximately 4.0 percent. Although the worker study area's open space ratio would decrease by more than one percent in an area currently underserved by open space, the proposed action is not expected to result in a significant adverse open space impact because additional passive open space resources are available in close proximity to the worker open space study area. For example, Van Alst Playground is adjacent to the study area and provides an additional 0.155 acre of passive space. Similarly, Socrates Sculpture Park is situated roughly 550 feet beyond the study area (or .35 mile from the project site), and provides an abundance – roughly 4.89 acres – of additional passive open space. In addition, it is worthwhile to note that not all workers utilize open space throughout the work day. Use of open space during lunch break is both seasonal and subjective; some workers may prefer a walk around the block (or to grab a coffee/ snack/ meal) rather than the passive use of open space.

Residential (0.5-Mile) Study Area

The projected residential population for the residential open space study area in the Future With-Action Scenario is approximately 40,647. Thus the Future With-Action open space ratio for the residential study area is approximately 0.146 acres per 1,000 residents; the passive open ratio is 0.021 acres per 1,000 residents; and the active open space ratio is 0.125 acres per 1,000 residents (see **Table 2.3-5**). As expected, the residential open space ratios would decline relative to the No-Action Scenario due to the residential population introduced by the proposed development.

Table 2.3-5 Future With-Action Open Space Ratios

	Population	Open Space Acreage			Open Space Ratios per 1,000 users		
		Total	Passive	Active	Total	Passive	Active
Worker (0.25-mile) Open Space Study Area							
Workers	7,043	1.30	0.35	0.95	N/A	0.050	N/A
Residential (0.5-mile) Open Space Study Area							
Residents	40,647	5.95	0.87	5.09	0.146	0.021	0.125

The projected With-Action open space ratio for the residential study area is well below the citywide average of 1.5 acres per 1,000 residents and even further below the City's planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents. Likewise, the passive and active open space ratios are also substantially below CEQR guidelines of 0.5 acres of passive open space and 2.0 acres of active open space per 1,000 residents.

As shown below in **Table 2.3-6**, the residential study area's open space ratio would decrease by approximately 1.0 percent over the Future No-Action Scenario. Both the passive and active open space ratios would be reduced by approximately 1.0 percent compared to Future No-Action Scenario.

Table 2.3-6 Percent Change between Future No-Action and Future With-Action Open Space Ratios

	Total Open Space Ratio	Passive Open Space Ratio	Active Open Space Ratio
Worker (0.25-mile) Open Space Study Area			
Workers	N/A	-4.0%	N/A
Residential (0.5-mile) Open Space Study Area			
Residents	-1.04%	-1.04%	-1.04%

Despite the projected decline in the residential open space ratio, the proposed action would not be expected to result in a significant adverse open space impact because a number of additional resources are available within approximately 0.5 mile of the rezoning area, but have not been factored into the open space ratio calculation because they lie outside of the open space census tract area. These additional resources include larger open spaces such as Astoria Park, Triborough Bridge Playground, Socrates Sculpture Park, Rainey Park, Ravenswood Playground and Hallets Cove Playground (see **Figure 2.3-2**). In combination these six resources provide over 84 acres of additional open space; and as such, would help to alleviate the deficit of passive and active open space that is projected to continue in the study area under the Future With Action Scenario.

Hallets Cove Playground is situated northwest of the intersection of Welling Court and Vernon Boulevard, along a portion of the East River waterfront known as Hallets Cove. This approximate 5.84-acre neighborhood park contains playground facilities, restrooms, handball courts, as well as kayak/ canoe launch sites. Extending along the west side of Vernon Boulevard from south of Broadway to north of 31st Drive, Socrates Sculpture Park provides 4.89 acres of waterfront open space. The park includes a paved perimeter pathway, eateries (food

trucks), seasonable portable bathrooms (April to September), landscaped gardens, rotating sculpture exhibits, and cultural programming.

Ravenswood Playground comprises approximately 2.76 acres of open space and is situated on the western side of 21st Street between 34th and 35th Avenues. The neighborhood park features handball courts, a ballfield, playgrounds, spray showers and fitness equipment. Rainey Park is located along the East River waterfront, on the west side of Vernon Boulevard from south of 34th Avenue to 33rd Road. The approximate 8.09-acre neighborhood park includes ballfields, playgrounds, restrooms, dog-friendly areas and eateries.

Astoria Park is a large community park comprising almost 60 acres of passive and active space, generally bound by Astoria Park South to the south, 21st and 19th Streets to the east, Ditmars Boulevard to the north, and Shore Boulevard to the west. This vast resource features the following facilities: tennis courts, bocce courts, restrooms, outdoor pools, skate parks, wi-fi hot spots, dog-friendly areas, eateries, running tracks, playgrounds, paved walkways, natural areas, ample benches, and fitness equipment.

Triborough Bridge Playground is an approximate 2.67-acre neighborhood resource comprising four separate areas – B, C, D and E. Triborough Bridge Playground B, located on the block bounded by 21st Street, Hoyt Avenue North, Hoyt Avenue South and 23rd Street, features approximately 1.29 acres of playgrounds, spray showers, fitness equipment and eateries. Triborough Bridge Playground C contains approximately 0.46 acre of playgrounds on the block bounded by 23rd and 24th Streets, Hoyt Avenue North and Hoyt Avenue South. On the block bound by Hoyt Avenue North, Hoyt Avenue South, 24th Street and Crescent Street, the 0.46-acre Triborough Bridge Playground D provides handball courts and playgrounds. Finally, Triborough Bridge Playground E is located between Hoyt Avenue North, Hoyt Avenue South, Crescent Street and 26th Street. This 0.46-acre public open space offers playground facilities.

In addition, while the Future With-Action Scenario evaluates a RWCDS that differs slightly from the Applicant's proposed project, it is important to note that the Applicant intends to provide outdoor recreational areas on the roof of the five-story community facility component and the roof of the one-story retail component. More specifically, an approximate 3,620-sf, open recreational space with an outdoor seating area would be located above the one-story retail component. This rooftop open space would be accessible from the second floor of the residential portion of the building, available for use only by the residents. This rooftop area would also include an approximately 2,118-sf outdoor play area that would be utilized by the community facility/ club use, and would be accessible from the second floor of the community facility portion of the building. Furthermore, the proposed roof above the five-story community facility component would contain an approximate 19,416-sf, active fenced-in play space for use by the Boys and Girls Club in addition to a rooftop garden, a STEM greenhouse/science lab and common outdoor space. These spaces would not be publicly accessible and would help to fulfill the demand for open space generated by the residents of the proposed development, as well as the employees of the Boys and Girls Club.

The proposed action would result in a four percent decrease in the worker open space ratio and a one percent decrease in the residential open space ratio over the No-Action Scenario. However, additional resources would be available within roughly 0.5 mile of the rezoning area to help fill the shortfall of open space. In addition, the Applicant's plans to include multiple areas of on-site open space in the proposed development. These distinct areas would be available to future residents and community facility users.[21]

2.4 SHADOWS

The *CEQR Technical Manual* defines a shadow as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space or feature. An

[21] Similarly, the RWCDS assumes that the proposed mixed-use building also would include on-site open space/ recreation areas in order to meet Quality Housing recreation space requirements. Such on-site open space would help to offset the demand for public open space generated by future residents under the RWCDS.

incremental shadow is the additional or new shadow that a proposed project would cast on a sunlight-sensitive resource during the year. The 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, including public open space, architectural resources and natural resources. Shadows can have impacts on publicly accessible open spaces or natural features by adversely affecting their use and important landscaping and vegetation. In general, increases in shadow coverage make parks feel darker and colder, affecting the experience of park patrons. Shadows can also have impacts on historic resources whose features are sunlight-sensitive, such as stained-glass windows, by obscuring the features or details which make the resources significant.

Shadows also vary according to time of day and season. Shadows cast during the morning and evening, when the sun is low in the sky, are longer, while midday shadows are shorter in length. Shadows in winter, when the sun arcs low across the southern sky, are also longer throughout the day than at corresponding times in spring and fall seasons. In summer, the high arc of the sun casts shorter shadows than at any other time of year, and early and late shadows during the summer are cast towards the south than shadows cast in early and late winter months.

The *CEQR Technical Manual* states that a shadow assessment considers projects that result in new shadows long enough to reach a sunlight-sensitive resource. Therefore, a shadow assessment is warranted only if the project would either result in: (a) new structures (or additions to existing structures including the addition of rooftop mechanical equipment) of 50 feet or more; or, (b) be located adjacent to, or across the street from, a sunlight-sensitive resource. However, a project located adjacent to or across the street from a sunlight-sensitive open space resource (which is not a designated New York City Landmark or listed on the State/National Registers of Historic Places, or eligible for these programs) may not require a detailed shadow assessment if the project's height increase is ten feet or less.

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, including public open space, architectural resources and natural resources. In general, shadows on city streets and sidewalks or on other buildings are not considered significant. Some open spaces also contain facilities that are not sensitive to sunlight. These are usually paved areas such as handball or basketball courts, contain no seating areas and no vegetation, no unusual or historic plantings, or contain only unusual or historic plantings that are shade tolerant. These types of facilities do not need to be analyzed for shadow impacts. Furthermore, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with the *CEQR Technical Manual*.

The proposed action would result in the construction of a new 14-story residential building approximately 145 feet in height. As discussed in Section 2.1.1 Land Use, the rezoning area is proximate to the Van Alst Playground, an open space resource operated by the Department of Parks. Consequently, further shadow screening assessments were performed.

2.4.1 Preliminary Shadow Screening Assessment

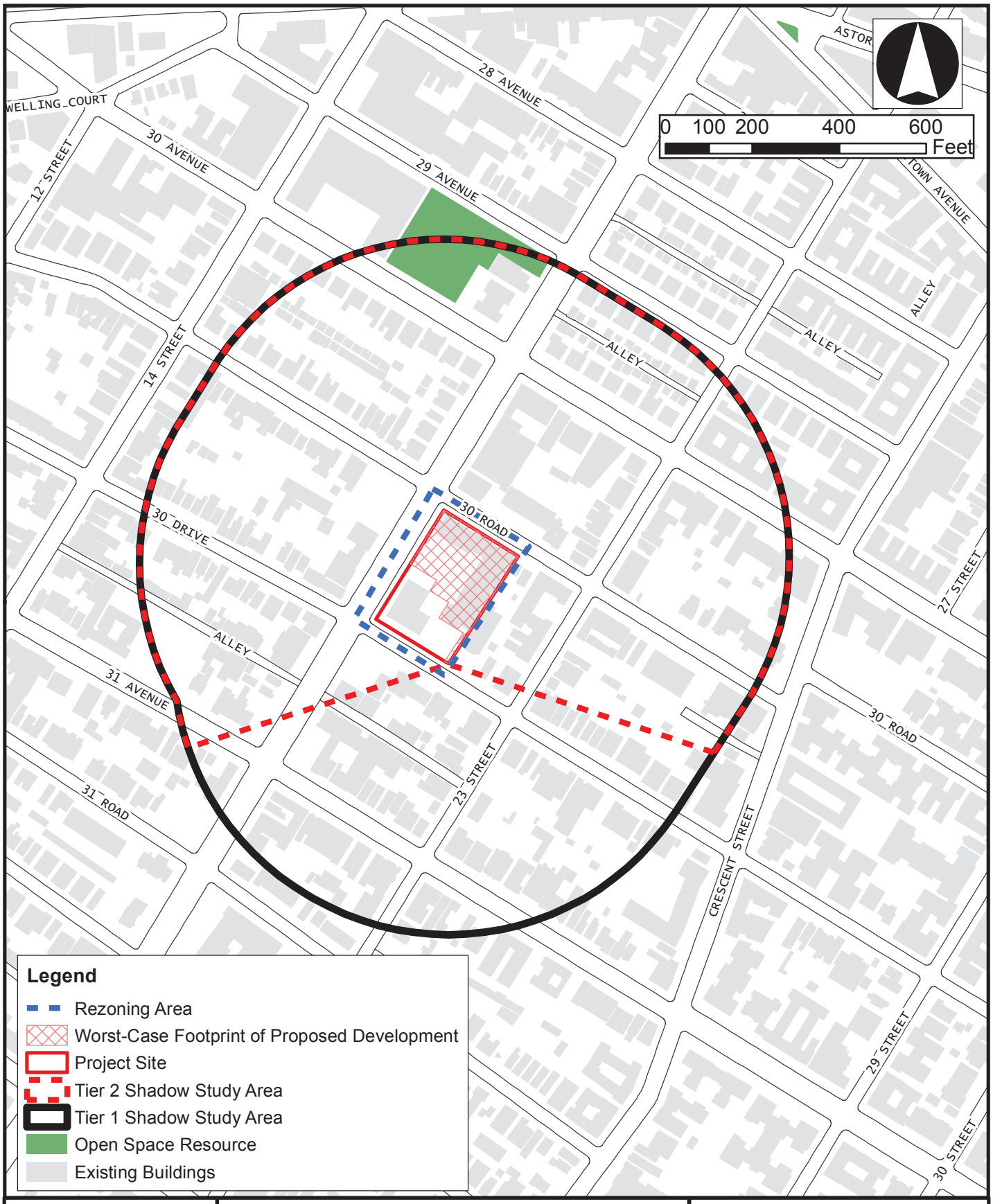
The shadow assessment begins with a preliminary screening assessment to ascertain whether a project's shadow may reach any sunlight-sensitive resources at any time of the year. If the screening assessment does not eliminate this possibility, a detailed shadow analysis is generally warranted in order to determine the extent and duration of the net incremental shadow resulting from the project. The effects of shadows on a sunlight-sensitive resource are site-specific; therefore, as noted in the *CEQR Technical Manual*, the screening assessment and subsequent shadow assessment (if necessary) was performed for the new structure to be built on the project site.

Tier 1 and 2 Screening Assessments

The first step in the preliminary shadow screening assessment is a Tier 1 Screening Assessment. A base map is developed that illustrates the proposed site location in relationship to any sunlight-sensitive resources. The longest shadow study area is then determined, which encompasses the project site and a perimeter around the site's boundary with a radius equal to the longest shadow that could be cast by the proposed structure, which is 4.3 times the height of the structure that occurs on December 21st, the winter solstice. To find the longest shadow length, the maximum height of the structure (including any rooftop mechanical equipment) is multiplied by the factor of 4.3.

A shadow radius of 4.3 times the maximum height of the proposed building (145 feet) was calculated, resulting in a shadow radius of approximately 624 feet. As shown in **Figure 2.4-1**, the results of the Tier 1 screening assessment show that the Van Alst Playground is situated within the Tier 1 maximum shadow analysis area. The playground is a public open space and as such, is considered a sunlight-sensitive resource. No additional sunlight-sensitive resources, which may include historic resources, natural resources or other resources (i.e., greenstreets), were identified in Tier 1 maximum shadow analysis area.

The *CEQR Technical Manual* states that if any portion of a sunlight-sensitive resource lies within the longest shadow study area, a Tier 2 screening assessment should be performed. Because of the path that the sun travels across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given project site. In New York City, this area lies between -108 and +108 degrees from true north.



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Shadow Analysis

Tier 1 and Tier 2 Screening

Figure 2.4-1

For a Tier 2 screening assessment, sunlight sensitive resources within the triangular area that cannot be shaded by a proposed project, starting from the southernmost portion of the site covering the area between -108° degrees from true north and +108 degrees from true north, are screened out. The complementing portion to the north within the longest shadow study area is the area that can be shaded by a proposed project. The *CEQR Technical Manual* further notes that if a sunlight-sensitive feature on an architectural resource is located on a facade that faces directly away from a proposed project (i.e. when an architectural resource is west of the project site and the sun-sensitive feature is on the west facade of that structure), no further shadows assessment is needed for that particular resource, because no shadows from a proposed project could fall on that sunlight-sensitive face.

The Van Alst Playground is north of the project site, outside of the triangular area that cannot be shaded by the proposed action. The Tier 2 screening assessment indicates that the playground is within the Tier 2 area and has the potential to be covered by shadows from the proposed action, therefore a Tier 3 screening assessment is necessary.

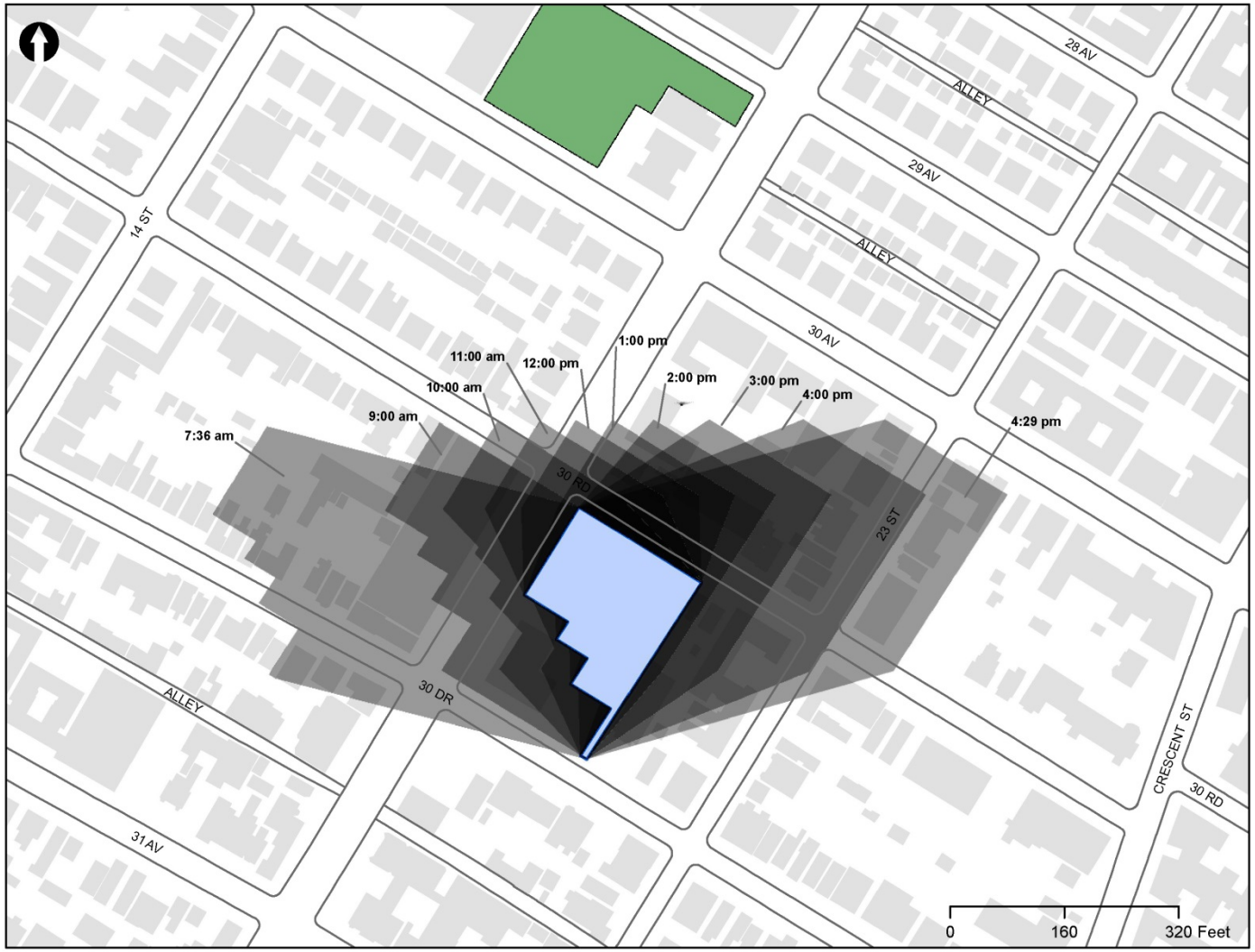
Tier 3 Screening Assessment

A Tier 3 screening assessment was used to determine if shadows resulting from the proposed action have the potential to reach a sunlight-sensitive resource. According to *CEQR Technical Manual* guidance, the months of interest for an open space resource encompass the growing season (March through October) and one month between November and February (usually December) representing a cold-weather month.

Representative days for the growing season are generally the vernal equinox (or the autumnal equinox, which is approximately the same), the summer solstice, and a spring or summer day halfway between the summer solstice and equinoxes. For the cold-weather months, the winter solstice is usually included to demonstrate conditions during cold-weather when people who do use open spaces rely most heavily on available sunlight for warmth. As representative of the full range of possible shadows, these months and days are used for assessing shadows on historic or natural sunlight-sensitive resources.

Assessments of the incremental shadows cast during four representative dates were made in accordance with the *CEQR Technical Manual* to encompass the growing season and December, representing a cold-weather month (and the longest shadow of the year), with the following dates: March 21; May 6; June 21; and December 21. On these dates, shadows occurring within one and one-half hour of sunrise or sunset generally are not considered significant in accordance with the *CEQR Technical Manual*, and thus were not included in the screening assessment.

The results of the Tier 3 screening are shown in **Figures 2.4-2** through **2.4-5**, and indicate that shadows from the proposed action do not have the potential to reach the sunlight-sensitive resource on any of the analysis dates. Therefore, a detailed shadows analysis is not needed and the proposed action would not result in a significant, adverse shadow impact.



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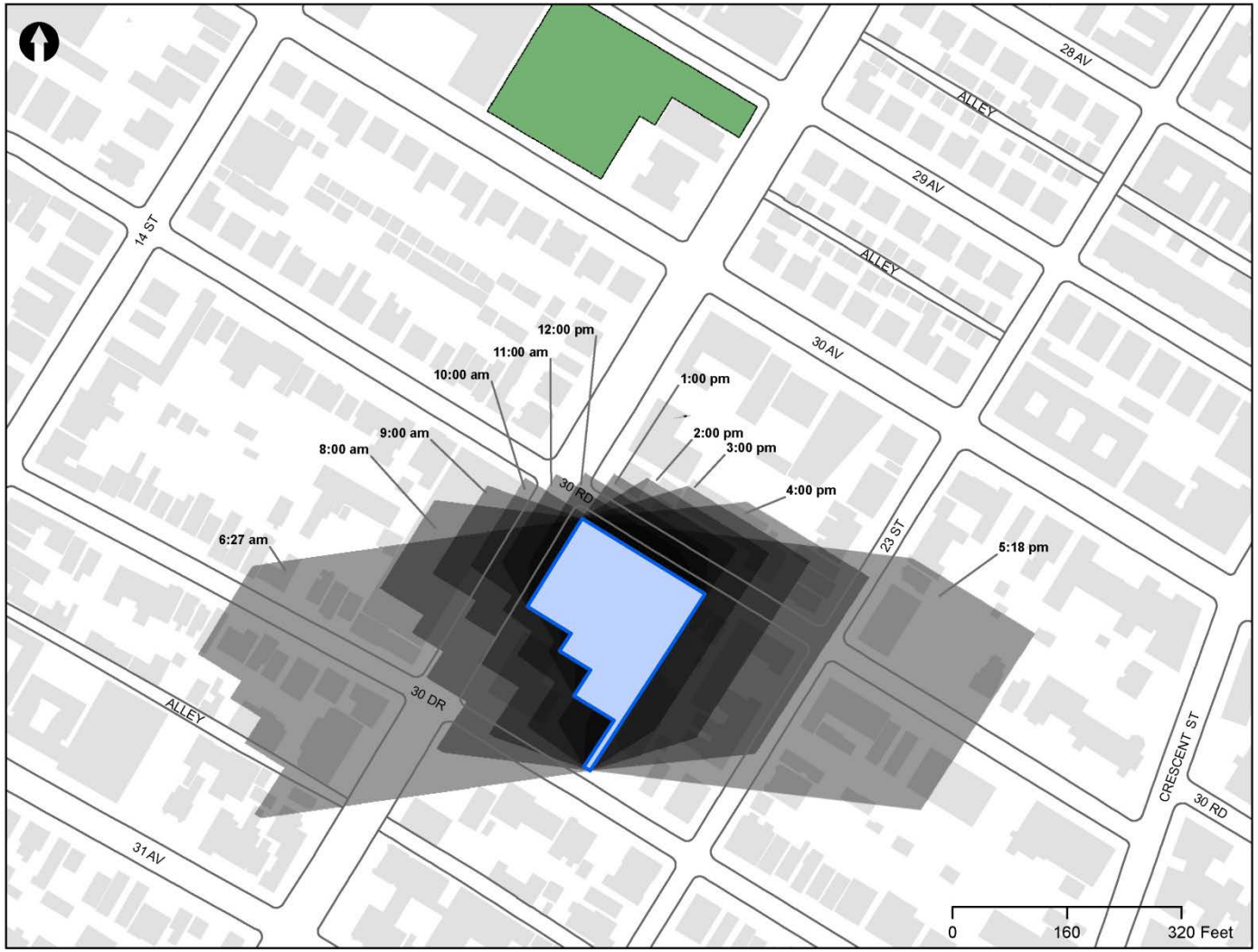
Shadows Tier III Screening: March 21 Analysis Date

Figure 2.4-2



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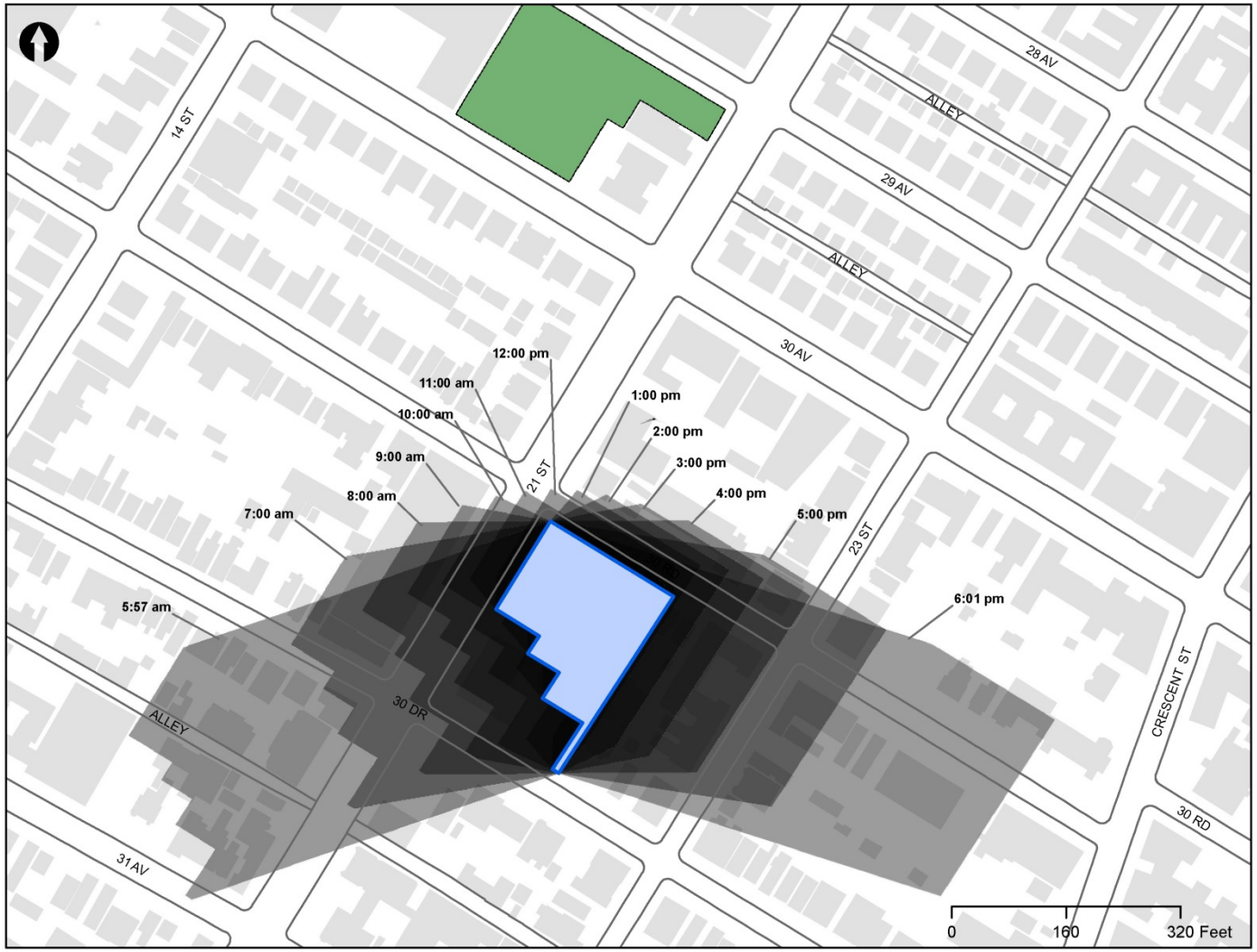
Shadows Tier III Screening:
May 6 Analysis Date

Figure 2.4-3



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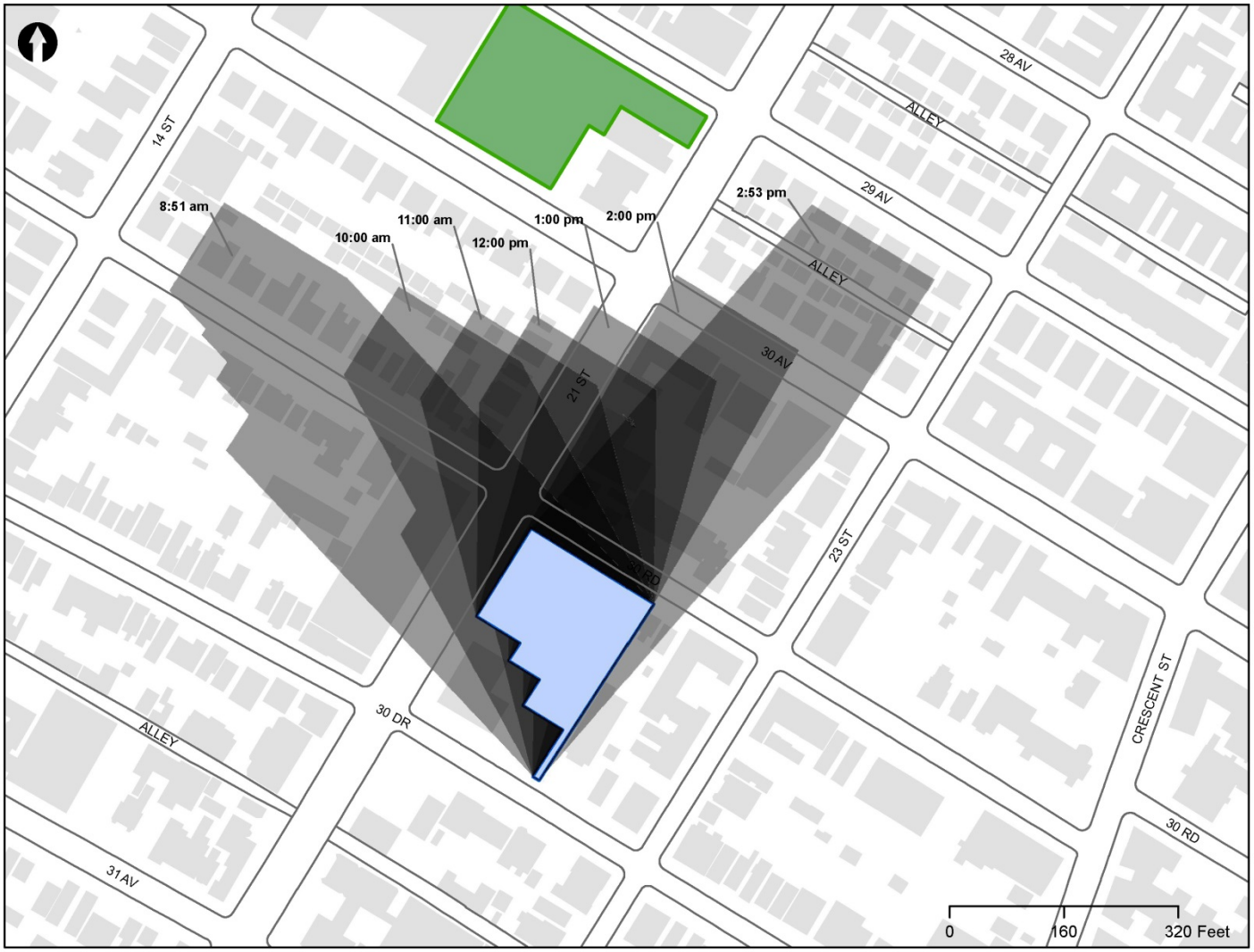
Shadows Tier III Screening: June 21 Analysis Date

Figure 2.4-4



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Shadows Tier III Screening: December 21 Analysis Date

Figure 2.4-5

2.5 HISTORIC AND CULTURAL RESOURCES

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

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

2.5.1 Architectural Resources

According to *CEQR Technical Manual* guidelines, impacts on historic resources are considered on those sites affected by the proposed action and in the area surrounding identified development sites. The historic resources study area is therefore defined as the project site plus an approximately 400-foot radius around the proposed action area.

The project site is not a designated local or S/NR historic resource or property, nor is the site part of any designated historic district. The LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on September 13, 2016, indicating that the project site has no architectural significance (see **Appendix D**).

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

2.5.2 Archaeological Resources

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

The proposed action would result in an in-ground disturbance to an area that does not appear to have been previously excavated. Further, based on the NYS Office of Parks, Recreation and Historic Preservation's "Cultural Resource Information System" (CRIS) mapper, the rezoning area appears to fall within an archaeologically sensitive area. Therefore, the LPC was contacted for their initial review of the project's potential to impact nearby archaeological resources, and a response was received on September 13, 2016, indicating that the project site has no archaeological significance (see **Appendix D**). Therefore, significant adverse impacts to archaeological resources are not expected as a result of the proposed action, and further analysis is not warranted.

2.6 URBAN DESIGN AND VISUAL RESOURCES

According to the *CEQR Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. Elements that play an important role in the pedestrian's experience include streets, buildings, visual resources, open space, and natural features, as well as wind as it relates to channelization and downwash pressure from tall buildings. Furthermore, according to the *CEQR Technical Manual*, if a preliminary assessment determines that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed urban design and visual resources analysis is appropriate. Detailed analyses are generally appropriate for all area-wide rezoning applications that include an increase in permitted floor area or changes in height and setback requirements, general large scale developments, or projects that would result in substantial changes to the built environment of a historic district, or components of an historic building that contribute to the resource's historic significance. Conditions that merit consideration for further analysis of visual resources include when the project partially or totally blocks a view corridor or a natural or built rare or defining visual resource. Further conditions that merit consideration are when the project changes urban design features so that the context of a natural or built visual resource is altered, such as if a project alters the street grid so that the approach to the resource changes, or if a project changes the scale of surrounding buildings so that the context changes.

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

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

2.6.1 Preliminary Analysis

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

Existing Conditions

The study area is located in the Astoria neighborhood of Queens. A photographic key map is provided in the previously presented **Figure 1.1-3**; with ground-level photographs of the project site and the immediate surrounding area provided in the previously presented **Figure 1.1-4**.

The proposed rezoning area includes Block 550, Lots 7 and 10. Lot 7 is an approximate 37,670-sf lot presently improved with the existing Variety Boys and Girls Club facility; a single-story, L-shaped building that was built in 1955 and contains approximately 30,291 sf of floor area (0.80 FAR). This site has approximately 200 feet of frontage along 30th Road and 145 feet of frontage along 21st Street. The portion of the site fronting on 21st Street includes a surface parking lot and small recreational area. Lot 10 is a 20,268 sf lot currently improved with an approximately 84,491 gsf (82,834 zsf) 11-story, multi-family residential building containing 99 dwelling units of senior housing, and community facility and office uses on the ground floor (FAR 4.09).

Existing land use immediately surrounding the rezoning area includes a mix of multi-family, mixed-use and one-and two-family residential buildings, with a limited number of community facility, transportation and commercial uses interspersed. The commercial uses are comprised of local retail such as delis, restaurants, laundromats and beauty parlors, which serve the local community.

There is no form that ties the built environment together visually. The prevailing built form of the area is a mix of two- to three-story residential buildings, with numerous multi-story residential and mixed use buildings interspersed. Low-rise one- and two-family residences are predominantly found mid-block throughout the study area (i.e., along both sides of 30th Drive west of 21st Street and east of the project site, along both sides of 30th Road west of 21st Street and east of the project site), and along both sides of 30th Avenue); while larger multi-family and multi-family mixed use development are typically situated along larger thoroughfares such as 21st and 23rd Streets. No parks or public open space resources are found within the 400-foot study area.

Few streetscape elements are present within the study area. Many streets contain street trees, generally located at irregular intervals; however no other notable streetscape elements (e.g., benches, public plazas) are located within the study area. The study area also does not contain any significant natural features, nor does it contain tall buildings that result in channelized wind pressure issues.

With respect to visual resources, the study area does not contain any significant natural resources, New York City designated landmarks or historic districts, or properties that are listed (or eligible for listing) on the State and/or National Register of Historic Places. While small portions of the East River and Manhattan skyline may be visible from some publicly-accessible parts of the study area (i.e., sidewalk at the intersection of 21st Street and 30th Drive), the study area does not contain any significant visual resources.

Some of the roadways within the study area are classified as local streets, including 30th Drive and 30th Road; while others, such as 21st Street and 31st Avenue, are classified as Principal Arterials. Streets that run in an east-west fashion (technically southeast-northwest), such as 30th Road, typically are smaller (one-lane) one-way, local streets; while those running north-south (technically northeast-southwest), such as 21st Street, generally are larger (two-lane), two-way arterial roads.

Future No-Action Scenario

In the future without the proposed rezoning, a new building would not be constructed on the project site; thus the site would remain similar to existing conditions. **Figures 2.6-1** through **2.6-4** exhibit the Future No-Action Scenario for the project site.

Under the Future No-Action Scenario, four as-of-right buildings are expected to be added to the study area. Two of the buildings will be mixed-use, while two will be residential. The heights of these as-of-right buildings will range between five and eight stories. The No-Action projects will replace vacant and underutilized sites with active uses, improving the visual character and streetscape.

No-Action Site 1, located at 21-13 31st Avenue (Block 551, Lot 8), will contain an approximately 54,879-gsf, seven-story residential building with 28 accessory parking spaces in an at-grade parking lot. The building will include 56 dwelling units and approximately 1,413 sf of exterior (rooftop) recreation space. No-Action Site 2, 21-03 31st Avenue (Block 551, Lot 13), is being developed with a mixed-use, seven-story, approximately 20,936-gsf building that will house 24 residential units, approximately 2,192 gsf of ground-floor commercial space and one accessory (enclosed) parking space. No-Action Site 3, located at 14-53 31St Avenue (Block 534, Lot 1), will contain an eight-story, approximately 41,038-gsf residential building with 49 dwelling units and 25 accessory (enclosed) parking spaces. No-Action Site 4, 14-45 31St Avenue (Block 534, Lot 106), will contain a five-story, approximately 14,260-gsf residential building with 18 dwelling units and nine accessory (unenclosed) parking spaces.



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Urban Design
Future No-Action Scenario
View Looking South on 21st Street
Figure 2.6-1



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Urban Design
Future No-Action Scenario
View Looking West on 30th Road
Figure 2.6-2



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Urban Design
Future No-Action Scenario
View Looking North on 30th Drive

Figure 2.6-3



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Urban Design
Future No-Action Scenario
View Looking North on 21st Street
Figure 2.6-4

With respect to the remainder of the study area, it is expected that while some retail tenants within existing mixed use buildings may change, the overall use of these buildings would remain the same, and any physical changes would comply with applicable zoning regulations. No significant changes to the area's urban character are anticipated. Similarly, changes to the area's partial views of the East River and Manhattan to the west, are not expected.

Future With-Action Scenario

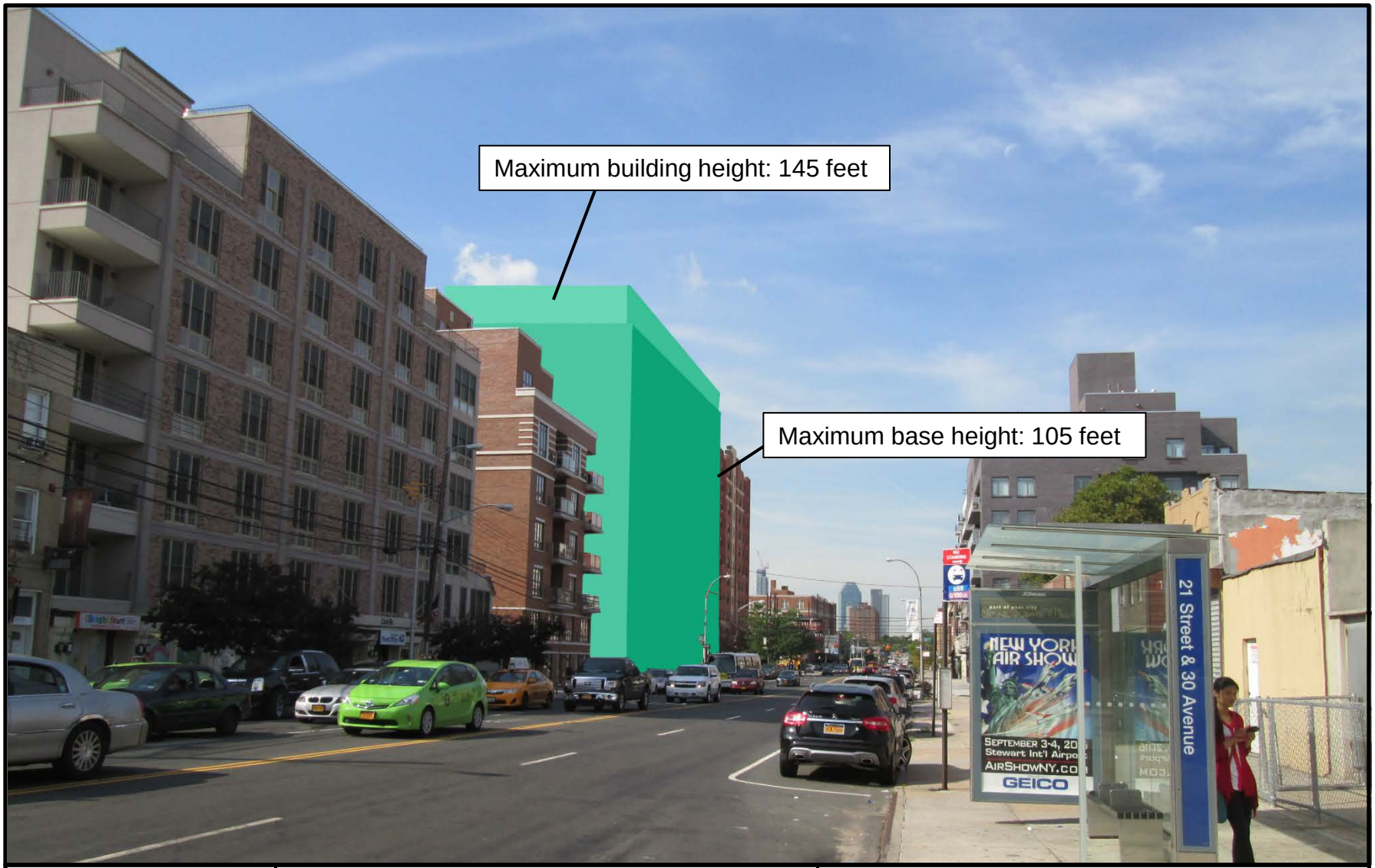
Figures 2.6-5 through **Figure 2.5-8** highlight the Future With-Action Scenario for the project site. These figures use the same vantage point as **Figures 2.6-1** through **2.4-4**, allowing for a comparison between the No-Action and With-Action Scenarios. Under the Future With-Action Scenario, the proposed rezoning would amend the zoning map to change the split-lot R7A/C2-3 and R6B zoning districts within the rezoning area to an R7X/C2-3 zoning district.

Under the Future With-Action Scenario, it is assumed that the Block 550, Lot 7 portion of the development site would be developed to the maximum FAR allowable. More specifically, it is assumed that the proposed action would result in a new 332,662 gsf (264,793 zsf) mixed-use building (4.6 FAR) with approximately 180,707 gsf (174,639 zsf) of residential floor area (FAR 3.0); 7,779 gsf (7,702 zsf) of retail floor area (0.1 FAR); 114,430 gsf (82,452 zsf) of community facility floor area (1.4 FAR); and approximately 64 parking spaces (29,746 gsf). On the Lot 10 portion of the development site, the existing 11-story, residential building is assumed to remain unchanged in the Future With-Action Scenario.

The With-Action Scenario could result in a development of up to 14 stories and 145 feet in height. The density of the project site would be increased under the With-Action Scenario, but would not be inconsistent with other dense sites in the area. Such other relatively dense sites in the vicinity include the existing 11-story, mixed-use building on the development site; the two recently-constructed, multi-story mixed-use buildings to the west across 21st Street; and the two recently-constructed, multi-story, mixed-use buildings to the north across 30th Road. The development expected to occur as a result of the proposed rezoning would also be compatible with the mixed-use and residential No-Action projects that are expected to be completed by the 2021 build year. The new density would fit in well with the existing surrounding residential and mixed-use development in the area.

The proposed development would be confined to the existing lot, and would not alter or disrupt the existing street grid or change the arrangement and orientation of streets in the area. Similarly, the proposed action would not affect existing view corridors or views to/from the East River or Manhattan skyline.

While the proposed building would change views of the site as experienced by pedestrians on 21st Street and 30th Road, significant adverse impacts to urban design and visual resources would not occur. The proposed action would allow for an increase in built floor area beyond what would be allowed 'as-of-right' and would result in a change in the pedestrian experience as it would replace the existing one-story building and surface parking lot with a multi-story, mixed use building. However, the preliminary assessment finds that the modified pedestrian experience would not disturb the vitality or walkability of the area and therefore would not be considered a significant impact. The residential section of the proposed building would be activated with ground-floor retail uses, consist with recent development trends. Additionally, the proposed action would remove the existing surface parking lot on Lot 7, provide an active use and create a constant streetwall along the 21st street frontage.



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Variety Boys and Girls Club
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Urban Design
Future With-Action Scenario
View Looking South on 21st Street
Figure 2.6-5



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Environmental Assessment Statement
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Urban Design
Future With-Action Scenario
View Looking West on 30th Road
Figure 2.6-6



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Urban Design
Future With-Action Scenario
View Looking North on 30th Drive
Figure 2.6-7



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Environmental Assessment Statement
Variety Boys and Girls Club
Queens, NY

Urban Design
Future With-Action Scenario
View Looking North on 21st Street
Figure 2.6-8

The proposed action would not block any view corridors or views to/from the East River or Manhattan skyline. Further, the proposed development would be consistent with relatively recent development found five blocks north of the proposed rezoning area, including the 14-story mixed-use building at the northwest corner of 21st Street and 27th Avenue/ Astoria Boulevard. Thus the proposed action would not result in conditions that would merit further detailed assessment of urban design and visual resources, and is not expected to result in any significant adverse urban design or visual resource related impacts.

2.7 HAZARDOUS MATERIALS

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

As previously noted, an (E) designation for hazardous materials (E-245) was placed on the Lot 7 portion of the project site as part of the 2010 Astoria Rezoning. The hazardous materials (E) designation text is provided below.

Task 1

The fee owner(s) of the lot(s) restricted by this (E) designation will be required to prepare a scope of work for any soil, gas, or groundwater sampling and testing needed to determine if contamination exists, the extent of the contamination, and to what extent remediation may be required. The scope of work will include all relevant supporting documentation, including site plans and sampling locations. This scope of work will be submitted to DEP for review and approval prior to implementation. It will be reviewed to ensure that an adequate number of samples will be collected and that appropriate parameters are selected for laboratory analysis.

No sampling program may begin until written approval of a work plan and sampling protocol is received from DEP. The number and location of sample sites should be selected to adequately characterize the type and extent of the contamination, and the condition of the remainder of the site. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of the sampling data. Guidelines and criteria for choosing sampling sites and performing sampling will be provided by DEP upon request.

Task2

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

If remediation is necessary according to test results, a proposed remediation plan must be submitted to DEP for review and approval. The fee owner(s) of the lot(s) restricted by this (E) designation must perform such remediation as determined necessary by DEP. After completing the remediation, the fee owner(s) of the lot restricted by this (E) designation should provide proof that the work has been satisfactorily completed.

A DEP-approved construction-related health and safety plan would be implemented during excavation and construction activities to protect workers and the community

from potentially significant adverse impacts associated with contaminated soil and/or groundwater. This Plan would be submitted to DEP for review and approval prior to implementation.

