ASTORIA COVE DEVELOPMENT

DRAFT
SCOPE OF WORK FOR AN ENVIRONMENTAL IMPACT STATEMENT

CEQR NO. 13DCP127Q
ULURP NOS. Pending

April 25, 2013

A. INTRODUCTION

This scope of work outlines the technical areas to be analyzed in the preparation of an Environmental Impact Statement (EIS) for the Astoria Cove Development. The applicant, 2030 Astoria Developers, LLC, is requesting several discretionary actions to facilitate a proposal by the applicant to redevelop an approximately 8.7-acre site in the Astoria neighborhood of Queens Community District 1. The Proposed Action includes a zoning map amendment, City map amendments, several zoning text amendments, a large-scale general development special permit, waterfront special permits, authorization to modify waterfront public access area requirements, and Chairperson's waterfront certification (collectively, the "Proposed Action"). The Proposed Action would facilitate a proposal by the applicant to construct a mixed-use predominantly residential development (the "proposed development") comprised of approximately 1,701 dwelling units (approximately 1,701,126 gross sf of residential floor area), of which a minimum of 340 dwelling units (20 percent of residential floor area) would be affordable; approximately 117,000 gross sf of local retail space, including an approximately 25,000 gross sf supermarket; an elementary school with approximately 456 seats (K-5); approximately 940 accessory parking spaces; and approximately 142,000 sf of publicly accessible open space.

This document provides a description of the Proposed Action and resultant proposed development, and includes task categories for all technical areas to be analyzed in the EIS.

B. REQUIRED APPROVALS AND REVIEW PROCEDURES

The Proposed Action would require several City Planning Commission (CPC) approvals. Some of these are discretionary actions requiring review under the Uniform Land Use Review Procedure (ULURP) and the City Environmental Quality Review (CEQR) process; others are ministerial.

The proposed development would require approval of discretionary actions by the CPC, including:

- Zoning Map Amendment to rezone the project site from M1-1 and R6 to R6B, R7-3 with a C2-4 commercial overlay, and R7A with a C2-4 commercial overlay.
- City Map amendments to:
  - Establish 4th Street from 26th Avenue to the waterfront esplanade;
  - Elimination, discontinuance and closing of a portion of 8th Street from 27th Avenue to the waterfront; and

  - Establish a public access easement within the waterfront public access area between 4th Street and 9th Street.

- Large-Scale General Development (LSGD) Special Permit:
  - Special permit under the City's Zoning Resolution (ZR) §74-743 to allow for the transfer of floor area, lot coverage, and dwelling units between waterfront zoning lots and non-waterfront zoning lots within the LSGD.
  - Extension of the vesting term to 10 years for the LSGD Special Permits (ZR § 11-42(c)).

- Zoning Text Amendments to:
  - Make the Inclusionary Housing designated area applicable to the proposed R7-3 district (ZR §23-952 and Appendix F).
  - Apply the Food Retail Expansion Program to Support Health (FRESH) program to the project site (ZR §63-02(a)(4) and 63-25(d)).
  - Exempt accessory parking located no more than 33 feet above the height of the base plane from the definition of the floor area (ZR §62-454).
  - Add R7-3 base and maximum floor area ratios (ZR §23-952).

- Waterfront Special Permits:
  - Special Permit under ZR §62-836 with waivers for height and setback, floor area coverage, tower footprint size limitation, maximum width of walls facing shoreline, rear yard equivalent, and minimum distance between buildings on the same zoning lot.

- Waterfront Authorizations and Certifications:
  - Authorization under ZR §62-822
    - To modify requirements for location, area and minimum dimensions of waterfront public access areas and visual corridors.
    - To modify requirements within a waterfront public access area.
    - For phased development of waterfront public access areas.
  - Certification under ZR § 62-811 for waterfront public access and visual corridors (a ministerial action).

In addition, the proposed project will require approvals from the U.S. Army Corps of Engineers (USACE) and the New York State Department of Environmental Conservation (NYSDEC) for two proposed new stormwater outfalls to be located at the end of 4th and 9th Streets. NYSDEC approval will also be required as part of the proposed waterfront esplanade falls within NYSDEC-regulated adjacent area. Additionally, a State Pollution Discharge Elimination System (SPDES) permit from the NYSDEC will also be required for stormwater discharges during the construction period because construction on the project site involves more than one acre.

The applicant may also seek New York City Housing Preservation and Development (HPD) approval of an Affordable Housing Plan pursuant to the Inclusionary Housing Program's and potential financing from City and/or State agencies including HPD, the New York City Housing Development Corporation (HDC), and/or NYS Homes and Community Renewal (HCR) for affordable housing construction.