The project site is presently improved with the existing one-story, approximately 30,291 gsf Boys and Girls Club facility, which would be demolished as part of the proposed action. In January 2017, a Phase I Environmental Site Assessment (ESA) was performed for the subject property located at 21-12 30th Road (Block 550, Lot 7),[22] the portion of the project site where development is proposed. No development or ground disturbance is expected to occur on the Lot 10 portion of the project site.

2.7.1 Summary of Phase I ESA

During the site visit, no visual evidence of potable water wells, monitoring wells, dry wells, clarifiers, septic tanks, or leach fields was observed on the subject property. According to the information provided, one 4,500 gallon No. 4 fuel oil AST is located within a concrete vault in the boiler room. Due to flooding in the boiler room, the AST could not be inspected. Stormwater drains were located in the parking lot on the southern and western portions of the subject property. No visual evidence of discolored soil, water, or unusual vegetative conditions or odors was observed during the site visit.

The subject property is located within a predominately residential area. The majority of the properties surrounding the subject property are either apartment complexes or residential dwellings. A Gulf Service Station and automobile repair shop is located approximately 100 feet southwest of the subject property across 30th Drive. Several small commercial operations, including a laundromat and a building contractor are located to the west and southwest. A building identified as the Islamic Congress, Inc. (a mosque) is located immediately adjacent to the entrance to the senior center on the eastern perimeter of the subject property. Based on AECOM's site reconnaissance of the surrounding neighborhood, the Gulf Service Station is considered an off-site source of concern.

Based upon a review of available records and online sources, the subject property was vacant land in at least 1898 and remained vacant until 1955 when the original Boys Clubs of America building was constructed. The name changed in the late 1980s to The Boys and Girls Club of America. The construction of the Raice Astoria Senior Center on the southeastern end of the building was conducted in 1989. An addition to the southeastern portion of the senior center was constructed in 2003. No other changes to the subject property have occurred since 2003. No historical on-site sources of concern were identified during this assessment.

The subject property is identified on the New York Spills (NY Spills), Hazardous Materials Information Reporting System (HMIRS), Environmental Designation (E-Designation), and New York Aboveground Storage Tank (NY AST) environmental databases reviewed for this assessment. The Spills (0200257) and HMIRS listings (2002060523) appear to be related to a release of 10 to 25-gallons of No. 4 fuel oil to the pavement and surrounding vehicles due to a hose failure during delivery. This release was cleaned up and the Spills listing was closed on June 2, 2003. The remaining listings are non-contamination-related listings and therefore are not considered a REC with respect to the subject property.

According to the environmental database report, 113 database listings for 77 sites were identified within 1/8 mile of the subject property. Based on AECOM's review of these database listings, the Gulf Service Station located on 3075 21st Street is considered a REC to the subject property based on its proximity to the subject property, regulatory status (violations found), media impacted (soil and groundwater), and/or length of time use as a filling station (since at least the mid-1960s). No other off-site RECs were identified.

[22] AECOM, Phase I Environmental Site Assessment, Variety Boys & Girls Club of Queens, 21-12 30th Road, Long Island City, New York, January 2017.

The following RECs were identified during this assessment:

- The presence of the 4,500-gallon No. 4 fuel oil AST at the subject property and the lack of any physical or visual inspection of the tank to evaluate its integrity is considered a REC.
- The proximity of the Gulf Service Station at 30-75 21st Street with known soil and groundwater impacts is considered a REC.

This assessment revealed no evidence of CRECs or *de minimis* conditions in connection with the subject property. However, the following historical REC was identified:

- The subject property was listed on the Spills (0200257) and HMIRS listings (2002060523) appear to be related to a release of 10 to 25-gallons of No. 4 fuel oil to the pavement and surrounding vehicles due to a hose failure during delivery. This release was cleaned up and the Spills listing was closed on June 2, 2003.

2.7.2 Conclusion

To preclude the potential for significant adverse impacts associated with hazardous materials, and as recommended by NYCDEP (see **Appendix D**), the proposed action will include an (E) designation for hazardous materials (E-478). This (E) designation will supersede the (E) designation (E-245) placed on Lot 7 as part of the 2010 Astoria Rezoning. The (E) designation text related to hazardous materials is as follows:

> *Task 1 – Sampling Protocol*
>
> *The applicant submits to OER, for review and approval, a Phase I of the site along with a soil and groundwater testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.*
>
> *If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of sample sites should be selected to adequately characterize the site, the specific source of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.*
>
> *Task 2 – Remediation Determination and Protocol*
>
> *A written report with findings and a summary of the data must be submitted to OER after completion of the testing phase and laboratory analysis for review and approval. After receiving such results, a determination is made by OER if the results indicate that remediation is necessary. If OER determines that no remediation is necessary, written notice shall be given by OER.*
>
> *If remediation is indicated from the test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER. The applicant should then provide proper documentation that the work has been satisfactorily completed.*
>
> *An OER-approved construction-related health and safety plan would be implemented during evacuation and construction and activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil and/or*

groundwater. This plan would be submitted to OER for review and approval prior to implementation.

With (E) designation E-478 in place, significant adverse impacts related to hazardous materials are not expected, and no further analysis is warranted. Therefore, the proposed action would not result in significant adverse impacts related to hazardous materials.

2.8 TRANSPORTATION

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

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

The *CEQR Technical Manual* also states that if the threshold for traffic is surpassed, a parking assessment may also be warranted. This chapter assesses the potential for project-generated vehicle, transit, and pedestrian trips to affect the local transportation network within the study area, as well as an assessment of transportation safety in the study area.

2.8.1 Traffic

This section examines potential future traffic conditions associated with the proposed action. In most areas of the city, including the area of Queens where the proposed rezoning sites are located, if a proposed project is projected to result in 50 or more peak hour vehicular trip ends, there is the potential for traffic impacts and a detailed traffic assessment is recommended by CEQR. As discussed in detail later in this chapter, the proposed action is projected to generate approximately 54 vehicle trips during the weekday AM peak hour, approximately 86 trips during the weekday midday peak hour, approximately 66 vehicle trips during the weekday PM peak hour, and approximately 65 trips during the Saturday midday peak hour.

Because the numbers of vehicle-trips described above exceed the 50 vehicle-trips/peak hour threshold for a detailed analysis in the *CEQR Technical Manual*, a detailed traffic analysis is provided. Although the proposed action is projected to generate a total of approximately 65 vehicle trips during the Saturday midday peak hour, vehicular traffic is higher during the weekday midday peak hour than during the Saturday midday peak hour. Therefore, no Saturday midday peak hour traffic analysis was conducted because the weekday midday peak hours was determined to have a higher combination of both background traffic in the study area and project-generated traffic, resulting in the worst-case scenario for analysis purposes.

The traffic study area was selected to include the key intersections most likely to experience increases of more than 50 project-generated vehicle trips traveling to and from the rezoning sites. As shown in **Figure 2.8-1**, the traffic study area extends along 21st Street and includes the signalized intersections at Broadway, 31st Avenue and 30th Drive. Beyond these intersections, project-generated traffic volumes would be more dispersed, such that less than 50 additional vehicle trips per hour are projected to be

generated by the proposed action at any one intersection. Therefore, the potential effect on traffic operations would be less significant.

The following section describes year 2017 existing traffic conditions in the study area. Year 2021 future conditions without the proposed action (i.e., "Future No-Action" Condition) are described next. The change in vehicular traffic resulting from the proposed rezoning project is then estimated and added to the Future No-Action Condition traffic volumes to develop the forecast year 2021 Future with the Proposed Action (i.e., "Future With-Action" Condition) traffic volumes.

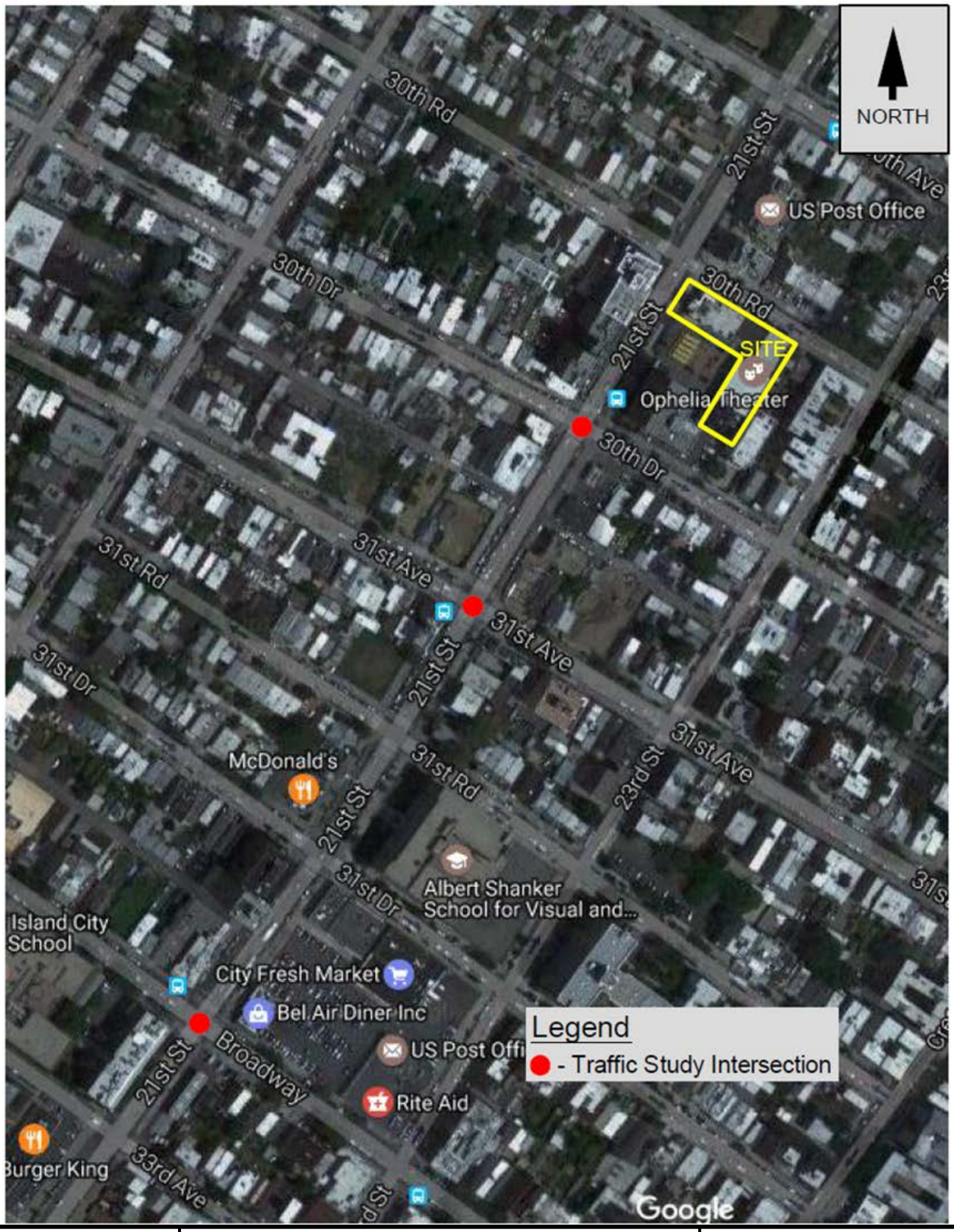
Existing Conditions

Street Network

The physical and operational characteristics of the major streets comprising the roadway network within the study area are described as follows:

The physical and operational characteristics of the major streets comprising the roadway network within the study area are described as follows:

- *21st Street* – Within the study area, 21st Street is an undivided, two-way, north-south roadway classified as a Principal Arterial, a Through Truck Route and a Snow Emergency Route. It extends between the Queens Midtown Expressway, to the south and 20th Avenue to the north. In the study area, 21st Street is approximately 58 feet wide, with two travel lane in each direction. Curbside parking is allowed on both sides of the roadway, and sidewalks are provided on both sides of the roadway.
- *Broadway* – Within the study area, Broadway is a two-way, east-west roadway classified as a Minor Arterial west of 21st Street, and Principal Arterial east of 21st Street. It is a Local Truck Route. Broadway extends between Vernon Boulevard to the west and Queens Boulevard (at Elmhurst) to the east. In the study area, Broadway is approximately 42 feet wide with one travel lane in each direction. Curbside parking is allowed on both sides of the roadway, and sidewalks are provided on both sides of the roadway. The intersection of Broadway/21st Street is signalized with high-visibility crosswalks striped across all legs. Left-turns are prohibited on the northbound and southbound approaches from 7:00AM-9:00AM and 4:00PM-7:00PM, Monday to Friday.
- *31st Avenue* – Within the study area, 31st Avenue is a two-way, east-west roadway classified as a Principal Arterial. 31st Avenue extends between Vernon Boulevard to the west and Astoria Boulevard to the east. In the study area, 31st Avenue is approximately 39 feet wide with one travel lane in each direction. Curbside parking is allowed on both sides of the roadway, and sidewalks are provided on both sides of the roadway. The intersection of 31st Avenue/21st Street is signalized with high-visibility crosswalks striped across all legs. Left-turns are prohibited on the northbound and southbound approaches from 7:00AM-9:00AM and 4:00PM-7:00PM, Monday to Friday.
- *30th Drive* – Within the study area, 30th Drive is a one-way, eastbound roadway classified as a Local Street. 30th Drive extends between Vernon Boulevard to the west and 31st Street to the east. In the study area, 30th Drive is approximately 29 feet wide with one eastbound travel lane. Curbside parking allowed on both sides of the roadway. The intersection of 30th Drive/21st Street is signalized with high-visibility crosswalks striped across all legs. Left-turns are prohibited on the southbound approach from 7:00AM-9:00AM and 4:00PM-7:00PM, Monday to Friday.
- 30th *Road* – Within the study area, 30th Road is a one-way, westbound roadway classified as a Local Street. 30th Road extends between Vernon Boulevard to the west and 29th Street to the east. In the study area, 30th Road is approximately 30 feet wide with one westbound travel lane. Curbside parking allowed on both sides of the roadway. The intersection of 30th Road/21st Street is stop-controlled with high-visibility crosswalks striped across all legs.



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Traffic Study Area Intersections

Figure 2.8-1

- *30th Avenue* – Within the study area, 30th Avenue is a two-way, east-west roadway classified as a Principal Arterial. 30th Avenue extends between 8th Street to the west and 57th Street to the east. In the study area, 30th Avenue is approximately 38 feet wide with one travel lane in each direction. Curbside parking is allowed on both sides of the roadway, and sidewalks are provided on both sides of the roadway. The intersection of 30th Avenue/21st Street is signalized with high-visibility crosswalks striped across all legs. Left-turns are prohibited on the northbound and southbound approaches from 7:00AM-9:00AM and 4:00PM-7:00PM, Monday to Friday.

Study Area Intersections

The traffic study area (**Figure 2.8-1**) was defined to include three study intersections in the proximity of the development site that have the potential to experience increases of more than 50 vehicles per hour as a result of the proposed action. These three study intersections are as follows:

- Broadway/21st Street (signalized);
- 31st Avenue/21st Street (signalized); and
- 30th Drive/21st Street (signalized).

A comprehensive data collection effort was undertaken at these three intersections to obtain the necessary data required for the traffic operations analysis.

Traffic Data Collection

Data were collected in the field at all three study intersections in April 2017. The traffic data collection effort included:

- Automatic Traffic Recorder (ATR) counts on 21st Street between 30th Road and 30th Drive and 21st Street between 31st Avenue and Broadway, for the duration of ten days,
- video turning movement and vehicle classification counts,
- conflicting pedestrian crossing counts, and
- a comprehensive inventory of roadway geometrics and physical operating characteristics at each study intersection.

Intersection Inventory

The physical and operational characteristics of each study intersection were inventoried in the field. This inventory specifically included:

- Street directions;
- Number and configuration of lanes;
- Crosswalk locations and crosswalk widths;
- Curbside parking regulations;
- Turning restrictions and prohibitions;
- Type of intersection traffic control; and
- Bus stop locations.

Official traffic signal timings were obtained from the New York City Department of Transportation (NYCDOT) for each of the signalized study area intersections.

ATR Counts

For a period of ten days, beginning Saturday, April 22, 2017, ATR counts were conducted continuously at 15-minute intervals along 21st Street (in both directions) between 30th Road and 30th Drive, and 21st Street between 31st Avenue and Broadway.

Video Turning Movement and Vehicle-Classification Counts

Camera turning movement and three-way vehicle classification counts were collected at each of the study intersections. These counts were performed at 15-minute intervals during the weekday AM (6:00 to 9:00 AM), midday (11:00 to 2:00 PM), and PM (4:00 to 7:00 PM) peak periods. During the counts, vehicles

were classified as autos, trucks, and buses. Based on the summary of the turning movement counts, the weekday AM, midday, and PM peak hours for the traffic analysis were determined to be the following:

- Weekday AM Peak Hour: 7:15 to 8:15 AM
- Weekday Midday Peak Hour: 1:00 to 2:00 PM
- Weekday PM Peak Hour: 4:15 to 5:15 PM

Figures 2.8-2, **2.8-3**, and **2.8-4** show the turning movement volumes at each of the study intersections during the weekday AM, midday, and PM peak hours, respectively, under year 2017 existing conditions.

As noted in the "Street Network" section above, there are left-turn prohibitions at the following intersections:

- Broadway/21st Street - Left-turns are prohibited on the northbound and southbound approaches from 7:00AM-9:00AM and 4:00PM-7:00PM, Monday to Friday.
- 31st Avenue/21st Street - Left-turns are prohibited on the northbound and southbound approaches from 7:00AM-9:00AM and 4:00PM-7:00PM, Monday to Friday.
- 30th Drive/21st Street - Left-turns are prohibited on the southbound approach from 7:00AM-9:00AM and 4:00PM-7:00PM, Monday to Friday.

During the data collection effort, it was observed that vehicles are illegally making the prohibited left-turn movements during the weekday AM and PM peak hours. These "illegal" left-turn movements are shown on the traffic flow maps (in red on the existing flow maps, **Figures 2.8-2** and **2.8-4**); and are included in the traffic analysis, for the weekday AM and PM peak hours, for all conditions (Existing, Future No-Action and Future With-Action).

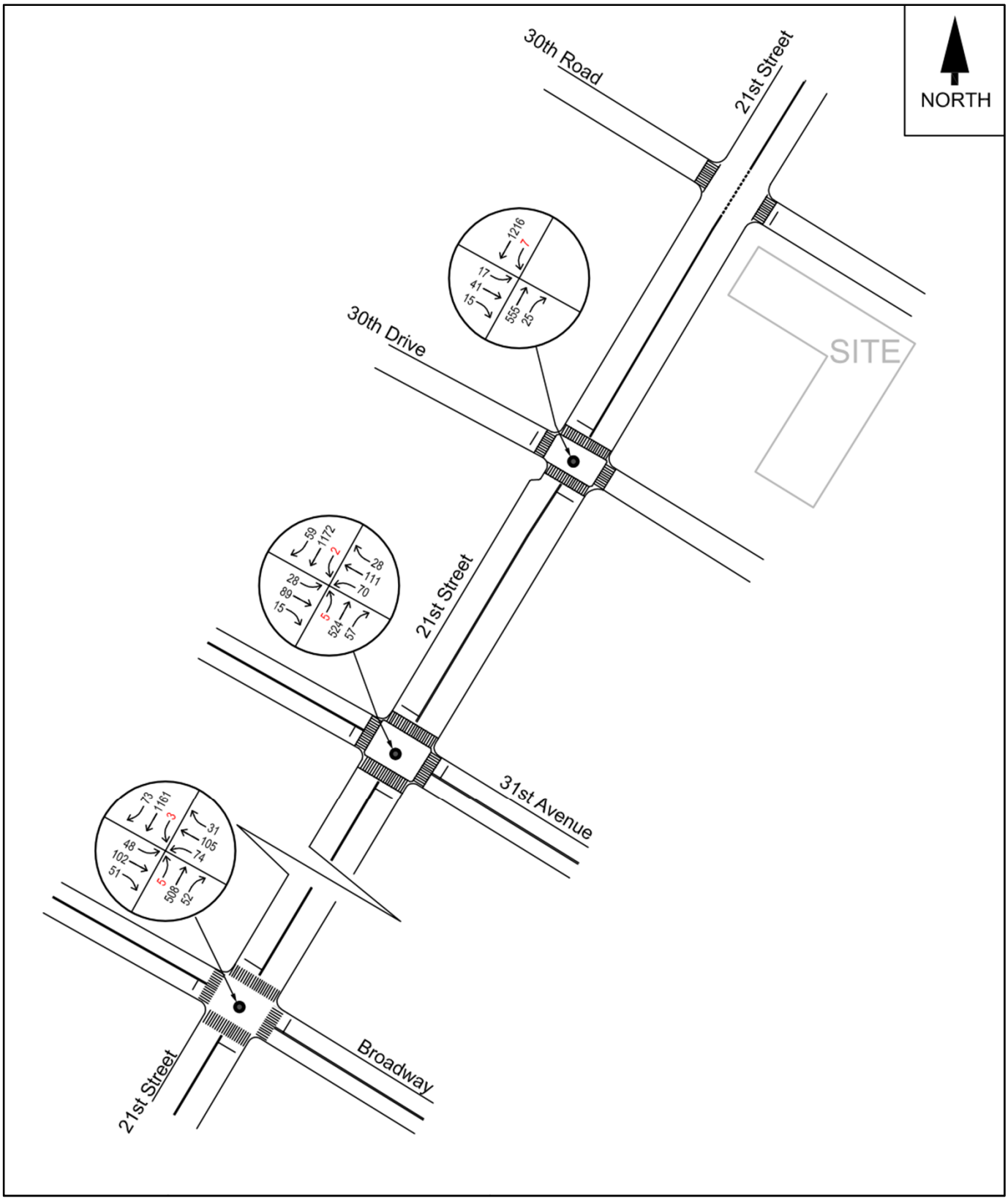
Capacity Analysis Methodology

The capacity analyses for the study-area intersections are based on the methodologies described in the *2000 Highway Capacity Manual (HCM)* and were conducted using *Highway Capacity Software (HCS+) Release 5.5*. The official traffic signal phasing sequences and timing plans obtained from NYCDOT were used in the analysis of all signalized intersections.

For signalized intersections, the *HCM* methodology calculates a volume-to-capacity (v/c) ratio for each approach or lane group. The v/c ratio represents the ratio of traffic volumes on the approach to the approach's vehicle-carrying capacity. At v/c ratios between 0.95 and 1.00, traffic volumes approach capacity and delays to motorists could become substantial. Volume-to-capacity ratios exceeding 1.00 indicate saturated conditions, typically characterized by long delays and building queues.

The *HCM* methodology also expresses the quality of flow for an approach or lane group in terms of level-of-service (LOS), a measure based on the average control delay that motorists experience when traveling through the intersection. Control delay includes delays associated with acceleration, deceleration, and queue move-up time, in addition to stopped delay at the intersection. For signalized intersections, LOS ranges on a letter-grade scale from "A" (average control delays of 10 seconds or less per vehicle) to "F" (average control delays exceeding 80 seconds per vehicle).

For unsignalized intersections, the *HCM* methodology assumes that major-street through and right-turning traffic is unaffected by turning movements from the minor street. Left-turns from the major street are assumed to be affected by the opposing (oncoming) major-street traffic flow. Minor-street traffic movements are affected by all of the conflicting higher-priority movements described above.



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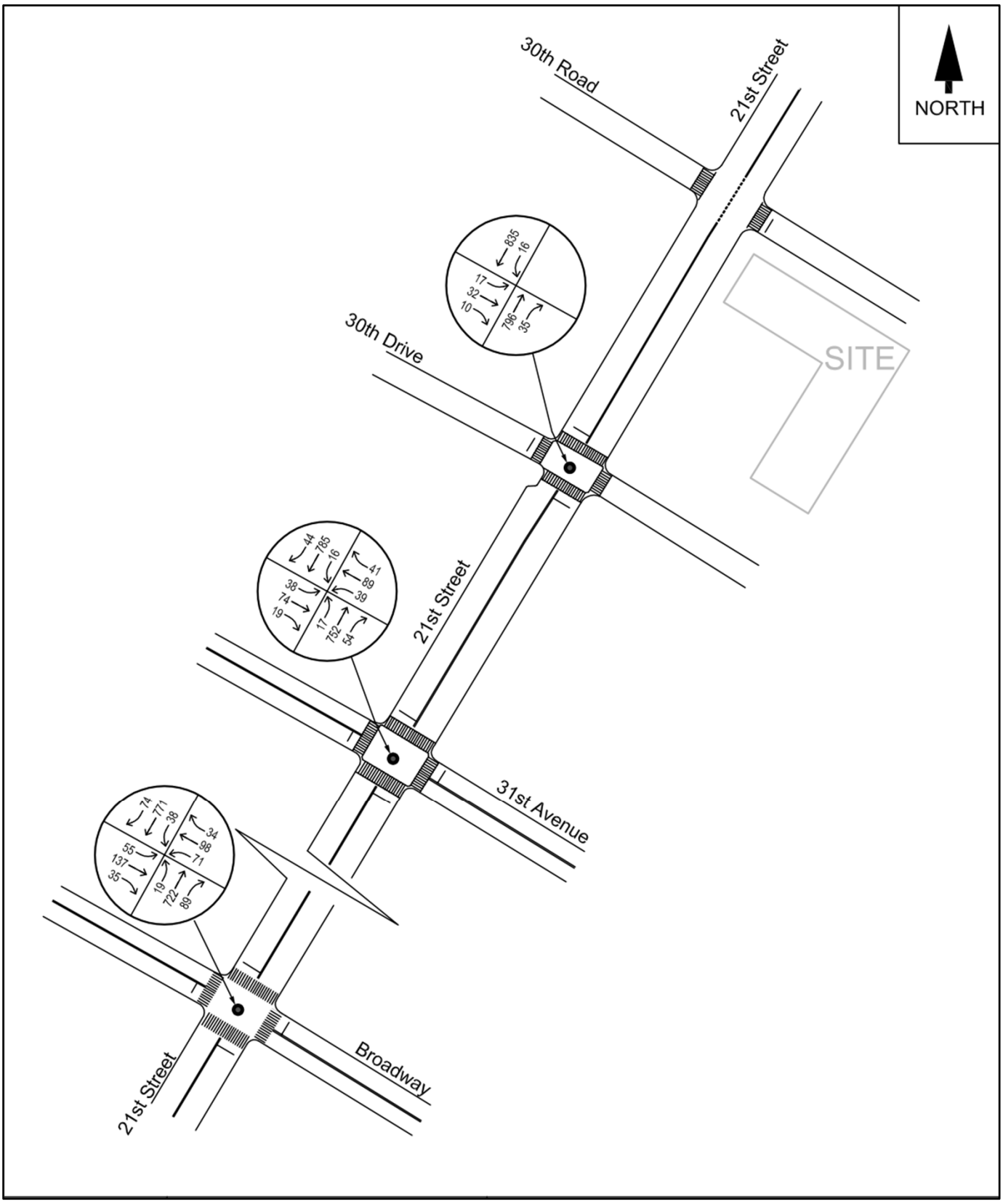
Existing Conditions
Traffic Volumes,
Weekday AM Peak Hour

Figure 2.8-2



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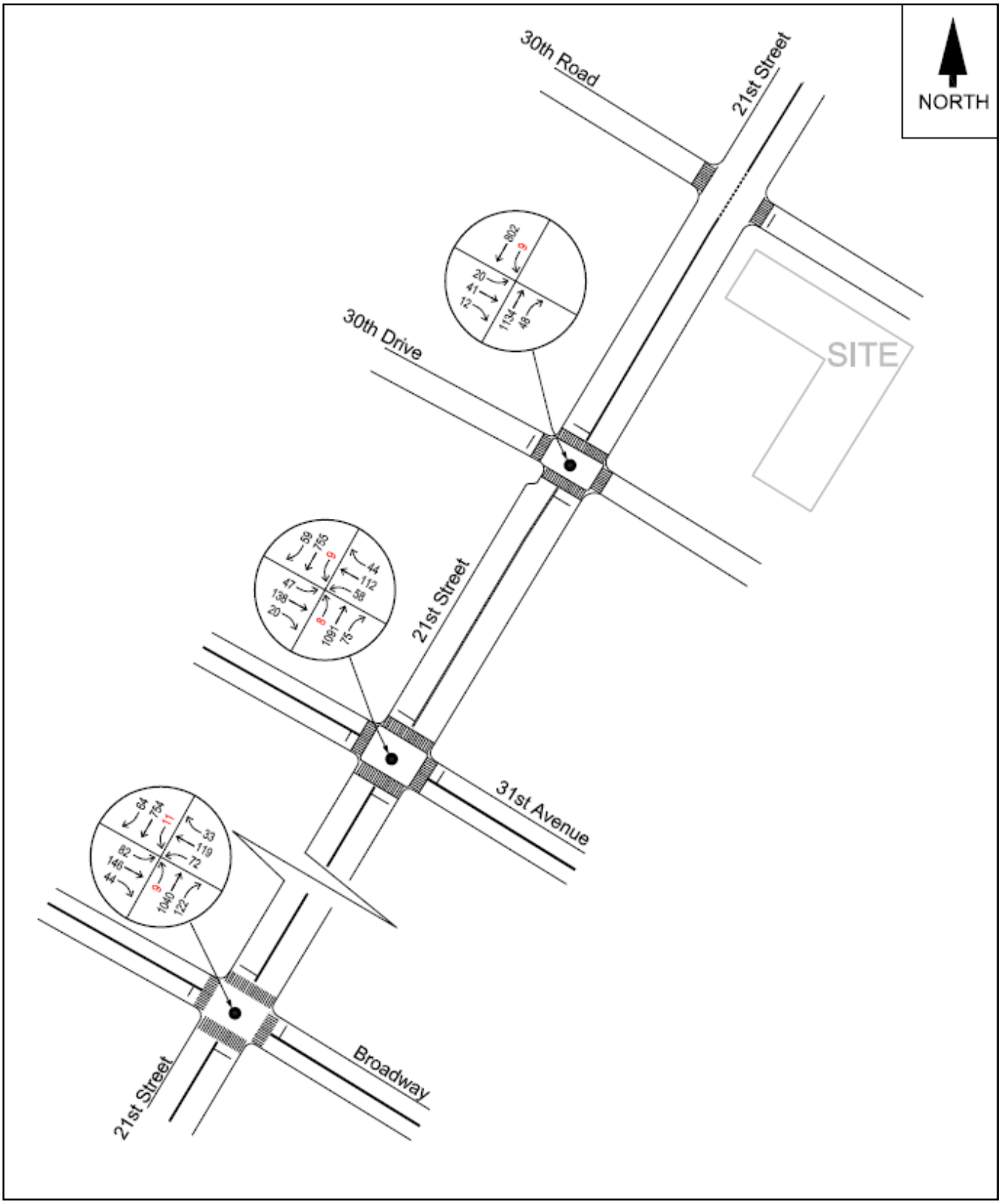
Existing Conditions
Traffic Volumes,
Weekday Midday Peak Hour

Figure 2.8-3



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Existing Conditions
Traffic Volumes,
Weekday PM Peak Hour

Figure 2.8-4

As with signalized intersections, the *HCM* methodology for unsignalized intersections expresses the quality of flow in terms of both v/c ratio and a letter-grade LOS, with LOS based on the average control delay experienced by motorists making left-turns from the major street or turns from the minor-street approach. However, the relationships between delay and LOS for unsignalized intersections are different from those for signalized intersections, primarily because motorists expect different levels of performance from these two types of intersections. For unsignalized intersections, LOS ranges from "A" (average control delays of 10 seconds or less per vehicle) to "F" (average control delays exceeding 50 seconds per vehicle).

Table 2.8-1 shows the relationships between average control delay and LOS for signalized and unsignalized intersections using the *HCM* methodologies. Levels-of-service "A", "B" and "C" generally represent extremely favorable to fair levels of traffic flow. At LOS "D", delays increase and the influence of congestion becomes noticeable. LOS "E" is considered to be the limit of acceptable delay for most motorists. LOS "F" is considered to be unacceptable to most motorists, with traffic flow at, or exceeding, the capacity of the roadway.

Table 2.8-1 Level-of-Service Criteria

Level-of-Service	Average Control Delay (seconds per vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Source: *2000 Highway Capacity Manual*.

Capacity Analysis

Using the existing turning movement volumes shown in **Figures 2.8-2, 2.8-3 and 2.8-4,** traffic operations analyses were conducted for each of the study intersections for the weekday AM, midday, and PM peak hours. The three study intersections were calibrated based on the most recent NYCDOT calibration guidelines.

Table 2.8-2 shows the results of these analyses, including volume-to-capacity ratios, average control delays, corresponding levels-of-service, and 85th percentile queue lengths. The 85th percentile queue represents the distance from the intersection that vehicle queues would not exceed for 85 percent of the time during the peak 15-minute period of the peak hour. In other words, this queue would be exceeded only approximately 15 percent of the time during the peak 15 minutes of the peak hour.

As shown in **Table 2.8-2**, all approaches at each of the study intersections currently operate at LOS "D" or better during the weekday AM, midday, and PM peak hours with the exception of the following:

- **31st Avenue /21st Street**– During the weekday AM peak hour, the westbound shared lane currently operates near capacity at LOS "E."
- **Broadway/21st Street** – During the weekday AM, Midday and PM peak hours, the eastbound shared lane currently operates at LOS "F". During the weekday AM, Midday and PM peak hours, the westbound shared lane operates over-capacity at LOS "F."

Table 2.8-2 LOS, Existing Conditions

Intersection	Approach	Movement	Weekday AM Peak Hour (7:15-8:15 AM)				Weekday Midday Peak Hour (1:00-2:00 PM)				Weekday PM Peak Hour (4:30-5:30 PM)			
			v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue
SIGNALIZED INTERSECTIONS														
30th Drive / 21st Street	EB	LTR	0.20	31.5	C	3.8	0.16	30.9	C	3.1	0.20	28.3	C	3.7
	NB	TR	0.47	14.0	B	11.2	0.59	16.0	B	15.6	0.82	25.8	C	31.1
	SB	LT	0.87	26.2	C	34.8	0.62	16.9	B	16.8	0.62	19.2	B	17.9
	Overall		**0.64**	**22.4**	**C**	**-**	**0.47**	**17.0**	**B**	**-**	**0.58**	**23.2**	**C**	**-**
31st Avenue / 21st Street	EB	LTR	0.48	40.9	D	7.5	0.50	42.0	D	7.4	0.53	38.5	D	10.3
	WB	LTR	0.79	57.7	E	14.3	0.68	50.5	D	10.7	0.63	42.6	D	11.9
	NB	LTR	0.50	16.0	B	11.4	0.68	20.2	C	18.4	0.93	37.5	D	37.8
	SB	LTR	0.92	33.5	C	39.3	0.69	20.2	C	20.1	0.68	22.6	C	20.0
	Overall		*	**31.8**	**C**	**-**	*	**24.5**	**C**	**-**	*	**32.8**	**C**	**-**
Broadway / 21st Street	EB	LTR	1.00	131.4	F	19.5	0.98	108.8	F	21.0	1.04	137.3	F	23.0
	WB	LTR	1.04	149.8	F	19.1	1.03	150.9	F	18.2	1.03	142.1	F	19.5
	NB	LTR	0.53	17.3	B	12.0	0.73	22.2	C	21.4	0.91	33.3	C	37.4
	SB	LTR	0.98	43.5	D	44.9	0.80	25.5	C	22.8	0.69	20.9	C	20.0
	Overall		*	**54.7**	**D**	**-**	*	**44.9**	**D**	**-**	*	**48.9**	**D**	**-**

Notes:

v/c = volume-to-capacity ratio; LOS = Level-of-Service

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

L = Left-Turn; T = Through; R = Right-Turn;

LT = Left-Turn/Through; TR = Through/Right-Turn; LR = Left-Turn/Right-Turn; LTR = Left-Turn/Through/Right-Turn

Average Control Delay shown in units of seconds/vehicle

85th-Percentile Queue shown in units of vehicles.

* = overall v/c ratio not calculated for this intersection.

Future No-Action Scenario

The Future No-Action Condition traffic analysis identifies how the study area's transportation system is projected to operate in the future without the proposed action. As such, the Future No-Action Condition traffic analysis includes anticipated future increases in background traffic volumes, but does not include traffic generated by the proposed action. The proposed project is anticipated to be in place by 2021. Therefore, the horizon year for all future conditions traffic analyses is 2021.

Planned Future Developments and Transportation System Improvements

As part of this analysis, staff at the NYCDCP and NYCDOT was contacted in order to identify any significant planned future developments or transportation improvement projects anticipated to occur within the study area between 2017 and 2021. Based on conversations with NYCDCP, traffic volumes from four planned developments were included in the Future No-Action Condition: The four planned No-Action developments are as follows:

- 21-13 31st Avenue (Block 551, Lot 8): This site will contain a 54,879-gsf residential building with 56 dwelling units and 28 accessory parking spaces.
- 21-03 31st Avenue (Block 551, Lot 13): The site is being developed with a mixed-use 20,936-gsf building that will house 24 residential units, approximately 2,192 gsf of ground-floor commercial space and one accessory parking space.
- 14-53 31St Avenue (Block 534, Lot 1): The site will contain a 41,038-gsf residential building with 49 dwelling units and 25 accessory parking spaces.
- 14-45 31St Avenue (Block 534, Lot 106): The site will by occupied by a 14,260-gsf residential building with 18 dwelling units and nine accessory parking spaces.

In addition to the above planned developments, based on a comment received from NYCDOT, traffic generation and mitigation from Phase I of the Cornell Tech Development (CEQR No. 12DME004M) was included in the Future No-Action condition. This development was under construction in 2017 when traffic counts for this project were taken, and as such, the baseline counts would have included traffic generated by the completed and occupied portion of the development. However, in order to be conservative, the full traffic generation for the Cornell Tech Development for Phase I (2018) was included in the Future No-Action condition.

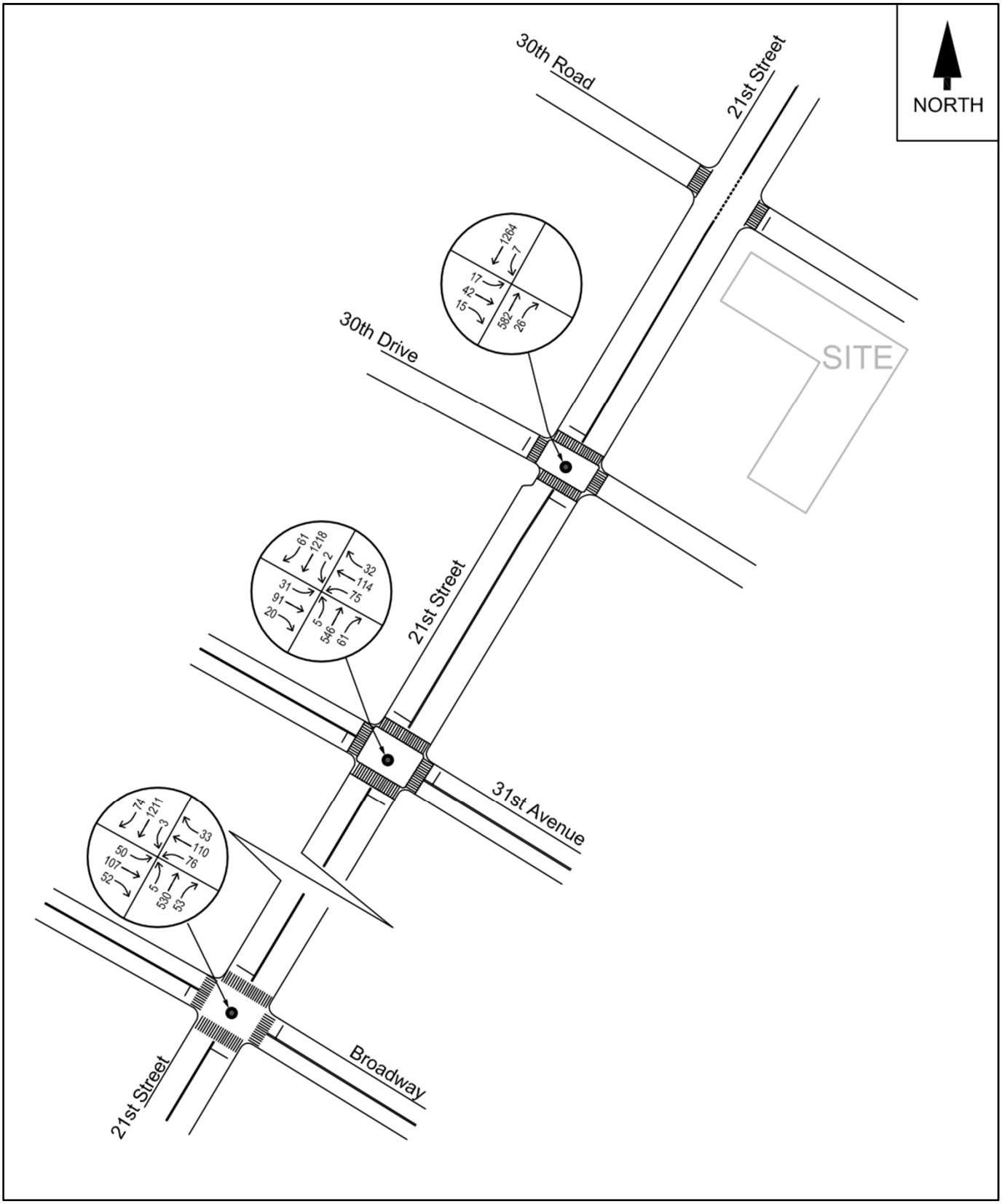
In addition, in accordance with the Phase I Mitigation for Cornell Tech, one second of green time was shifted from the north-south phase to the east-west phase during the weekday Midday and PM peak hours.

No transportation system improvements were identified at any of the study area intersections through 2021.

Future Without the Proposed Action Traffic Volumes and Levels-of-Service

During the 2017 to 2021 period, it is expected that vehicular travel demands in the study area will increase. In order to forecast future traffic demands without the proposed action, the applicable growth rates in the March 2014 *CEQR Technical Manual* for "Other Queens" were compounded over four years resulting in 2.02 percent total growth[23]. This growth rate was applied to the existing traffic volumes. The resulting year 2021 Future No-Action traffic volumes are shown in **Figures 2.8-5, 2.8-6, and 2.8-7** for the weekday AM, midday, and PM peak hours, respectively.

[23] A compounded growth rate of 2.02% is calculated based on 0.50% growth from 2017 to 2021 in accordance with *CEQR Technical Manual* guidelines.



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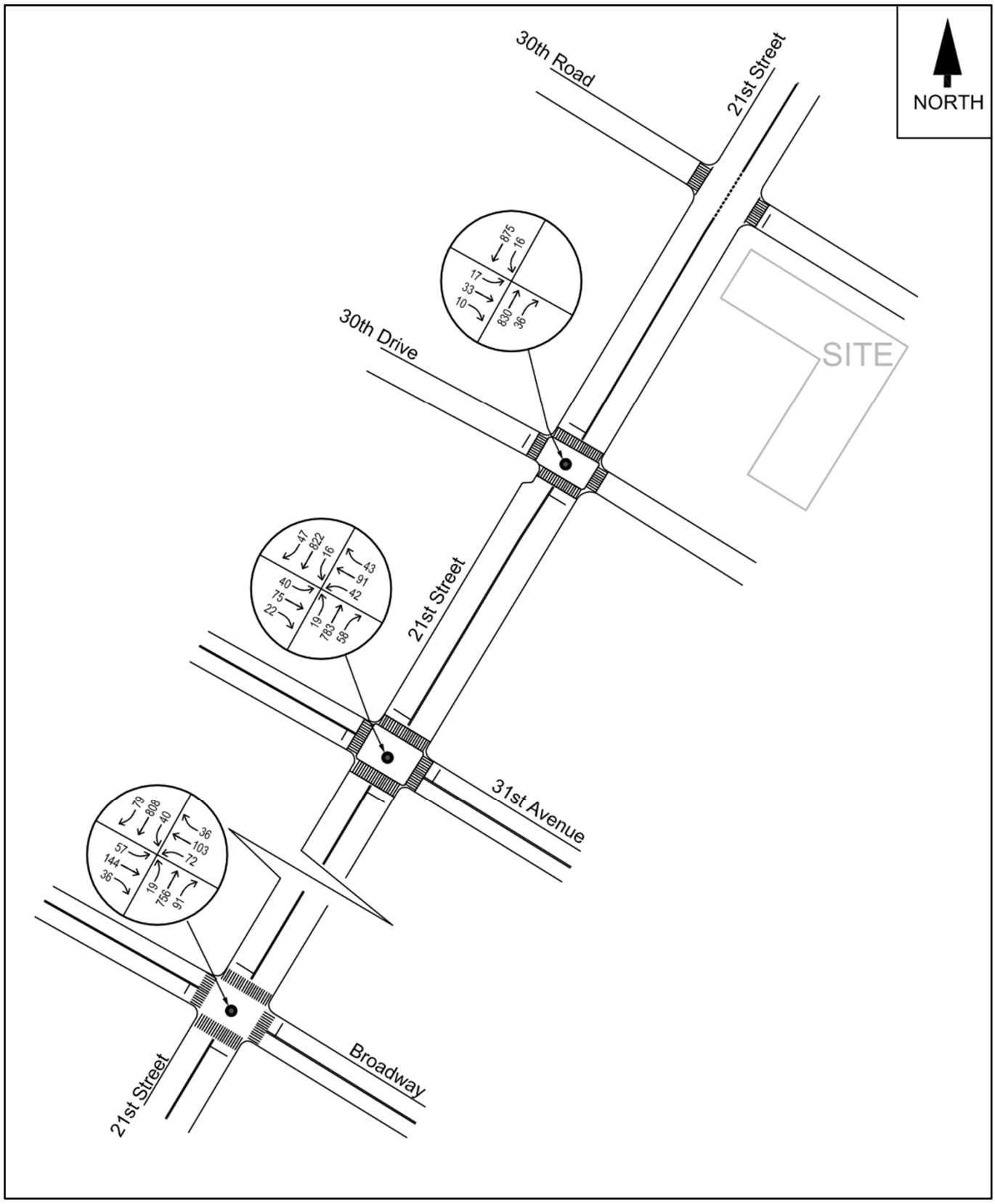
Future No-Action
Traffic Volumes,
Weekday AM Peak Hour

Figure 2.8-5



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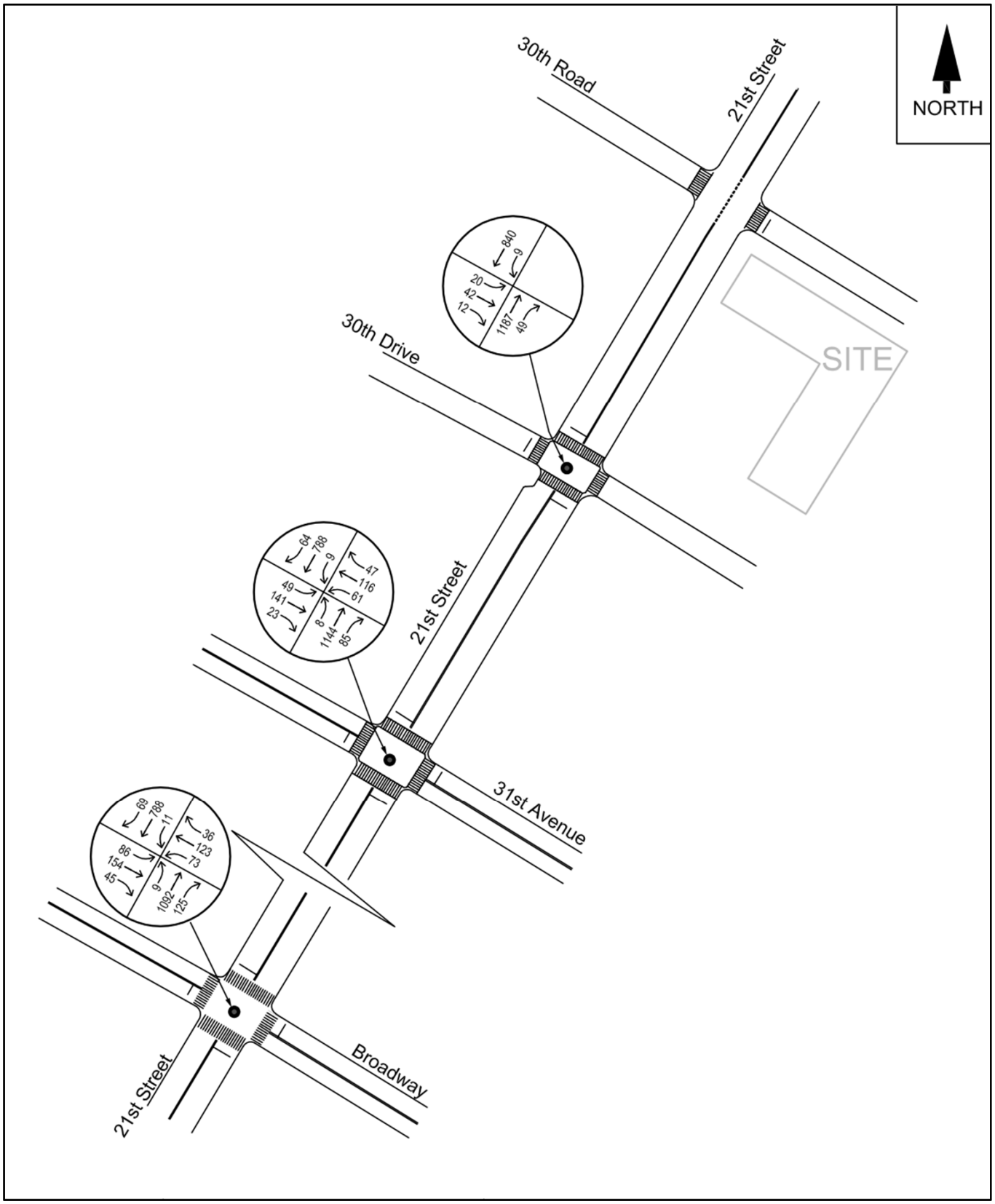
Future No-Action
Traffic Volumes,
Weekday Midday Peak Hour

Figure 2.8-6



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Variety Boys and Girls Club
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Future No-Action
Traffic Volumes,
Weekday PM Peak Hour

Figure 2.8-7

Capacity Analysis

Using Future No-Action traffic volumes shown in **Figures 2.8-5** through **2.8-7**, intersection capacity analyses were conducted using the *HCM* methodologies. As shown in **Table 2.8-3**, all approaches at each of the study intersections are projected to continue to operate at LOS "D" or better during the weekday AM, midday, and PM peak hours, with the exception of the following:

- **31st Avenue/21st Street** – During the weekday AM peak hour, the westbound shared lane will operate near capacity at LOS "E."
- **Broadway/21st Street** – During the weekday AM, Midday and PM peak hours, the eastbound shared lane is projected to operate at LOS "F". During the weekday AM, Midday and PM peak hours, the westbound shared lane is projected to operate over-capacity at LOS "F". During the weekday AM peak hour, the southbound approach is projected to operate at LOS "E".

Table 2.8-3 LOS, Future No-Action Scenario

Intersection	Approach	Movement	Weekday AM Peak Hour (7:15-8:15 AM)				Weekday Midday Peak Hour (1:00-2:00 PM)				Weekday PM Peak Hour (4:30-5:30 PM)			
			v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue
SIGNALIZED INTERSECTIONS														
30th Drive / 21st Street	EB	LTR	0.20	31.5	C	3.9	0.16	31.0	C	3.1	0.20	28.3	C	3.7
	NB	TR	0.50	14.4	B	12.0	0.61	16.6	B	16.7	0.86	28.2	C	34.7
	SB	LT	0.90	29.1	C	38.5	0.65	17.6	B	18.1	0.64	19.9	B	19.3
	Overall		**0.66**	**24.3**	**C**	**-**	**0.49**	**17.6**	**B**	**-**	**0.61**	**24.8**	**C**	**-**
31st Avenue / 21st Street	EB	LTR	0.52	42.5	D	8.4	0.53	43.2	D	7.9	0.57	39.8	D	10.9
	WB	LTR	0.87	67.8	E	16.3	0.71	52.7	D	11.3	0.68	45.3	D	12.9
	NB	LTR	0.52	16.4	B	12.2	0.72	21.6	C	20.3	0.98	46.0	D	43.5
	SB	LTR	0.96	38.9	D	43.8	0.72	21.2	C	22.0	0.71	23.7	C	21.9
	Overall		*	**36.2**	**D**	**-**	*	**25.8**	**C**	**-**	*	**37.6**	**D**	**-**
Broadway / 21st Street	EB	LTR	1.05	145.4	F	21.4	0.99	111.7	F	21.9	1.07	141.6	F	24.5
	WB	LTR	1.09	166.3	F	20.9	1.03	147.6	F	18.8	1.03	139.3	F	20.0
	NB	LTR	0.56	17.9	B	13.0	0.77	24.5	C	23.8	0.97	42.8	D	44.0
	SB	LTR	1.02	53.4	D	50.0	0.87	31.3	C	27.0	0.74	23.0	C	22.3
	Overall		*	**63.0**	**E**	**-**	*	**48.0**	**D**	**-**	*	**54.2**	**D**	**-**

Notes:

v/c = volume-to-capacity ratio; LOS = Level-of-Service

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

L = Left-Turn; T = Through; R = Right-Turn;

LT = Left-Turn/Through; TR = Through/Right-Turn; LR = Left-Turn/Right-Turn; LTR = Left-Turn/Through/Right-Turn

Average Control Delay shown in units of seconds/vehicle

85th-Percentile Queue shown in units of vehicles.

* = overall v/c ratio not calculated for this intersection.

Future With-Action Scenario

The Future With-Action Scenario traffic analysis identifies how the study area's transportation system is projected to operate in the 2021 analysis year with the addition of vehicular traffic generated by the proposed action. In this analysis, the projected weekday AM, midday, and PM peak hour vehicle trips associated with the proposed action were added to the respective Future No-Action traffic volumes to arrive at projected Future With-Action traffic volumes. Intersection LOS analyses were then repeated for both analysis peak hours based on the projected Future With-Action traffic volumes, in order to evaluate the performance of the transportation system with the inclusion of vehicular traffic associated with the proposed action. The results of the Future No-Action and Future With-Action Conditions analyses were then compared to identify any potential significant traffic impacts associated with the proposed action.

Proposed Action Scenario

As discussed in Section 1.6, a reasonable worst case development scenario was developed for the proposed action. The incremental amount of development that would be added by the proposed action is summarized below in **Table 2.8-4** below.

Table 2.8-4 Summary of Development Densities under the Proposed Action Scenario

Existing Condition			No-Action Condition			With-Action Condition			Increments		
DUs	Local Retail	Community Facility	DUs	Local Retail	Community Facility	DUs*	Local Retail	Community Facility	DUs*	Local Retail	Community Facility
0	0	30,291	99	0	30,291	280	7,779	114,430	181	7,779	84,139

* Includes 54 affordable housing units and 127 market-rate units.

Trip Generation

In order to determine the number of trips generated by the proposed action, trip generation estimates were prepared for each of the land uses proposed as part of the zoning amendment, namely residential, local retail, and community facility uses (community center). Under the proposed action, there would be approximately 181 new dwelling units (including affordable 54 units), approximately 7,779 square feet of new local retail space, and an increase of approximately 84,139 square feet of community facility use. The trip generation estimates were prepared based on standard transportation planning assumptions provided in the March 2014 *CEQR Technical Manual,* as well as those approved for use by NYCDCP staff as part of the *Flushing Waterfront Rezoning EA* in 2017. **Tables 2.8-5** and **2.8-6** show the estimated person-trips and vehicle-trips, respectively, for the proposed action during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours, as well as the associated transportation planning assumptions.

As noted previously, although the proposed action is projected to generate a total of approximately 65 vehicle trips during the Saturday midday peak hour, vehicular traffic in the study area is higher during the weekday midday peak hour than during the Saturday midday peak hour. Therefore, a Saturday midday peak hour traffic analysis was not conducted because the weekday midday peak hours were determined to have a higher combination of both background traffic in the study area and project-generated traffic, resulting in the worst-case scenario for analysis purposes.

Table 2.8-5 Project-Generated Person-Trip Generation Estimate

Land Use	Size	No. of Units	Weekday Daily Person Trip Rate	Saturday Person-Trip Rate	Temporal Distribution (%)				Estimated Person-Trip Generation Characteristics			
					Weekday AM	Weekday MD	Weekday PM	Saturday MD	Weekday AM	Weekday MD	Weekday PM	Saturday MD
Residential - Market Rate	180,707 sq. ft.	127	8.075 per dwelling unit	9.6 per dwelling unit	10.0%	5.0%	11.0%	8.0%	103	51	113	98
Residential - Affordable		54	8.075 per dwelling unit	9.6 per dwelling unit	10.0%	5.0%	11.0%	8.0%	44	22	48	41
Local Retail	7,779 sq. ft.		205 per 1,000 sf	240 per 1,000 sf	3.0%	19.0%	10.0%	10.0%	48	303	159	187
Community Facility	84,139 sq. ft.		44.7 per 1,000 sf	26.1 per 1,000 sf	4.0%	9.0%	5.0%	9.0%	150	338	188	198
TOTALS =		**181**			**TOTAL PERSON-TRIPS =**				**344**	**715**	**508**	**523**

Notes:

Trip generation rates and temporal distributions for Residential (Market Rate and Affordable) based on *CEQR Technical Manual*.

Trip generation rates and temporal distributions for Local Retail based on *CEQR Technical Manual*.

Trip generation rates and temporal distributions for Community Facility based on Community Center land use from *Flushing Waterfront Rezoning EA*.

Table 2.8-6 Project-Generated Vehicle-Trip Generation Estimate

Land Use	Size	No. of Units	Estimated Person-Trip Generation Characteristics				Estimated Mode Split (AM, MD, PM, Saturday MD)							Estimated Vehicle-Trip Generation Characteristics										
														Weekday AM			Weekday MD			Weekday PM			Saturday MD		
			Weekday AM	Weekday MD	Weekday PM	Saturday MD	Auto	Taxi	Sub-way	Rail-road	Public Bus	Walk	Total	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential - Market Rate	180,707 sq. ft.	127	103	51	113	98	16.6%	0.8%	71.5%	0.7%	3.8%	6.6%	100.0%	18	4	14	9	5	4	19	12	7	16	9	7
Residential - Affordable		54	44	22	48	41	16.6%	0.8%	71.5%	0.7%	3.8%	6.6%	100.0%	8	2	6	4	2	2	8	5	3	7	4	3
Local Retail	7,779 sq. ft.		48	303	159	187	15.0%	0.0%	5.0%	0.0%	10.0%	70.0%	100.0%	4	2	2	23	12	12	12	6	6	14	7	7
Pass-by / Linked Trip Reduction=														*1*	*0*	*0*	*6*	*3*	*3*	*3*	*1*	*1*	*4*	*2*	*2*
Net New Trips =														3	1	1	17	9	9	9	5	5	11	5	5
Community Facility	84,139 sq. ft.		150	338	188	198	4.0%	9.0%	12.0%	0.0%	5.0%	70.0%	100.0%	26	16	10	56	31	25	30	9	21	31	15	16
TOTALS =		**181**	**344**	**715**	**508**	**523**								**54**	**23**	**32**	**86**	**46**	**40**	**66**	**31**	**35**	**65**	**34**	**31**

Notes:

Residential mode split and auto occupancy based on ACS 2015 journey-to-work census data for tracts 71, 73, 75, 77, 79, 81 and 83. Taxi occupancy assumed to be 1.4.

Residential truck trip generation rates and temporal distributions based on *CEQR Technical Manual*.

Local Retail mode split, auto occupancy (2.00) and taxi occupancy (2.00) based on *Flushing Commons FEIS* and *Flushing Waterfront Rezoning EA*.

Local Retail truck trip generation rates and temporal distributions based on *CEQR Technical Manual*.

Community Facility mode split,m auto occupancy (1.40), taxi occupancy (1.40), truck trip generation rates and temporal distributions based on *Flushing Waterfront Rezoning EA*.

Trip Distribution and Assignment

Figures 2.8-8 and **2.8-9** show the estimated vehicle trip distribution for the proposed local retail/ community facility and residential land uses, respectively. The trip distribution for the proposed local retail/ community facility was developed based on reverse journey-to-work census data for Census Tracts 71, 73, 75, 77, 79, 81 and 83 which comprises the proposed rezoning block and the surrounding adjacent blocks. The trip distribution for the proposed residential land use was developed based on journey-to-work census data for Census Tracts 71, 73, 75, 77, 79, 81 and 83.

Based on the estimated trip generation and the estimated trip distribution pattern, traffic assignments were prepared for the weekday AM, midday, and PM peak hours. **Figures 2.8-10, 2.8-11, and 2.8-12** show the resulting assignments of the incremental Action-generated turning movement volumes at the study intersections during the weekday AM, midday, and PM peak hours, respectively. **Figures 2.8-13, 2.8-14 and 2.8-15** show the resulting total traffic volumes under the year 2021 Future With-Action Condition for all three analysis peak hours, which are the sum of the project-generated traffic volumes and the traffic volumes under the Future No-Action Condition.

Capacity Analysis

Using the Future With-Action traffic volumes shown in **Figures 2.8-13 through 2.8-15**, intersection capacity analyses were conducted using the *HCM* methodologies. As shown in **Table 2.8-7**, all approaches at each of the study intersections are projected to continue to operate at LOS "D" or better during the weekday AM, midday, and PM peak hours, with the exception of the following:

- **31st Avenue /21st Street**– During the weekday AM and midday peak hours, the westbound shared lane will operate near capacity at LOS "E."

- **Broadway/21st Street** – During the weekday AM, Midday and PM peak hours, the eastbound shared lane currently is projected to operate at LOS "F." During the weekday AM, Midday and PM peak hours, the westbound shared lane is projected to operate over-capacity at LOS "F." During the weekday AM peak hour, the southbound approach is projected to operate at LOS "E".

Traffic Impacts

Traffic Impact Criteria

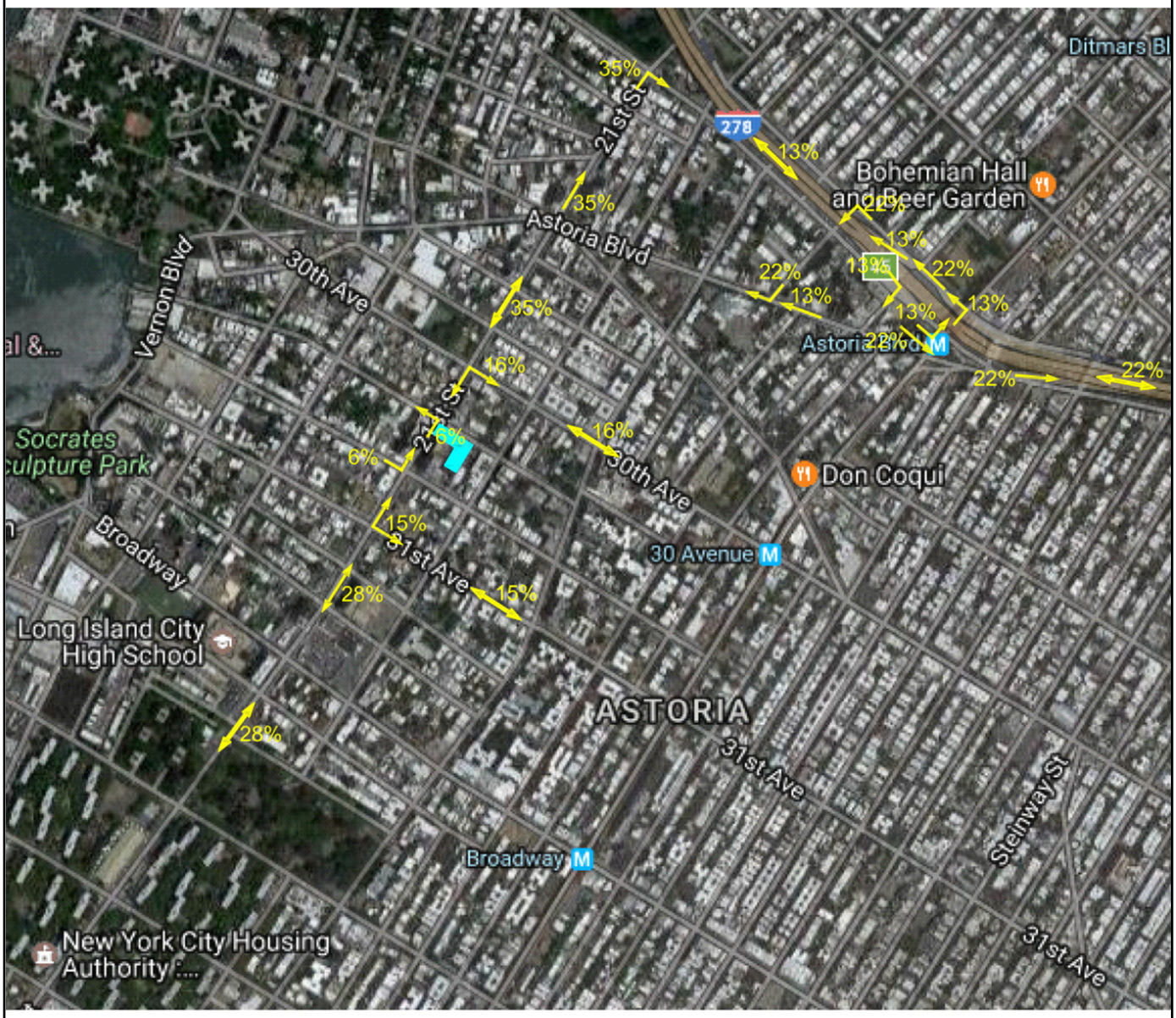
According to the thresholds established in the *CEQR Technical Manual*, the following situations represent potential significant traffic impacts for signalized intersections:

1) If a lane group under the With-Action Condition is within LOS "A", "B" or "C" or marginally acceptable LOS "D" (average control delay less than or equal to 45.0 seconds/vehicle), the impact is not considered significant. However, if a lane group under the No-Action Condition is within LOS "A," "B" or "C," then a deterioration under the With-Action Condition to worse than mid-LOS "D" (delay greater than 45.0 seconds/vehicle) should be considered a significant impact.

2) For a lane group with LOS "D" under the No-Action Condition, an increase in projected average control delay of 5.0 or more seconds should be considered significant if the With-Action delay exceeds mid-LOS "D" (delay greater than 45.0 seconds/vehicle).

3) For a lane group with LOS "E" under the No-Action Condition, an increase in projected delay of 4.0 or more seconds should be considered significant.

4) For a lane group with LOS "F" under the No-Action Condition, an increase in projected delay of 3.0 or more seconds should be considered significant.



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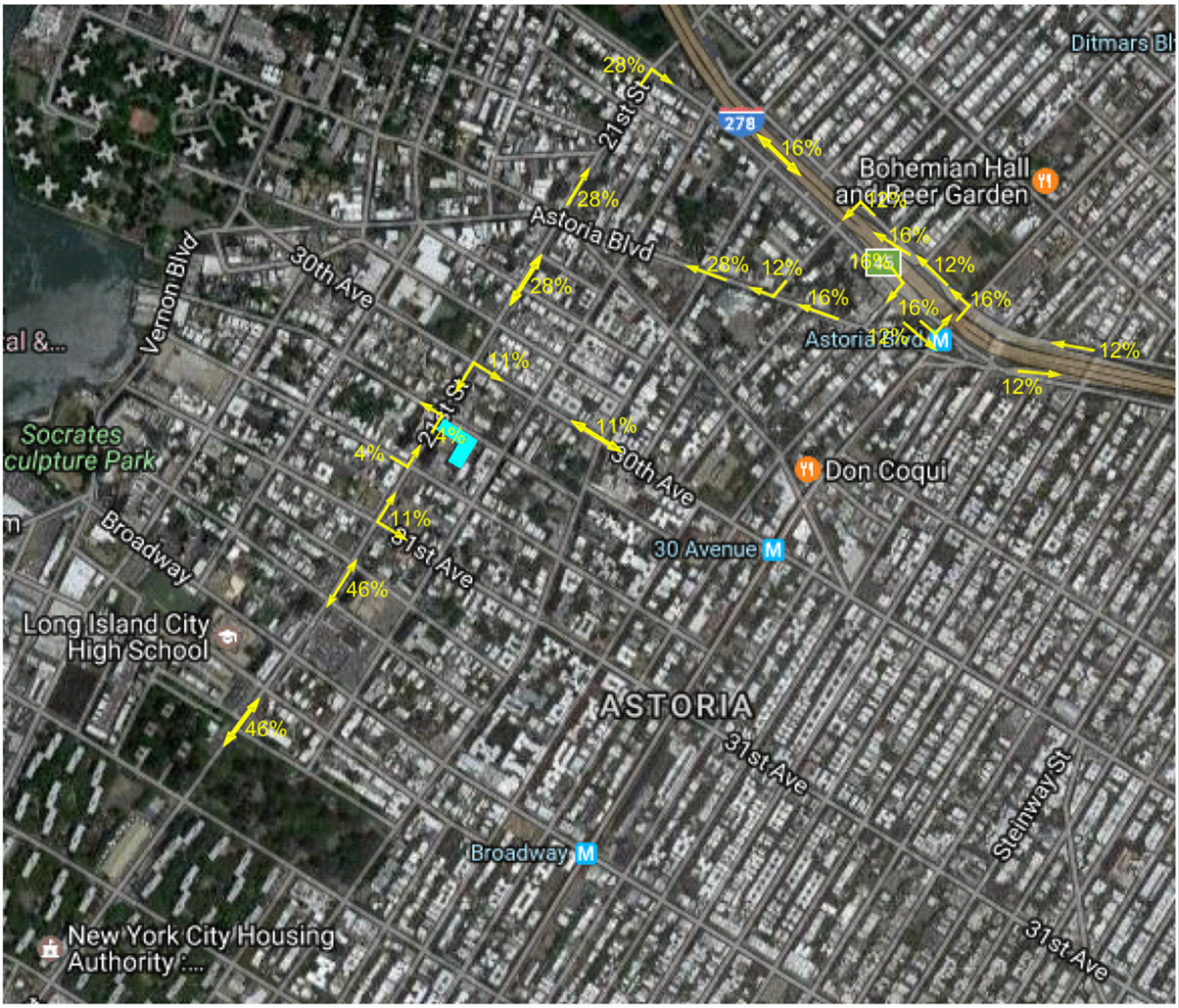
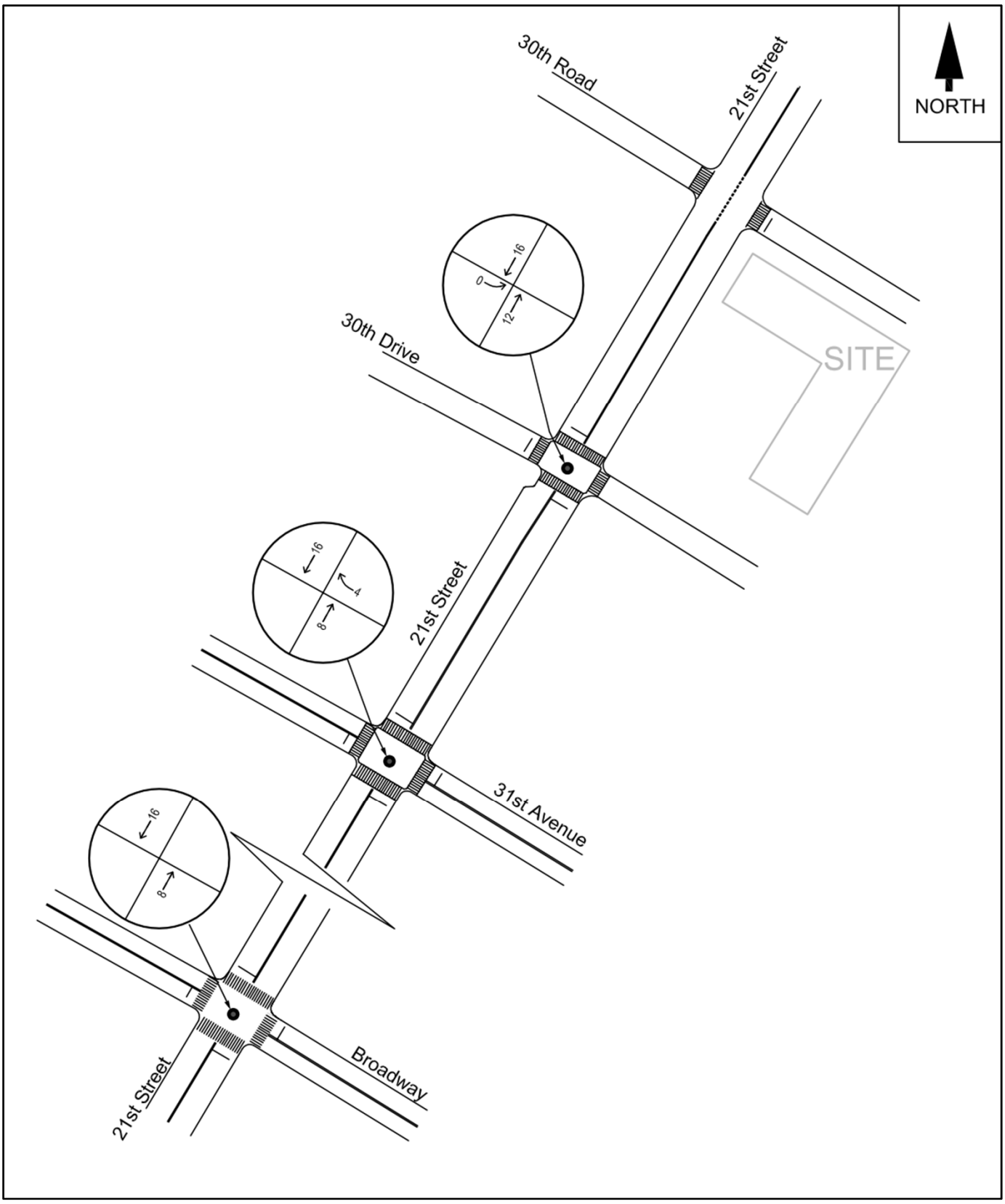
Estimated Local and Community Facility Trips Distribution Pattern

Figure 2.8-8



AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Estimated Residential Vehicle Trip Distribution Pattern** **Figure 2.8-9**



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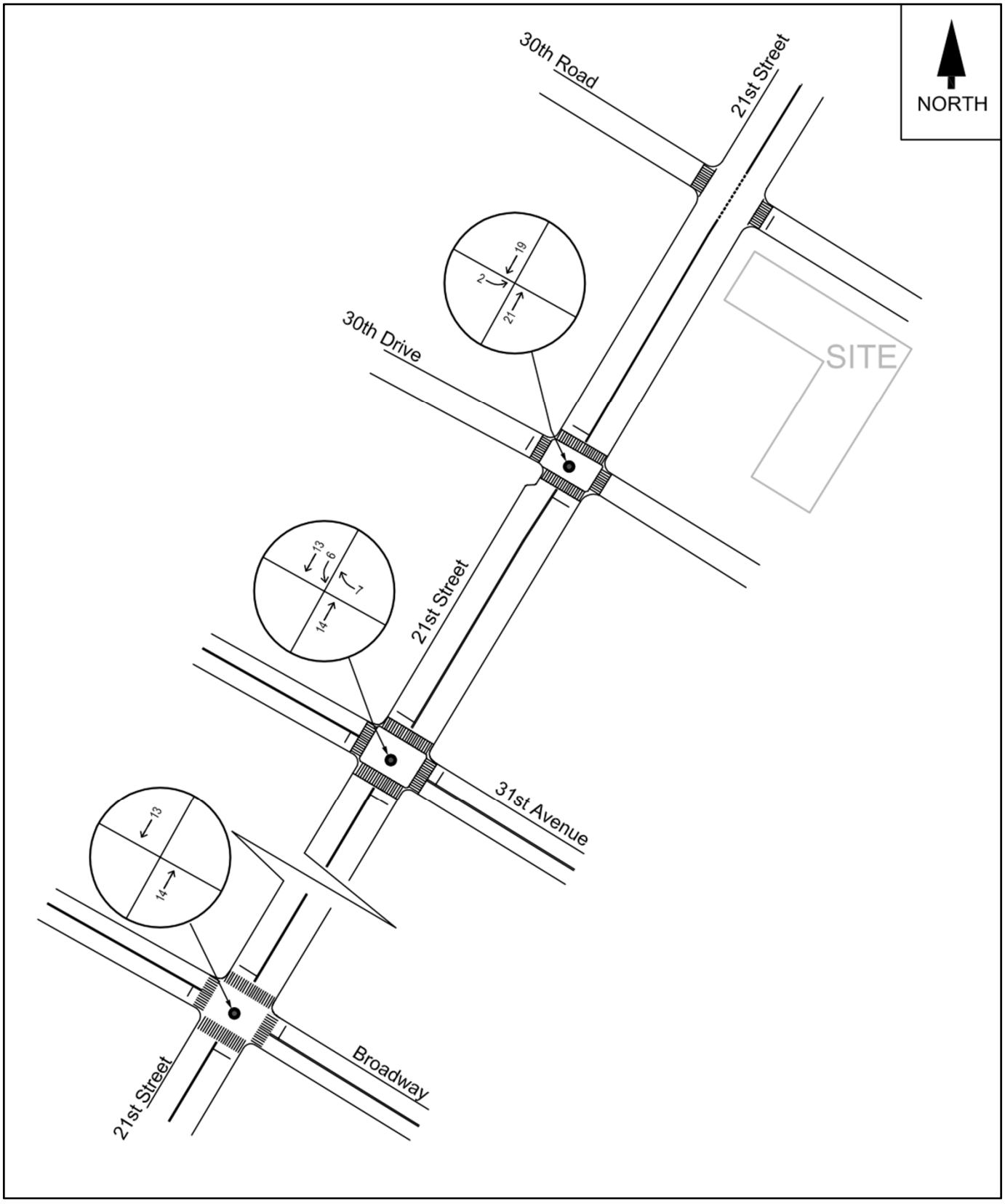
Project-Generated Traffic Assignments, Weekday AM Peak Hour

Figure 2.8-10



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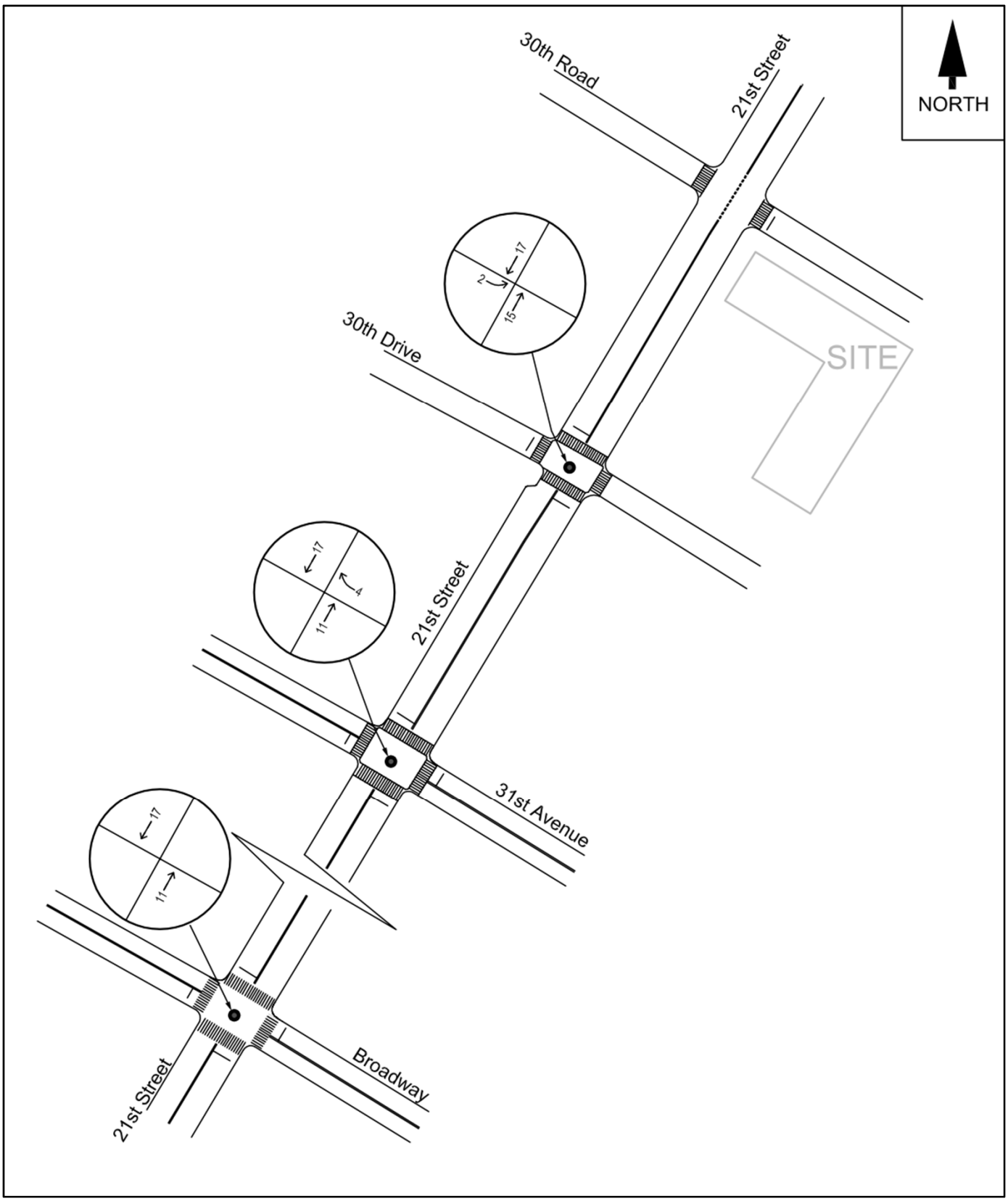
Project-Generated Traffic Assignments, Weekday Midday Peak Hour

Figure 2.8-11



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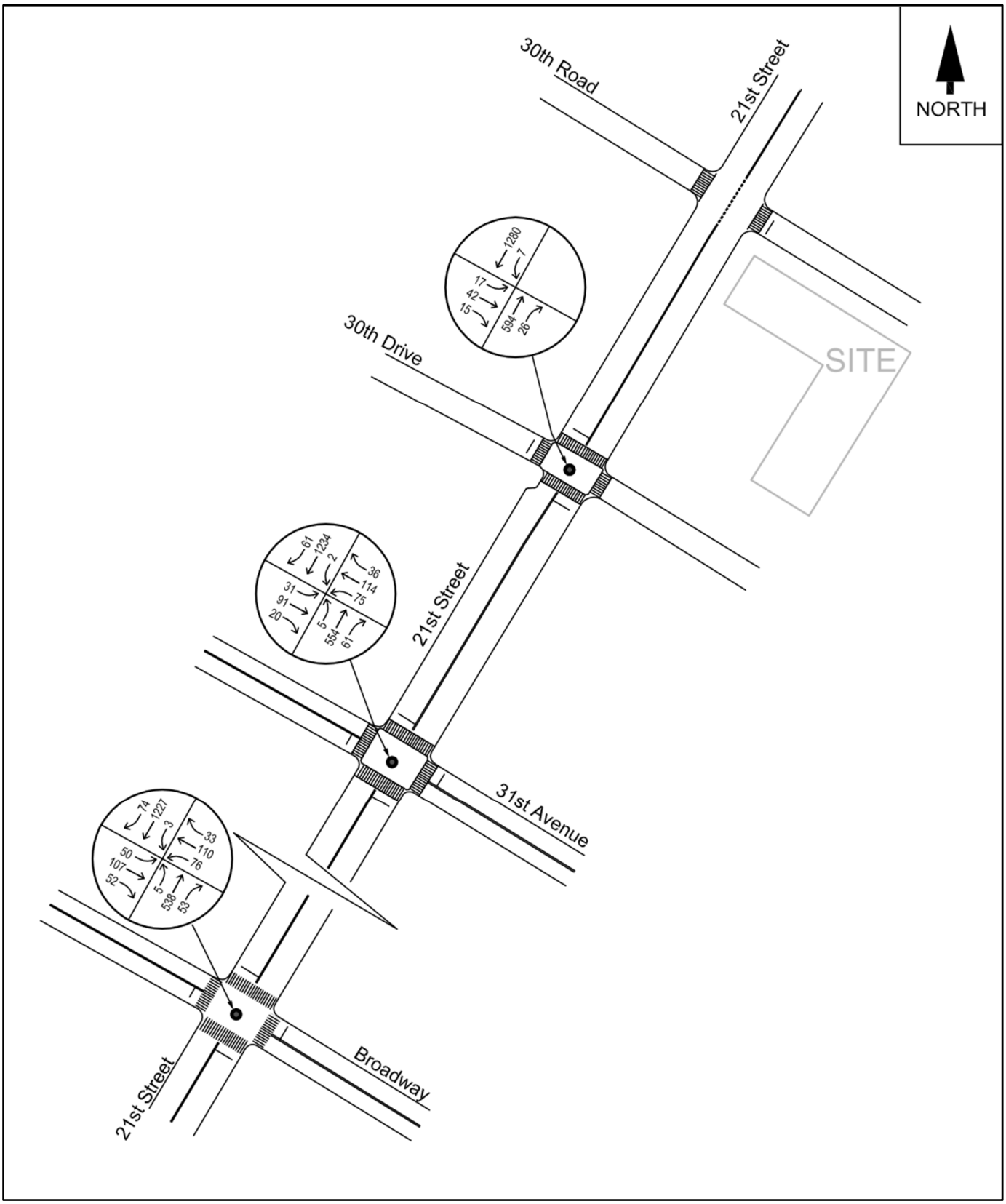
Project-Generated Traffic Assignments, Weekday PM Peak Hour

Figure 2.8-12



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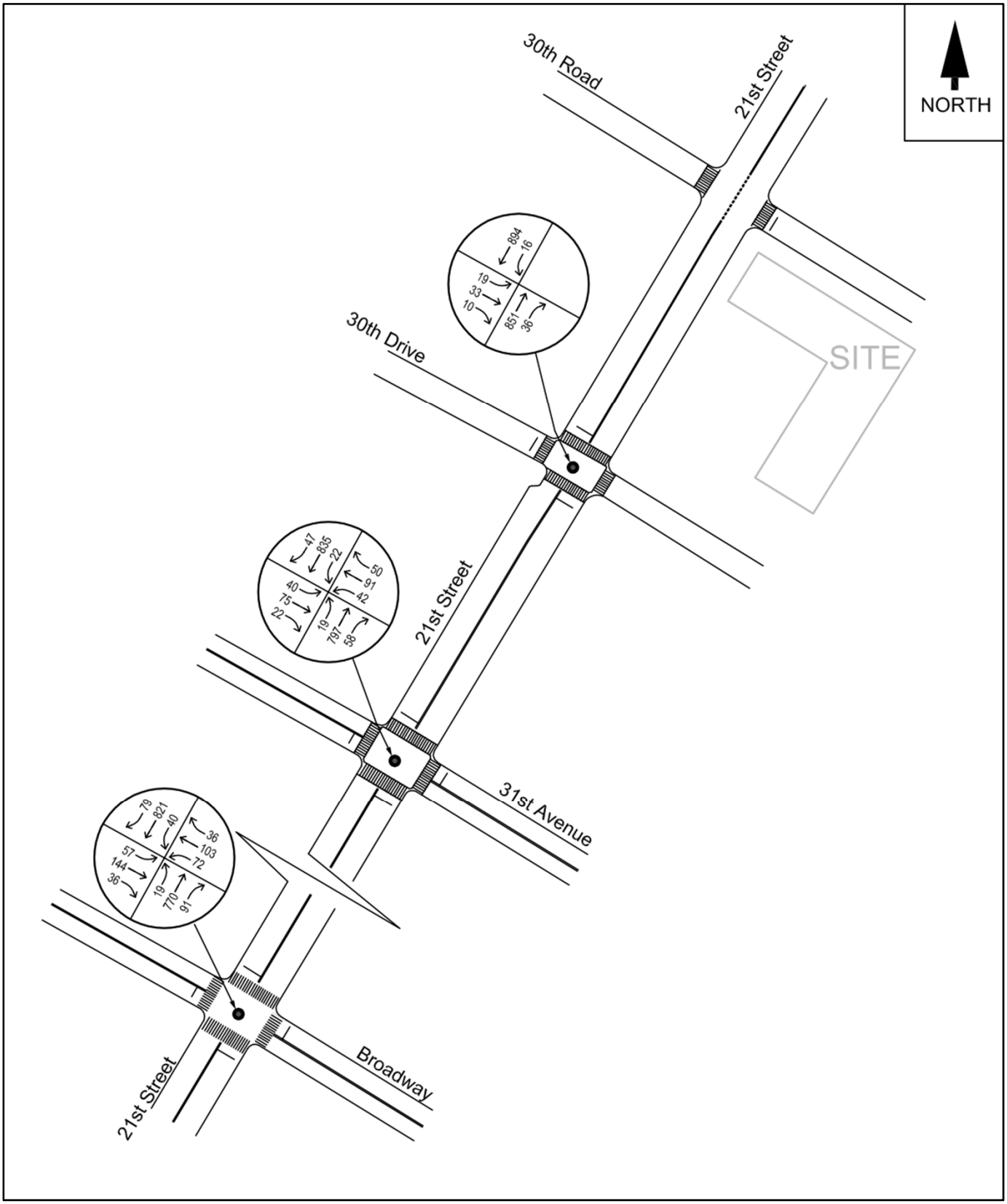
Future With-Action
Traffic Volumes,
Weekday AM Peak Hour

Figure 2.8-13



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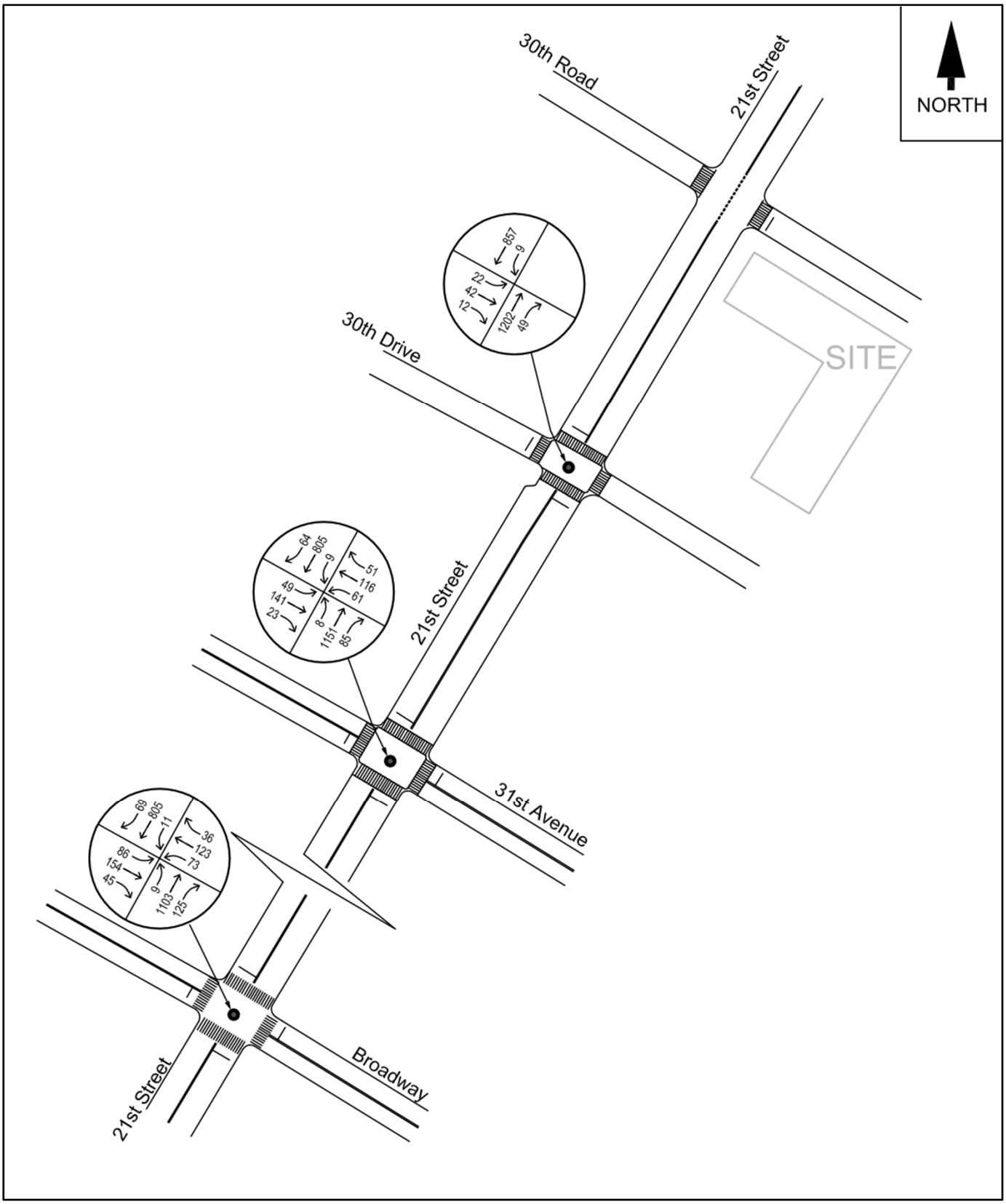
Future With-Action Traffic Volumes, Weekday Midday Peak Hour

Figure 2.8-14



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Future With-Action
Traffic Volumes,
Weekday PM Peak Hour

Figure 2.8-15

Table 2.8-7 LOS, Future With-Action Scenario

Intersection	Approach	Movement	Weekday AM Peak Hour (7:15-8:15 AM)				Weekday Midday Peak Hour (1:00-2:00 PM)				Weekday PM Peak Hour (4:30-5:30 PM)			
			v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue
SIGNALIZED INTERSECTIONS														
30th Drive / 21st Street	EB	LTR	0.20	31.5	C	3.9	0.17	31.2	C	3.3	0.21	28.4	C	3.8
	NB	TR	0.51	14.6	B	12.3	0.63	17.0	B	17.5	0.87	29.2	C	36.0
	SB	LT	0.91	30.2	C	39.9	0.67	18.0	B	18.8	0.66	20.2	C	19.9
	Overall		**0.67**	**25.1**	**C**	**-**	**0.50**	**18.0**	**B**	**-**	**0.62**	**25.5**	**C**	**-**
31st Avenue / 21st Street	EB	LTR	0.52	42.6	D	8.4	0.53	43.3	D	7.9	0.57	39.8	D	10.9
	WB	LTR	0.89	70.2	E	16.8	0.75	55.5	E	12.1	0.70	46.1	D	13.3
	NB	LTR	0.53	16.6	B	12.4	0.73	22.0	C	20.8	0.98	48.1	D	44.7
	SB	LTR	0.97	41.1	D	45.4	0.75	22.4	C	23.4	0.72	24.0	C	22.5
	Overall		*	**37.7**	**D**	**-**	*	**26.7**	**C**	**-**	*	**38.7**	**D**	**-**
Broadway / 21st Street	EB	LTR	1.05	145.4	F	21.4	0.99	111.7	F	21.9	1.07	141.6	F	24.5
	WB	LTR	1.09	166.3	F	20.9	1.03	147.6	F	18.8	1.03	139.3	F	20.0
	NB	LTR	0.57	18.0	B	13.2	0.78	25.0	C	24.5	0.98	44.6	D	45.1
	SB	LTR	1.03	57.0	E	51.4	0.88	32.8	C	28.1	0.75	23.5	C	23.1
	Overall		*	**64.8**	**E**	**-**	*	**48.6**	**D**	**-**	*	**54.9**	**D**	**-**

Notes:

v/c = volume-to-capacity ratio; LOS = Level-of-Service

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

L = Left-Turn; T = Through; R = Right-Turn;

LT = Left-Turn/Through; TR = Through/Right-Turn; LR = Left-Turn/Right-Turn; LTR = Left-Turn/Through/Right-Turn

Average Control Delay shown in units of seconds/vehicle

85th-Percentile Queue shown in units of vehicles.

* = overall v/c ratio not calculated for this intersection.

Potential Traffic Impacts

Table 2.8-8 compares the Future No-Action Condition LOS and delays (from **Table 2.8-3**) with the Future With-Action Condition LOS and delays (from **Table 2.8-7**). Based on the *CEQR Technical Manual* criteria described above, no significant traffic impacts are projected to occur.

2.8.2 Transit

The area surrounding the proposed rezoning area is served by public transit. Several New York City Transit (NYCT) bus lines are routed near the development site. This includes the Q69 and Q100 lines, which are routed along 21st Street adjacent to the development site; the Q18 and Q102 lines which are routed along 30th Avenue, with stops one block north of the site; and the Q19 line along Astoria Boulevard, which is within a reasonable walking distance (approximately 0.30 mile or less) from the development site.

In addition, the 30th Avenue station (on the "N" and "W" subway lines) is located approximately 0.5-mile east of the proposed rezoning site.

The preliminary screening threshold provided in the March 2014 *CEQR Technical Manual* – where potential impacts may occur and further assessments may be warranted – is 200 transit trips for either subway or public bus riders in a given peak hour. Any number of transit trips below this screening threshold generally does not warrant a detailed transit analysis.

Table 2.8-9 summarizes the resulting numbers of new subway trips expected to be generated by the proposed action during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours. Per **Table 2.8-9**, the proposed action would generate fewer than 200 new subway trips during the weekday AM peak hour (126 trips), weekday midday peak hour (109 trips), weekday PM peak hour (147 trips), and Saturday midday peak hour (133 trips). Therefore, the proposed development is not projected to result in any significant adverse subway impacts at the 30th Avenue station, and no detailed assessment of the potential for subway-related impacts as a result of the proposed action is warranted.

Table 2.8-10 summarizes the resulting numbers of new public bus trips expected to be generated by the proposed action during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours. Per **Table 2.8-10**, the proposed action would generate fewer than 200 new bus trips during the weekday AM peak hour (18 trips), weekday midday peak hour (50 trips), weekday PM peak hour (31 trips), and Saturday midday peak hour (34 trips). As noted above, five bus lines currently serve the surrounding area – Q18, Q19, Q69, Q100, and Q102. A preliminary screening assessment concluded that new demand from the proposed action would not exceed the 50-trip *CEQR Technical Manual* analysis threshold during any one peak hour at the maximum load points in any one direction along any of the study area bus routes.

Therefore, the proposed action is not projected to result in any significant adverse bus impacts, and no detailed assessment of the potential for bus-related impacts as a result of the proposed action is warranted.

Table 2.8-8 LOS, Comparison of Future No-Action vs. Future With-Action Scenarios

Intersection	Approach	Movement	Weekday AM Peak Hour (7:15-8:15 AM)										Weekday MD Peak Hour (1:00-2:00 PM)										Weekday PM Peak Hour (4:30-5:30 PM)									
			2021 No-Action				2021 With-Action				Change in Delay	Impact?	2021 No-Action				2021 With-Action				Change in Delay	Impact?	2021 No-Action				2021 With-Action				Change in Delay	Impact?
			v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue			v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue			v/c	Average Control Delay	LOS	85th % Queue	v/c	Average Control Delay	LOS	85th % Queue		
SIGNALIZED INTERSECTIONS																																
30th Drive / 21st Street	EB	LTR	0.20	31.5	C	3.9	0.20	31.5	C	3.9	0.0		0.16	31.0	C	3.1	0.17	31.2	C	3.3	0.2		0.20	28.3	C	3.7	0.21	28.4	C	3.8	0.1	
	NB	TR	0.50	14.4	B	12.0	0.51	14.6	B	12.3	0.2		0.61	16.6	B	16.7	0.63	17.0	B	17.5	0.4		0.86	28.2	C	34.7	0.87	29.2	C	36.0	1.0	
	SB	LT	0.9	29.1	C	38.5	0.9	30.2	C	39.9	1.1		0.7	17.6	B	18.1	0.7	18.0	B	18.8	0.4		0.6	19.9	B	19.3	0.7	20.2	C	19.9	0.3	
	Overall		**0.66**	**24.3**	**C**	**-**	**0.67**	**25.1**	**C**	**-**			**0.49**	**17.6**	**B**	**-**	**0.50**	**18.0**	**B**	**-**			**0.61**	**24.8**	**C**	**-**	**0.62**	**25.5**	**C**	**-**		
31st Avenue / 21st Street	EB	LTR	0.52	42.5	D	8.4	0.52	42.6	D	8.4	0.1		0.53	43.2	D	7.9	0.53	43.3	D	7.9	0.1		0.57	39.8	D	10.9	0.57	39.8	D	10.9	0.0	
	WB	LTR	0.87	67.8	E	16.3	0.89	70.2	E	16.8	2.4		0.71	52.7	D	11.3	0.75	55.5	E	12.1	2.8		0.68	45.3	D	12.9	0.70	46.1	D	13.3	0.8	
	NB	LTR	0.5	16.4	B	12.2	0.5	16.6	B	12.4	0.2		0.72	21.6	C	20.3	0.7	22.0	C	20.8	0.4		1.0	46.0	D	43.5	1.0	48.1	D	44.7	2.1	
	SB	LTR	1.0	38.9	D	43.8	1.0	41.1	D	45.4	2.2		0.72	21.2	C	22.0	0.8	22.4	C	23.4	1.2		0.7	23.7	C	21.9	0.7	24.0	C	22.5	0.3	
	Overall		*	**36.2**	**D**	**-**	*	**37.7**	**D**	**-**			*	**25.8**	**C**	**-**	*	**26.7**	**C**	**-**			*	**37.6**	**D**	**-**	*	**38.7**	**D**	**-**		
Broadway / 21st Street	EB	LTR	1.1	145.4	F	21.4	1.1	145.4	F	21.4	0.0		0.99	111.7	F	21.9	0.99	111.7	F	21.9	0.0		1.07	141.6	F	24.5	1.07	141.6	F	24.5	0.0	
	WB	LTR	1.1	166.3	F	20.9	1.1	166.3	F	20.9	0.0		1.03	147.6	F	18.8	1.03	147.6	F	18.8	0.0		1.03	139.3	F	20.0	1.03	139.3	F	20.0	0.0	
	NB	LTR	0.6	17.9	B	13.0	0.6	18.0	B	13.2	0.1		0.77	24.5	C	23.8	0.78	25.0	C	24.5	0.5		0.97	42.8	D	44.0	0.98	44.6	D	45.1	1.8	
	SB	LTR	1.0	53.4	D	50.0	1.0	57.0	E	51.4	3.6		0.87	31.3	C	27.0	0.88	32.8	C	28.1	1.5		0.7	23.0	C	22.3	0.8	23.5	C	23.1	0.5	
	Overall		*	**63.0**	**E**	**-**	*	**64.8**	**E**	**-**			*	**48.0**	**D**	**-**	*	**48.6**	**D**	**-**			*	**54.2**	**D**	**-**	*	**54.9**	**D**	**-**		

Notes:

v/c = volume-to-capacity ratio; LOS = Level-of-Service

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

L = Left-Turn; T = Through; R = Right-Turn;

LT = Left-Turn/Through; TR = Through/Right-Turn; LR = Left-Turn/Right-Turn; LTR = Left-Turn/Through/Right-Turn

Average Control Delay shown in units of seconds/vehicle

85th-Percentile Queue shown in units of vehicles.

* = overall v/c ratio not calculated for this intersection.

Table 2.8-9 Estimated Subway-Trip Generation Characteristics

Land Use	Estimated Subway & Railroad Trip Generation Characteristics											
	Weekday AM			Weekday MD			Weekday PM			Saturday MD		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential - Market Rate	74	15	59	37	19	18	82	53	29	70	40	30
Residential - Affordable	32	6	25	16	8	8	35	23	12	30	17	13
Local Retail	2	1	1	15	8	8	8	4	4	9	5	5
Pass-by / Linked Trip Reduction=	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips =	2	1	1	15	8	8	8	4	4	9	5	5
Community Facility	18	11	7	41	22	18	23	7	16	24	12	12
TOTALS =	**126**	**33**	**93**	**109**	**57**	**52**	**147**	**86**	**61**	**133**	**74**	**60**

Notes:

Combination pass-by / linked trip reduction of 25% assumed for all Local Retail walk trips for all four peak hours.

Table 2.8-10 Estimated Bus-Trip Generation Characteristics

Land Use	Estimated Bus Trip Generation Characteristics											
	Weekday AM			Weekday MD			Weekday PM			Saturday MD		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential - Market Rate	4	1	3	2	1	1	4	3	1	4	2	2
Residential - Affordable	2	0	1	1	0	0	2	1	1	2	1	1
Local Retail	5	2	2	30	15	15	16	8	8	19	9	9
Pass-by / Linked Trip Reduction=	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips =	5	2	2	30	15	15	16	8	8	19	9	9
Community Facility	8	5	3	17	9	8	9	3	7	10	5	5
TOTALS =	**18**	**8**	**10**	**50**	**26**	**24**	**31**	**15**	**17**	**34**	**17**	**17**

Notes:

Combination pass-by / linked trip reduction of 25% assumed for all Local Retail walk trips for all four peak hours.

2.8.3 Pedestrians

The *CEQR Technical Manual* indicates that a detailed pedestrian analysis should be performed for projects that are likely to generate 200 or more incremental pedestrian trips during any peak hour on any one pedestrian element (i.e., a crosswalk, street corner, or sidewalk). As shown in **Table 2.8-11,** the proposed action is projected to generate more than 200 combined new pedestrian trips (i.e., the combined total of subway, bus, and walk trips) during the weekday AM, weekday midday, weekday PM, and Saturday midday peak hours (284 trips, 559 trips, 404 trips, and 413 trips, respectively). Because the proposed action is projected to generate a significantly higher number of trips during the weekday midday peak hour than during the Saturday midday peak hour—and because conflicting traffic volumes are also higher during the weekday midday peak hour than during the Saturday midday peak hour—the weekday midday peak hour was assumed to represent a reasonable worst-case scenario for midday hours and the Saturday midday peak hour was eliminated from further detailed analysis. Therefore, the detailed pedestrian analyses focused on operations during the weekday AM, midday, and PM peak hours.

Table 2.8-11 Project-Generated Pedestrian Trip Generation Estimate

Land Use	Total Estimated Transit and Pedestrian Trip Generation Characteristics											
	Weekday AM			Weekday MD			Weekday PM			Saturday MD		
	Total	In	Out	Total	In	Out	Total	In	Out	Total	In	Out
Residential - Market Rate	85	17	68	42	22	21	93	61	33	81	46	35
Residential - Affordable	36	7	29	18	9	9	40	26	14	34	20	15
Local Retail	41	20	20	258	129	129	136	68	68	159	79	79
Pass-by / Linked Trip Reduction=	*8*	*4*	*4*	*53*	*27*	*27*	*28*	*14*	*14*	*33*	*16*	*16*
Net New Trips =	32	16	16	205	102	102	108	54	54	126	63	63
Community Facility	131	80	51	294	162	133	164	47	116	172	84	88
TOTALS =	**284**	**120**	**164**	**559**	**295**	**264**	**404**	**188**	**216**	**413**	**213**	**200**

Notes:

Combination pass-by / linked trip reduction of 25% assumed for all Local Retail walk trips for all four peak hours.

Existing Conditions

Study Intersections

Based on a spatial assignment of the pedestrian trips shown in **Table 2.8-11** to city streets, it was projected that one or more pedestrian elements at the following three intersections may have the potential to experience increases of more than 200 new combined pedestrian trips during the weekday AM, midday, and PM peak hours:

- 30th Avenue/21st Street (signalized);
- 30th Road/21st Street (stop-controlled); and
- 30th Drive/21st Street (signalized).

Therefore, further quantitative analyses of pedestrian operations on crosswalks, street corners, and sidewalks at these three intersections were conducted for the weekday AM, midday, PM peak hours. The assignment indicated that incremental pedestrian volumes generated on other pedestrian elements in the vicinity of the project site during each of the three weekday peak hours are likely to be dispersed to levels below the 200-trip threshold for detailed pedestrian study.

Data Collection

Field counts of pedestrian volumes at all crosswalks, corners, and sidewalks at the three pedestrian study intersections were conducted during the weekday AM (6:00 to 9:00 AM), midday (11:00 AM to 2:00 PM), and PM (4:00 to 7:00 PM) peak periods on one weekday with a second day of crosswalk counts obtained to validate the counts on the first day. The data collection effort included counts of the numbers of pedestrians using crosswalks, corners, and sidewalks, as well as counts of the volumes of vehicles making conflicting turning movements through the crosswalks. In addition, the physical characteristics of all pedestrian elements were inventoried in the field. This inventory specifically included:

- Crosswalk locations, widths, and lengths;
- Sidewalk locations and widths;
- Curb return radii; and
- Locations and dimensions of street accessories along the sidewalks and on corners (which constitute obstacles to the unimpeded flow of pedestrians).

The NYCDOT's official traffic signal timings were obtained and used in all pedestrian analyses. Based on the observed pedestrian volumes, crosswalk, corner, and sidewalk LOS analyses were conducted at the three pedestrian study intersections during the weekday AM, midday, and PM peak hours. At the stop-controlled intersection of 30th Road/21st Street, only the crosswalk and sidewalk LOS analyses were

conducted, because pedestrians always have the right-of-way when crossing stop-controlled approaches, resulting in no pedestrian delays on street corners.

Existing pedestrian volumes at the three study intersections are shown in **Figures 2.8-16, 2.8-17 and Figure 2.8-18** for the weekday AM, Midday and PM peak hours, respectively.

Analysis Methodology

The analysis of pedestrian flow involves quantifying the comfort level for pedestrians walking along the sidewalks, waiting to cross the street at intersection corners, and crossing intersection crosswalks. The LOS is calculated using the physical and operational parameters at the intersection including the pedestrian flow rate, the effective length and width (i.e., area) of the crosswalk, the area of the street corner, conflicting traffic volumes that turn through the crosswalk, and the signal timing at the intersection. Crosswalk, street corner, and sidewalk operations were analyzed using the methodologies described in the March 2014 *CEQR Technical Manual*.

The crosswalk and street corner LOS methodologies are based on pedestrian density, as expressed in units of "square feet of space per pedestrian" (square feet/ped), during the peak 15-minute period of the peak hour. The LOS ranges for crosswalks and street corners are as shown below in **Table 2.8-12**.

The LOS methodology for sidewalks is also based on pedestrian density, as expressed in units of "square feet of space per pedestrian" (feet^2/ped), during the peak 15-minute period of the peak hour. The LOS ranges for sidewalks under platoon flow conditions are as shown below in **Table 2.8-13.**

A pedestrian walking speed of 3.0 feet/second is noted on NYCDOT's official traffic signal timing sheets for the signalized study intersections and was applied in all pedestrian capacity analyses.

Table 2.8-12 LOS Criteria for Crosswalks and Street Corners

LOS	Square Feet of Space per Pedestrian (square feet/ped)
A	> 60
B	> 40 to 60
C	> 24 to 40
D	> 15 to 24
E	> 8 to 15
F	≤ 8

Source: Adapted from March 2014 *CEQR Technical Manual*, Table 16-10, page 16-48.

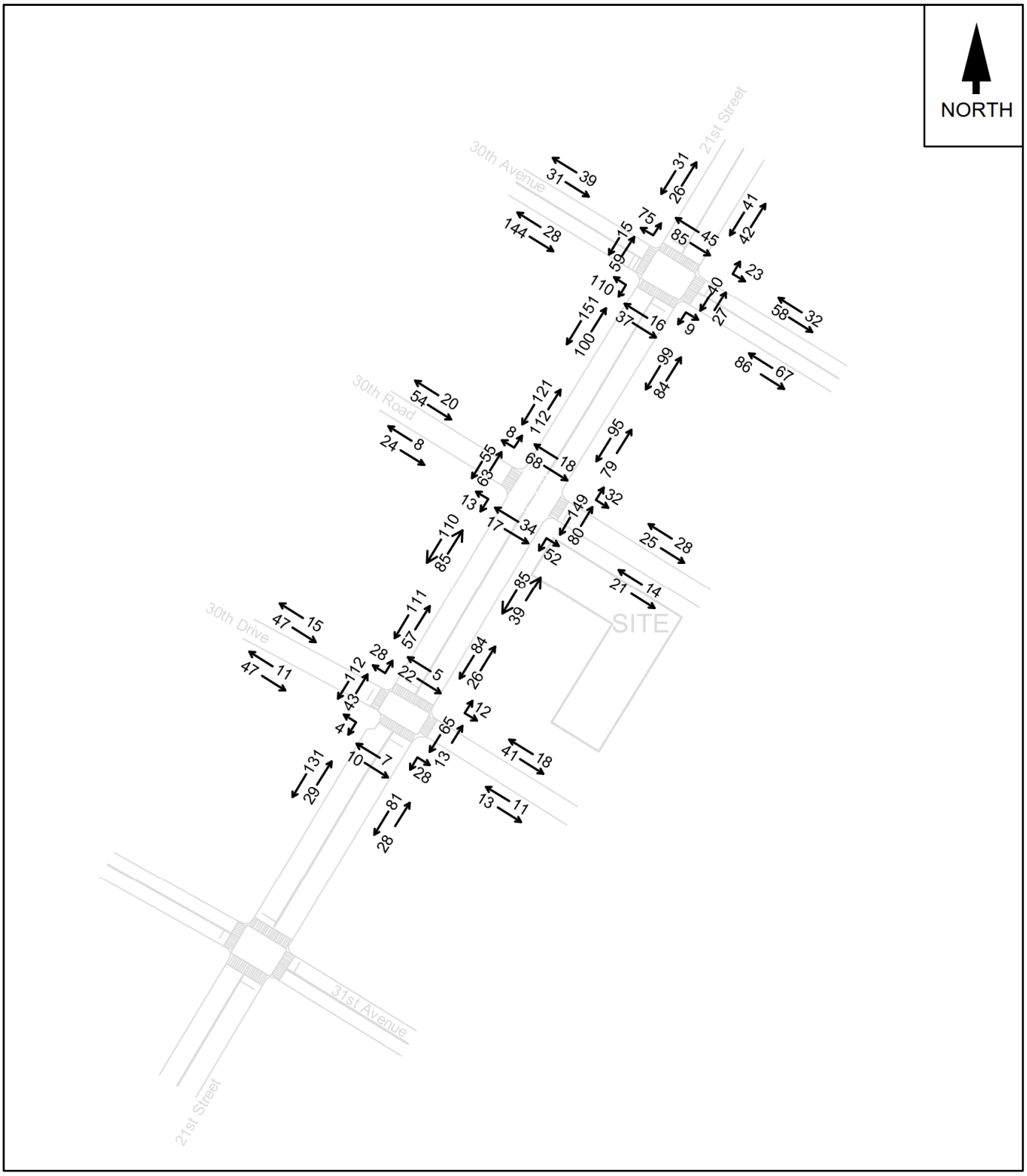
Table 2.8-13 LOS Criteria for Sidewalks under Platoon Flow Conditions

LOS	Square Feet of Space per Pedestrian (square feet/ped)
A	> 530
B	> 90 to 530
C	> 40 to 90
D	> 23 to 40
E	> 11 to 23
F	≤ 11

Source: Adapted from March 2014 *CEQR Technical Manual*, Table 16-9, page 16-47.

Existing Levels-of-Service

The pedestrian LOS analyses for existing conditions are based on peak 15-minute pedestrian flows observed during the weekday AM, midday, and PM peak hours. **Tables 2.8-14, 2.8-15 and 2.8-16** summarize the results of the existing conditions pedestrian LOS analyses for street corners, crosswalks and sidewalks, respectively. As shown in the tables, all street corners, crosswalks and sidewalks currently operate at an acceptable LOS "B" or better during the weekday AM, midday, and PM peak hours.

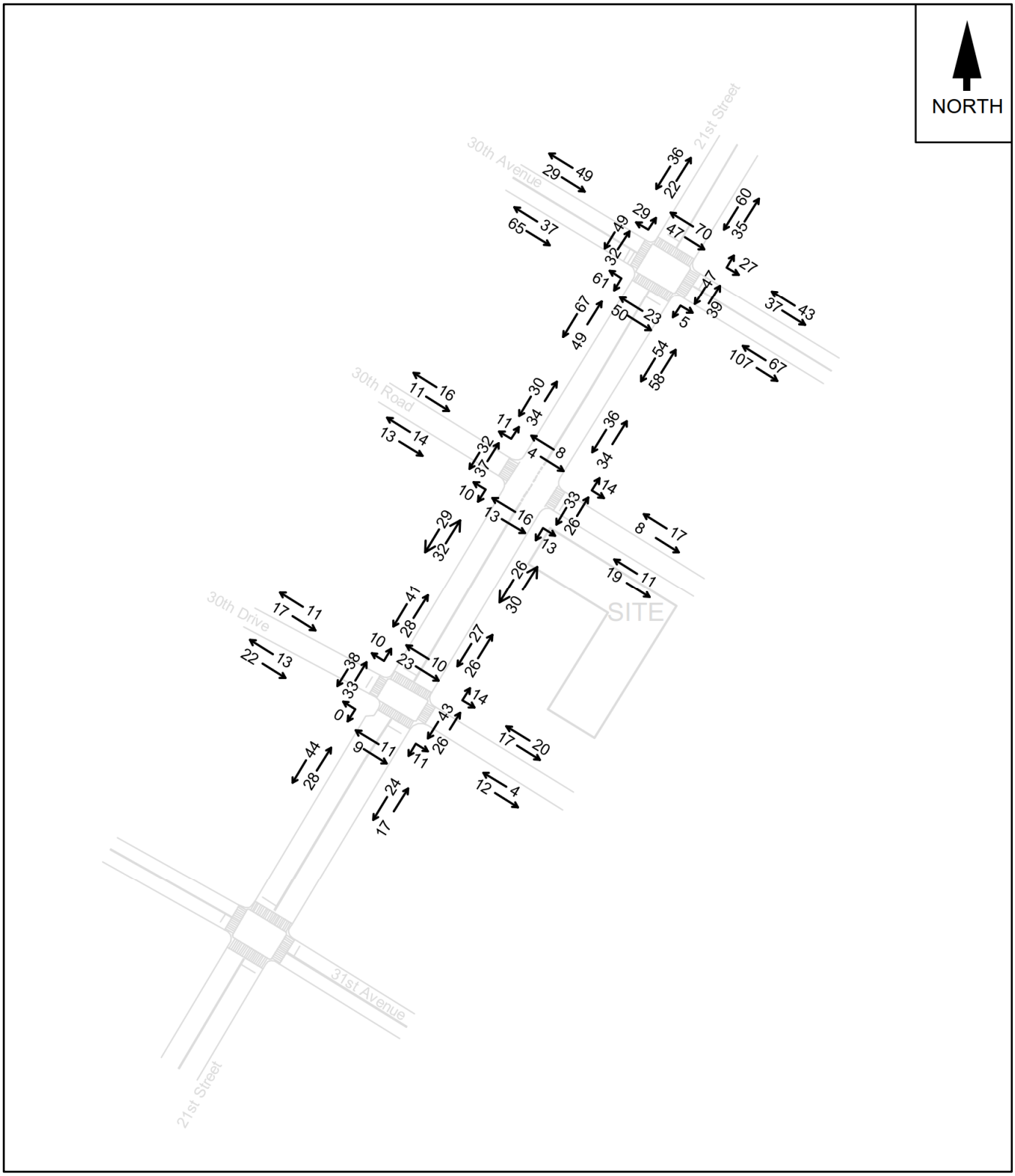


AECOM

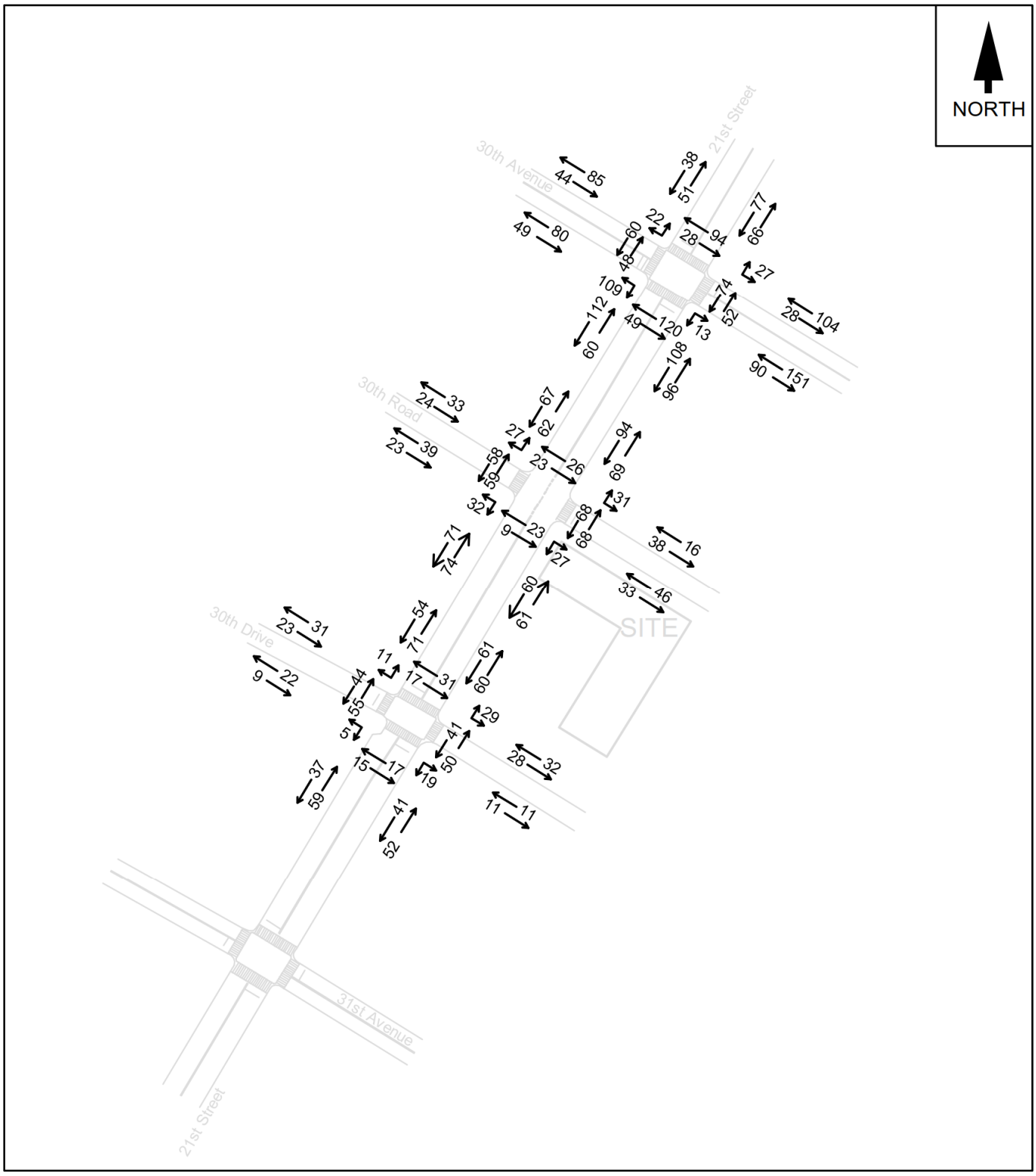
Environmental Assessment Statement
Variety Boys and Girls Club
of Queens Rezoning
Astoria, NY

Existing Conditions
Pedestrian Volumes,
Weekday AM Peak Hour

Figure 2.8-16



AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Existing Conditions Pedestrian Volumes, Weekday Midday Peak Hour** **Figure 2.8-17**



AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Existing Conditions Pedestrian Volumes, Weekday PM Peak Hour** **Figure 2.8-18**

Table 2.8-14 Existing Conditions Pedestrian Corner Analyses

Intersection	Peak Hour	Corner	Pedestrian Operations	
			feet^2/ped	LOS
21st Street/30th Avenue	Weekday AM	Northwest	130.7	A
		Northeast	396.5	A
		Southwest	481.9	A
		Southeast	1818.2	A
	Weekday Midday	Northwest	175.5	A
		Northeast	357.0	A
		Southwest	542.0	A
		Southeast	1217.5	A
	Weekday PM	Northwest	136.0	A
		Northeast	282.1	A
		Southwest	293.6	A
		Southeast	677.2	A
21st Street/30th Drive	Weekday AM	Northwest	360.4	A
		Northeast	1100.7	A
		Southwest	576.2	A
		Southeast	1201.5	A
	Weekday Midday	Northwest	623.6	A
		Northeast	1376.6	A
		Southwest	999.8	A
		Southeast	1781.9	A
	Weekday PM	Northwest	589.8	A
		Northeast	1002.4	A
		Southwest	740.1	A
		Southeast	1071.4	A

Table 2.8-15 Existing Conditions Pedestrian Crosswalk Analyses

Intersection	Peak Hour	Crosswalk	Crosswalk Length (Feet - approx.)	Crosswalk Width (Feet - approx.)	Pedestrian Operations	
					$feet^2$/ped	LOS
21st Street/30th Avenue	Weekday AM	North	59.3	13.9	167.7	A
		East	38.5	15.7	813.8	A
		South	56.7	13.8	451.4	A
		West	39.2	11.1	486.5	A
	Weekday Midday	North	59.3	13.9	212.6	A
		East	38.5	15.7	527.7	A
		South	56.7	13.8	284.7	A
		West	39.2	11.1	466.5	A
	Weekday PM	North	59.3	13.9	161.3	A
		East	38.5	15.7	382.6	A
		South	56.7	13.8	133.0	A
		West	39.2	11.1	318.3	A
21st Street/30th Road	Weekday AM	North	59.6	7.9	523.9	A
		East	29.5	12.4	345.3	A
		South	59.1	8.3	840.2	A
		West	30.2	13.8	644.0	A
	Weekday Midday	North	59.6	7.9	3171.0	A
		East	29.5	12.4	1306.0	A
		South	59.1	8.3	1829.9	A
		West	30.2	13.8	1221.5	A
	Weekday PM	North	59.6	7.9	1265.6	A
		East	29.5	12.4	542.9	A
		South	59.1	8.3	1430.8	A
		West	30.2	13.8	809.2	A
21st Street/30th Drive	Weekday AM	North	59.7	12.8	352.1	A
		East	29.6	14.7	530.5	A
		South	50.9	12.8	763.8	A
		West	29.3	12.6	278.7	A
	Weekday Midday	North	59.7	12.8	365.7	A
		East	29.6	14.7	855.0	A
		South	50.9	12.8	552.0	A
		West	29.3	12.6	579.1	A
	Weekday PM	North	59.7	12.8	334.2	A
		East	29.6	14.7	532.3	A
		South	50.9	12.8	377.6	A
		West	29.3	12.6	524.8	A

Table 2.8-16 Existing Conditions Pedestrian Platoon Sidewalk Analyses

Intersection	Peak Hour	Sidewalk	Direction	Pedestrian Platoon Operations	
				feet^2/ped	LOS
21st Street/30th Avenue	Weekday AM	NE	N-S	442.4	B
			E-W	675.9	A
		SE	N-S	621.2	A
			E-W	719.3	A
		SW	N-S	153.1	B
			E-W	405.2	B
		NW	N-S	417.7	B
			E-W	449.5	B
	Weekday Midday	NE	N-S	393.9	B
			E-W	778.0	A
		SE	N-S	1144.3	A
			E-W	699.8	A
		SW	N-S	313.9	B
			E-W	753.1	A
		NW	N-S	374.7	B
			E-W	411.9	B
	Weekday PM	NE	N-S	275.2	B
			E-W	415.6	B
		SE	N-S	557.5	A
			E-W	517.5	B
		SW	N-S	268.3	B
			E-W	634.6	A
		NW	N-S	247.7	B
			E-W	238.3	B
21st Street/30th Road	Weekday AM	NE	N-S	456.2	B
			E-W	1026.5	A
		SE	N-S	714.2	A
			E-W	1388.6	A
		SW	N-S	484.6	B
			E-W	1733.6	A
		NW	N-S	289.1	B
			E-W	889.5	A
	Weekday Midday	NE	N-S	1368.0	A
			E-W	1740.9	A
		SE	N-S	1528.7	A
			E-W	2835.0	A
		SW	N-S	1615.6	A
			E-W	1380.0	A
		NW	N-S	1023.7	A
			E-W	2402.7	A
	Weekday PM	NE	N-S	602.9	A
			E-W	1162.5	A
		SE	N-S	805.1	A
			E-W	984.3	A
		SW	N-S	735.5	A
			E-W	988.2	A
		NW	N-S	573.2	A
			E-W	1221.8	A

Table 2.8-16 (Continued) Existing Conditions Pedestrian Platoon Sidewalk Analyses

21st Street/30th Drive	Weekday AM	NE	N-S	758.6	A
			E-W	1020.9	A
		SE	N-S	1081.5	A
			E-W	2643.4	A
		SW	N-S	644.3	A
			E-W	983.1	A
		NW	N-S	763.1	A
			E-W	449.9	B
	Weekday Midday	NE	N-S	1806.8	A
			E-W	1958.3	A
		SE	N-S	2777.7	A
			E-W	3216.9	A
		SW	N-S	1160.0	A
			E-W	1184.9	A
		NW	N-S	1544.3	A
			E-W	1275.4	A
	Weekday PM	NE	N-S	904.4	A
			E-W	945.7	A
		SE	N-S	1503.9	A
			E-W	2720.4	A
		SW	N-S	1005.9	A
			E-W	1449.3	A
		NW	N-S	945.7	A
			E-W	733.6	A

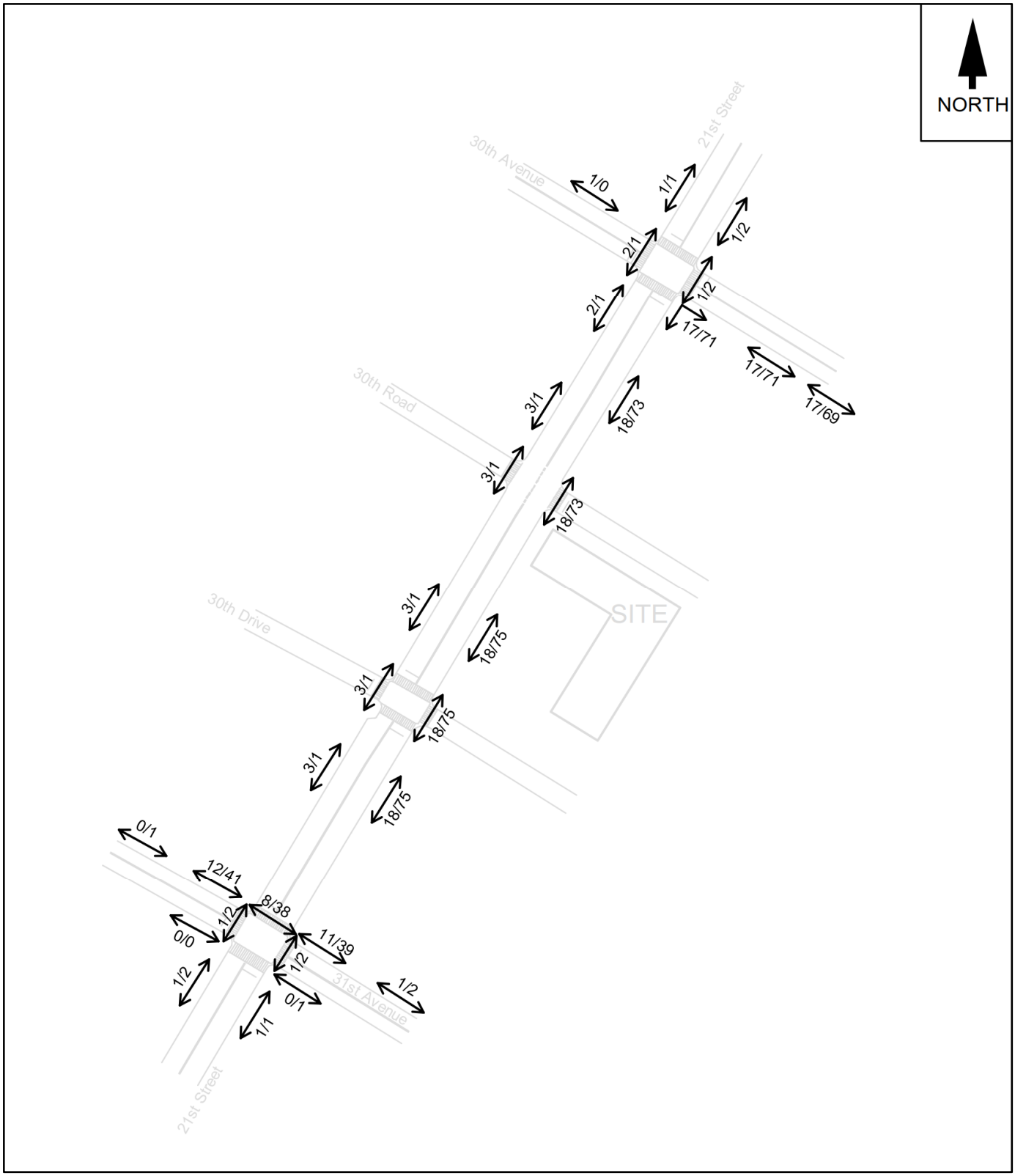
Future No-Action Scenario

Pedestrian activity in the study area was projected for the Future No-Action Condition based on the projected growth in pedestrian activity that is expected throughout the study area (i.e., 2.02 percent growth between 2017 and 2021 for "Other Queens," as per the March 2014 *CEQR Technical Manual*). Therefore, to arrive at the total Future No-Action Condition pedestrian volumes, the existing baseline pedestrian volumes were increased by 2.02 percent through the 2021 analysis year.

In addition, pedestrian volumes expected to be generated at the three study intersections by the No-Action developments previously identified were included in the Future No-Action pedestrian volumes. **Figures 2.8-19 through 2.8-21** show the incremental pedestrian volumes from the No-Action sites for the weekday AM, midday and PM peak hours, respectively. **Figures 2.8-22 through 2.8-24** show the Future No-Action pedestrian volumes at the three study intersections for the weekday AM, midday and PM peak hours, respectively.

Future No-Action Levels-of-Service

The crosswalk, street corner, and sidewalk LOS analyses at the study intersections were then repeated using the projected Future No-Action Condition pedestrian volumes. **Tables 2.8-17, 2.8-18, and 2.8-19** summarize the results of the Future No-Action Conditions pedestrian LOS analyses for street corners, crosswalks and sidewalks, respectively. As shown in the tables, all street corners, crosswalks and sidewalks are projected to continue to operate at an acceptable LOS "B" or better during the weekday AM, midday, and PM peak hours.



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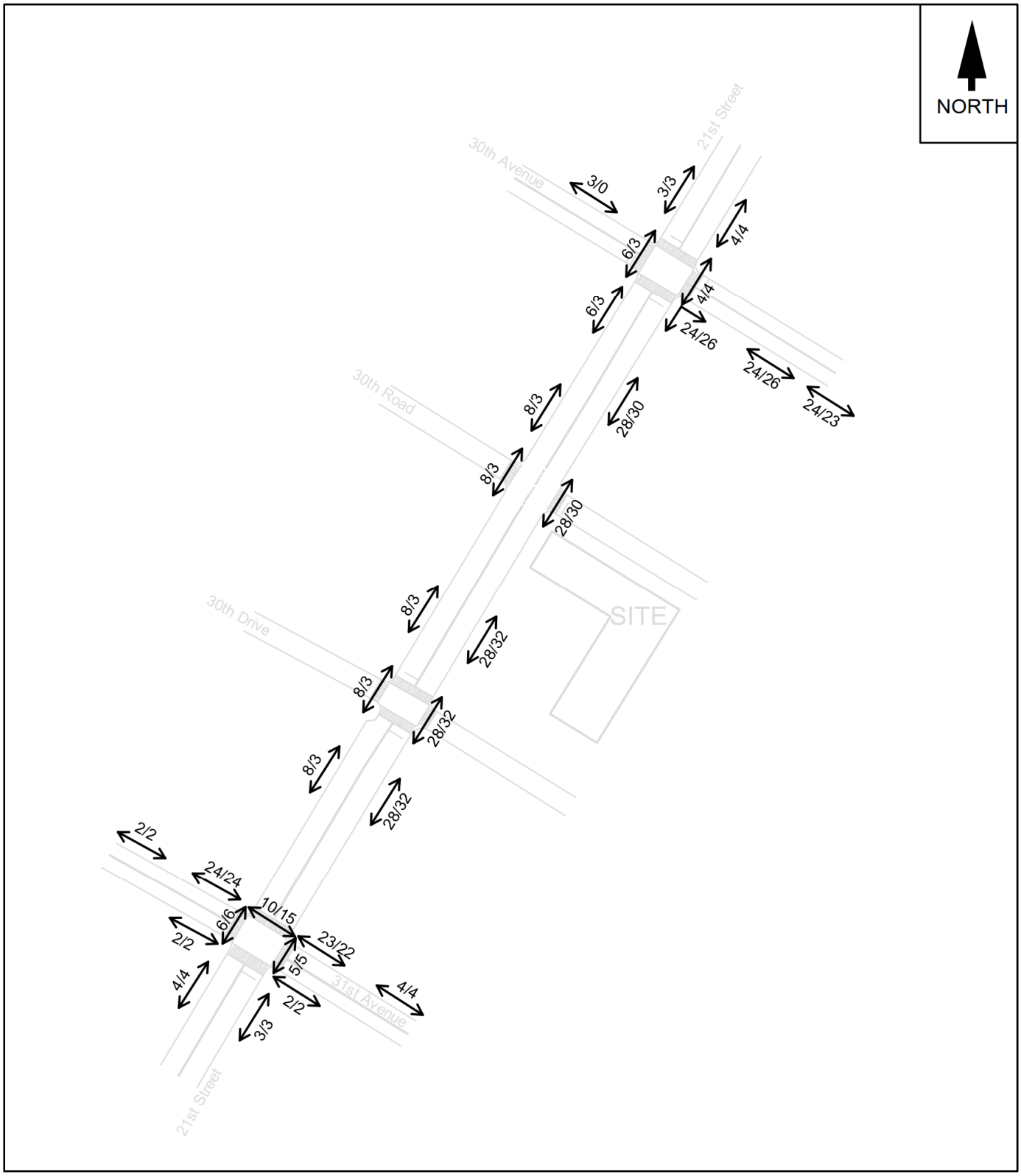
Incremental Pedestrian Volumes from No-Action Development Sites, Weekday AM Peak Hour

Figure 2.8-19



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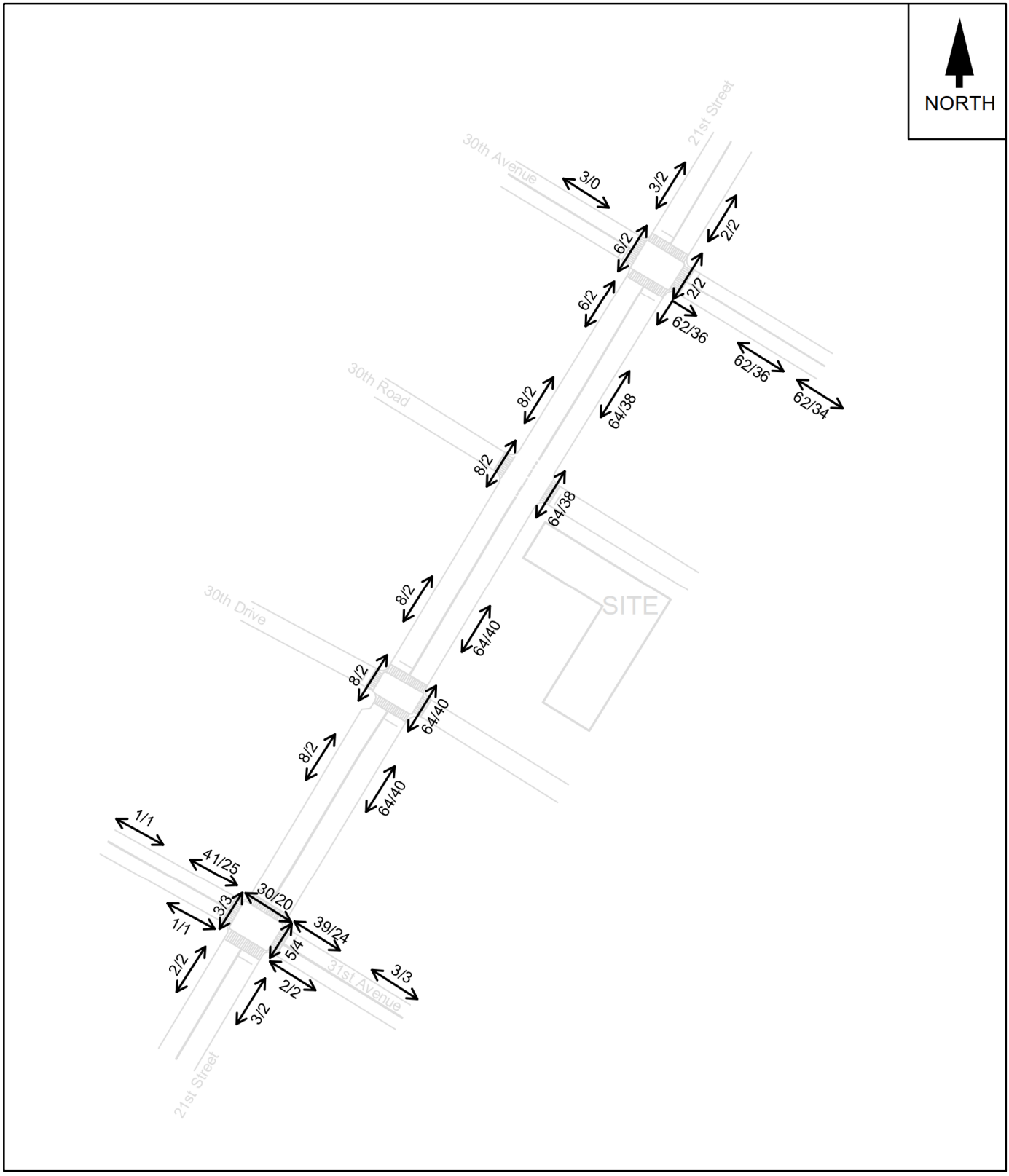
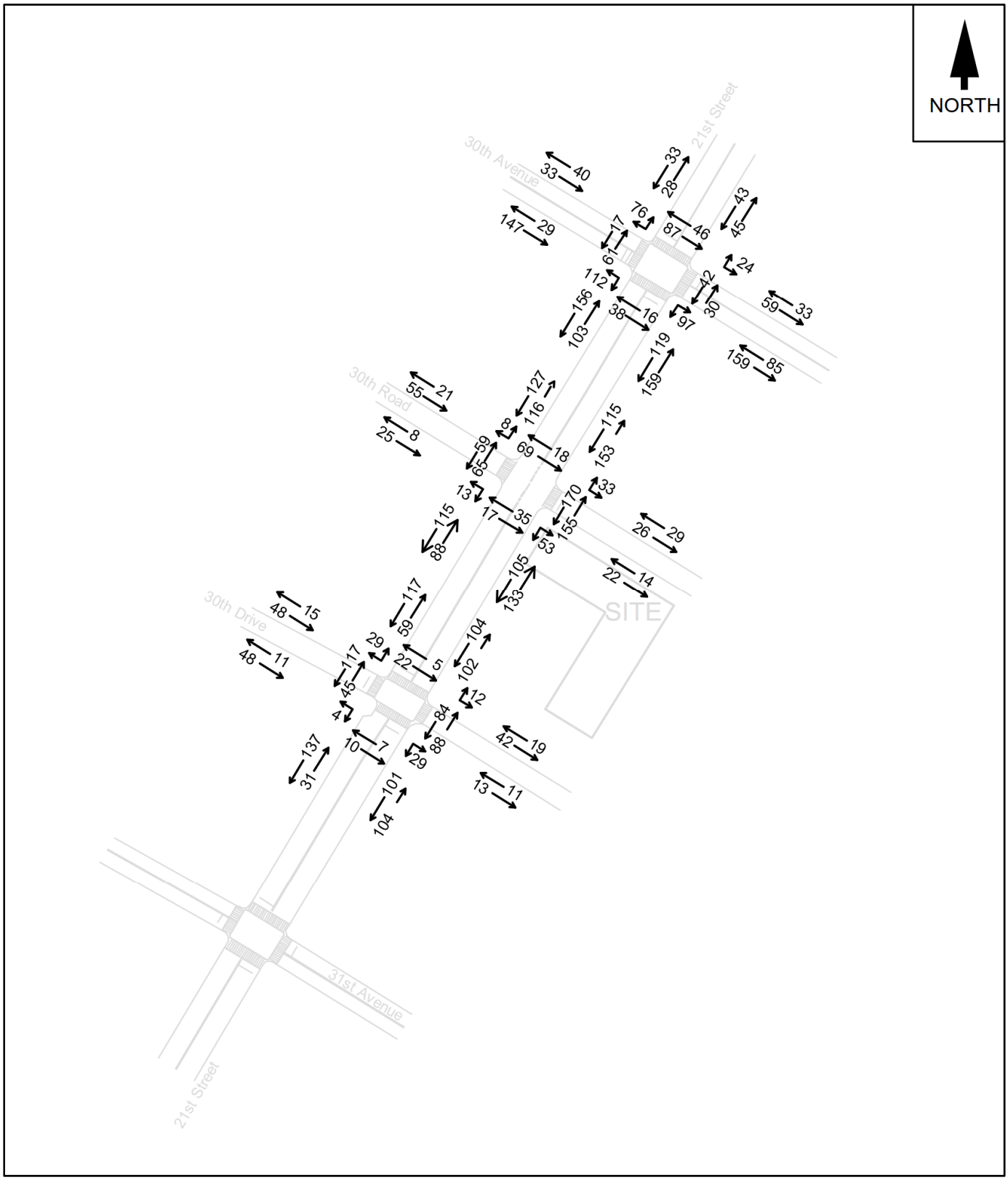
Incremental Pedestrian Volumes from No-Action Development Sites, Weekday Midday Peak Hour

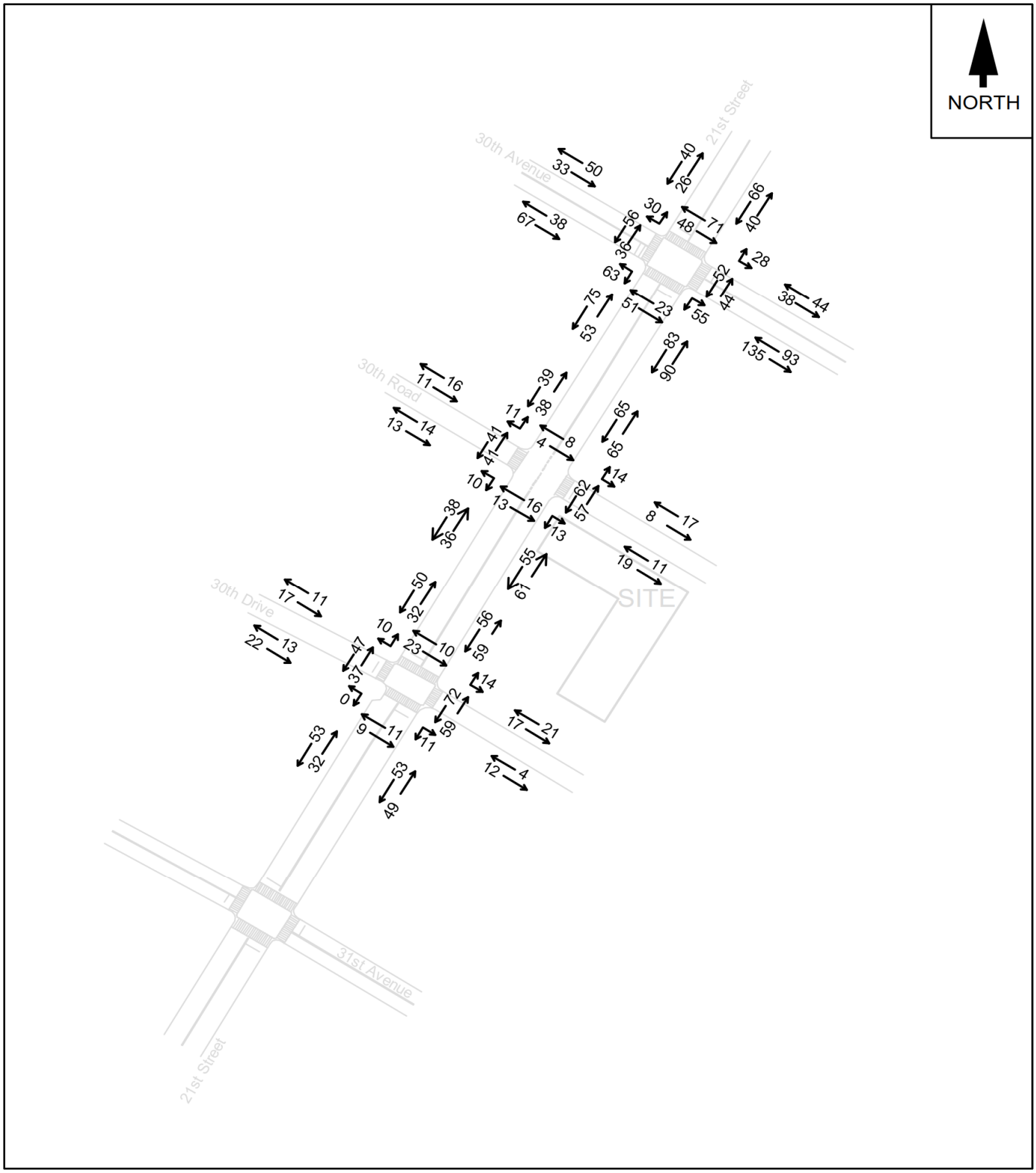
Figure 2.8-20



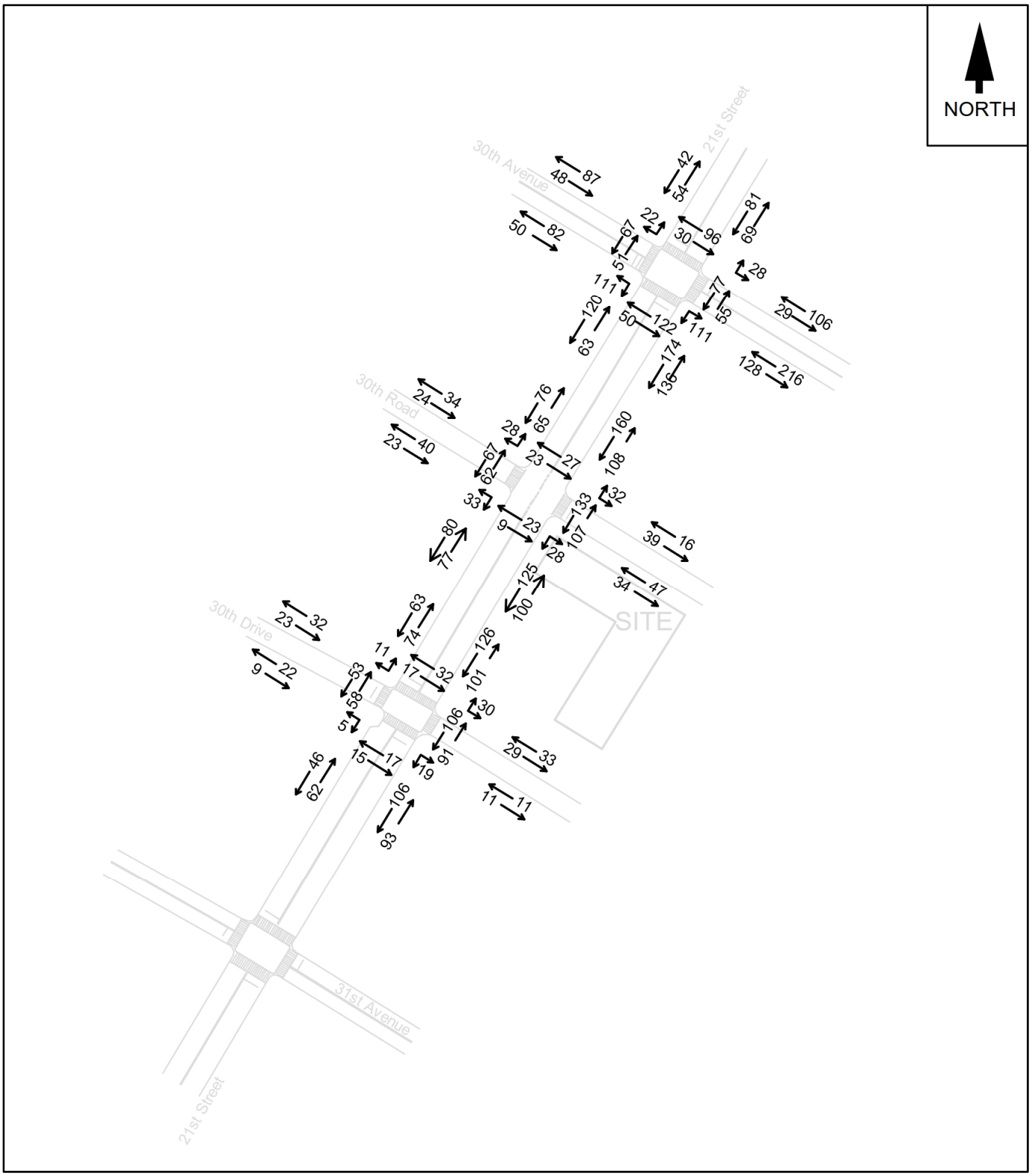
AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Incremental Pedestrian Volumes from No-Action Development Sites, Weekday PM Peak Hour** **Figure 2.8-21**



AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Future No-Action Pedestrian Volumes, Weekday AM Peak Hour** **Figure 2.8-22**



AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Future No-Action Pedestrian Volumes, Weekday Midday Peak Hour** **Figure 2.8-23**



AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Future No-Action Pedestrian Volumes, Weekday PM Peak Hour** **Figure 2.8-24**

Table 2.8-17 Future No-Action Scenario Pedestrian Corner Analyses

Intersection	Peak Hour	Corner	Pedestrian Operations	
			feet^2/ped	LOS
21st Street/30th Avenue	Weekday AM	Northwest	126.5	A
		Northeast	381.5	A
		Southwest	468.3	A
		Southeast	1023.8	A
	Weekday Midday	Northwest	166.7	A
		Northeast	336.1	A
		Southwest	515.4	A
		Southeast	868.3	A
	Weekday PM	Northwest	129.0	A
		Northeast	271.8	A
		Southwest	282.0	A
		Southeast	424.5	A
21st Street/30th Drive	Weekday AM	Northwest	348.1	A
		Northeast	649.6	A
		Southwest	555.3	A
		Southeast	697.0	A
	Weekday Midday	Northwest	564.8	A
		Northeast	970.5	A
		Southwest	883.1	A
		Southeast	1181.7	A
	Weekday PM	Northwest	548.1	A
		Northeast	604.8	A
		Southwest	691.8	A
		Southeast	651.8	A

Table 2.8-18 Future No-Action Scenario Pedestrian Crosswalk Analyses

Intersection	Peak Hour	Crosswalk	Crosswalk Length (Feet - approx.)	Crosswalk Width (Feet - approx.)	Pedestrian Operations	
					feet^2/ped	LOS
21st Street/30th Avenue	Weekday AM	North	59.3	13.9	163.8	A
		East	38.5	15.7	757.5	A
		South	56.7	13.8	443.0	A
		West	39.2	11.1	461.4	A
	Weekday Midday	North	59.3	13.9	208.9	A
		East	38.5	15.7	471.8	A
		South	56.7	13.8	281.0	A
		West	39.2	11.1	423.7	A
	Weekday PM	North	59.3	13.9	157.4	A
		East	38.5	15.7	364.8	A
		South	56.7	13.8	130.5	A
		West	39.2	11.1	290.8	A
21st Street/30th Road	Weekday AM	North	59.6	7.9	517.6	A
		East	29.5	12.4	240.6	A
		South	59.1	8.3	826.0	A
		West	30.2	13.8	615.4	A
	Weekday Midday	North	59.6	7.9	3171.0	A
		East	29.5	12.4	647.0	A
		South	59.1	8.3	1829.9	A
		West	30.2	13.8	1029.1	A
	Weekday PM	North	59.6	7.9	1240.1	A
		East	29.5	12.4	305.3	A
		South	59.1	8.3	1430.8	A
		West	30.2	13.8	737.2	A
21st Street/30th Drive	Weekday AM	North	59.7	12.8	352.1	A
		East	29.6	14.7	245.2	A
		South	50.9	12.8	763.8	A
		West	29.3	12.6	266.3	A
	Weekday Midday	North	59.7	12.8	365.7	A
		East	29.6	14.7	451.6	A
		South	50.9	12.8	552.0	A
		West	29.3	12.6	486.5	A
	Weekday PM	North	59.7	12.8	327.6	A
		East	29.6	14.7	243.7	A
		South	50.9	12.8	377.6	A
		West	29.3	12.6	467.9	A

Table 2.8-19 Future No-Action Scenario Pedestrian Platoon Sidewalk Analyses

Intersection	Peak Hour	Sidewalk	Direction	Pedestrian Platoon Operations	
				feet^2/ped	LOS
21st Street/30th Avenue	Weekday AM	NE	N-S	419.7	B
			E-W	658.7	A
		SE	N-S	409.1	B
			E-W	450.3	B
		SW	N-S	148.3	B
			E-W	397.2	B
		NW	N-S	395.9	B
			E-W	432.3	B
	Weekday Midday	NE	N-S	353.0	B
			E-W	759.0	A
		SE	N-S	740.8	A
			E-W	534.0	A
		SW	N-S	284.5	B
			E-W	731.6	A
		NW	N-S	329.2	B
			E-W	387.0	B
	Weekday PM	NE	N-S	262.3	B
			E-W	406.4	B
		SE	N-S	366.8	B
			E-W	362.5	B
		SW	N-S	252.2	B
			E-W	522.4	B
		NW	N-S	229.6	B
			E-W	227.7	B
21st Street/30th Road	Weekday AM	NE	N-S	296.1	B
			E-W	989.2	A
		SE	N-S	406.2	B
			E-W	1350.0	A
		SW	N-S	465.5	B
			E-W	1681.1	A
		NW	N-S	277.2	B
			E-W	866.1	A
	Weekday Midday	NE	N-S	736.6	A
			E-W	1740.9	A
		SE	N-S	738.0	A
			E-W	2835.0	A
		SW	N-S	1331.7	A
			E-W	1380.0	A
		NW	N-S	850.9	A
			E-W	2402.7	A
	Weekday PM	NE	N-S	366.6	B
			E-W	1141.3	A
		SE	N-S	432.9	B
			E-W	960.0	A
		SW	N-S	679.3	A
			E-W	972.5	A
		NW	N-S	524.4	B
			E-W	1200.7	A

Table 2.8-19 (Continued) Future No-Action Conditions Pedestrian Platoon Sidewalk Analyses

21st Street/30th Drive	Weekday AM	NE	N-S	405.0	B
			E-W	987.5	A
		SE	N-S	575.0	A
			E-W	2643.4	A
		SW	N-S	613.6	A
			E-W	966.5	A
		NW	N-S	728.4	A
			E-W	442.8	B
	Weekday Midday	NE	N-S	832.7	A
			E-W	1906.8	A
		SE	N-S	1116.5	A
			E-W	3216.9	A
		SW	N-S	982.6	A
			E-W	1184.9	A
		NW	N-S	1299.5	A
			E-W	1275.4	A
	Weekday PM	NE	N-S	482.1	B
			E-W	915.2	A
		SE	N-S	702.8	A
			E-W	2720.4	A
		SW	N-S	894.1	A
			E-W	1449.3	A
		NW	N-S	862.9	A
			E-W	720.3	A

Future With-Action Scenario

To determine the levels-of-service with the proposed action, the crosswalk, street corner, and sidewalk LOS analyses at all study intersections were repeated to include the projected numbers of the new pedestrians generated by the proposed action, shown previously in **Table 2.8-11**.

As shown in **Table 2.8-11**, the proposed action is projected to generate approximately[24]:

- 284 new pedestrian trips (approximately 126 subway trips, 18 bus trips, and 140 walk trips) during the weekday AM peak hour;
- 559 new pedestrian trips (approximately 109 subway trips, 50 bus trips, and 401 walk trips) during the weekday midday peak hour; and
- 404 new pedestrian trips (approximately 147 subway trips, 31 bus trips, and 226 walk trips) during the weekday PM peak hour.

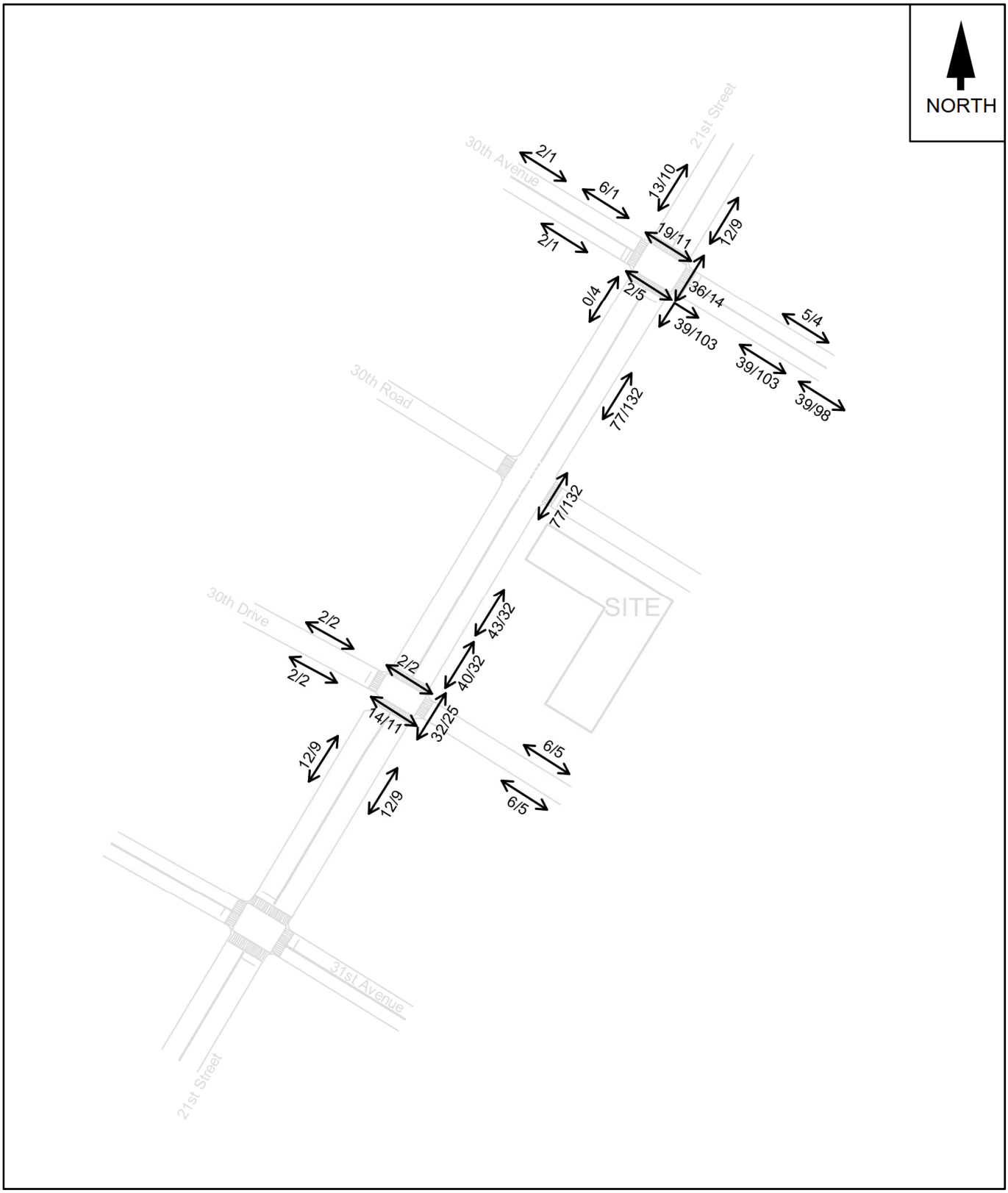
The following assumptions were made for the trip distribution patterns for pedestrians traveling to and from the proposed site:

- *Subway trips* – All subway riders were assumed to walk to and from the 30th Avenue station (on the "N" and "W" subway lines), located approximately 0.5-mile east of the development site at 30th Avenue and 31st Street.
- *Bus trips* – As previously described, the development site is served by five bus lines: Q69, Q100, Q18, Q102 and Q19. Bus trips were assigned to and from the development site based on the geographic location of each bus route relative to the site, as well as the estimated ridership based on the lines directions, as follows:
    - 35 percent to/from the Q18
    - 10 percent to/from the Q19
    - 35 percent to/from the Q69
    - 5 percent to/from the Q100
    - 15 percent to/from the Q102
- *Walk trips* – Walk trips were assumed to be distributed based on the location of the proposed site in the area and the availability and walkability in the surrounding streets:
    - 30 percent to/from the north
    - 30 percent to/from the south
    - 30 percent to/from the east
    - 10 percent to/from the west

Based on the trip generation estimates shown in **Table 2.8-11** and the trip distribution estimates by mode, identified above, pedestrians were assigned through the study intersections for the weekday AM, midday, and PM peak hours. The projected new pedestrian volumes associated with the proposed action were then added to the Future No-Action Condition pedestrian volumes to arrive at the total projected Future With-Action Condition pedestrian volumes. It should be noted that these pedestrian volumes represent a combination of the highest background pedestrian volumes occurring during the peak hour of the peak period, combined with the highest pedestrian volumes generated by the proposed action during the peak hour of the peak period. Therefore, the pedestrian volumes used in the LOS analysis represent a reasonable worst-case scenario for Future With-Action pedestrian conditions.

Figures 2.8-25 through 2.8-27 show the project-generated pedestrian volumes during the weekday AM, midday and PM peak hours, respectively. **Figures 2.8-28 through 2.8-30** show the Future With-Action pedestrian volumes during the weekday AM, midday and PM peak hours, respectively.

[24] All trip values rounded to the nearest one trip.



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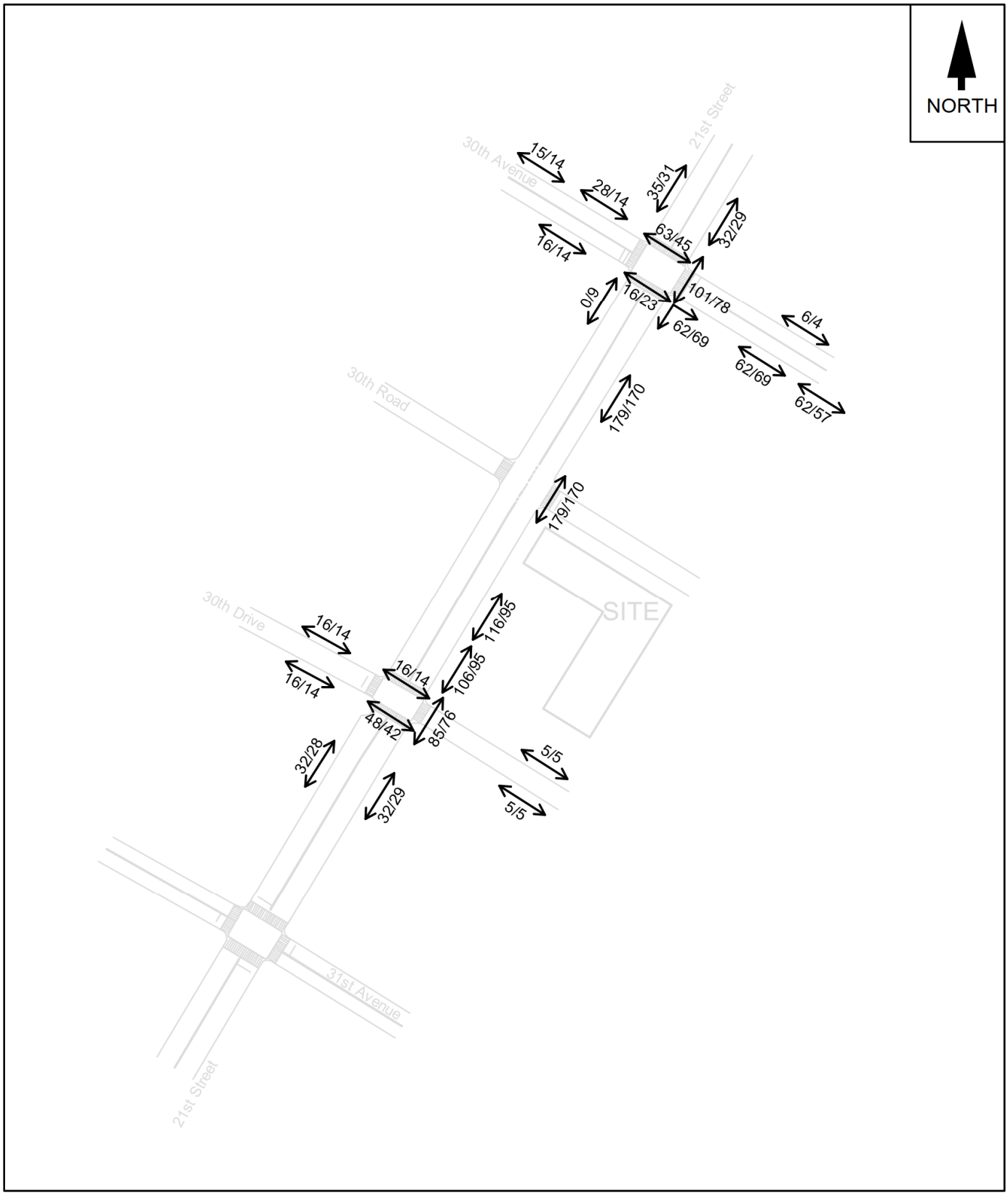
Project-Generated Pedestrian Volumes, Weekday AM Peak Hour

Figure 2.8-25



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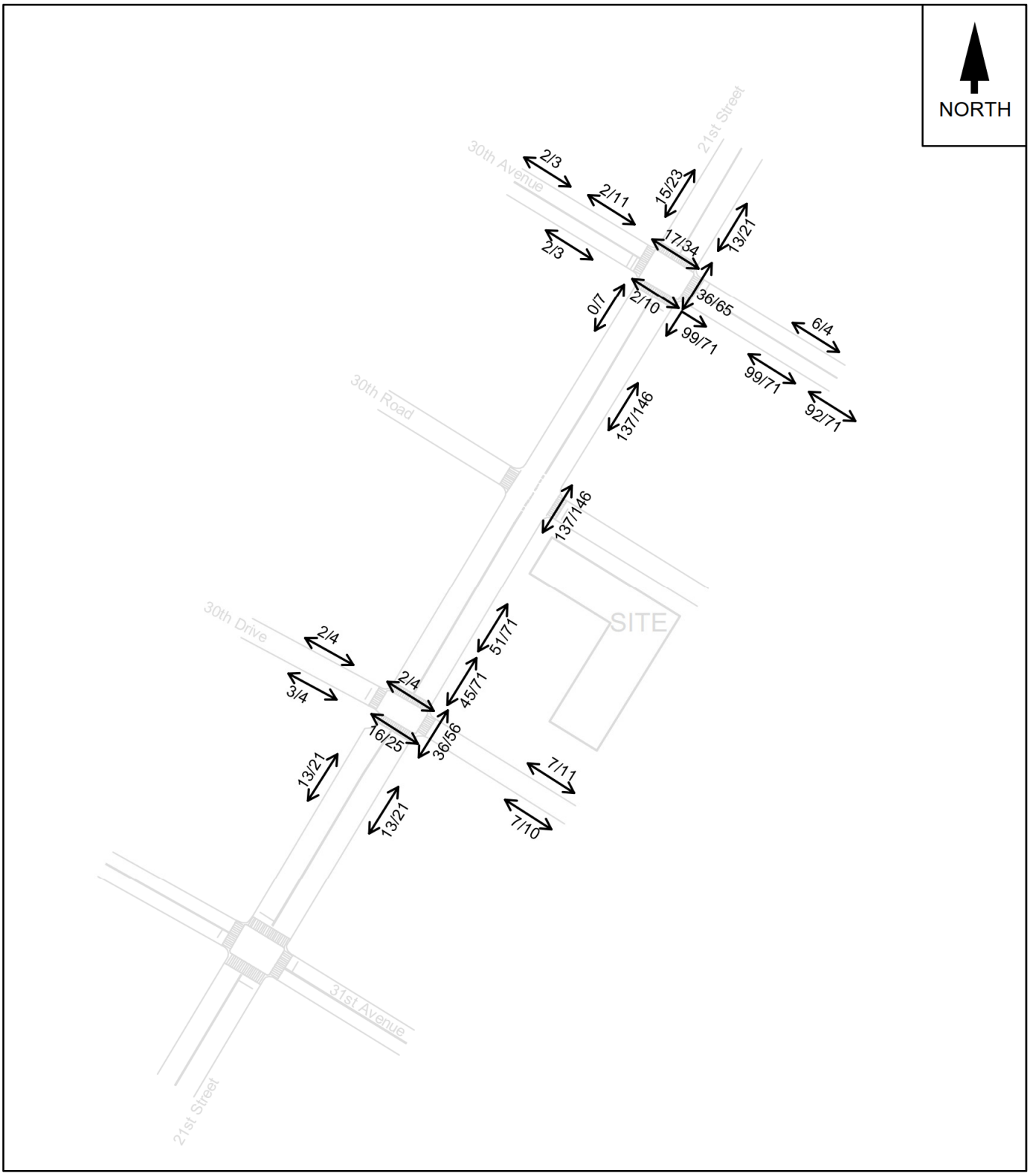
Project-Generated Pedestrian Assignments, Weekday Midday Peak Hour

Figure 2.8-26



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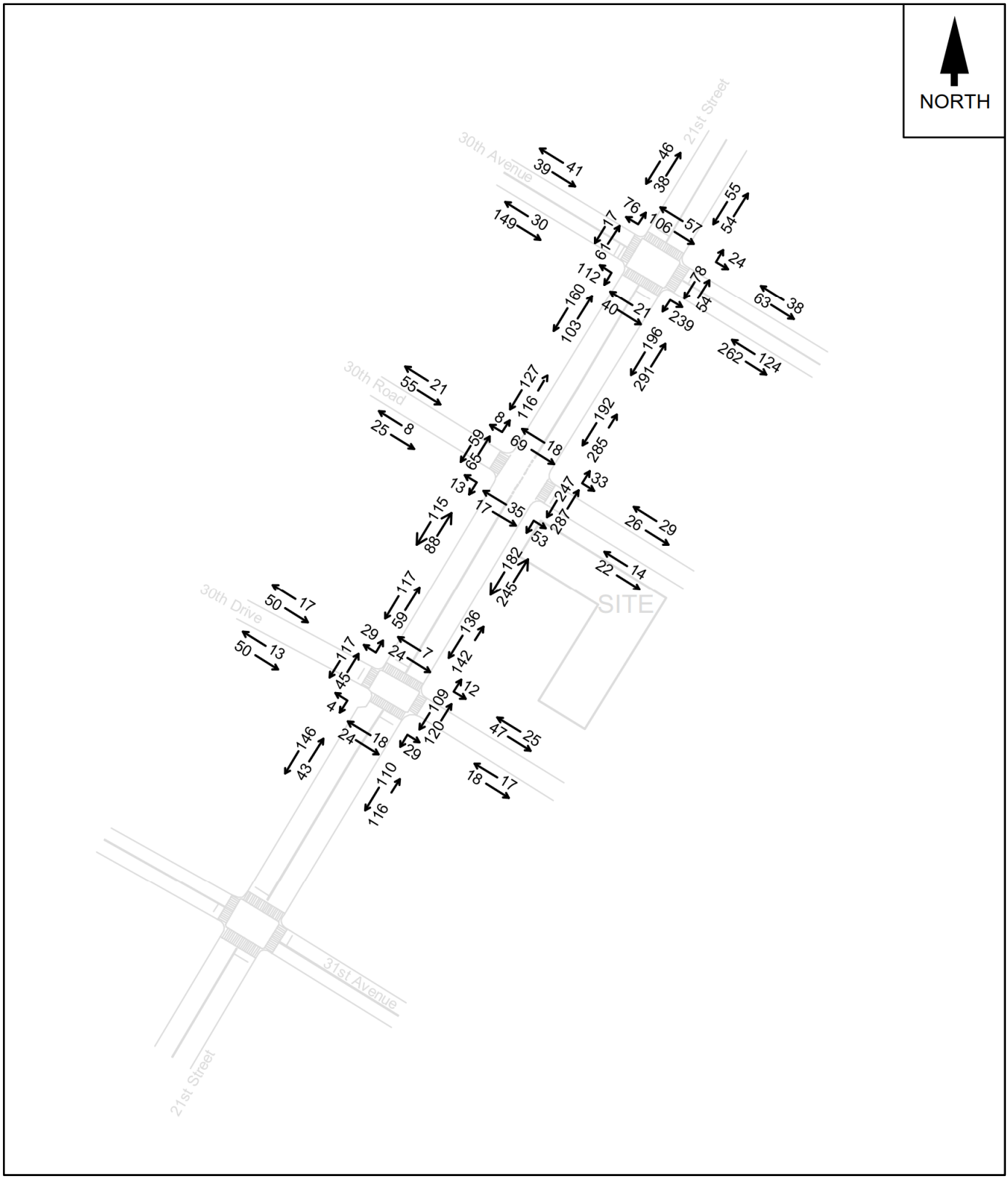
Project-Generated Pedestrian Volumes, Weekday PM Peak Hour

Figure 2.8-27



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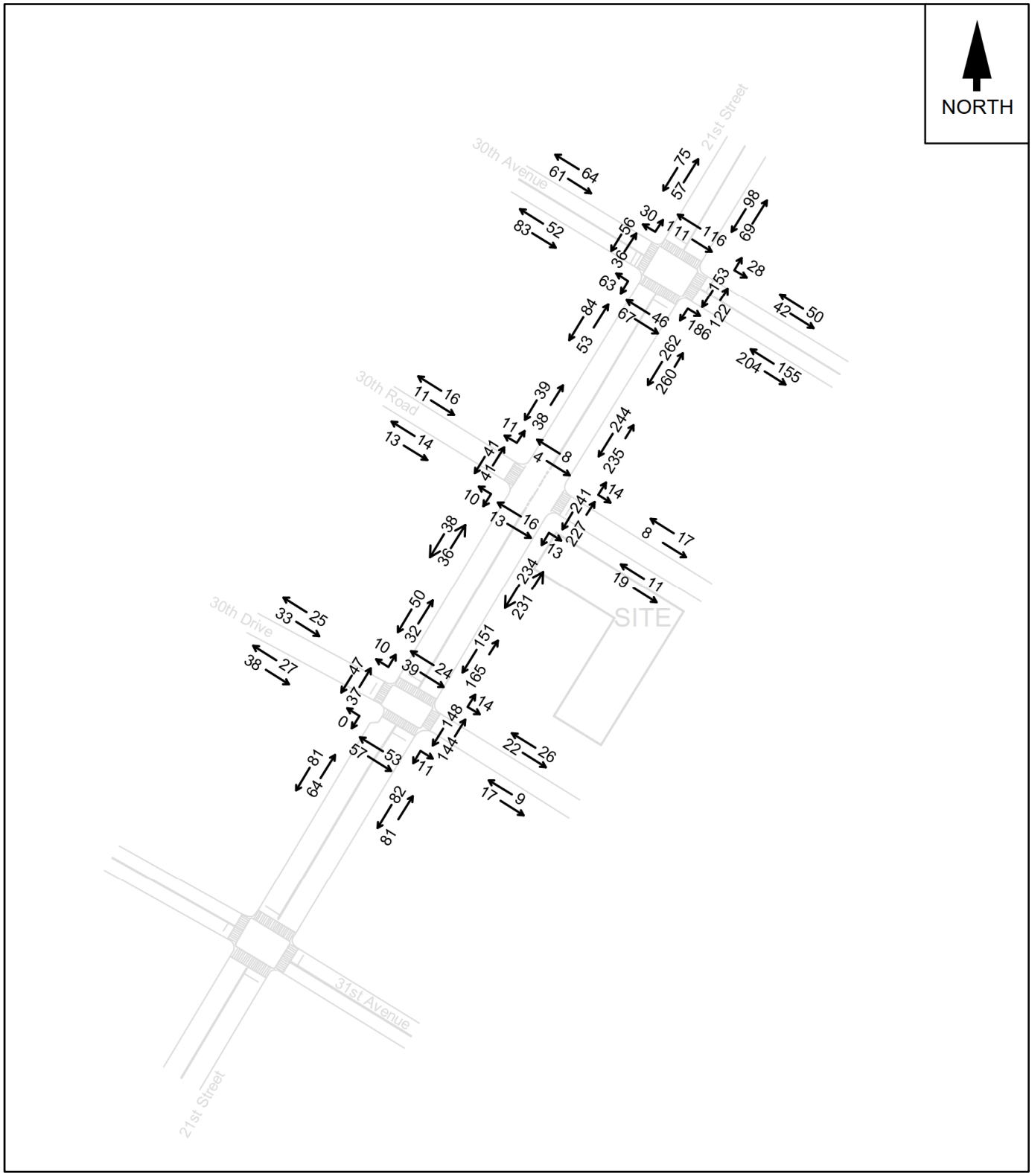
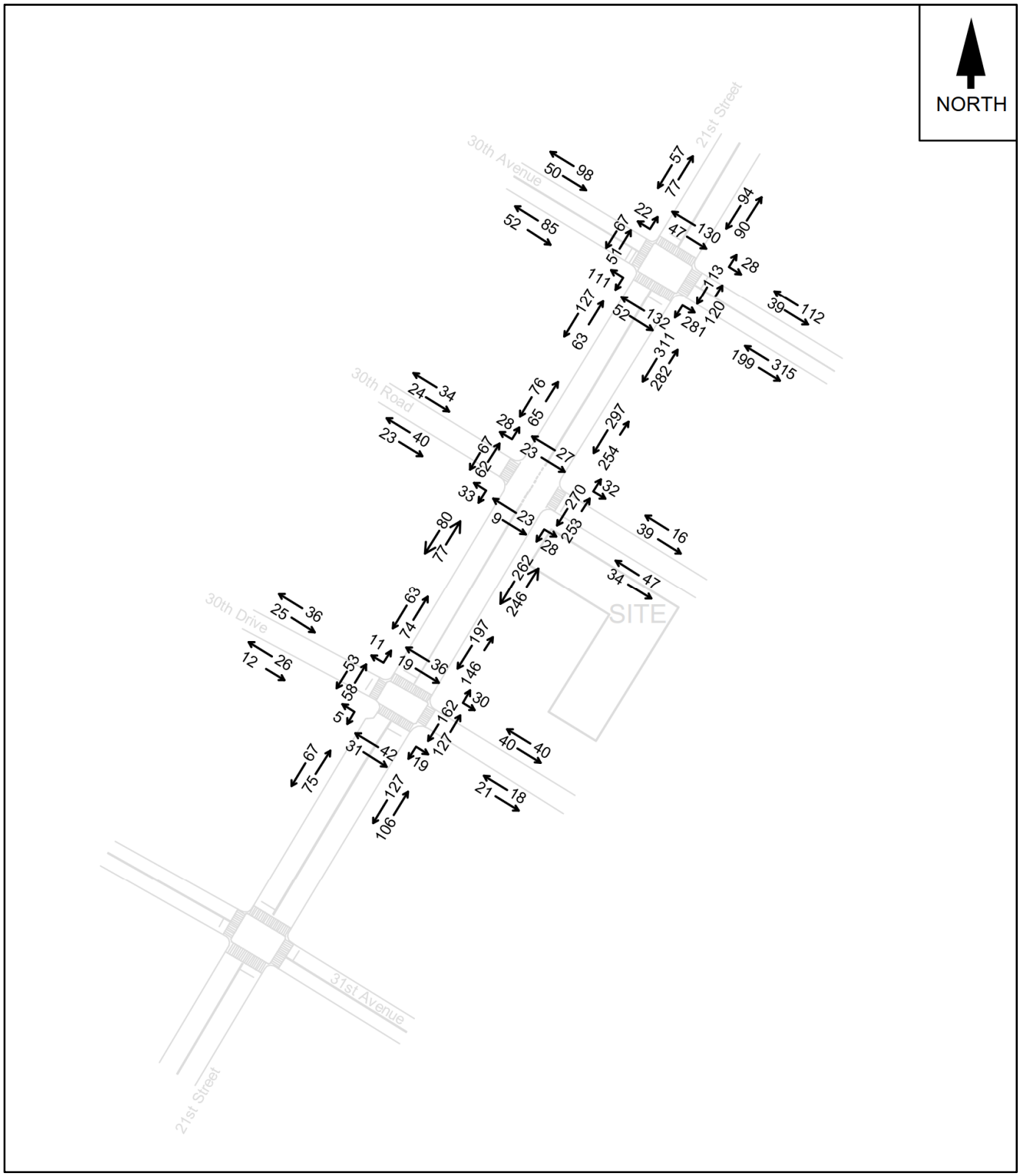
Future With-Action Pedestrian Volumes, Weekday AM Peak Hour

Figure 2.8-28



AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Future With-Action Pedestrian Volumes, Weekday Midday Peak Hour** **Figure 2.8-29**



AECOM	**Environmental Assessment Statement** **Variety Boys and Girls Club of Queens Rezoning** **Astoria, NY**	**Future With-Action Pedestrian Volumes, Weekday PM Peak Hour** **Figure 2.8-30**

Future With-Action Levels-of-Service
The crosswalk, street corner, and sidewalk LOS analyses at the study intersections were then repeated using the projected Future With-Action Condition pedestrian volumes, and the results are shown in **Tables 2.8-20 through 2.8-22**. As shown in these tables, all street corners, crosswalks and sidewalks are projected to continue to operate at an acceptable LOS "B" or better during the weekday AM, midday, and PM peak hours.

Pedestrian Impacts

Pedestrian Impact Criteria
The assessment of projected pedestrian impacts is based in part on whether the pedestrian element being analyzed is part of a Central Business District (CBD), and, for sidewalks, whether the pedestrian flow is platooned or not. This area of Queens is not considered a CBD location. To ensure a conservative analysis, platoon flow conditions were assumed.

For crosswalks and corners in non-CBD locations: According to the guidelines established in the *CEQR Technical Manual*, average pedestrian space under the Future With-Action Condition deteriorating to LOS "C" or better should generally not be considered a significant impact. If the pedestrian space under the Future With-Action Condition deteriorates to LOS "D" or worse (i.e., less than 24.0 square feet/ped), then the determination of whether the impact is considered significant is based on a sliding scale that varies with the Future No-Action pedestrian space.

For sidewalks with platoon flow in non-CBD locations: According to the guidelines established in the *CEQR Technical Manual*, average pedestrian space under the Future With-Action Condition deteriorating to LOS "C" or better generally should not be considered a significant impact. If the pedestrian space under the Future With-Action Condition deteriorates to LOS "D" or worse (i.e., less than 40.0 square feet/ped), then the determination of whether the impact is considered significant is based on a sliding scale that varies with the Future No-Action pedestrian space.

As shown in **Tables 2.8-23 through 2.8-25**, under the proposed Future With-Action Condition, all of the pedestrian elements are projected to operate at LOS "B" or better (as defined in the paragraphs above for crosswalks and sidewalks). Therefore, no significant pedestrian impacts associated with the proposed action are projected for the Future With-Action Condition.

2.8.4 Parking

A parking analysis was conducted to determine the extent to which the projected parking demand associated with the proposed action would be accommodated by the proposed on-site parking supply (i.e., 64 proposed on-site parking spaces). The projected hourly parking demand for each proposed land use—residential, local retail, and medical office—was estimated throughout the course of a 24-hour period for a typical weekday. This estimate was based on the sizes and types of land uses proposed for the applicant's site, the associated transportation planning assumptions used in the trip generation estimates, and data from standard reference sources such as the *CEQR Technical Manual*, the Institute of Transportation Engineer's *Parking Generation* manual, and U.S. Census data. The individual hourly parking generation profiles for all three land uses were then aggregated to arrive at the combined total parking accumulation profile under the Future With-Action condition. The parking generation profile for the typical weekday was then compared to the proposed on-site parking supply to estimate the propensity, if any, for possible overflow of parked vehicles onto surrounding public streets.

Table 2.8-26 summarizes the results of the parking demand analysis on a typical weekday, including each of the site's land uses, and for the site as a whole. Similarly, **Figure 2.8-31** graphically illustrates the parking demand throughout the course of a typical weekday for each land use and for the site as a whole. As shown in **Table 2.8-26** and **Figure 2.8-31**, the projected total hourly parking demand over the course of a typical weekday is not projected to exceed the proposed on-site parking supply of 64 parking spaces.

Table 2.8-20 Future With-Action Scenario Pedestrian Corner Analyses

Intersection	Peak Hour	Corner	Pedestrian Operations	
			feet^2/ped	LOS
21st Street/30th Avenue	Weekday AM	Northwest	111.3	A
		Northeast	274.1	A
		Southwest	456.2	A
		Southeast	520.9	A
	Weekday Midday	Northwest	105.9	A
		Northeast	149.2	A
		Southwest	425.6	A
		Southeast	329.6	A
	Weekday PM	Northwest	106.0	A
		Northeast	172.3	A
		Southwest	274.4	A
		Southeast	227.0	A
21st Street/30th Drive	Weekday AM	Northwest	337.5	A
		Northeast	505.8	A
		Southwest	468.0	A
		Southeast	499.0	A
	Weekday Midday	Northwest	437.5	A
		Northeast	480.9	A
		Southwest	389.9	A
		Southeast	411.4	A
	Weekday PM	Northwest	525.7	A
		Northeast	442.5	A
		Southwest	479.6	A
		Southeast	409.6	A

Table 2.8-21 Future With-Action Scenario Pedestrian Crosswalk Analyses

Intersection	Peak Hour	Crosswalk	Crosswalk Length (Feet - approx.)	Crosswalk Width (Feet - approx.)	Pedestrian Operations	
					feet^2/ped	LOS
21st Street/30th Avenue	Weekday AM	North	59.3	13.9	133.1	A
		East	38.5	15.7	410.3	A
		South	56.7	13.8	391.7	A
		West	39.2	11.1	461.4	A
	Weekday Midday	North	59.3	13.9	106.6	A
		East	38.5	15.7	161.4	A
		South	56.7	13.8	179.5	A
		West	39.2	11.1	410.2	A
	Weekday PM	North	59.3	13.9	111.4	A
		East	38.5	15.7	201.6	A
		South	56.7	13.8	122.1	A
		West	39.2	11.1	290.8	A
21st Street/30th Road	Weekday AM	North	59.6	7.9	517.6	A
		East	29.5	12.4	146.0	A
		South	59.1	8.3	826.0	A
		West	30.2	13.8	615.4	A
	Weekday Midday	North	59.6	7.9	3171.0	A
		East	29.5	12.4	165.2	A
		South	59.1	8.3	1829.9	A
		West	30.2	13.8	1029.1	A
	Weekday PM	North	59.6	7.9	1240.1	A
		East	29.5	12.4	141.5	A
		South	59.1	8.3	1430.8	A
		West	30.2	13.8	737.2	A
21st Street/30th Drive	Weekday AM	North	59.7	12.8	307.3	A
		East	29.6	14.7	182.8	A
		South	50.9	12.8	305.5	A
		West	29.3	12.6	266.3	A
	Weekday Midday	North	59.7	12.8	194.7	A
		East	29.6	14.7	200.2	A
		South	50.9	12.8	97.9	A
		West	29.3	12.6	486.5	A
	Weekday PM	North	59.7	12.8	291.6	A
		East	29.6	14.7	164.3	A
		South	50.9	12.8	148.6	A
		West	29.3	12.6	467.8	A

Table 2.8-22 Future With-Action Scenario Pedestrian Platoon Sidewalk Analyses

Intersection	Peak Hour	Sidewalk	Direction	Pedestrian Platoon Operations	
				feet^2/ped	LOS
21st Street/30th Avenue	Weekday AM	NE	N-S	338.8	B
			E-W	600.0	A
		SE	N-S	233.4	B
			E-W	284.6	B
		SW	N-S	146.1	B
			E-W	390.1	B
		NW	N-S	284.9	B
			E-W	395.8	B
	Weekday Midday	NE	N-S	224.0	B
			E-W	676.5	A
		SE	N-S	245.4	B
			E-W	339.1	B
		SW	N-S	265.8	B
			E-W	569.0	A
		NW	N-S	164.5	B
			E-W	256.9	B
	Weekday PM	NE	N-S	213.8	B
			E-W	363.3	B
		SE	N-S	191.7	B
			E-W	242.6	B
		SW	N-S	242.9	B
			E-W	503.4	B
		NW	N-S	164.4	B
			E-W	207.7	B
21st Street/30th Road	Weekday AM	NE	N-S	166.3	B
			E-W	989.2	A
		SE	N-S	207.3	B
			E-W	1350.0	A
		SW	N-S	465.5	B
			E-W	1681.1	A
		NW	N-S	277.2	B
			E-W	866.1	A
	Weekday Midday	NE	N-S	199.8	B
			E-W	1740.9	A
		SE	N-S	184.0	B
			E-W	2835.0	A
		SW	N-S	1331.7	A
			E-W	1380.0	A
		NW	N-S	850.9	A
			E-W	2402.7	A
	Weekday PM	NE	N-S	178.2	B
			E-W	1141.3	A
		SE	N-S	191.6	B
			E-W	960.0	A
		SW	N-S	679.3	A
			E-W	972.5	A
		NW	N-S	524.4	B
			E-W	1200.7	A

Table 2.8-23 (Continued) Future With-Action Scenario Pedestrian Platoon Sidewalk Analyses

21st Street/30th Drive	Weekday AM	NE	N-S	300.1	B
			E-W	836.6	A
		SE	N-S	521.6	B
			E-W	1812.6	A
		SW	N-S	545.4	A
			E-W	905.1	A
		NW	N-S	728.4	A
			E-W	416.4	B
	Weekday Midday	NE	N-S	303.0	B
			E-W	1509.5	A
		SE	N-S	698.7	A
			E-W	1979.6	A
		SW	N-S	576.0	A
			E-W	638.0	A
		NW	N-S	1299.5	A
			E-W	615.7	A
	Weekday PM	NE	N-S	319.0	B
			E-W	709.3	A
		SE	N-S	600.2	A
			E-W	1534.6	A
		SW	N-S	680.0	A
			E-W	1182.3	A
		NW	N-S	862.9	A
			E-W	649.4	A

Table 2.8-23 Comparison of Future No-Action and Future With-Action Scenarios: Pedestrian Street Corner Analyses

Intersection	Peak Hour	Corner	2021 No-Action		2021 With-Action		Impact?
			feet^2/ped	LOS	feet^2/ped	LOS	
21st Street/30th Avenue	Weekday AM	Northwest	126.5	A	111.3	A	
		Northeast	381.5	A	274.1	A	
		Southwest	468.3	A	456.2	A	
		Southeast	1023.8	A	520.9	A	
	Weekday Midday	Northwest	166.7	A	105.9	A	
		Northeast	336.1	A	149.2	A	
		Southwest	515.4	A	425.6	A	
		Southeast	868.3	A	329.6	A	
	Weekday PM	Northwest	129.0	A	106.0	A	
		Northeast	271.8	A	172.3	A	
		Southwest	282.0	A	274.4	A	
		Southeast	424.5	A	227.0	A	
21st Street/30th Driveway	Weekday AM	Northwest	348.1	A	337.5	A	
		Northeast	649.6	A	505.8	A	
		Southwest	555.3	A	468.0	A	
		Southeast	697.0	A	499.0	A	
	Weekday Midday	Northwest	564.8	A	437.5	A	
		Northeast	970.5	A	480.9	A	
		Southwest	883.1	A	389.9	A	
		Southeast	1181.7	A	411.4	A	
	Weekday PM	Northwest	548.1	A	525.7	A	
		Northeast	604.8	A	442.5	A	
		Southwest	691.8	A	479.6	A	
		Southeast	651.8	A	409.6	A	

Table 2.8-24 Comparison of Future No-Action and Future With-Action Scenarios: Pedestrian Crosswalk Analyses

Intersection	Peak Hour	Crosswalk	Crosswalk Length (Feet - approx.)	Crosswalk Width (Feet - approx.)	2021 No-Action		2021 With-Action		Impact?
					feet^2/ped	LOS	feet^2/ped	LOS	
21st Street/30th Avenue	Weekday AM	North	59.3	13.9	163.8	A	133.1	A	
		East	38.5	15.7	757.5	A	410.3	A	
		South	56.7	13.8	443.0	A	391.7	A	
		West	39.2	11.1	461.4	A	461.4	A	
	Weekday Midday	North	59.3	13.9	208.9	A	106.6	A	
		East	38.5	15.7	471.8	A	161.4	A	
		South	56.7	13.8	281.0	A	179.5	A	
		West	39.2	11.1	423.7	A	410.2	A	
	Weekday PM	North	59.3	13.9	157.4	A	111.4	A	
		East	38.5	15.7	364.8	A	201.6	A	
		South	56.7	13.8	130.5	A	122.1	A	
		West	39.2	11.1	290.8	A	290.8	A	
21st Street/30th Road	Weekday AM	North	59.6	7.9	517.6	A	517.6	A	
		East	29.5	12.4	240.6	A	146.0	A	
		South	59.1	8.3	826.0	A	826.0	A	
		West	30.2	13.8	615.4	A	615.4	A	
	Weekday Midday	North	59.6	7.9	3171.0	A	3171.0	A	
		East	29.5	12.4	647.0	A	165.2	A	
		South	59.1	8.3	1829.9	A	1829.9	A	
		West	30.2	13.8	1029.1	A	1029.1	A	
	Weekday PM	North	59.6	7.9	1240.1	A	1240.1	A	
		East	29.5	12.4	305.3	A	141.5	A	
		South	59.1	8.3	1430.8	A	1430.8	A	
		West	30.2	13.8	737.2	A	737.2	A	
21st Street/30th Drive	Weekday AM	North	59.7	12.8	352.1	A	307.3	A	
		East	29.6	14.7	245.2	A	182.8	A	
		South	50.9	12.8	763.8	A	305.5	A	
		West	29.3	12.6	266.3	A	266.3	A	
	Weekday Midday	North	59.7	12.8	365.7	A	194.7	A	
		East	29.6	14.7	451.6	A	200.2	A	
		South	50.9	12.8	552.0	A	97.9	A	
		West	29.3	12.6	486.5	A	486.5	A	
	Weekday PM	North	59.7	12.8	327.6	A	291.6	A	
		East	29.6	14.7	243.7	A	164.3	A	
		South	50.9	12.8	377.6	A	148.6	A	
		West	29.3	12.6	467.9	A	467.8	A	

Table 2.8-25 Comparison of Future No-Action and Future With-Action Scenarios: Pedestrian Sidewalk Platoon Analyses

Intersection	Peak Hour	Sidewalk	Direction	2021 No-Action		2021 With-Action		Impact?
				feet^2/ped	LOS	feet^2/ped	LOS	
21st Street/30th Avenue	Weekday AM	NE	N-S	419.7	B	338.8	B	
			E-W	658.7	A	600.0	A	
		SE	N-S	409.1	B	233.4	B	
			E-W	450.3	B	284.6	B	
		SW	N-S	148.3	B	146.1	B	
			E-W	397.2	B	390.1	B	
		NW	N-S	395.9	B	284.9	B	
			E-W	432.3	B	395.8	B	
	Weekday Midday	NE	N-S	353.0	B	224.0	B	
			E-W	759.0	A	676.5	A	
		SE	N-S	740.8	A	245.4	B	
			E-W	534.0	A	339.1	B	
		SW	N-S	284.5	B	265.8	B	
			E-W	731.6	A	569.0	A	
		NW	N-S	329.2	B	164.5	B	
			E-W	387.0	B	256.9	B	
	Weekday PM	NE	N-S	262.3	B	213.8	B	
			E-W	406.4	B	363.3	B	
		SE	N-S	366.8	B	191.7	B	
			E-W	362.5	B	242.6	B	
		SW	N-S	252.2	B	242.9	B	
			E-W	522.4	B	503.4	B	
		NW	N-S	229.6	B	164.4	B	
			E-W	227.7	B	207.7	B	
21st Street/30th Road	Weekday AM	NE	N-S	296.1	B	166.3	B	
			E-W	989.2	A	989.2	A	
		SE	N-S	406.2	B	207.3	B	
			E-W	1350.0	A	1350.0	A	
		SW	N-S	465.5	B	465.5	B	
			E-W	1681.1	A	1681.1	A	
		NW	N-S	277.2	B	277.2	B	
			E-W	866.1	A	866.1	A	
	Weekday Midday	NE	N-S	736.6	A	199.8	B	
			E-W	1740.9	A	1740.9	A	
		SE	N-S	738.0	A	184.0	B	
			E-W	2835.0	A	2835.0	A	
		SW	N-S	1331.7	A	1331.7	A	
			E-W	1380.0	A	1380.0	A	
		NW	N-S	850.9	A	850.9	A	
			E-W	2402.7	A	2402.7	A	
	Weekday PM	NE	N-S	366.6	B	178.2	B	
			E-W	1141.3	A	1141.3	A	
		SE	N-S	432.9	B	191.6	B	
			E-W	960.0	A	960.0	A	
		SW	N-S	679.3	A	679.3	A	
			E-W	972.5	A	972.5	A	
		NW	N-S	524.4	B	524.4	B	
			E-W	1200.7	A	1200.7	A	
21st Street/30th Drive	Weekday AM	NE	N-S	405.0	B	300.1	B	
			E-W	987.5	A	836.6	A	
		SE	N-S	575.0	A	521.6	B	
			E-W	2643.4	A	1812.6	A	
		SW	N-S	613.6	A	545.4	A	
			E-W	966.5	A	905.1	A	
		NW	N-S	728.4	A	728.4	A	
			E-W	442.8	B	416.4	B	
	Weekday Midday	NE	N-S	832.7	A	303.0	B	
			E-W	1906.8	A	1509.5	A	
		SE	N-S	1116.5	A	698.7	A	
			E-W	3216.9	A	1979.6	A	
		SW	N-S	982.6	A	576.0	A	
			E-W	1184.9	A	638.0	A	
		NW	N-S	1299.5	A	1299.5	A	
			E-W	1275.4	A	615.7	A	
	Weekday PM	NE	N-S	482.1	B	319.0	B	
			E-W	915.2	A	709.3	A	
		SE	N-S	702.8	A	600.2	A	
			E-W	2720.4	A	1534.6	A	
		SW	N-S	894.1	A	680.0	A	
			E-W	1449.3	A	1182.3	A	
		NW	N-S	862.9	A	862.9	A	
			E-W	720.3	A	649.4	A	

Table 2.8-26 Summary of Weekday Parking Demand and Supply, by Land Use

Time Period	WEEKDAY TEMPORAL DISTRIBUTIONS BY LAND USE									TRIP GENERATION PARAMETERS	WEEKDAY PARKING DEMAND CALCULATIONS											
	Local Retail			Community Center			Residential				Local Retail			Community Center			Residential			TOTAL		
	% Total[1]	% In[1]	% Out[1]	% Total[2]	% In[2]	% Out[2]	% Total[3]	% In[3]	% Out[3]		IN	OUT	PARK	IN	OUT	PARK	IN	OUT	PARK	Demand	Supply	Available Spaces
										Size =	7,779			84,139			181					
										Daily person-trip rate (trips/unit size)[4]=	205			45			8.075					
										Auto mode split (% of total trips)[5] =	15.0%			4.0%			16.6%					
										Auto occupancy[5] =	2.00			1.40			1.40					
										Auto ownership[6] =							0.35					
										Linked-trip reduction[4] =	25.0%											
										Daily vehicle trips =	90			107			173					
12:00 AM to 1:00 AM	**0.0%**	50%	50%	**0.0%**	50%	50%	**2.0%**	50%	50%		0	0	0	0	0	0	2	2	63	63	64	1
1:00 AM to 2:00 AM	**0.0%**	50%	50%	**0.0%**	50%	50%	**1.0%**	50%	50%		0	0	0	0	0	0	1	1	63	63	64	1
2:00 AM to 3:00 AM	**0.0%**	50%	50%	**0.0%**	50%	50%	**0.0%**	50%	50%		0	0	0	0	0	0	0	0	63	63	64	1
3:00 AM to 4:00 AM	**0.0%**	50%	50%	**0.0%**	50%	50%	**0.0%**	50%	50%		0	0	0	0	0	0	0	0	63	63	64	1
4:00 AM to 5:00 AM	**0.0%**	50%	50%	**0.0%**	50%	50%	**0.0%**	50%	50%		0	0	0	0	0	0	0	0	63	63	64	1
5:00 AM to 6:00 AM	**0.0%**	50%	50%	**0.0%**	50%	50%	**0.0%**	50%	50%		0	0	0	0	0	0	0	0	63	63	64	1
6:00 AM to 7:00 AM	**0.0%**	50%	50%	**4.0%**	59%	41%	**1.0%**	5%	95%		0	0	0	3	2	1	0	2	62	63	64	1
7:00 AM to 8:00 AM	**2.0%**	51%	49%	**4.0%**	50%	50%	**4.0%**	20%	80%		1	1	0	2	2	1	1	6	58	58	64	6
8:00 AM to 9:00 AM	**3.0%**	50%	50%	**4.0%**	61%	39%	**10.0%**	20%	80%		1	1	0	3	2	2	3	14	47	49	64	15
9:00 AM to 10:00 AM	**2.0%**	51%	49%	**4.0%**	50%	50%	**7.0%**	20%	80%		1	1	0	2	2	2	2	10	40	42	64	22
10:00 AM to 11:00 AM	**5.0%**	57%	43%	**9.0%**	50%	50%	**5.0%**	30%	70%		3	2	1	5	5	2	3	6	36	39	64	25
11:00 AM to 12:00 PM	**8.0%**	50%	50%	**9.0%**	50%	50%	**4.0%**	50%	50%		4	4	1	5	5	2	3	3	36	39	64	25
12:00 PM to 1:00 PM	**19.0%**	50%	50%	**9.0%**	55%	45%	**5.0%**	51%	49%		9	9	1	5	4	3	4	4	37	40	64	24
1:00 PM to 2:00 PM	**15.0%**	51%	49%	**9.0%**	50%	50%	**5.0%**	50%	50%		7	7	1	5	5	3	4	4	37	40	64	24
2:00 PM to 3:00 PM	**11.0%**	50%	50%	**9.0%**	50%	50%	**4.0%**	50%	50%		5	5	1	5	5	3	3	3	37	40	64	24
3:00 PM to 4:00 PM	**7.0%**	50%	50%	**9.0%**	50%	50%	**5.0%**	55%	45%		3	3	1	5	5	3	5	4	38	41	64	23
4:00 PM to 5:00 PM	**7.0%**	50%	50%	**5.0%**	60%	40%	**7.0%**	55%	45%		3	3	1	3	2	4	7	5	39	43	64	21
5:00 PM to 6:00 PM	**10.0%**	50%	50%	**5.0%**	29%	71%	**11.0%**	65%	35%		4	4	1	2	4	2	12	7	44	47	64	17
6:00 PM to 7:00 PM	**7.0%**	49%	51%	**5.0%**	70%	30%	**9.0%**	65%	35%		3	3	1	4	2	4	10	5	49	54	64	10
7:00 PM to 8:00 PM	**2.0%**	43%	57%	**5.0%**	50%	50%	**8.0%**	65%	35%		1	1	1	3	3	4	9	5	53	58	64	6
8:00 PM to 9:00 PM	**1.0%**	45%	55%	**5.0%**	50%	50%	**4.0%**	70%	30%		0	0	1	3	3	4	5	2	56	60	64	4
9:00 PM to 10:00 PM	**1.0%**	22%	78%	**5.0%**	16%	84%	**3.0%**	70%	30%		0	1	0	1	5	0	4	2	58	58	64	6
10:00 PM to 11:00 PM	**0.0%**	50%	50%	**0.0%**	50%	50%	**3.0%**	70%	30%		0	0	0	0	0	0	4	2	60	60	64	4
11:00 PM to 12:00 AM	**0.0%**	50%	50%	**0.0%**	50%	50%	**2.0%**	95%	5%		0	0	0	0	0	0	3	0	63	63	64	1

1) Based on temporal distributions from *CEQR Technical Manual* and weekday parking demand profile for Supermarket (Land Use Code 850) from Institute of Transportation Engineers *Parking Generation, 4th Edition*, 2010

2) Based on temporal distributions from CEQR Technical Manual and weekday parking demand profile for Health/Fitness Club (Land Use Code 492) from Institute of Transportation Engineers Parking Generation, 4th Edition, 2010.

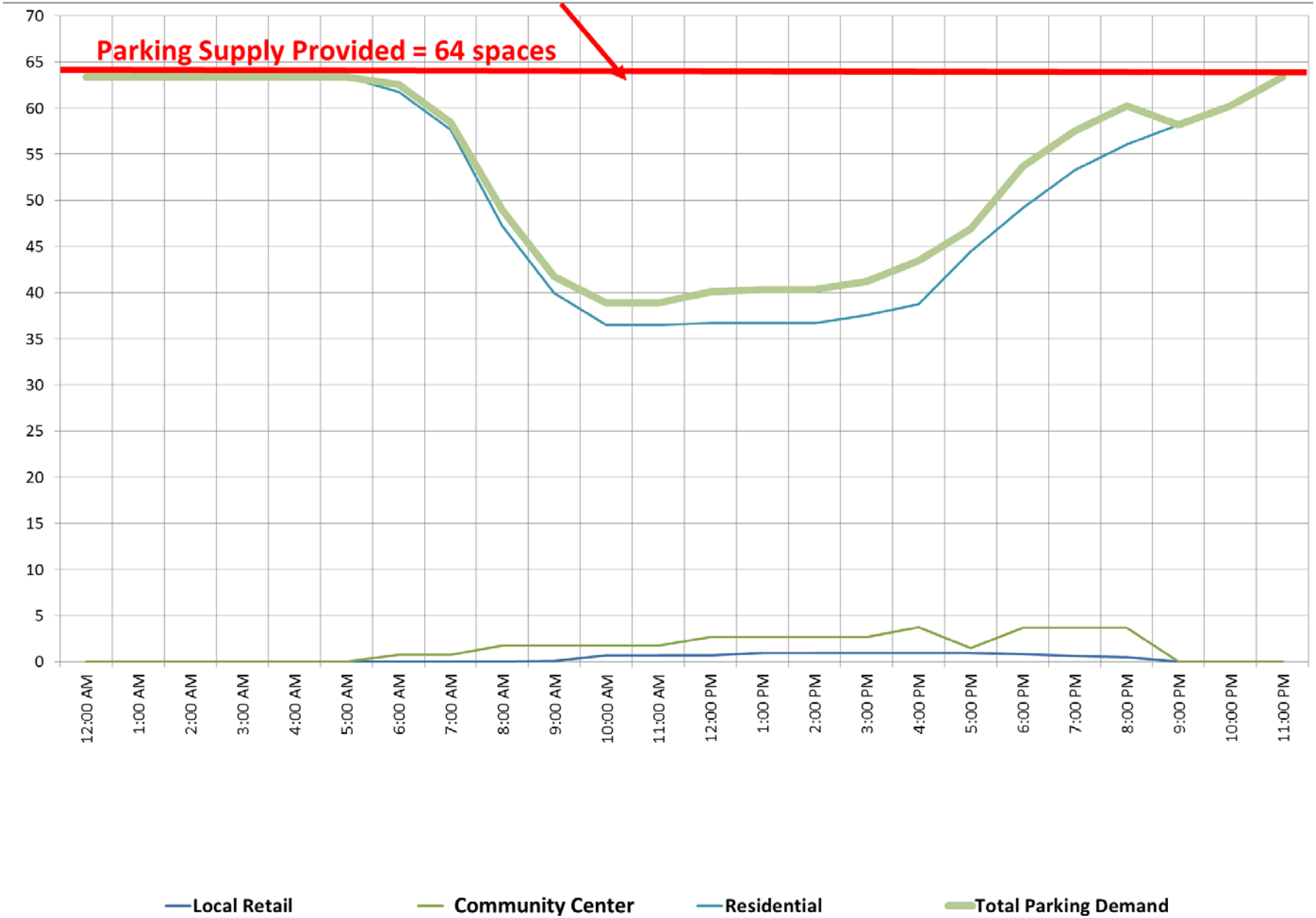
3) Based on temporal distributions from *CEQR Technical Manual*, residential temporal distribution from Pushkarev & Zupan, *Urban Space for Pedestrians*, Table 2.6, p. 37 and weekday parking demand profile for Rental Townhouse (Land Use Code 224) from Institute of Transportation Engineers *Parking Generation, 4th Edition*, 2010.

4) Local Retail and Residential person-trip rates based on *CEQR Technical Manual*. Medical Office person-trip rate based on rates provided by NYCDOT.

5) Local Retail mode split and auto occupancy based on *Bedford-Stuyvesant North Rezoning EAS*. Medical Office mode split and auto occupany from NYCDOT. Residential mode split and auto occupancy based on census journey-to-work data for tracts71, 73, 75, 77, 79, 81 and 83.

6) Based on auto ownership data for residences in census tracts 71, 73, 75, 77, 79, 81 and 83 in 2011-2015 American Community Survey.

Figure 2.8-31 Parking Demand Profile



Based on the findings of this parking analysis, the proposed action is anticipated to have sufficient on-site parking supply to accommodate projected hourly parking demands throughout the course of a typical weekday. Therefore, no overflow of parked vehicles is projected to occur onto surrounding public streets, and no significant parking impacts are anticipated.

2.8.5 Safety Assessment

The *CEQR Technical Manual* defines a "high crash location" as any location with 48 or more total reportable and non-reportable crashes, or five or more pedestrian/bicyclist injury crashes, in any consecutive 12 months of the most recent three-year period for which data are available. Crash data compiled by the NYCDOT for the most recent available three-year period (i.e., 2014 to 2016) were reviewed to identify the crash history at each of the study intersections. **Table 2.8-27** summarizes the total number of crashes at each of the study intersections by year, as well as the total number of pedestrian and bicycle crashes by year.

Table 2.8-27 Summary of NYCDOT Crash Data: 2014 to 2016

Intersection	Pedestrian Injury Crashes			Bicycle Injury Crashes			Total Pedestrian/ Bicycle Injury Crashes			Total Crashes (Reportable + Non-Reportable)		
	2014	2015	2016	2014	2015	2016	2014	2015	2016	2014	2015	2016
21st Street/30th Avenue	2	0	1	0	0	0	2	0	1	5	0	2
21st Street/30th Road	0	0	0	0	0	0	0	0	0	1	1	1
21st Street/30th Drive	0	1	2	0	0	1	0	1	3	3	1	5
21st Street/31st Avenue	1	0	0	0	0	1	1	0	1	1	2	2
21st Street/Broadway	1	2	3	0	0	0	1	2	3	5	6	9
Total =	**4**	**3**	**6**	**0**	**0**	**2**	**4**	**3**	**8**	**15**	**10**	**19**

Source: New York City Department of Transportation (2014-2016).

As shown in **Table 2.8-27**, the total number of crashes for the three-year period between 2014 and 2016 (inclusive) at each intersection are below the *CEQR* thresholds (i.e., 48 total crashes in any 12 months, or five pedestrian/bicyclist injury crashes, over the most recent three years) for four of the five intersections. There were also no fatal crashes at any of the study intersections during the 2014 to 2016 period.

2.8.6 Conclusion

Per the above analyses, project-generated vehicle, transit, and pedestrian trips would not have a significant adverse impact on the local transportation network in the study area. The proposed action is projected to introduce less than 200 subway trips; and as such, does not warrant a detailed subway analysis. A preliminary screening assessment of bus trips found that project-generated bus demand would not exceed the 50-trip *CEQR Technical Manual* analysis threshold during any one peak.

A detailed traffic assessment was performed for the three intersections that have the potential to experience increases of more than 50 vehicles per hour as a result of the proposed action. Per the analysis results, no significant traffic impacts are projected to occur in the Future With-Action Scenario.

A detailed pedestrian analysis was conducted at three intersections with the potential to experience an increase of more than 200 new combined peak-hour pedestrian trips. Analysis results indicate that all street corners, crosswalks and sidewalks are projected to continue to operate at an acceptable LOS "B" or better during the weekday AM, midday, and PM peak hours. Thus the proposed action would not have a significant adverse impact with respect to pedestrians.

Per the parking analysis, the proposed action is anticipated to have sufficient on-site parking supply to accommodate projected hourly parking demands throughout the course of a typical weekday. Since an overflow of parked vehicles onto surrounding public streets would not be expected to occur, no significant parking impacts are anticipated.

Therefore, with implementation of the proposed transportation system improvement, the proposed action is not expected to result in significant adverse transportation impacts.

2.9 AIR QUALITY

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

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

2.9.1 Mobile Sources

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

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

The proposed action would not exceed any of the above thresholds. As discussed below, mobile source screening analyses were completed that evaluated the potential impacts from carbon monoxide (CO) and fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) due to project-generated vehicular traffic. In addition, a parking garage analysis screening was completed.

Carbon Monoxide Screening Analysis

Based on the trip generation estimate and as indicated in **Table 2.9-1**, the proposed action is expected to generate fewer than 170 peak hour auto and truck trips at a single traffic intersection. As such, it is below the 170-peak-hour-trip CO threshold that is used to determine the need for a detailed analysis of mobile source air quality.

Table 2.9-1 Carbon Monoxide Screening Result

Intersection	Increment	Threshold	Pass/ Fail
21st St / 30th Dr	56	170	Pass
21st St / 31st Ave	54	170	Pass
21st St/ Broadway	41	170	Pass

$PM_{2.5}$ Screening Analysis

In the Future With-Action Scenario, the primary access to the development site would be from 21st Street. According to New York State Department of Transportation (NYSDOT) Traffic Data Viewer, the 2015 average daily traffic volume[25] along 21st Street is more than 30,000. Therefore 21st Street is classified as a principal or minor arterial road, with a mobile source $PM_{2.5}$ screening threshold of 23 HDDVs. The worst-case vehicle-trip increment predicted at the development site is a total of 56 trips. Using the screening calculation table provided in the Chapter 17 (Section 210) of the *CEQR Technical Manual*, the worst-case increment is equivalent to nine HDDVs. Consequently, as shown in **Table 2.9-1**, the proposed action passes the mobile source air quality screening for $PM_{2.5}$.

Parking Garage Screening Analysis

Per the RWCDS, the proposed action is expected to generate a net increment of 64 off-street parking spaces, which would be provided on-site in a below-grade parking garage. The proposed action would not increase parking capacity by more than 85 spaces or involve incremental ground disturbance pursuant to Section 16-351 of the Zoning Resolution ("Special Permits for Off-Street Parking Facilities"). Therefore, the proposed action passes the parking garage screening and does not require a parking garage analysis.

Conclusion

Therefore, as discussed above, the proposed action does not require further assessment of mobile source air quality and would not result in significant adverse air quality impacts with respect to mobile sources.

2.9.2 Stationary Sources

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

- New stationary sources of pollutants are created (e.g., emission stacks for industrial plants, hospitals, other large institutional uses).

[25] Note that 2015 traffic data are the most recent available data.

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

As discussed below, screening analyses were completed to determine the need for detailed stationary source air quality analyses.

Air Toxics Screening

The area within 400 feet of the development site serves as the study area for the major large emission sources screening assessment. Field surveys and a review of MapPluto parcel-based land use GIS data were undertaken in order to identify potential manufacturing or processing facilities located within 400-foot study area. According to the land use data, several potential process and manufacturing sources are located within the study area. Searches of the NYCDEP CATS online permitting database were completed to determine whether these properties contain any active manufacturing or processing facilities.[26] After a review of the NYCDEP permit database, no active permits were found for these potential industrial sources. Additional field reconnaissance and desktop research of the New York City Department of Environmental Protection (DEP) CAT database, it was determined that these parcels do not have any active manufacturing or processing facilities.[27] Therefore, as no active industrial sites, manufacturing or processing facilities were identified within the 400-foot study area, the proposed action does not require a detailed air toxics assessment.

[26] The DEP CATs database provides parcel-level information regarding DEP-registered boiler and industrial operation permits.

[27] One suspect parcel located on 31st Avenue (Block 551, Lot 8) formerly contained an auto body repair shop; however the building has been demolished and a seven-story residential building is currently under construction. There is no industrial permit registered for this property. The other suspect property, an auto body repair shop, also does not have an active industrial permit and exhibits no evidence of a spray-booth (Block 552, Lot 17). Thus after conferring with DCP, it was concluded that these properties do not contain active manufacturing or processing facilities.

Major Large Emission Sources Screening

The area within 1,000 feet of the development site serves as the study area for the major large emission sources screening assessment. A desktop review of a variety of data sources was completed in order to determine whether any major large emission sources are located within 1,000 feet of the site. Lists of all New York State Department of Environmental Conservation [NYSDEC] Title V Facility Permits and NYSDEC State Facility Air permits, including facility addresses, were obtained from New York State Open Data (https://data.ny.gov/). The facility addresses were then geocoded in GIS too see if any permitted facilities are within the 1,000-foot study area. In addition, Google Earth imagery and MapPluto land use data were reviewed. No major large emission sources were identified within 1,000 feet of the development site. Accordingly, the proposed action does not require further evaluation with respect to major large stationary sources.

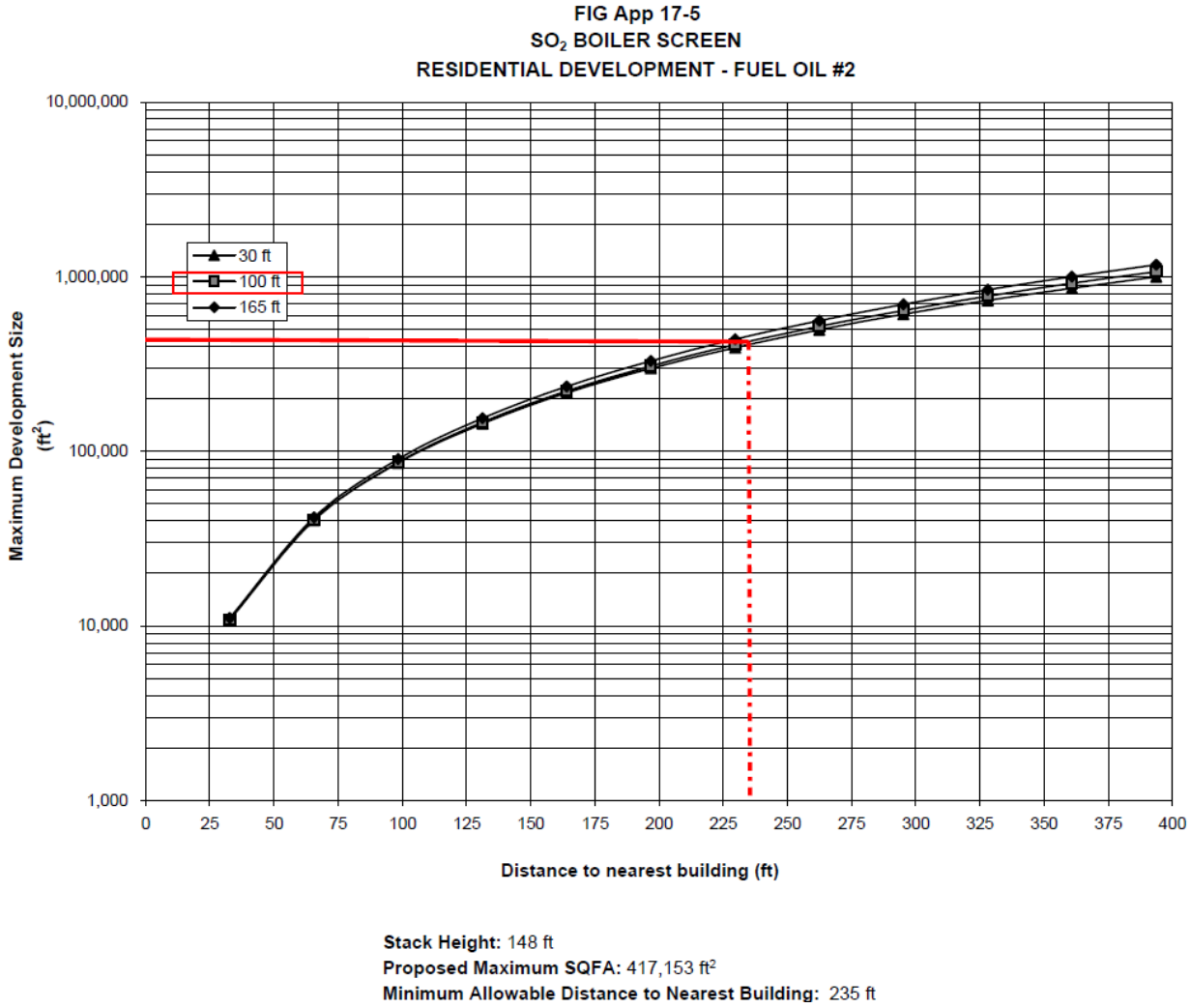
HVAC and Hot Water Boiler Emissions Screening

Impacts from boiler emissions at the project site are a function of fuel type, stack height, minimum distance from the source to the nearest building, and square footage of the development. For the purposes of a conservative analysis, the stationary source screening assumes that fuel oil #4 would be utilized by the proposed development. The proposed action's stack height and development size were plotted on the graph for residential developments provided in the air quality appendices of the *CEQR Technical Manual*, as shown in **Figure 2.9-1**. This graph indicates the minimum distance between the project site and buildings of a similar or greater height in order to avoid a potential air quality impact. The stack height for the emissions vents for the proposed 145-foot building was estimated as being three feet higher than the proposed building height. In accordance with the screening methodology, the curve for a stack height of 100 feet was used for a development size of 417,153 gsf. The screening results (see **Figure 2.9-1**) indicate that the proposed development must be located a minimum of approximately 235 feet from a building of equal or greater height.

According to DCP's MapPluto data, NYC Department of Information Technology and Telecommunications' (DoITT's) planemetric GIS database[28] and desktop review (i.e., Google maps 2D), the nearest building of equal or greater height is situated more than 400 feet from the project site. Therefore, with the stack of the proposed building raised to a height of 148 feet, the proposed development is not expected to result in a stationary source air quality impact.

[28] More specifically, GIS building footprint data were utilized, which includes roof elevation.

Figure 2.9-1 Air Quality Screening



(E) Designation

An (E) designation for air quality (E-245) was placed on the Lot 7 portion of the project site as part of the 2010 Astoria Rezoning. The air quality (E) designation text is provided below.

> *Any new residential and/or commercial development on the above-referenced properties must ensure that the heating, ventilating and air conditioning stack(s) are located at least 29 feet for oil No.4/2 from the lot line facing 30th Drive or use natural gas as the type of fuel for space heating and hot water (HVAC) systems, to avoid any potential significant adverse air quality impacts.*

The proposed action will include an (E) designation for air quality (E-478), which will supersede the (E) designation (E-245) placed on Lot 7 as part of the 2010 Astoria Rezoning. A new (E) designation is necessary for the proposed action because the proposed R7X zoning designation allows for a maximum building height of 145 feet; whereas the 2010 Astoria Rezoning rezoned the project site to of R7A/ R6B, which allows a maximum height building height of 95 feet. In addition, the proposed action would not change the zoning of the surrounding lots, which are still zoned R7A/ R6B, where the maximum building height remains at 95 feet.

The E-478 air quality (E) designation text for the project site is provided below.

Any new residential, commercial and/or community facility development on the aforementioned property must ensure that the proposed development is limited to a single heating, ventilating, and air conditioning (HVAC) stack, which must be located at the highest tier of the proposed development, or at least 148 feet above grade, to avoid any potential significant adverse air quality impacts.

With (E) designation E-478 in place, significant adverse impacts related to stationary source air quality are not expected, and no further analysis is warranted. Therefore, the proposed action would not result in significant adverse impacts related to stationary source air quality.

2.10 NOISE

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

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

Noise is measured in sound pressure level (SPL), which is converted to a decibel scale. The decibel is a relative measure of the sound level pressure with respect to a standardized reference quantity. Decibels on the A-weighted scale are termed “dB(A).” The A-weighted scale is used for evaluating the effects of noise in the environment because it most closely approximates the response of the human ear. On this scale, the threshold of discomfort is 120 dB(A), and the threshold of pain is about 140 dB(A). **Table 2.10-1** shows the range of noise levels for a variety of indoor and outdoor noise levels.

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

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

2.10.1 Mobile Sources

Mobile noise sources are those which move in relation to receptors. The mobile source screening analysis addresses potential noise impacts associated with vehicular traffic generated by the proposed action. According to the *CEQR Technical Manual*, if existing passenger car equivalent (PCE) values are increased by 100 percent or more due to a proposed action, a detailed analysis is generally performed. Based on the results of the traffic analysis (see Section 2.8, Transportation), the proposed action would not result in a doubling of PCE values. Therefore, the proposed action does not require a detailed mobile source analysis and would not result in a significant adverse impact with respect to mobile noise sources.

Table 2.10-1 Sound Pressure Level & Loudness of Typical Noises in Indoor & Outdoor Environments

Noise Level dB(A)	Subjective Impression	Typical Sources		Relative Loudness (Human Response)
		Outdoor	Indoor	
120-130	Uncomfortably Loud	Air raid siren at 50 feet (threshold of pain)	Oxygen torch	32 times as loud
110-120	Uncomfortably Loud	Turbo-fan aircraft at take-off power at 200 feet	Riveting machine Rock band	16 times as loud
100-110	Uncomfortably Loud	Jackhammer at 3 feet		8 times as loud
90-100	Very Loud	Gas lawn mower at 3 feet Subway train at 30 feet Train whistle at crossing Wood chipper shredding trees Chain saw cutting trees at 10 feet	Newspaper press	4 times as loud
80-90	Very Loud	Passing freight train at 30 feet Steamroller at 30 feet Leaf blower at 5 feet Power lawn mower at 5 feet	Food blender Milling machine Garbage disposal Crowd noise at sports event	2 times as loud
70-80	Moderately Loud	NJ Turnpike at 50 feet Truck idling at 30 feet Traffic in downtown urban area	Loud stereo Vacuum cleaner Food blender	Reference loudness (70 dB(A))
60-70	Moderately Loud	Residential air conditioner at 100 feet Gas lawn mower at 100 feet Waves breaking on beach at 65 feet	Cash register Dishwasher Theater lobby Normal speech at 3 feet	2 times as loud
50-60	Quiet	Large transformers at 100 feet Traffic in suburban area	Living room with TV on Classroom Business office Dehumidifier Normal speech at 10 feet	1/4 as loud
40-50	Quiet	Bird calls Trees rustling Crickets Water flowing in brook	Folding clothes Using computer	1/8 as loud
30-40	Very quiet		Walking on carpet Clock ticking in adjacent room	1/16 as loud
20-30	Very quiet		Bedroom at night	1/32 as loud
10-20	Extremely quiet		Broadcast and recording studio	
0-10	Threshold of Hearing			

Sources: *Noise Assessment Guidelines Technical Background*, by Theodore J. Schultz, Bolt Beranek and Newman, Inc., prepared for the US Department of Housing and Urban Development, Office of Research and Technology, Washington, D.C., undated; Sandstone Environmental Associates, Inc.; *Highway Noise Fundamentals*, prepared by the Federal Highway Administration, US Department of Transportation, September 1980; *Handbook of Environmental Acoustics*, by James P. Cowan, Van Nostrand Reinhold, 1994.

As discussed in the *CEQR Technical Manual*, if an action is located in an area with high ambient noise levels, which typically include those near heavily-traveled thoroughfares, airports, rail, or other loud activities, further noise analysis may be warranted to determine the attenuation measures for the action. The project site has frontage on 21st Street, a NYCDOT-designated Through Truck Route which may be considered a heavily-trafficked thoroughfare. Therefore, ambient noise levels were measured to provide an assessment of the potential for mobile source noise to have a significant adverse effect on the future residents and occupants of the proposed development. The assessment also considers the outdoor recreational areas planned for two rooftop areas, as presented below in Section 2.10.3, Combined Mobile and Stationary Noise Sources.

2.10.2 Stationary Sources

In the City, stationary noise sources typically consist of mechanical equipment associated with industrial and manufacturing operations and building ventilating systems. Other stationary sources include crowd noise related to playgrounds or spectator events, and noise from amplification systems. The project site is not located in an area subject to stationary sources of noise related to amplification systems or to industrial or manufacturing operations. However, the proposed action includes the creation of two outdoor play areas on portions of the proposed building's rooftop areas. Thus as presented in the following section, stationary sources were evaluated *in combination* with mobile sources, in order to determine the potential effects on existing sensitive uses (i.e., adjacent residential uses) as well as future residents and occupants of the proposed development.

2.10.3 Combined Mobile and Stationary Noise Sources

The *CEQR Technical Manual* provides noise exposure guidelines in terms of L_{eq} and L_{10} for the maximum amount of allowable noise under existing regulations. L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating sound pressure levels is averaged over time to create a single number to describe the mean energy or intensity level. High noise levels during a measurement period will have greater effect on the L_{eq} than low noise levels. The L_{eq} has an advantage over other descriptors because L_{eq} values from different noise sources can be added and subtracted to determine cumulative noise levels. In comparison, L_{10} is the SPL exceeded 10 percent of the time. Similar descriptors include the L_{50}, L_{01}, and L_{90} values.

As exhibited in **Figure 2.10-1**, noise measurements were conducted on the sidewalk in front of the project site at the following two locations:

- Location 1: 21st Street, midblock between 30th Drive and 30th Road;
- Location 2: 30th Road, midblock between 21st Street and 23rd Street.



AECOM

Environmental Assessment Statement
Variety Boys and Girls Club of Queens Rezoning
Astoria, NY

Noise Measurement Locations

Figure 2.10-1

Noise measurements were conducted on Tuesday, May 23, 2017 during peak vehicular travel periods: 8:00-9:00 am, 12:00-1:00 pm, and 4:30-6:00 pm. The weather conditions were normal with calm wind, which is considered suitable for an ambient noise measurement. A Type 1 Larson Davis LxT sound level meter with wind shield was used to conduct the noise monitoring. The meter was placed on a tripod at a height of approximately five feet above the ground, away from any reflective surfaces. The meter was calibrated prior to and following each monitoring session. Traffic volumes and vehicle classification along the adjacent roads at each location were counted concurrently during the noise measurement duration.

The results of the noise measurements taken at the monitoring locations are summarized in **Tables 2.10-2** and **2.10-3**.

Table 2.10-2 Location 1 Measured Noise Levels (dB(A))

Time Period	L_{eq}	L_{10}
AM (8:30 am – 8: 15 am)	71.6	74.5
MD (12:41 pm – 1:02 pm)	68.9	72.2
PM (5:53 pm – 6:14 pm)	68.5	70.8

Table 2.10-3 Location 2 Measured Noise Levels (dB(A))

Time Period	L_{eq}	L_{10}
AM (8:07 am – 8:28 am)	63.2	64.2
MD (12:17 pm – 12:38 pm)	62.1	64.2
PM (4:42 pm – 5:03 pm)	63.6	65.4

2.10.2 Noise Impact Assessment Methodology

Vehicular Noise Impact Assessment

Vehicular noise sources can be considered as line sources. The sound level decreases with the distance from line source to receptor increases. If the sound level data are available, the following equation may be used to estimate sound levels at a receptor:

$L_{p1}=L_{p2}-10*\log (D_1/D_2)$
Where: L_{p1} is the sound pressure level at the receptor
L_{p2} is the sound pressure level at the reference location
D_1 is the distance from the source to the receptor
D_2 is the distance at which the source sound level data is measured.

Playground Noise Impact Assessment

According to the guidelines presented in the *2014 CEQR Technical Manual*, the maximum L_{eq} noise level at the boundary of the playground would be 75 dBA.[29] Geometric spreading and the consequent dissipation of sound energy with increased distance from the playground decreases noise levels at varying distances from the playground boundary. It may be assumed that noise levels at 15 feet from the boundary would be 73 dBA, and 70 dBA at 30 feet, and noise levels would continue to decrease by 4.5 dBA per doubling of distance beyond 30 feet, which can be calculated using following equation:

$L_p=70-15*\log (D/30)$
Where: L_p is the sound pressure level at the receptor more than 30 feet away
D is the distance from the source to the receptor.

[29] *CEQR Technical Manual*, Chapter 19 Noise, Section 333, page 19-18.

For the proposed action, two outdoor play areas are proposed at different locations as shown in **Figures 2.10-2** and **2.10-3**:

- Playground 1 is located on the rooftop of connector, roughly at an elevation of the second floor of the residential component, between the southeastern façade of residential section and the northwestern façade of community facility section. Both facades below the seventh floor would be impacted by the playground noise with a predicted noise level of 75 dBA, since both facades would serve as the boundary of Playground 1.

- Playground 2 is located on the rooftop of the community facility section at an elevation of 65 feet, which is equivalent to the seventh floor of the residential section. Therefore, the seventh floor and above on the southeastern façade of residential component would be impacted by both Playgrounds 1 and 2.

2.10.3 Noise Impact Assessment

Potential noise impacts from the two proposed playgrounds were evaluated at two types of sensitive receivers:

- Existing residences that are immediately adjacent to the project site, which are expected to experience the worst-case impacts among existing receptors around the project site; and
- New sensitive receptors to be located on the project site as a result of the proposed action.

Impacts on Existing Adjacent Residences

The two closest existing noise sensitive uses that might be impacted by the proposed playgrounds are labeled as R1 and R2 in **Figure 2.10-1**, and have been identified as:

- R1: six three-story residential buildings across 30th Road;
- R2: one 11-story residential building located on Block 550, Lot 10.

The contributors to the noise at these immediately adjacent residences under the Future With-Action scenario include:

- Noise from the proposed playgrounds;
- Background noise (due to minimal traffic volume on 30th Road, noise level measured at Location 2 is considered as background noise along 30th Road).

Distances from the proposed playgrounds to R1 and R2 receptor locations were measured using google maps, and used to calculate the noise level resulting from the proposed playgrounds based on the above playground noise assessment methodology. The predicted playground noise contributions were then acoustically combined with the background noise to determine the cumulative noise level. The cumulative Future With-Action noise level is then compared against the existing noise level to determine the potential for a significant noise impact (i.e., a 3 dBA increase in noise level).

Figure 2.10-2 Floor Plan for Second and Third Floors

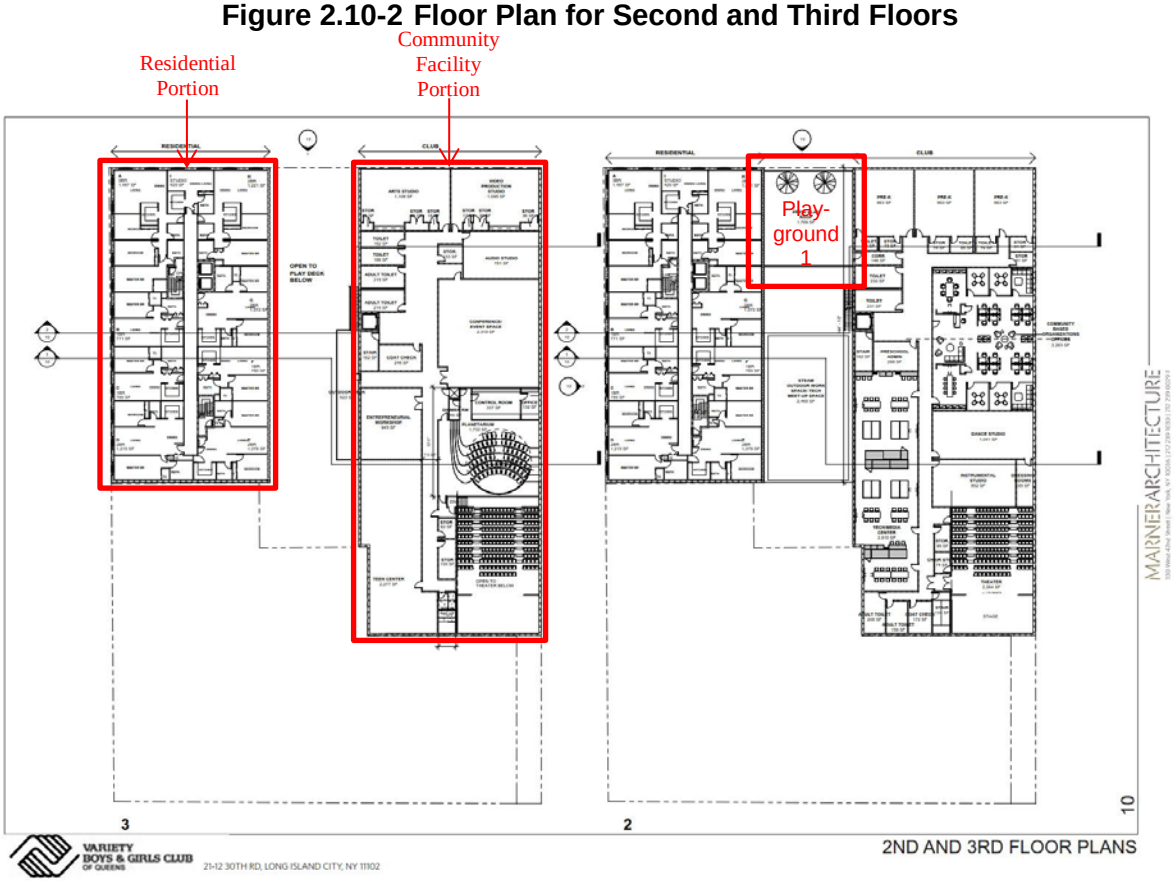
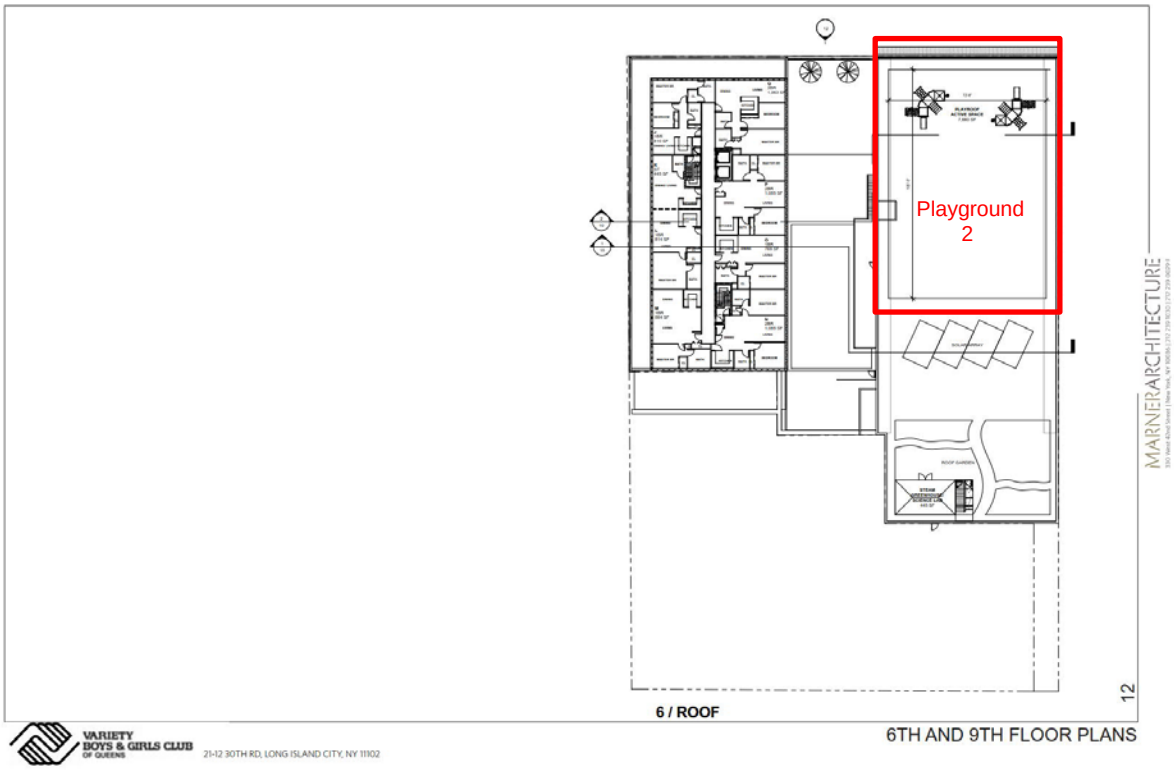


Figure 2.10-3 Floor Plan for Rooftop of Community Facility Component



Impacts on Residential Component of the Proposed Development

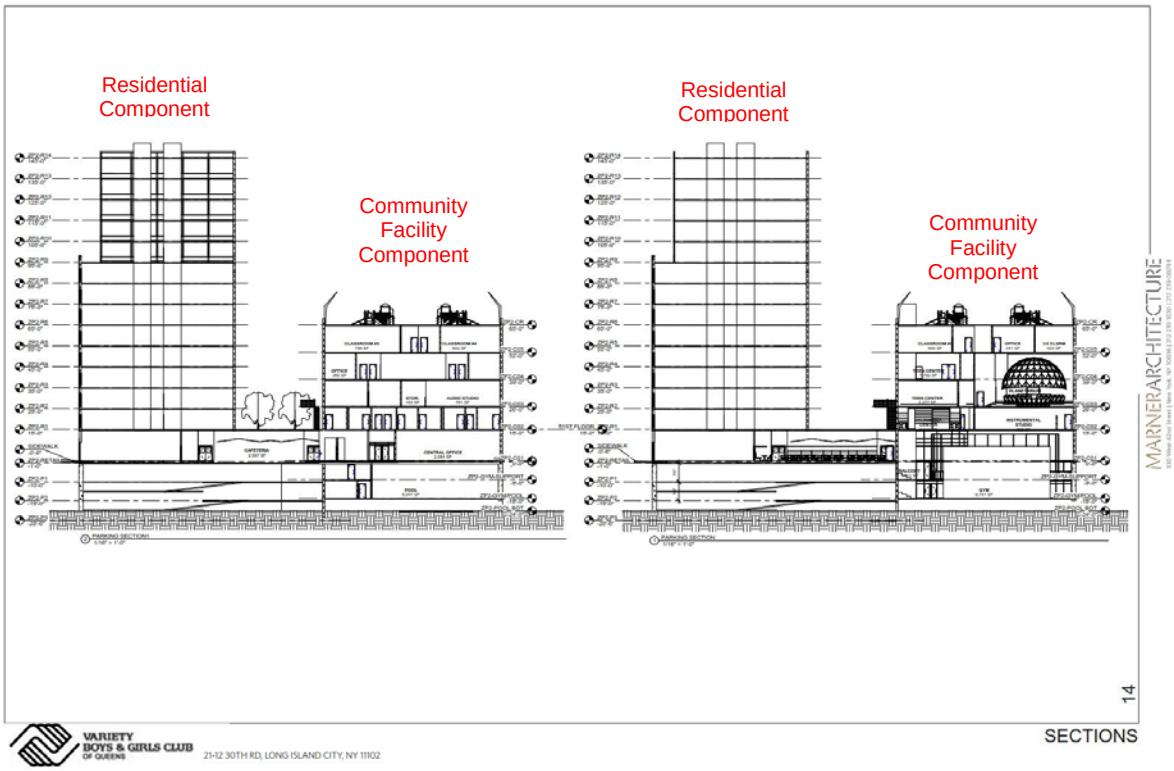
Due to the significant traffic volume along 21th Street, the major noise contributor to northwestern, northeastern, and southwestern façades of the proposed building would be the vehicular noise from 21th Street.

Since the 14-story residential section of the proposed building would be 145 feet in height, as shown in **Figure 2.10-4**, the upper levels would have less noise impact from the street-level vehicular noise. To predict the noise level for each floor, distances were calculated using the vehicular noise impact assessment methodology with noise measurement Location 1 (21st Street, midblock between 30th Drive and 30th Road) as the reference point.

As mentioned above, Playground 1 and background noise would be the major noise contributors for floors one through six of southeastern façade of residential section of the bulding. Above the sixth floor, Playgrounds 1 and 2 and background noise would be the major noise contributors.

Future With-Action noise levels, in terms of L_{10} at different facades for each floor, were then compared with *CEQR Technical Manual* Table 19-2 to determine the appropriate building noise attenuation values necessary to achieve acceptable interior noise levels (as specified in *CEQR Technical Manual* Table 19-3).

Figure 2.10-4 Profile Views of the Proposed Building



Impacts on Community Facility Component of the Proposed Development

The major contributor to noise levels on the northwestern façade of proposed action's community facility component of the building would be the playground noise from Playground 1 and background noise. The northeastern, southwestern, and southeastern façades would only be subject to background noise.

Future With-Action noise levels, in terms of L_{10} at different facades for each floor, were then compared with *CEQR Technical Manual* Table 19-2 in order to determine the appropriate building noise attenuation values needed to achieve acceptable interior noise levels.

2.10-4 Conclusion

Based on the analysis results, the cumulative incremental noise from both playground areas were predicted to be 2.6 dBA at R1, 1.9 dBA at R2 from floors two through six, and 2.6 dBA at R2 on floors seven and above, respectively. Therefore, as the projected noise level increase is below three dBA, the proposed action's playgrounds would not result in a significant adverse noise impact on the existing, adjacent residential buildings.

In accordance with the *CEQR Technical Manual* noise exposure guidelines, an exterior noise level (L_{10}) between 65 and 70 dB(A) is considered marginally acceptable for a mixed residential and community facility use such as the proposed development, while an exterior noise level between 70 and 80 dB(A) is considered marginally unacceptable.

Table 2.10-4 presents the predicted noise level at each façade and floor of the proposed building, as well as any required window/ wall attenuation value that would be necessary to achieve acceptable interior noise levels of 45 dB(A). Please note that the requirement on the ground floor commercial space would be 5 dBA less. This level of attenuation could be achieved with a closed-window situation and alternate means of ventilation, such as indoor air conditioning, heat pumps or split systems. In the Future With-Action scenario, it is assumed that the design of the proposed building would provide incorporate the window-wall attenuation specified in the table below within a closed-window condition. As such, the proposed action would not result in a significant adverse noise impact.

Table 2.10-4 Required Window/ Wall Attenuation

Building Section	Floor	L_{10} (dBA)	Façade	CEQR Categories	Required Attenuation (dBA)
Residential	1-5	76 > L10 >= 73	Northwest, Northeast, Southwest	Marginally Unacceptable	31
	6-13	73 > L10 >= 70	Northwest, Northeast, Southwest	Marginally Unacceptable	28
	14	L10 < 70	Northwest, Northeast, Southwest	Marginally Acceptable	-
	1-9	78 > L10 >= 76	Southeast	Marginally Unacceptable	33
	10	76 > L10 >= 73	Southeast	Marginally Unacceptable	31
	11-13	73 > L10 >= 70	Southeast	Marginally Unacceptable	28
	14	L10 < 70	Southeast	Marginally Acceptable	-
Community Facility	1-5	77.1	Northwest	Marginally Unacceptable	33
	1-5	65.4	Southwest, Southeast, Northeast	Marginally Acceptable	-

(E) Designation

To preclude the potential for significant adverse impacts associated with noise, the proposed action will include an (E) designation for noise (E-478). The (E) designation text related to noise is as follows:

> *In order to ensure an acceptable interior noise environment, new residential/community facility development on the above mentioned property must provide a closed-window condition with sufficient attenuation in order to maintain an interior noise level of 45 dBA; and new commercial development must provide a closed-window condition with sufficient attenuation in order to maintain an interior noise level of 50 dBA. In order to maintain a closed-window condition, an alternate means of ventilation must also be provided.*
>
> *The required attenuation for new development varies by building floor and façade; the required minimum composite building façade attenuation is shown in* ***Table 2.10-4****.*

With the implementation of this (E) designation, no significant adverse impacts related to noise would occur. Therefore, the proposed action would not result in any potentially significant adverse noise impacts, and further assessment is not warranted.

2.11 PUBLIC HEALTH

In accordance with the *CEQR Technical Manual* guidance, a public health analysis is warranted when significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. For the proposed action, significant adverse impacts were not identified for relevant technical areas including hazardous materials, noise and air quality. Therefore a public health assessment is not warranted, and the proposed action would not result in a significant adverse public health impact.

2.12 NEIGHBORHOOD CHARACTER

As defined by the *CEQR Technical Manual*, neighborhood character is considered to be an amalgam of the various elements that give a neighborhood its distinct personality. The elements typically include land use, socioeconomics, historic resources, urban design, visual resources, traffic and/or and noise. Not all of these elements affect neighborhood character in all cases; a neighborhood usually draws its distinctive character from a few defining features.

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

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

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

The assessment begins with a review of existing conditions and the neighborhood of the study area. The information is drawn from the preceding sections of this EAS, but is presented in a more integrated way. While the other sections present all relevant details about particular aspects of the environmental setting, the discussion for neighborhood character focuses on a limited number of important features that gives the neighborhood its own sense of place and that distinguish them from other parts of the city. A concise discussion of the changes anticipated by the 2021 analysis year under the Future No-Action Scenario is then included. A brief overview of the Proposed Action is then presented, along with an analysis of whether any anticipated significant adverse impacts and moderate adverse effects, regarding the relevant technical CEQR assessment categories for neighborhood character, would adversely affect any of the defining features.

2.12.1 Existing Conditions

Land Use

The project site, located at 21-12 30th Road, has frontage along 30th Road and 21st Street. This block is mostly comprised of residential and community facility uses. The southwest corner of the block contains an 11-story mixed-use building that houses community facilities, offices, 22 parking spaces, and 99 units of senior housing. The eastern portion of the block is comprised of one- to two-family houses, multi-family walk-up buildings, and a house of worship.

Land uses throughout the study area a mix of single- and multi-family residential uses, mixed-use commercial and residential, warehouse/distribution, and community facility. The commercial uses include restaurants, automobile-oriented commercial and some local retail. The prevailing built form of the study area is a mix of two- to seven-story residential buildings, with a few single-story warehouse buildings, auto-related uses, and vacant lots interspersed.

Urban Design and Visual Resources

There is no form that ties the built environment together visually. The prevailing built form of the area is a mix of two- to three-story residential buildings, with numerous multi-story residential and mixed use buildings interspersed. Low-rise one- and two-family residences are predominantly found mid-block throughout the study area (i.e., along both sides of 30th Drive west of 21st Street and east of the project site, along both sides of 30th Road west of 21st Street and east of the project site), and along both sides of 30th Avenue), while larger multi-family and multi-family mixed use development are typically situated along larger thoroughfares such as 21st and 23rd Streets. No parks or public open space resources are found within the 400-foot study area.

Few streetscape elements are present within the study area. Many streets contain street trees, generally located at irregular intervals; however no other notable streetscape elements (e.g., benches, public plazas) are located within the study area. The study area also does not contain any significant natural features, nor does it contain tall buildings that result in channelized wind pressure issues.

With respect to visual resources, the study area does not contain any significant natural resources, New York City designated landmarks or historic districts, or properties that are listed (or eligible for listing) on the State and/or National Register of Historic Places. While small portions of the East River and Manhattan skyline may be visible from some publicly-accessible parts of the study area (i.e., sidewalk at the intersection of 21st Street and 30th Drive), the study area does not contain any significant visual resources.

The roadways within the study area are classified as local roads. Streets that run southeast-northwest, such as 30th Road, are typically smaller (one-lane) one-way roads; while those running northeast-southwest, such as 21st Street, are larger (two-lane), two-way roads.

Transportation

The roadway network within the vicinity of the rezoning area includes 21st Street, Broadway, 31st Avenue, 30th Drive, 30th Road and 30th Avenue. The traffic study area includes three signalized intersections that have the potential to be impacted by proposed action: Broadway/ 21st Street, 31st Avenue/ 21st Street; and 30th Drive/ 21st Street. According to the results of the Existing Conditions (2017) traffic analysis, all approaches at each of the study intersections operate at LOS "D" or better during the weekday AM, midday, and PM peak hours with the following exceptions:

- **31st Avenue /21st Street**– During the weekday AM peak hour, the westbound shared lane currently operates near capacity at LOS "E."
- **Broadway/21st Street** – During the weekday AM, Midday and PM peak hours, the eastbound shared lane currently operates at LOS "F". During the weekday AM, Midday and PM peak hours, the westbound shared lane operates over-capacity at LOS "F."

The rezoning area is well-served by public transit. Transit services in the area include the elevated "N" and "W" subway lines with stations located at 31st Street and 30th Avenue, and 31st Street and Broadway. In addition, several NYCT bus lines are routed near the development site, including the Q18, Q19, Q69, Q100, and Q102 lines.

Noise

According to the noise measurement results and CEQR noise exposure guidelines (as presented in *CEQR Technical Manual* Table 19-2), the current noise environment for the portion of the project site located on 30th Road is considered acceptable and marginally acceptable. However, due to vehicular traffic noise, the current noise environment for the portion of the project site with frontage along 21st Street is considered marginally unacceptable.

2.12.2 Future No-Action Scenario

In the Future No-Action Scenario the proposed action would not occur, and it is expected that the existing uses within the rezoning area would remain in their current form. Aside from the redevelopment of the four No-Action sites, significant changes to the neighborhood character of study area are not expected by the analysis year of 2021. The No-Actions projects, located in the southern portion of the study area, include two multi-story residential buildings and two multi-story, mixed-use buildings. It is estimated that these projects will result in the addition of approximately 344 residents in 147 dwelling units (based on an average of 2.34 persons per unit), as well as an estimated 14 employees.

In the remainder of the study area, it is expected that while tenants within surrounding area buildings may change, the overall use of these buildings would remain the same, and any physical changes would comply with designated zoning regulations and other surrounding districts.

2.12.3 Future With-Action Scenario

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

Land Use

According to the *CEQR Technical Manual*, development resulting from a proposed action could alter neighborhood character if it introduces new land uses, conflicts with land use policy or other public plans for the area, changes land use character, or generates significant land use impacts.

Under the With-Action Scenario, it is assumed that the proposed action would result in the development of one new mixed-use building comprising approximately 180,707 gsf of residential floor area, 7,779 gsf of retail floor area, a total of114,430 gsf of community facility floor area, and approximately 64 below-grade accessory parking spaces. The proposed building would contain approximately 181 residential units, 54 of which would be affordable units, and would be 145 feet tall.

The proposed action would be compatible with land use policy and public plans for the area. Recent years have seen some commercial, residential and community facility development in proximity to the rezoning area. The proposed action would reinforce this trend toward more active residential and community facility uses, which are common in the surrounding residentially zoned areas. The proposed facility would contribute to the community's affordable housing stock and would replace the existing Boys and Girls Club with a new, modern facility. The proposed mixed use development would be compatible with existing uses and current land use trends. Therefore, the proposed action is not expected to have an adverse impact on surrounding land use.

Historic and Cultural Resources

According to CEQR, when an action results in substantial direct changes to a historic or cultural resource or substantial changes to public views of a resource, or when a historic or cultural resource analysis identifies a significant impact in this category, there is a potential to affect neighborhood character.

The project site is not a designated local LPC or S/NR historic resource or property, nor is the site part of any designated historic district. In addition, known historic resources were not identified in the study area. The LPC was contacted for their initial review of the project's potential to impact nearby historic and cultural resources, and a response was received on September 13, 2016, indicating that the project site has no architectural or archaeological significance. Therefore, significant adverse impacts to these resources are not expected as a result of the proposed action and further analysis is not warranted.

Urban Design and Visual Resources

According to the *CEQR Technical Manual*, in developed areas, urban design changes have the potential to affect neighborhood character by introducing substantially different building bulk, form, size, scale, or arrangement. Urban design changes may also affect block forms, street patterns, or street hierarchies, as well as streetscape elements such as street walls, landscaping, curb cuts, and loading docks. Visual resource changes could affect neighborhood character if they directly alter key visual features such as unique and important public view corridors and vistas, or block public visual access to such features.

The proposed action would not diminish or disturb the existing aesthetic continuity, pedestrian features of the community or neighborhood, would not block any view corridors or views to/from any natural areas with rare or defining features, and would not impact an historic cultural resource. As such, the proposed action is not expected to result in any significant adverse urban design. Visual resource changes would also not occur, as the proposed action would not directly alter any key visual features, such as unique and important public view corridors and vistas, or block public visual access to such features.

Transportation

Per the results of the detailed traffic analysis, the proposed action would not result in significant adverse traffic impacts.

Noise

The proposed action would introduce outdoor recreational areas on two different rooftop areas. Therefore in order to determine the potential effects of the proposed action on existing sensitive uses (i.e., adjacent residential uses) as well as future residents and occupants of the proposed development, stationary noise sources were evaluated in combination with mobile sources. The noise assessment results indicate the cumulative incremental noise from both playground areas would be below the three dBA threshold that is used to determine a potential significant impact. Thus the proposed action would not result in a significant adverse noise impact on the existing, adjacent residential buildings.

In order to avoid potential adverse noise impacts and maintain an acceptable interior noise level below 45 dB(A), the proposed development would provide a closed-window condition and incorporate a range of window/ wall attenuation depending on the floor and façade location. As presented above in **Table 2.10-4**, the required attenuation typically ranges from 28 to 33, although no attenuation is required for certain floors/ facades (i.e., community facility section, southwest, southeast and northeast facades of floors 1 through five; residential section, floor 14). With incorporation of the appropriate window/ wall attenuation and provision of closed-window condition, the proposed action would not result in a significant adverse noise impact.

Conclusion

The proposed action would not result in a significant adverse impact on any of the relevant technical areas that contribute to neighborhood character. Moderate adverse effects that would potentially impact such a defining feature, either singly or in combination, also have not been identified. Therefore, as the proposed action would not result in a significant adverse impact to a defining feature of the neighborhood, it would not have a significant adverse neighborhood character impact and further analysis is not necessary.

2.13 CONSTRUCTION

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

The duration of construction on the project site is expected to last approximately16 to 20 months. The following is a brief discussion of the effects associated with construction related activities on traffic, air quality, noise, historical resources and hazardous materials resulting from the construction that would occur on the site.

2.13.1 Effect of Construction on Traffic

The proposed action would result in new development on the project site, over a 16 to 20 construction period. During construction, trips would be generated as a result of workers traveling to and from the construction site, and as a result of the movement of materials and equipment.

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

Construction activities may result in short-term disruption of both traffic and pedestrian movements at the development sites. This would occur primarily due to the temporary loss of curbside lanes from the

staging of equipment and the movement of materials to and from the site. Additionally, construction would result in the temporary closing of sidewalks adjacent to the site at times. These conditions would not lead to significant adverse effects on traffic and transportation conditions.

2.13.2 Effect of Construction on Air Quality

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

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

Mobile source emissions may result from the operation of construction equipment, trucks delivering materials and removing debris, workers' private vehicles, or occasional disruptions in traffic near the construction site. As the number of construction-related vehicle trips generated by the proposed action would be relatively small, the mobile source emissions generated by the proposed action would not be significant. Overall, the proposed action would not have the potential to result in significant adverse air quality impacts.

2.13.3 Effect of Construction on Noise

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

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

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

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

possible, appropriate low noise emission level equipment and operational procedures can be utilized to minimize noise and its effect on adjacent uses.

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

2.13.4 Effect of Construction on Historic Resources

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

2.13.5 Effect of Construction on Hazardous Materials

The proposed action would result in new development in the rezoning area. As such, a hazardous materials assessment was undertaken, as presented in Section 2.7 above. As discussed in the section, all contaminants and contaminated materials are expected to be removed in accordance with environmental regulations and no significant adverse impacts are expected.

2.13.6 Conclusion

Construction-related activities are not expected to have any significant adverse impacts on traffic, air quality, noise, historic resources, or hazardous materials conditions as a result of the proposed action.

Appendix A – MIH Text Amendment Map



Inclusionary Housing designated area

Mandatory Inclusionary Housing Program Area *see Section 23.154 (d)(3)*

Area 1 — (Date of Adoption). MIH Program Option 2

Portion of Community District 1, Queens

* * *

Appendix B – New York City Waterfront Revitalization Form 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: Variety Boys & Girls Club of Queens

Name of Applicant Representative: Stacey Barron, AICP

Address: AECOM, 125 Broad Street, New York NY 10004

Telephone: (212) 880-3800 Email: stacey.barron@aecom.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, Variety Boys and Girls Club of Queens, is seeking a zoning map amendment to rezone Block 550, Lots 7, 10 and small portions of Lots 5 and 27 in the Astoria neighborhood of Queens (the "rezoning area" or "affected area") from split-lot R7A/C2-3 and R6B zoning districts to an R7X/C2-3 zoning district. The proposed rezoning would facilitate the Applicant's proposed development of a new mixed-use building comprised of one 14-story tower containing 112 residential units with ground-floor retail and 39 parking spaces, and one 5-story community facility tower that would include a replacement facility for the existing Variety Boys and Girls Club of Queens as well as additional space for another community facility use, on the property located on Block 550, Lot 7 at 21-12 30th Road (the "development site" or "project site"). The Applicant is also requesting a zoning text amendment to the New York City Zoning Resolution Appendix F to designate the rezoning area as a Mandatory Inclusionary Housing Area. See attached Supplemental Studies for additional information. The Applicant intends to provide approximately 34 units of affordable housing (30 percent of the residential floor area) for households averaging 80 percent of area median income.

2. Purpose of activity

The development site currently has a split lot condition with the zoning lot split between an R6B zoning district with a maximum FAR of 2.0 and R7A/C2-3 zoning district in an Inclusionary Housing designated area with a maximum FAR of 4.6 zoning districts. This would not be sufficient amount of floor area to support the proposed mixed use development at the development site. The increased FAR for the entire development site from a 4.6 to a 6.0 is supported along this wide street (21st Street) to develop the mixed use residential, community facility and commercial development at the site. Further, the existing R6B portion of the zoning lot does not permit commercial retail use which would prohibit the development from providing retail at the ground level on both 21st Road and 30th Road.

The R7X increased floor area ratio is necessary to facilitate the proposed mixed use development at this location. The project is located on a wide street, 21st Street, and is in line with Department's policy to have higher density developments along wide streets that can support such development. In addition, the project is located within the Transit Zone in Astoria because it is served by multiple public transportation options that can support the increased density supported by the shift from the existing split district between an R7A/C2-3 and R6B to an R7X/C2-3 zoning district. The proposed project will create much needed housing opportunities in the Astoria neighborhood of Queens. In addition, a portion of the dwelling units will be permanently affordable pursuant to the Mandatory Inclusionary Housing program.

C. PROJECT LOCATION

Borough: Queens Tax Block/Lot(s): Block 550, Lots 7, 10 and p/o Lot 1

Street Address: 21-12 30th Road

Name of water body (if located on the waterfront): _____

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 Martine Activity Zone (PMAZ) (*3.5*)

   ☐ Recognized Ecological Complex (REC) (*4.4*)

   ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder *or* Not Applicable (N/A). *For more information about consistency review process and determination, see* ***Part I*** *of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within* ***Part II*** *of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).*

For those policies checked Promote *or* Hinder, *provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.*

		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: Stacey Barron, AICP

Address: AECOM, 125 Broad Street, New York, NY 10004

Telephone: (212) 377-8729 Email: stacey.barron@aecom.com

Applicant/Agent's Signature: 

Date: February 1, 2018

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
212-720-3525
wrp@planning.nyc.gov
www.nyc.gov/wrp

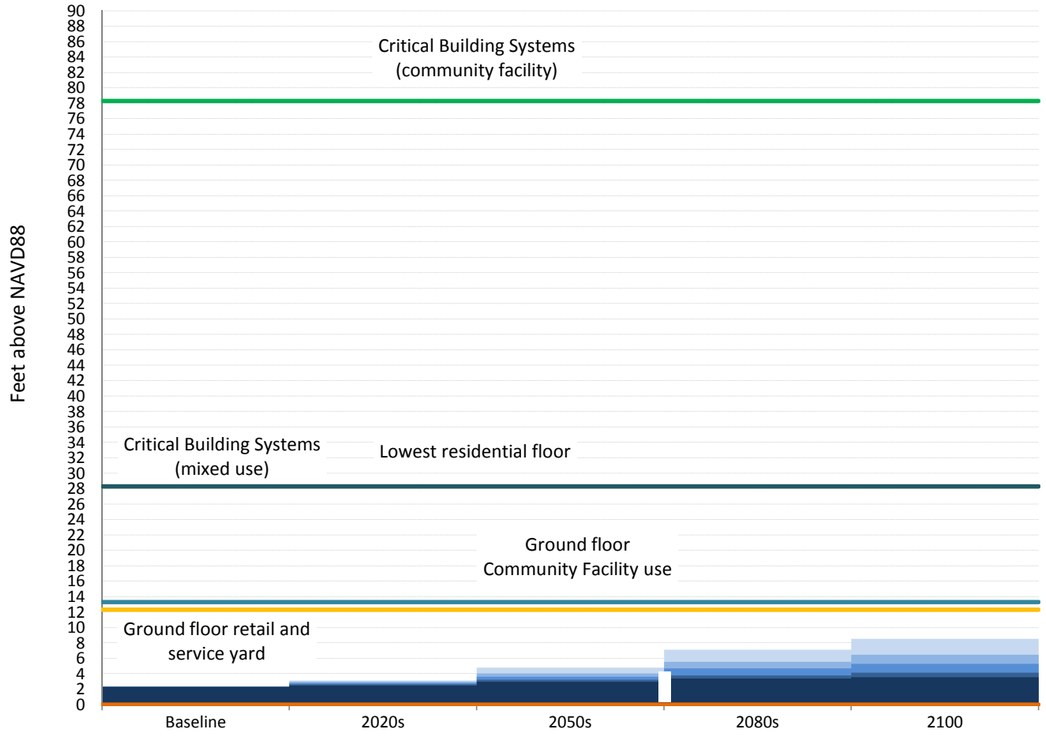
New York State Department of State
Office of Planning and Development
Suite 1010
One Commerce Place, 99 Washington Avenue
Albany, New York 12231-0001
(518) 474-6000
www.dos.ny.gov/opd/programs/consistency

Applicant Checklist

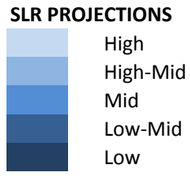
- ☐ Copy of original signed NYC Consistency Assessment Form
- ☐ Attachment with consistency assessment statements for all relevant policies
- ☐ For Joint Applications for Permits, one (1) copy of the complete application package
- ☐ Environmental Review documents
- ☐ Drawings (plans, sections, elevations), 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.

Assess project vulnerability over a range of sea level rise projections.

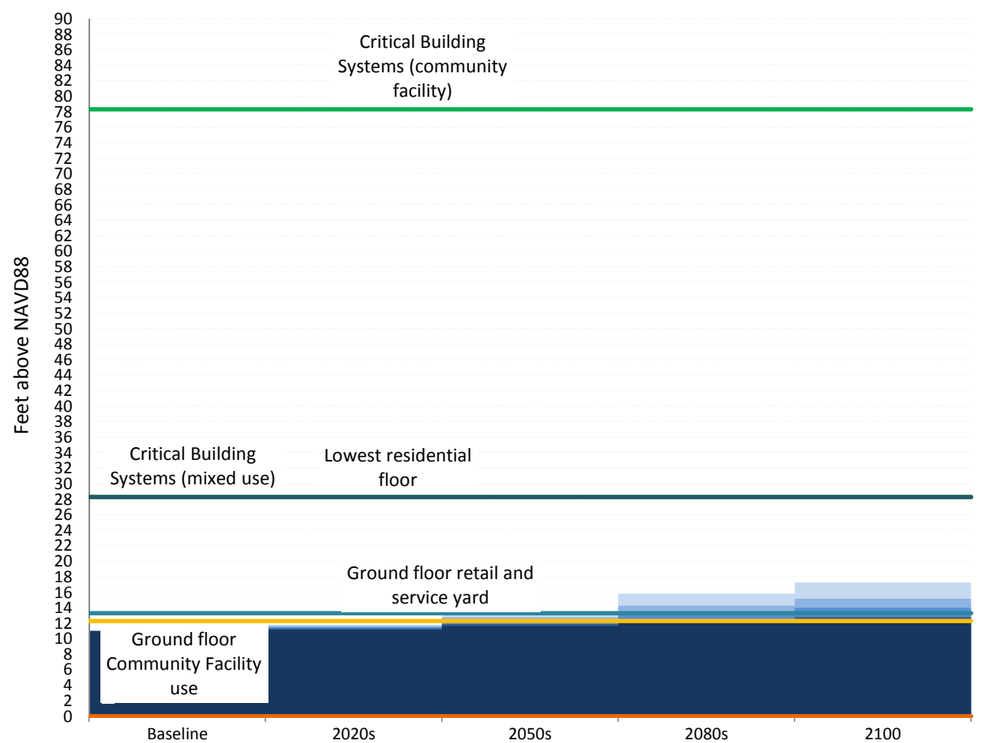
Mean Higher High Water + Sea Level Rise

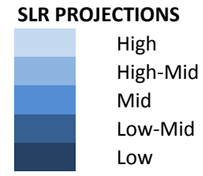


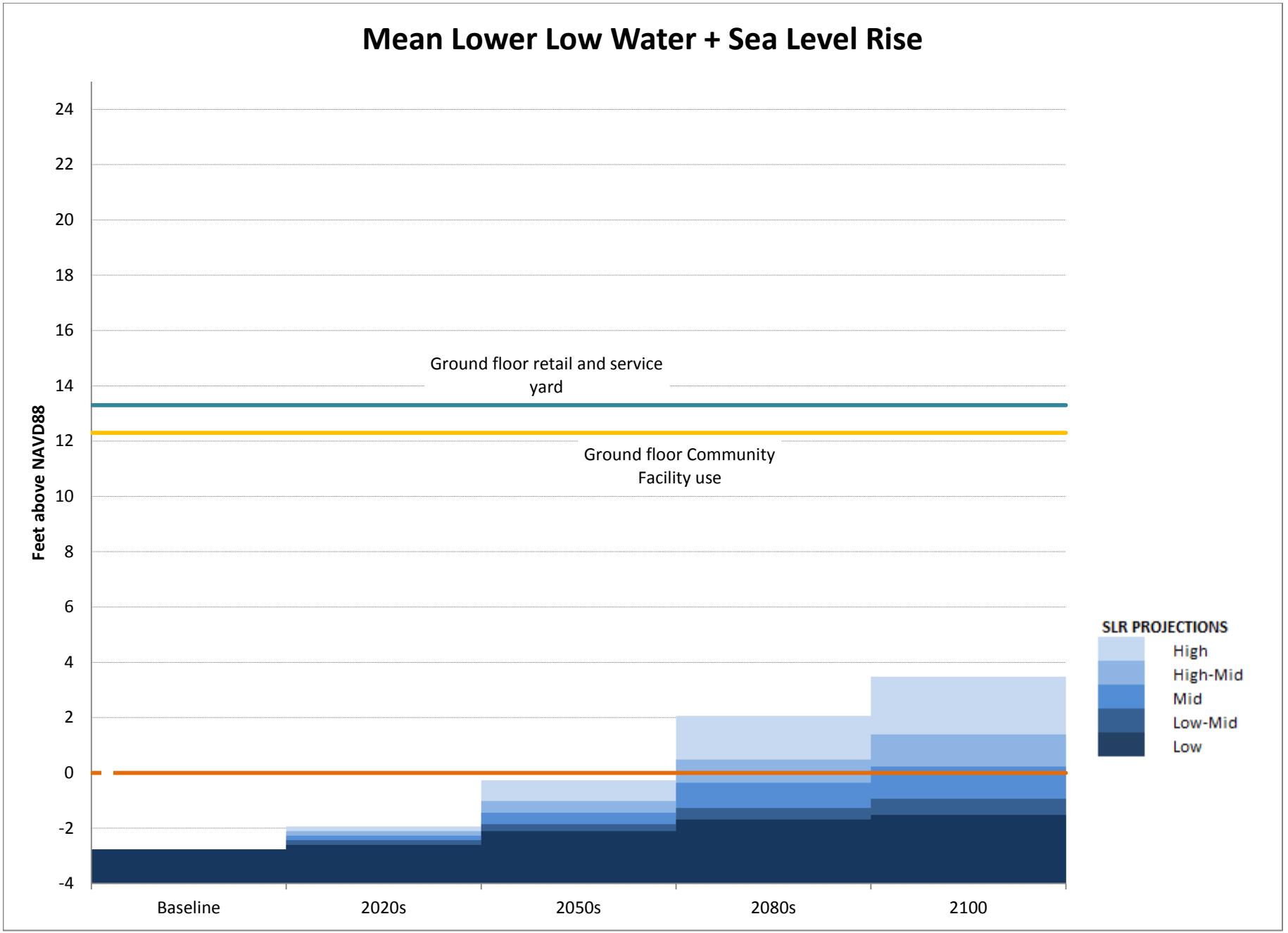
**Note that features on subsurface levels are not shown here (Parking garage below the residential tower, elevation of -5.7'; gymnasium with pool below the community facility tower, elevation of -10.7')*



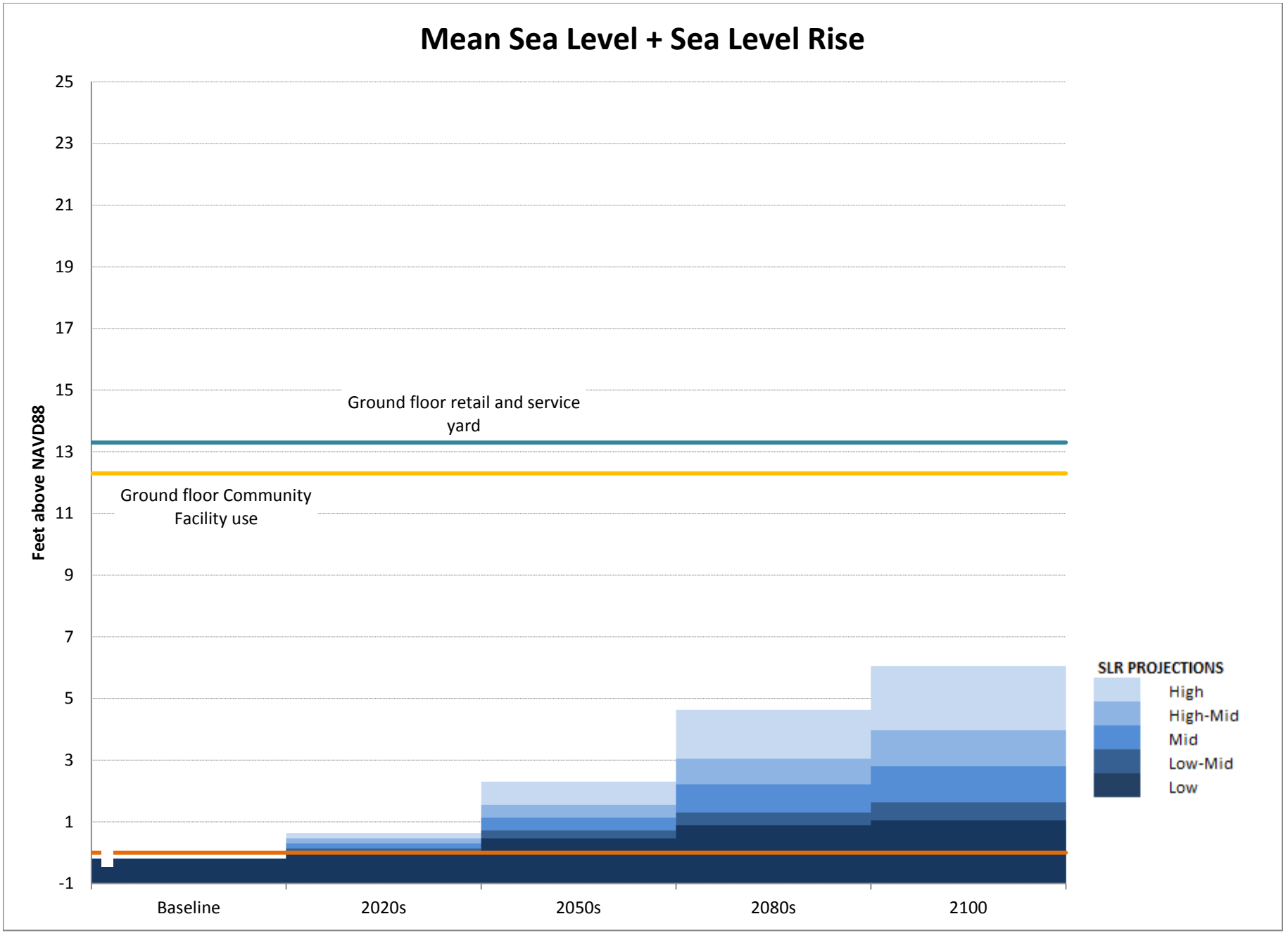
1% Flood Elevation + Sea Level Rise







**Note that features on subsurface levels are not shown here (Parking garage below the residential tower, elevation of -5.7'; gymnasium with pool below the community facility tower, elevation of -10.7')*



**Note that features on subsurface levels are not shown here (Parking garage below the residential tower, elevation of -5.7'; gymnasium with pool below the community facility tower, elevation of -10.7')*

Appendix C – Phase I Environmental Assessment Statement

AECOM

Environment

Prepared for:
Akerman LLP
666 Fifth Avenue, 20th Floor
New York, New York

Prepared by:
AECOM
125 Broad Street
New York, New York
60505356
January 2017

Phase I Environmental Site Assessment
Variety Boys & Girls Club of Queens
21-12 30th Road
Long Island City, New York

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January 2017

Phase I Environmental Site Assessment
Variety Boys & Girls Club of Queens
21-12 30th Road
Long Island City, New York

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Executive Summary

The legal firm of Akerman LLP contracted with AECOM Technical Services, Inc. (AECOM) to perform a Phase I Environmental Site Assessment (ESA) of the property located at 21-12 30th Road, Long Island City (Queens), New York. This Phase I ESA was conducted in advance of the demolition of the current building used by the Variety Boys and Girls Club of Queens (VBGCQ) and the construction of a new facility for use as residential apartments, retail space, and facilities for the VBGCQ. The purpose of this Phase I ESA is to provide the client with information for use in evaluating recognized environmental conditions (RECs) associated with the subject property. This Phase I ESA was performed in general conformance with the scope and limitations of ASTM Standard Practice Designation E 1527-13 for ESAs. Exceptions to, or deletions from, this practice are described in this report.

The subject property is a 58,700 square foot lot consisting of a one-story "L" shaped building with basement consisting of approximately 30,290 square feet of gross floor space. The building is used for multiple purposes consisting of a swimming pool and associated water treatment plant; a gymnasium / multi-purpose room; a small theatre; a dance studio; multiple classrooms used for after-school and weekend programs; and the Raice Astoria Senior Center.

According to the City of New York Department of Finance, the subject property is comprised of a single parcel of land that is designated as Block 550, Lot 7

During the site visit, no visual evidence of potable water wells, monitoring wells, dry wells, clarifiers, septic tanks, or leach fields was observed on the subject property. According to the information provided, one 4,500 gallon No. 4 fuel oil aboveground storage tank (AST) is located within a concrete vault in the boiler room. Due to flooding in the boiler room, the AST could not be inspected. Stormwater drains were located in the parking lot on the southern and western portions of the subject property. No visual evidence of discolored soil, water, or unusual vegetative conditions or odors was observed during the site visit.

The subject property is located within a predominately residential area. The majority of the properties surrounding the subject property are either apartment complexes or residential dwellings. A Gulf Service Station and automobile repair shop is located approximately 100 feet southwest of the subject property across 30th Drive. Several small commercial operations, including a laundromat and a building contractor are located to the west and southwest. A building identified as the Islamic Congress, Inc. (a mosque) is located immediately adjacent to the entrance to the senior center on the eastern perimeter of the subject property. Based on AECOM's site reconnaissance of the surrounding neighborhood, the Gulf Service Station is considered an off-site source of concern.

Based upon a review of available records and online sources, the subject property was vacant land in at least 1898 and remained vacant until 1955 when the original Boys Clubs of America building was constructed. The name changed in the late 1980s to The Boys and Girls Club of America. The construction of the Raice Astoria Senior Center on the southeastern end of the building was conducted in 1989. An addition to the southeastern portion of the senior center was constructed in 2003. No other changes to the subject property have occurred since 2003. No historical on-site sources of concern were identified during this assessment.

The subject property is identified on the New York Spills (NY Spills), Hazardous Materials Information Reporting System (HMIRS), Environmental Designation (E-Designation), and New York Aboveground

Storage Tank (NY AST) environmental databases reviewed for this assessment. The Spills (0200257) and HMIRS listings (2002060523) appear to be related to a release of 10 to 25-gallons of No. 4 fuel oil to the pavement and surrounding vehicles due to a hose failure during delivery. This release was cleaned up and the Spills listing was closed on June 2, 2003. The remaining listings are non-contamination-related listings and therefore are not considered a REC with respect to the subject property.

According to the environmental database report, 113 database listings for 77 sites were identified within 1/8 mile of the subject property. Based on AECOM's review of these database listings, the Gulf Service Station located on 3075 21st Street is considered a REC to the subject property based on its proximity to the subject property, regulatory status (violations found), media impacted (soil and groundwater), and/or length of time use as a filling station (since at least the mid-1960s). No other off-site RECs were identified.

The following RECs were identified during this assessment:

- The presence of the 4,500-gallon No. 4 fuel oil AST at the subject property and the lack of any physical or visual inspection of the tank to evaluate its integrity is considered a REC.

- The proximity of the Gulf Service Station at 30-75 21st Street with known soil and groundwater impacts is considered a REC.

This assessment revealed no evidence of controlled RECs (CRECs) or de minimis conditions (DMCs) in connection with the subject property. However, the following historical REC (HREC) was identified:

- The subject property was listed on the Spills (0200257) and HMIRS listings (2002060523) appear to be related to a release of 10 to 25-gallons of No. 4 fuel oil to the pavement and surrounding vehicles due to a hose failure during delivery. This release was cleaned up and the Spills listing was closed on June 2, 2003.

1.0 Introduction

1.1 Purpose

This Phase I Environmental Site Assessment (ESA) was performed pursuant to AECOM's written proposal, dated July 19, 2016. This assessment was performed in advance of the demolition of the current building used by the Variety Boys and Girls Club of Queens (VBGCQ) and the construction of a new facility for use as residential apartments, retail space, and facilities for the VBGCQ. The purpose of this Phase I ESA is to provide the client with information for use in evaluating recognized environmental conditions (RECs) associated with the subject property.

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

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

1.2 Scope of Work

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

This project was performed in general accordance with ASTM Standard Practice Designation E 1527-13 and AECOM's proposal, dated July 16, 2016. Conclusions reached in this report are based upon the assessment performed and are subject to limitations set forth in Sections 1.3, 1.4, and 1.5 below.

1.3 Study Limitations

This report describes the results of AECOM's Phase I ESA to identify the presence of contamination-related liabilities materially affecting the subject facility and/or property. In the conduct of this assessment, AECOM assessed the presence of such problems within the limits of the established scope of work as described in our proposal.

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

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

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

- Uncertainty Not Eliminated - No ESA can wholly eliminate uncertainty regarding the potential for REC in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for REC in connection with a property, and this practice recognizes reasonable limits of time and costs. (Section 4.5.1 of the ASTM standard)

- Not Exhaustive - "All appropriate inquiry" does not mean an exhaustive assessment of a clean property. There is a point at which the cost of information obtained outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. One of the purposes of this practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an ESA and the reduction of uncertainty about unknown conditions resulting from additional information. (Section 4.5.2 of the ASTM Standard)

- Comparison with Subsequent Inquiry - ESAs must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent ESAs should not be considered valid standards to judge the appropriateness of any prior assessment based on hindsight, new information, use of developing technology or analytical techniques, or other factors. (Section 4.5.4 of the ASTM Standard)

A similar set of inherent limitations exist in cases where the Phase I ESA included a screening-level assessment of vapor migration or vapor encroachment; such an assessment is a required part of a Phase I ESA when the ASTM E1527-13 standard is employed. According to the ASTM E2600-10 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions, the following limitations apply:

- Uncertainty Not Eliminated in Screening - No vapor encroachment screen (VES) can wholly eliminate uncertainty regarding the identifications of vapor encroachment conditions (VECs) in connection with the target property. (Section 4.5.1)

- Not Exhaustive - The guide is not meant to be an exhaustive screening. There is a point at which the cost of information obtained outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of real estate transactions. One of the purposes of this guide is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing a VES and the reduction of uncertainty about unknown conditions resulting from additional information. (Section 4.5.2)

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

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

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

1.4 Site-Related Limiting Conditions

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

- AECOM was unable to conduct a detailed visual inspection of the boiler room within the basement of the facility. The facility’s sump pump had failed and the room was flooded with up to eight inches of water. Limited access was available to some areas within the boiler room where water was to not too deep. This allowed for a visual assessment of the boiler room from a distance. Based on this information, it is AECOM’s opinion that this particular site-related limiting condition is not expected to have a significant limitation to this assessment.

- Storage space located in the dance studio that is leased to the Ophelia Theatre was not accessible at the time of AECOM’s site reconnaissance. Based on the use of this space

(storage of theatre equipment, it is AECOM's opinion that this particular site-related limiting condition is not expected to have a significant limitation to this assessment.

1.5 Data Gaps/Data Failure

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

- As specified in the agreed upon scope of work, title and environmental lien searches were not conducted as part of this ESA. However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.

- Per ASTM, past owners, operators, and occupants of the subject property who are likely to have material information regarding the potential for contamination at the subject property shall be contacted to the extent that they can be identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. AECOM was unable to interview past owners and/or operators at the subject property. However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.

- Per the agreed scope-of-work and the ASTM Standard, information related to certain site-specific items should be provided by the ESA report user to AECOM. To assist the user in gathering information that may be material to identifying RECs, AECOM provided the Client (the users) with the User Questionnaire from the ASTM Standard; at this time the completed form has not been returned for inclusion in this report. However, this data gap is not expected to represent a significant limitation to this investigation.

- AECOM has yet to receive any responses from the New York State Department of Environmental Conservation (NYSDEC), the New York City Department of Environmental Protection (NYCDEP), or the New York State Department of Health (NYSDOH). However, based upon historical data collected from other sources, this data gap is not expected to impact the results of this assessment.

.

2.0 Site Description

2.1 Site Location and Parcel Description

The subject property is located at of the property located at 21-12 30th Road, Long Island City (Queens), New York. The subject property is situated to the southeast of the intersection of 21st Street and 30th Road, approximately 1,800 feet east of the East River. The subject property is accessed from 21st Street to the west and 30th Drive to the south.

According to the City of New York Department of Finance, the subject property consists of a single parcel of land that is designated as Block 550, Lot 7. The location of the subject property is illustrated on Figure 1 - Site Location Map.

2.2 Site Ownership

According to the City of New York Department of Finance, the subject property is owned by the VBGCQ.

2.3 Site Visit

Mr. Nelson J. Abrams with AECOM's 125 Broad Street, New York, New York office visited the subject property on December 8, 2016. During the site visit, Mr. Abrams interviewed Mr. Matthew Troy, Executive Director, Mr. Andy Rodriguez, Program Director, and Mr. Sebastian Zarate, Maintenance Manager, all with VBGCQ. Mr. Zarate accompanied Mr. Abrams during the site visit. Site-related limiting conditions encountered during this assessment were previously summarized in Section 1.4.

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

2.3.1 Site and Facility Description

The subject property is a 58,700 square foot lot consisting of a one-story "L" shaped building with basement consisting of approximately 30,290 square feet of gross floor space. The building is used for multiple purposes consisting of:

- A swimming pool with bleachers and water treatment plant located directly below the pool;
- A gymnasium / multi-purpose room with bleachers;
- A small theatre utilized by the VBGCQ and the Ophelia Theatre (which leases space from the VBGCQ);
- A dance studio leased to the Ophelia Theatre;
- Multiple classrooms used for after-school and weekend programs by the VBGCQ and other organizations which lease space from the VBGCQ; and
- The Raice Astoria Senior Center.

The L-shaped building is situated in the northern and eastern portions of the property with a playground and a bus parking area located on the southwest portion of the property. Additional parking is located to the south adjacent to the subject property (Block 550, Lot 10). This property is also owned by the VBGCQ. However, this property was not part of the subject property for the purposes of this Phase I ESA.

The subject property building is constructed of concrete and brick walls, multiple roofs consisting of asphalt and gravel, asphalt with aluminum paint, and corrugated sheet metal, and a concrete foundation. The subject building is divided into four areas. The swimming pool and water treatment systems are located in the northwestern portion of the building. Offices, the theatre, the boiler room, maintenance shop, and storage closets are located in the northeastern portion of the building. The gymnasium, classrooms, boys and girls locker rooms, a cafeteria, and the dance studio are located in the east-central portion of the building. The senior citizen center is located on the southeastern end of the building.

During the site visit, no visual evidence of potable water wells, monitoring wells, dry wells, clarifiers, septic tanks, or leach fields was observed on the subject property. Floor drains were observed in several areas within the boys and girls locker rooms. The boiler room contains two boilers, one of which is no longer operational. The active boiler, which is fueled by No. 4 fuel oil, is used to supply heat and hot water to the facility. Sumps and sump pumps were observed in the building's boiler room and in the storage room for the senior center. An abandoned water collection sump was observed near an exterior door along the western end of the water treatment area. No visual evidence of discolored soil, water, or unusual vegetative conditions or odors was observed during the site visit. The general layout of the subject property is illustrated on Figure 2 - Site Plan and Representative Site Photographs are provided in Appendix A.

2.3.2 Surrounding Properties

The majority of the properties surrounding the subject property are either apartment complexes or residential dwellings. A Gulf Service Station and automobile repair shop is located approximately 100 feet southwest of the subject property across 30th Drive. Several small commercial operations, including a laundromat and a building contractor are located to the west and southwest. A building identified as the Islamic Congress, Inc. is located immediately adjacent to the entrance to the senior center on the eastern perimeter of the subject property. Based on AECOM's site reconnaissance of the surrounding neighborhood, the Gulf Service Station is considered an off-site source of concern.

2.3.3 Petroleum Products and Hazardous Materials

No. 4 fuel oil is stored in a 4,500-gallon aboveground storage tank (AST) that is located within a concrete vault in the boiler room. This AST is further discussed in Section 2.3.5. In addition, a power unit used to operate an elevator located in the senior center contains approximately 33 gallons of hydraulic fluid.

Chemicals observed in the swimming pool's water treatment area include numerous 50 pound buckets of calcium chloride pellets and sodium bicarbonate. An empty box of muriatic acid was also observed. These chemicals were randomly stored throughout the water treatment area. Typical household cleaning chemicals and detergents were also observed in the maintenance shop.

No other hazardous materials or petroleum products were observed to be stored or used at the subject property. No staining was observed in the vicinity of the hazardous materials.

2.3.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCB)-containing dielectric fluids have been widely used as coolants and lubricants in transformers, capacitors, and other electric equipment due to their insulating and nonflammable properties. Based on the age of the subject property (pre-1979), the potential exists for PCBs to be present on-site.

The hydraulic power unit used for the elevator located in the senior center is a newer model and does not contain PCB fluids based upon its age. No pad-mounted or pole-mounted transformers or any other hydraulic equipment were observed on the subject property.

2.3.5 Aboveground Storage Tanks

Several ASTs were observed at the subject property. As previously stated a 4,500-gallon steel tank containing No. 4 fuel oil is located within a concrete vault in the basement boiler room and was installed in 1955 when the facility was constructed. The AST supplies fuel oil to an active boiler within the basement used to supply heat and hot water to the facility. According to documents available at the subject property the AST has not been inspected since by the FDNY since 2013 and its registration with the NYSDEC expired in 2012. Due to flooding in the boiler room, the AST could not be inspected. A 33 gallon tank containing hydraulic fluid associated with the elevator in the senior center is located in a storage room within the senior center. In addition, three ASTs are present within the water treatment area. These tanks consist of an open air concrete vessel used to store access pool water, a steel tank of unknown size and a 500-gallon polyethylene tank used in the chemical treatment of the swimming pool water.

2.3.6 Underground Storage Tanks

Visual evidence of underground storage tanks (USTs) (e.g., vent pipes, fill ports) was not identified during the site visit. In addition, no USTs were listed at the site in the site-specific environmental database report.

2.3.7 Solid waste

Typical solid waste along with empty containers of chemicals used in the treatment of the swimming pool water is generated at the subject property and is placed in plastic bags outside the exterior door of the water treatment area (northwest portion of the property, along 21st Street) for pickup by the New York City Department of Sanitation. In addition, there are numerous locations throughout the building; including corridors surrounding the water treatment area where solid waste was randomly stored with no apparent thought for future disposal. No staining was observed in the vicinity of these materials.

2.3.8 Hazardous Waste

No evidence of hazardous waste generation or disposal was observed at the subject property. In addition, the subject property was not listed as a generator of hazardous waste in the site-specific database report.

2.3.9 Water

Potable water is supplied to the subject property by the New York City Department of Environmental Protection (NYCDEP). No potable water wells were observed at the subject property.

2.3.10 Wastewater

Wastewater generated at the subject property is discharged to the sanitary sewers operated and maintained by the NYCDEP. No evidence of a former septic system was observed at the subject property.

2.3.11 Stormwater

Stormwater from the subject property appears to either percolate into the ground in unpaved areas of the subject property (playground) or drain via sheet flow to stormwater drains located in the southern and western portions of the subject property and stormwater drains located throughout the paved streets adjacent to the subject property. Sump pumps located within the subject property discharge water into the facility's sanitary sewer system which ultimately discharges into the NYCDEP sewer system. No staining was observed in the vicinity of the storm drains.

2.3.12 Heating and Cooling

Heating via forced air and baseboard hot water is provided throughout the older portion of the building via the boiler fueled by No. 4 fuel oil located in the basement. A small electric boiler is used to provide hot water within the senior center. A central heating and cooling system is utilized within the senior center while individual window-mounted air conditioning units are located the older portions of the building.

3.0 Environmental Setting

3.1 Topography

According to the United States Geological Survey (USGS) topographic map of the subject property (Brooklyn, NY Quadrangle) and a review of the Google Earth website, the elevation of the subject property is approximately 20 feet above mean sea level (msl). Based on a review of these technical resources and AECOM's site visit, the subject property appears to be generally flat. The USGS topographic map indicates a slight downward slope toward the west.

3.2 Soil/Geology

Site-specific geologic information was not identified during the course of this assessment. Based on the Geology and Engineering Geology of the New York Metropolitan Area, Field Trip Guidebook T361, July 20 – 25, 1989, edited by Charles A. Baskerville for the 28th International Geologic Congress, the subject property is located in the Atlantic Coastal Plain and soils in the area consisting of marshland deposits containing clayey silts, fine sands and organic material. The investigation activities that have been performed by AECOM (at nearby sites revealed that some of the geology could consist of fill material containing silty sand, coal ash and cinders, slag, glass fragments, brick fragments, and cobbles. Bedrock below the subject property consists of the Ravenswood Granodiorite and is likely greater than 100 feet below ground surface.

3.3 Groundwater/Hydrology

Site-specific hydrologic information was not identified during the course of this assessment. The overall groundwater flow in this area is likely to the northwest and west towards the East River. Based upon the elevation of the subject property the estimated depth to groundwater is between 20 to 30 feet below ground surface. However, the actual groundwater flow direction and depth in the vicinity of the subject property cannot be determined without site-specific groundwater monitoring well data.

4.0 Site and Area History

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

- Aerial photographs dated 1924, 1941, 1951, 1954, 1961, 1966, 1974, 1984, 1991, 1995, 2006, 2009, and 2011;
- Sanborn Fire Insurance Maps dated 1898, 1915, 1936, 1948, 1950, 1967, 1977, 1979, 1981, 1985, 1986, 1988 – 1996, 1999, and 2001 – 2006;
- Topographic maps dated 1897, 1898, 1900, 1947, 1956, 1966, 1967, 1979, 1995, 1997, and 2013;
- City directories for the years 1922, 1934, 1939, 1945, 1950, 1962, 1967, 1970, 1976, 1983, 1991, 1996, 2000, 2005, 2008, and 2013; and
- Online Property Information reviewed via the City of New York Department of Finance and the City of New York Department of Buildings websites.

4.1 Subject Property

Based upon a review of available records and online sources, the subject property was vacant land in at least 1898 and remained vacant until 1955 when the original Boys Clubs of America building was constructed. The name changed in the late 1980s to The Boys and Girls Club of America. The construction of the Raice Astoria Senior Center on the southeastern end of the building was conducted in 1989. An addition to the southeastern portion of the senior center was constructed in 2003. No other changes to the subject property have occurred since 2003. No historical on-site sources of concern were identified during this assessment.

4.2 Off-site Properties

NORTH

30th Road (formerly Temple Street) has been present adjacent to the north of the subject property since at least the late-1800s. The 1898 Sanborn Map indicates that the properties located to the north were primarily vacant with a few residential dwellings. Additional residential dwellings are identified in the 1915 and 1936 Sanborn Maps. By 1948, properties to the north of the subject property included vacant properties and residential dwellings immediately adjacent, beyond which were woodworking shops, a dress manufacturer, automobile garages, and the Advanced Masonic Temple. The dress manufacturer is no longer identified in the 1950 Sanborn Map. By 1967, multi-story dwellings had been constructed on the vacant lots immediately adjacent to the property. There were no significant changes to the use of the properties north of the subject property between 1948 and 2014. There have been no significant changes to the use of the properties north of the subject property since 2014.

EAST

The 1898 Sanborn Maps indicates that the properties to the east were primarily vacant with a few residential dwellings. Between 1898 and 1941 both the Sanborn Maps and historic aerial photographs

show an increase in residential dwellings and apartment to the east. Since 1941 there have been no significant changes to the use of the properties east of the subject property, with the exception of the construction of an Islamic Mosque adjacent to the east of the property in 2003.

SOUTH

30th Drive (formerly Elm Street) has been present adjacent to the south of the subject property since at least the late-1800s.The 1898 Sanborn Map indicates that the properties located to the south were primarily vacant with a few residential dwellings. Additional residential dwellings and a few automobile garages are identified in the 1915 and 1936 Sanborn Maps. By 1948, properties to the south of the subject property across 30th Drive included residential dwellings, small commercial operations (storefronts, sign card painting), automobile repair, and a garage with gasoline tanks (approximately 500 feet from the subject property). By 1967, the garage with the gasoline tanks are no longer identified though a filling station is identified approximately 100 feet southwest of the subject property at the corner of 30th Drive and 21st Street. Between 1967 and 1974 Engine Company 262 of the Fire Department of the City of New York (FDNY) replaced an automobile repair shops located to the southwest along 21st Street. By 1977, an automobile repair shop was constructed adjacent to the filling station. The general use of properties located south of the subject property remained unchanged until 2003 when the Vallone Family Residence for Seniors apartment complex is depicted on the southwestern lot immediately abutting (and owned) by the VBGCQ. Since 2003, there have been no significant changes to the use of the properties south of the subject property.

WEST

21st Street (formerly Van Alst Avenue) has been present adjacent to the west of the subject property since at least the late-1800s. The 1898 Sanborn Maps indicates that the properties to the west were primarily vacant with a few residential dwellings. Residential dwellings located west of the subject property continued to be developed to the present. A lubricating oil manufacturer and the Queens County Kindling Wood factory were approximately 300 feet west of the property at this time. These two operations were no longer identified in the 1936 Sanborn Map. A bowling alley was identified in only the 1915 Sanborn Map and remained vacant until 1967 when the building is identified as beer storage. Queens Lumber Company is depicted adjacent to the west on the 1948 Sanborn Map and remained present through at least 2011. A 2014 aerial photographs identified on Google Earth Pro shows the building for the Queens Lumber Company being demolished and replaced by the present-day apartment building. A furniture warehouse was located adjacent to the west along 21st Street (southwest of Queens Lumber Company) in 1967. By 1979, this warehouse is depicted as a commercial building. This building remained until 2010 when Google Earth Pro aerial photographs depict the construction activities of the present-day apartment building.

4.3 Previously Prepared Environmental Reports

No previous environmental reports were provided to AECOM for review.

5.0 Database and Records Review

5.1 User Provided Information

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

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

5.2 Database Information

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

The database report includes various reports detailing database information for each of the sites identified/geocoded within the specified radius. Additional sites were identified within the database report; however EDR was not able to map them to specific locations due to insufficient/contradicting address information. These sites were included in the database report as "orphan" sites. Based upon AECOM's review, there does not appear to be any significant concerns associated with any of the orphan sites. A summary of AECOM's review and analysis of the site-specific environmental database report is presented below. A copy of the database report is provided in Appendix B.

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

5.2.1 Subject Property

The subject property is identified on the New York Spills (NY Spills), Hazardous Materials Information Reporting System (HMIRS), Environmental Designation (E-Designation), and NY AST environmental databases reviewed for this assessment. These databases are non-contamination-related listings. The NY Spills database identified a 10 gallon discharge of No. 4 fuel oil onto the pavement due to a hose failure on April 8, 2002. The spill was cleaned up and closed on June 2, 2003. The HMIRS database also identified the April 8, 2002 spill, but indicated that spill volume was 25 gallons. The E-Designation database is issued by the City of New York regarding potential

environmental concerns at the subject property. The concerns identified at the property were air quality resulting from the boiler being fueled by diesel fuel, stack exhaust limitations, and hazardous materials requiring Phase I and Phase II testing protocols. The NY AST database identifies the existence of a 4,500 gallon AST used to store No. 4 fuel oil for the subject property's boiler.

5.2.2 Surrounding Sites

According to the environmental database report, 113 database listings for 77 sites were identified within 1/8 mile of the subject property. Based on AECOM's review of these database listings, none of these sites are expected to present a REC to the subject property based on their distance from the subject property, regulatory status (i.e. closed, no violations found), media impacted (i.e. soil only), and/or topographical position from the subject property (i.e. down-gradient or cross-gradient)with the following exception:

- The present-day Gulf Service Station at 30-75 21st Street is located approximately 100 feet southwest of the subject property across 30th Street. This site is listed on numerous databases including Resource Conservation and Recovery Act-Non Generator/No Longer Regulated (RCRA-NonGen/NLR), Facility Index System (FINDS) NY Spills, NY AST, New York Leaking Underground Storage Tank (NY LTANK), NY UST, and the Environmental Data Resources Historic Automotive Service Station (EDR Hist Auto). According to the site-specific environmental database report, this site had numerous USTs removed while others remain operational. Soil and groundwater were found to be impacted with gasoline, fuel oil, and waste oil from leaking UST and fuel lines. Remediation of the soils and groundwater was ongoing at the site as of 2016. Based on proximity to the subject property, regulatory status (violations found), media impacted (soil and groundwater), and/or length of time use as a filling station (since at least the mid-1960s), this site is considered a REC with respect to the subject property.

5.3 Vapor Encroachment Screening

AECOM conducted a Tier 1 vapor encroachment screening (VES) as part of this assessment. This screening was conducted in general accordance with the ASTM E2600 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions* dated June 2010. The objective of the VES was to evaluate the following:

1. A vapor encroachment condition (VEC) exists, or
2. Is likely to exist, or
3. Cannot be ruled out, or
4. Can be ruled out because it does not exist or is not likely to exist.

The 4,500 AST cannot be ruled out as an on-site source of vapor encroachment. The AST was installed in 1955 and according to documents available at the subject property has not been inspected since by the FDNY since 2013 and its registration with the NYSDEC expired in 2012.

AECOM reviewed the site-specific environmental database report with particular focus on the following two types of sites:

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

2. Off-site properties that are impacted by petroleum hydrocarbons and are located within approximately 525 feet of the subject property.

The following paragraph summarizes the results of AECOM's VES of the subject property.

A review of the site-specific environmental database indicates that no chlorinated VOC/SVOC sites are located with the above-described radii of the subject property. However, numerous petroleum hydrocarbon impacted sites are located within the above-described radii. However, all but one of the petroleum hydrocarbon-impacted sites can be ruled out due to their regulatory status (i.e. regulatory closure has been issued), media impacted (i.e. soil only), and/or topographical position from the subject property (i.e. down-gradient or cross-gradient). The Gulf Service Station located at 30-75 21st Street is located approximately 100 feet southwest of the subject property. The information obtained from the site-specific database report indicates that petroleum contamination was encountered in both soil and groundwater, and that remedial measures were ongoing at the site as of 2016. Based on this information, a VEC due to this off-site source cannot be ruled out.

5.4 Agency File Review

AECOM submitted Freedom of Information Act (FOIA) requests to the NYSDEC, the New York City Department of Environmental Protection (NYCDEP), the New York State Department of Health (NYSDOH), and the FDNY for information related to spills/releases of oil or hazardous materials and other significant incidents.

AECOM received information from the FDNY confirming that only a 4,500-gallon AST is currently at the site. AECOM is currently waiting for responses from the remaining agencies regarding the subject property.

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

- New York State Department of Environmental Conservation, Bulk Storage Database Search. The subject property was not identified in the database.
- New York State Department of Environmental Conservation, Spill Incident Database Search. The subject property was not identified in the database.

As identified in the database search (Section 5.3.1), the 10 gallon spill of No. 4 fuel oil is identified in the Spill Incident Database Search. As previously stated, the spill was remediated and closed in 2003.

Based on AECOM's research to date, AECOM does not anticipate the response (if any) from the NYSDEC, the NYCDEP, or the NYSDOH to our FOIA requests will significantly alter the conclusions or recommendations of this report. However, if information is received from these FOIA requests which significantly impacts the conclusions or recommendations of this report, this information will be forwarded upon receipt.

6.0 Findings and Opinions

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

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

6.1 Recognized Environmental Conditions

Based upon the above-described activities, the following REC was identified:

- The presence of the 4,500-gallon No. 4 fuel oil AST at the subject property and the lack of any physical or visual inspection of the tank to evaluate its integrity is considered a REC.
- The proximity of the Gulf Service Station at 30-75 21st Street with known soil and groundwater impacts is considered a REC.

6.2 Controlled Recognized Environmental Conditions

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

6.3 Historical Recognized Environmental Conditions

Based on the above-described activities, the following historical REC (HREC) was identified:

- The subject property was listed on the Spills (0200257) and HMIRS listings (2002060523) appear to be related to a release of 10 to 25-gallons of No. 4 fuel oil to the pavement and surrounding vehicles due to a hose failure during delivery. This release was cleaned up and the Spills listing was closed on June 2, 2003.

6.4 De Minimis Conditions

De minimis conditions (DMCs) were not identified at the subject property.

7.0 Conclusions

AECOM has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 of the property located at 21-12 30th Road, Long Island City (Queens), New York (subject property). Any exception to, or deletions from, this practice are described in Sections 1.3 through 1.5 of this report. This assessment revealed no RECs or CRECs in connection with the subject property, with the following exceptions:

- The presence of the 4,500 gallon AST at the site and the lack of any physical or visual inspection of the tank to evaluate its integrity makes it's a potential source for subsurface contamination.

- The proximity of the Gulf Service Station at 30-75 21st Street and the known contamination to the soil and groundwater could have resulted in potential environmental impacts to the subject property.

8.0 Quality Control/Quality Assurance

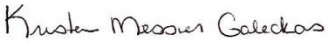
8.1 Site Visit, Research, and Report Preparation

The site visit, research, and report preparation were conducted by Nelson J. Abrams, in AECOM's 125 Broad Street, New York, New York office.

Signature: 

8.2 Quality Control Review

A first level review of this report was conducted by Kristen Galeckas in AECOM's Chelmsford, Massachusetts office.

Signature: 

A second level review of this report was conducted by Rebecca Kelly in AECOM's Germantown, Maryland office.

Signature: 

8.3 Environmental Professional Statement

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

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

Signature:  Date: January 23, 2017

9.0 References

9.1 Persons Interviewed

Rodriguez, Program Director, VBGCQ, 21-12 30th Road, Long Island City, New York , (718) 728-0946, Ext 110, arodriguez@varietyboysandgirlsclub.org. Provided site history on December 8, 2016.

Troy, Matthew, Executive Director, VBGCQ, 21-12 30th Road, Long Island City, New York , (718) 728-0946, mtroy@varietyboysandgirlsclub.org. Provided site history on December 8, 2016.

Zarate, Sebastian, Maintenance Manager, VBGCQ, 21-12 30th Road, Long Island City, New York , (718) 728-0946, szarate@varietyboysandgirlsclub.org. Provided site walk escort and site history on June 25, 2010.

9.2 Agencies Contacted

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

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

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

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

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

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

9.3 Documents Reviewed

EDR Aerial Photo Decade Package prepared for Variety Boys and Girls Club of Queens, 2112 30th Road, Long Island City, NY 11102 dated November 30, 2016. Inquiry number 4792701.9. Aerial photographs dated 1924, 1941, 1951, 1954, 1961, 1966, 1974, 1984, 1991, 1995, 2006, 2009, and 2011. Report prepared by Environmental Data Resources, 6 Armstrong Road, Shelton, Connecticut 06484, 800-353-0050.

EDR City Directory prepared for Variety Boys and Girls Club of Queens, 2112 30th Road, Long Island City, NY 11102 dated November 29, 2016. Inquiry number 4792701.5. Report prepared by Environmental Data Resources, 6 Armstrong Road, Shelton, Connecticut 06484, 800-353-0050.

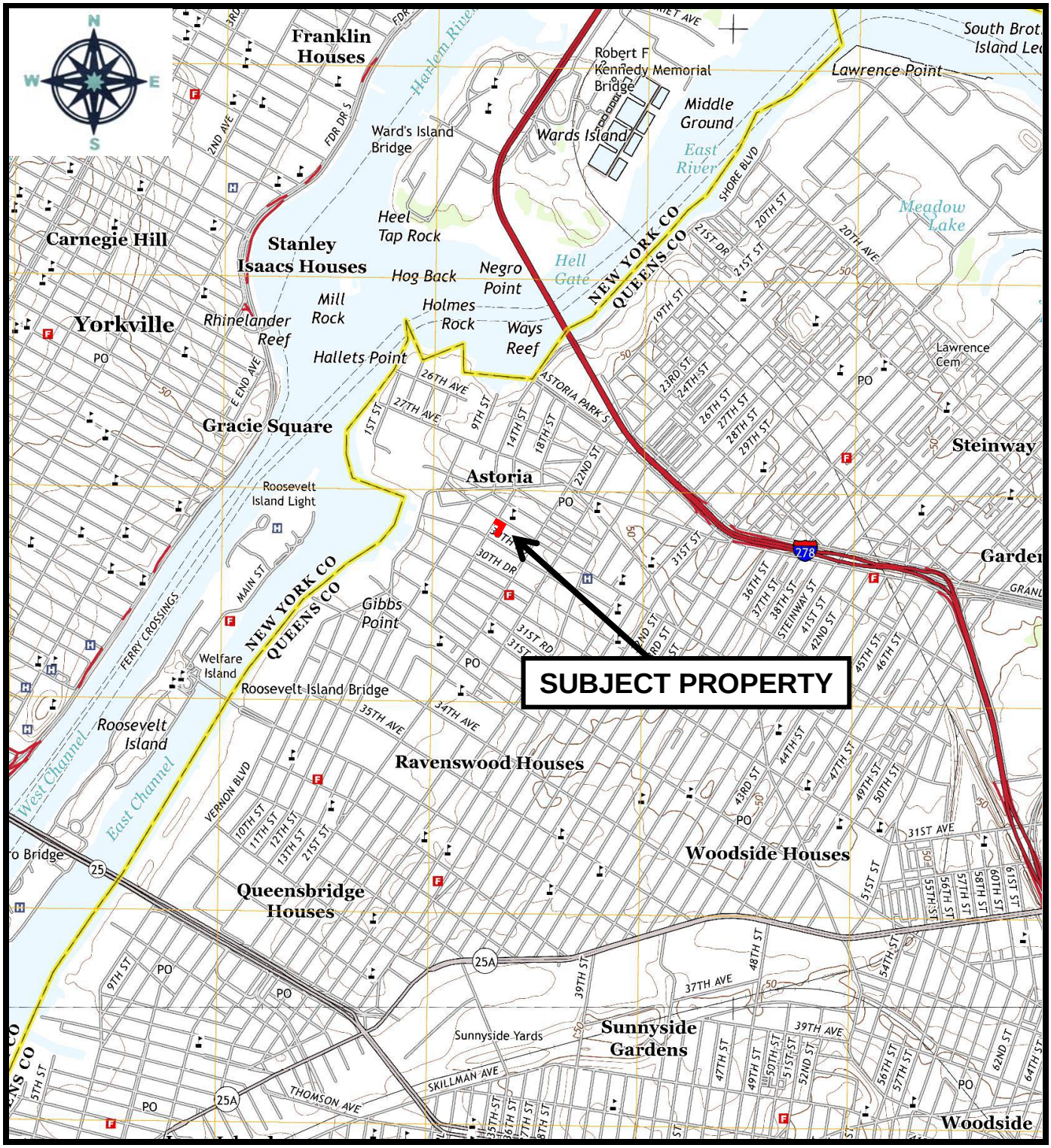
EDR Radius Map with GeoCheck®, prepared for Variety Boys and Girls Club of Queens, 2112 30th Road, Long Island City, NY 11102 dated November 29, 2016. Inquiry number 4792701.2s. Inquiry number 4759473.2s. Report prepared by Report prepared by Environmental Data Resources, 6 Armstrong Road, Shelton, Connecticut 06484, 800-353-0050.

EDR Sanborn® Map Report, prepared for Variety Boys and Girls Club of Queens, 2112 30th Road, Long Island City, NY 11102 dated November 29, 2016. Inquiry number 4792701.3. Sanborn Maps dated 1898, 1915, 1936, 1948, 1950, 1967, 1977, 1979, 1981, 1985, 1986, 1988 – 1996, 1999, and 2001 – 2006. Report prepared by Environmental Data Resources, 6 Armstrong Road, Shelton, Connecticut 06484, 800-353-0050.

EDR 7.5 Minute Topographic Maps, prepared for Variety Boys and Girls Club of Queens, 2112 30th Road, Long Island City, NY 11102 dated November 29, 2016. Topographic Maps dated 1897, 1898, 1900, 1947, 1956, 1966, 1967, 1979, 1995, 1997, and 2013. Inquiry number 4792701.4. Report prepared by Environmental Data Resources, 6 Armstrong Road, Shelton, Connecticut 06484, 800-353-0050.

Google Earth, surrounding property information, retrieved online at, www.google.earth.com, January 9-11, 2016.

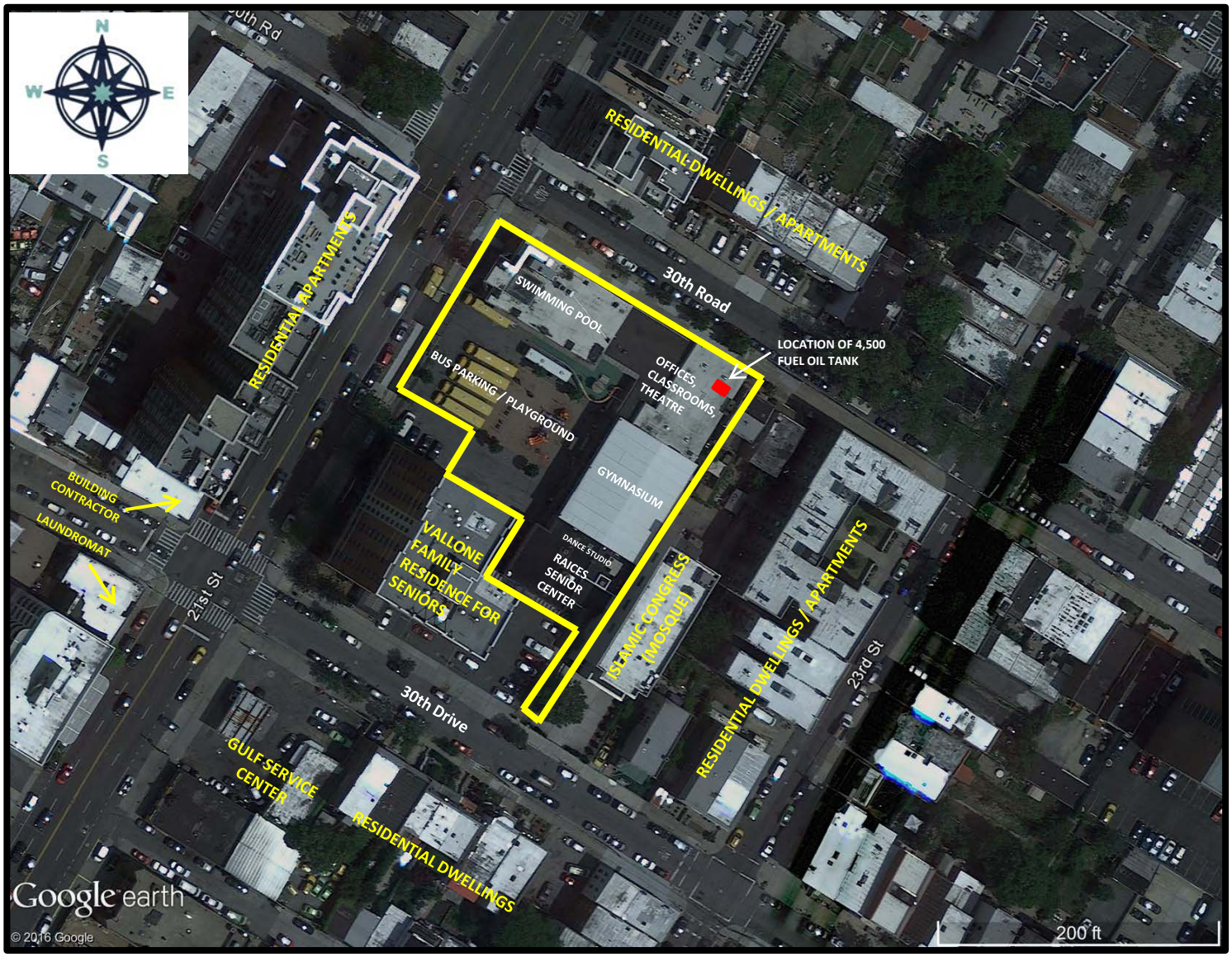
Figures



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

Figure 1
Site Location Map
Variety Boys and Girls Club of Queens
21-12 30th Road
Long Island City, New York
Project No. 60505356

AECOM



AECOM

Figure 2
Site Plan
Variety Boys and Girls Club of Queens
21-12 30th Road
Long Island City, New York
Project No. 60505356

Appendix A

Representative Site Photographs

PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No.	Date:
1	12/08/16

Direction Photo Taken:

South

Description:

View of entrance to the Varsity Boys and Girls Club of Queens (VBGCQ) from 30th Road.



Photo No.	Date:
2	12/08/16

Direction Photo Taken:

East

Description:

View of entrance to the VBGCQ from 21st Street.



PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No.	Date:
3	12/08/16

Direction Photo Taken:

North

Description:

View of entrance to the Raice Astoria Senior Center from 30th Drive.



Photo No.	Date:
4	12/08/16

Direction Photo Taken:

Southwest

Description:

View of Olympic size swimming pool.



PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No. 5	Date: 12/08/16

Direction Photo Taken:

East

Description:

View of water treatment area located below the swimming pool.



Photo No. 6	Date: 12/08/16

Direction Photo Taken:

West

Description:

View of a hallway located in the water treatment area filled with trash and debris.



AECOM

PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No. 7	Date: 12/08/16

Direction Photo Taken:

South

Description:

View of theatre and stage. Trash and debris were found behind the curtains on the stage.



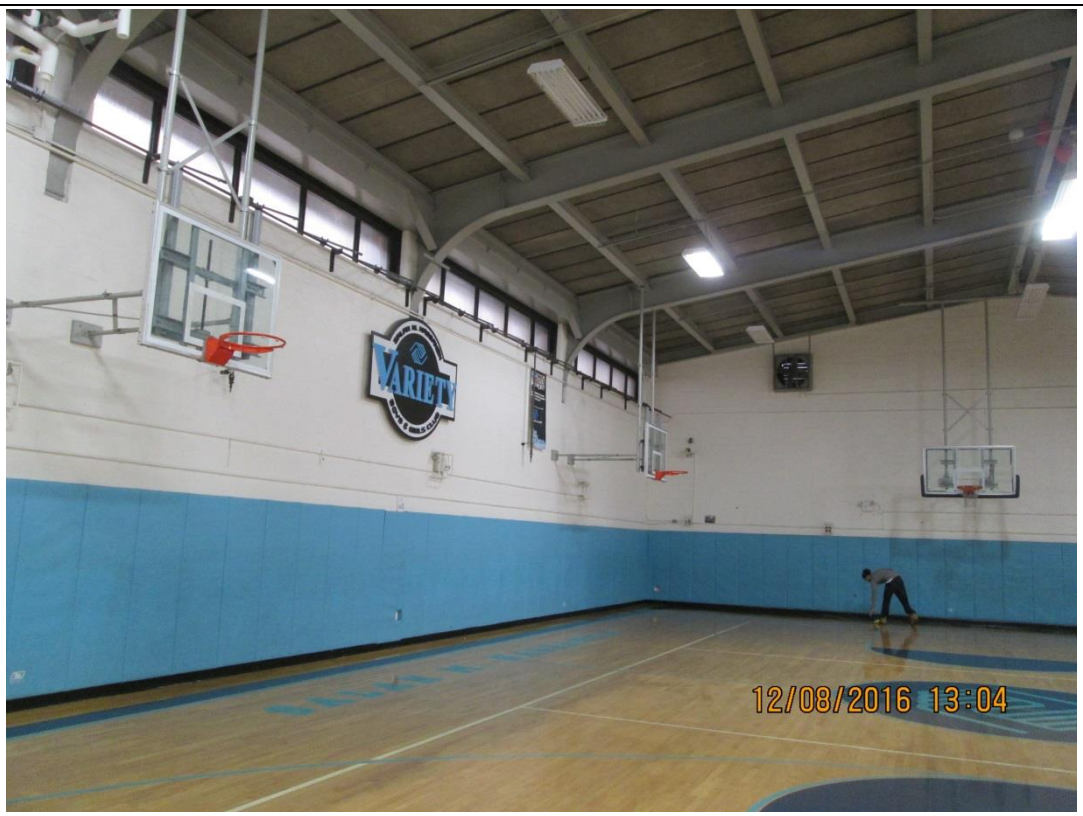
Photo No. 8	Date: 12/08/16

Direction Photo Taken:

Southeast

Description:

View of gymnasium.



AECOM

PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No. 9	Date: 12/08/16

Direction Photo Taken:

Northeast

Description:

View of dance studio.



Photo No. 10	Date: 12/08/16

Direction Photo Taken:

West

Description:

View of maintenance shop in the basement of the building.



PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No.	Date:
11	12/08/16

Direction Photo Taken:

North

Description:

View of flooded boiler room in the basement of the building.



Photo No.	Date:
12	12/08/16

Direction Photo Taken:

East

Description:

View of flooded boiler room in the basement of the building. An operation and abandoned boiler are located to the left. Behind the wall to the right is the location of the 4,500 gallon aboveground fuel oil tank.



AECOM

PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No. 13	Date: 12/08/16

Direction Photo Taken:

South

Description:

View of sump pump within the boiler room.



Photo No. 14	Date: 12/08/16

Direction Photo Taken:

Southeast

Description:

View of an afterschool classroom located in the basement of the building.



PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No.	Date:
15	12/08/16

Direction Photo Taken:

West

Description:

View of the art room located in the basement of the building.

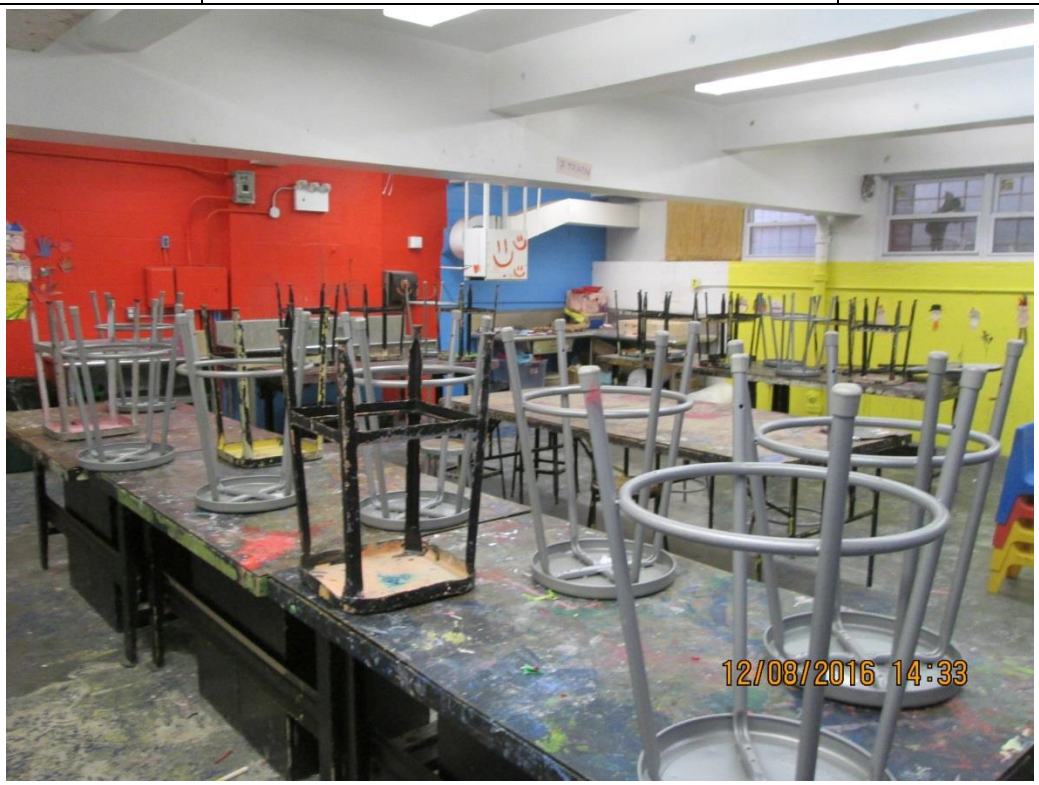


Photo No.	Date:
16	12/08/16

Direction Photo Taken:

Northwest

Description:

View of cafeteria / gathering area in the lower level of the Raice Astoria Senior Center.



AECOM

PHOTOGRAPHIC LOG

Facility Name:	Site Location:	Project No.
Variety Boys and Girls Club of Queens	21-12 30th Road, Long Island City, New York	60505356

Photo No. 17	Date: 11/01/16

Direction Photo Taken:

North

Description:

View of sump pump located in a storage closet in the lower level of the Raice Astoria Senior Center.

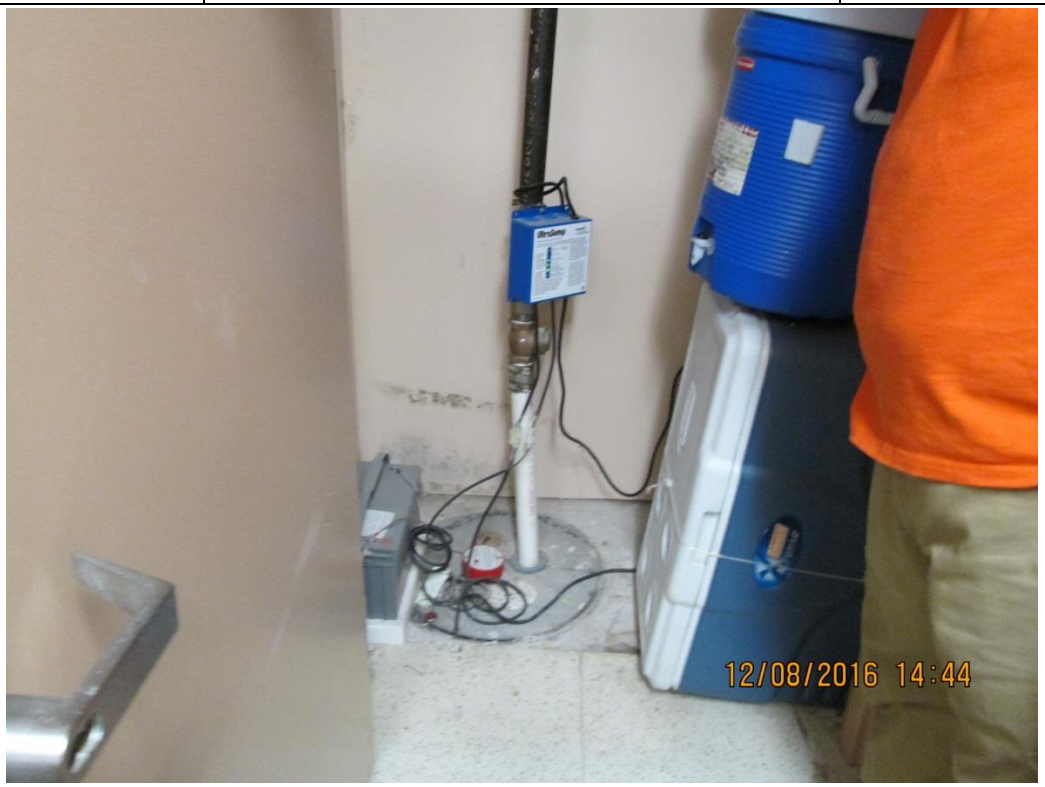


Photo No. 18	Date: 11/01/16

Direction Photo Taken:

Southeast

Description:

View of hydraulic tank used to operate the elevator within the Raice Astoria Senior Center. The tank is located with a storage room in the lower level of the center.



Appendix D – Agency Correspondence

NYC Environmental Protection

Vincent Sapienza, P.E.
Commissioner

Angela Licata
Deputy Commissioner of Sustainability

59-17 Junction Blvd.
Flushing, NY 11373

Tel. (718) 595-4398
Fax (718) 595-4422
alicata@dep.nyc.gov

January 4, 2018

Robert Dobruskin
Director, Environmental Assessment and Review Division
New York City Department of City Planning
120 Broadway, 31st Floor
New York, NY 10271

Re: Variety Boys & Girls Club of Queens Rezoning
Block 550, Lots 7, 10, and p/o Lots 5 and 27
CEQR # 77DCP511Q

Dear Mr. Dobruskin:

The New York City Department of Environmental Protection, Bureau of Sustainability (DEP) has reviewed the November 2017 Environmental Assessment Statement and the January 2017 Phase I Environmental Site Assessment (Phase I) prepared by AECOM on behalf of Variety Boys and Girls Club of Queens (applicant) for the above referenced project. It is our understanding that the applicant is seeking a zoning map amendment from the New York City Department of City Planning (DCP) to rezone Block 550, Lots 7, 10 and small portions of Lots 5 and 27 in the Astoria neighborhood of Queens Community District 1 from split-lot R7A/C2-3 and R6B zoning districts to an R7X/C2-3 zoning district. The proposed rezoning would facilitate the applicant's proposed development of a new mixed-use building comprised of one 14-story tower containing 112 residential units with ground-floor retail and 39 parking spaces, and one 5-story community facility tower that would include a replacement facility for the existing Variety Boys and Girls Club of Queens as well as additional space for another community facility use on Block 550, Lot 7 of the development site which consists of Block 550, Lots 7 and 10. The applicant controls both of these lots and intends to merge the lots into a single zoning lot. The reasonable worst case development scenario accounts for the full development potential of Lot 10 (or the full development potential of the merged lot) under the proposed R7X/C2-3 zoning district. The applicant is also requesting a zoning text amendment to the New York City Zoning Resolution Appendix F to designate the rezoning area as a Mandatory Inclusionary Housing Area. Additionally, small slivers (portions of) Lots 5 and 27 are included in the proposed rezoning area and are anticipated to remain in their current condition.

The January 2017 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including a community facility, a service station, automobile repair shops, a laundromat, a building contractor, a senior center, residential dwellings, storefronts, sign card painting, a garage with gasoline tanks, a lubricating oil manufacturer, a kindling wood factory, a bowling alley, a lumber company, a

furniture warehouse, dry cleaners, etc. The New York State Department of Environmental Conservation database identified 29 spills within 1/8-mile; 16 underground storage tank sites and 62 aboveground storage tank sites within a 1/4-mile; and 44 leaking storage tank sites and 2 brownfield sites within a 1/2-mile of the subject property.

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

Block 550, Lots 7 and 10

- Based on prior on-site and/or surrounding area land uses which could result in environmental contamination, DEP recommends that an "E" designation for hazardous materials should be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for subject property. The "E" designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance. It should be noted that an "E" designation (E-245) for hazardous materials was placed on Block 550, Lot 7 as part of the Astoria Rezoning project (CEQR # 10DCP019Q). Further hazardous materials assessments should be coordinated through the Mayor's Office of Environmental Remediation.

Future correspondence and submittals related to this project should include the following CEQR # **77DCP511Q**. If you have any questions, you may contact Mohammad Khaja-Moinuddin at (718) 595-4445.

Sincerely,

Wei Yu

Wei Yu
Deputy Director, Hazardous Materials

c: R. Weissbard
M. Khaja-Moinuddin
T. Estesen
M. Wimbish
C. Lee – DCP
O. Abinader – DCP
M. Bertini – OER

Landmarks Preservation Commission

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

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

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-Q
Project: VARIETY BOYS AND GIRLS CLUB OF QUEENS
Address: 21-12 30 ROAD, **BBL:** 4005500007
Date Received: 9/9/2016

[X] No architectural significance

[X] No archaeological significance

[ ] Designated New York City Landmark or Within Designated Historic District

[ ] Listed on National Register of Historic Places

[ ] Appears to be eligible for National Register Listing and/or New York City Landmark Designation

[ ] May be archaeologically significant; requesting additional materials

Gina Santucci 9/13/2016

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 31771_FSO_GS_09132016.doc

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AECOM
125 Broad Street
New York, NY 10004
T 212.377.8400
F 212.377.8410
www.aecom.com