City Environmental Quality Review (CEQR) and Scoping

The Proposed Action triggers ULURP and requires environmental review under the City Environmental Quality Review (CEQR) procedures. An Environmental Assessment Statement (EAS) was completed on April 25, 2013. The New York City Department of City Planning (DCP), acting as lead agency on behalf of the City Planning Commission, has determined that the Proposed Action would have the potential for significant adverse impacts, thus requiring that an Environmental Impact Statement (EIS) be prepared.

The CEQR scoping process is intended to focus the EIS on those issues that are most pertinent to the Proposed Action. The process at the same time allows other agencies and the public a voice in framing the scope of the EIS. This scoping document sets forth the analyses and methodologies which will be utilized to prepare the EIS. During the period for scoping, those interested in reviewing the draft scope may do so and give their comments to the lead agency. The public, interested agencies, Queens Community Board 1, and elected officials, are invited to comment on the draft scope, either in writing or orally, at a public scoping meeting to be held on May 28, 2013 at the Goodwill Astoria Headquarters located at 4-21 27th Avenue, Astoria, NY 11102. The public meeting will be held in two sessions with the first meeting beginning at 3:00PM and second beginning at 6:30PM.Comments received during the draft scope's public hearing, and written comments received up to 10 days after the hearing, [until June 7, 2013] will be considered and incorporated as appropriate into a final scope of work. The lead agency will oversee preparation of a final scope, which incorporates all relevant comments made on the draft scope and revises the extent or methodologies of the studies, as appropriate, in response to comments made during scoping. The draft EIS (DEIS) will be prepared in accordance with the final scope of work for an EIS.

Once the lead agency is satisfied that the DEIS is complete, the document will be made available for public review and comment. The DEIS will accompany the Uniform Land Use Review Procedure (ULURP) application through the public hearings at the Community Board and City Planning Commission (CPC). A public hearing will be held on the DEIS in conjunction with the CPC hearing on the ULURP applications to afford all interested parties the opportunity to submit oral and written comments. The record will remain open for 10 days after the public hearing to allow additional written comments on the DEIS. At the close of the public review period, a Final EIS (FEIS) will be prepared that will incorporate all substantive comments made on the DEIS, along with any revisions to the technical analysis necessary to respond to those comments. The FEIS will then be used by the decision makers to evaluate CEQR findings, which address project impacts and proposed mitigation measures, before deciding whether to approve the requested discretionary actions.

C. DESCRIPTION OF PROPOSED ACTION AND RESULTANT PROPOSED DEVELOPMENT

Background

The Astoria Cove site (the "project site") comprises a total of approximately 377,726 square feet (ft) of lot area. The project site consists of approximately 292,155 sf along the waterfront (Block 907, Lots 1 & 8, and Block 906, Lots 1 & 5) and approximately 85,571 sf of upland area (Block 908, Lot 12 and Block 909, Lot 35) located along 26th Avenue between 4th Street and 9th Street (refer to aerial photo in Figure 1). The project site is currently zoned M1-1 north of 26th Avenue, and R6 on the two upland lots south of 26th Avenue. As shown in Figure 1, the lots comprising the northern portion of the project site along the



Astoria Cove Development

Figure 1
Project Location

waterfront contain a total of seven warehousing and industrial buildings (with a combined total floor area of approximately 194,700 sf) as well as bus/vehicle storage, and an estimated 100 accessory parking spaces. The project site currently encompasses two mapped but unbuilt segments of 8th Street (to the north and south of 26th Avenue), as well as an unimproved portion of 26th Avenue west of 9th Street. Both street segments would be built and improved under future No-Build and/or Build conditions (see description below for details). The project site's northern edge along the waterfront is currently mostly developed with shoreline protection measures, in the form of riprap. The two upland portions of the site (which are zoned R6) are currently vacant.

The Proposed Action

Proposed Zoning Map Changes

The Proposed Action includes an amendment of the City's zoning map to rezone the project site from the existing M1-1 and R6 to R6B, R7-3 with a C2-4 commercial overlay, and R7A, with a C2-4 commercial overlay, as illustrated in Figure 2. A portion of the R6 district would remain. The proposed zoning districts would allow residential uses in the entire rezoning area, which are prohibited under the existing M1-1 zoning on the northern portion of the project site. It would also allow a wider range of commercial uses through the mapping of a commercial overlay.

From R6 to R6B and R7A

The existing R6 zoning designation in the rezoning area would be replaced with contextual medium-density R7A and R6B residential zoning districts. The existing R6 zoning is a medium-density residential district that can range from neighborhoods with a diverse mix of building types and heights to large-scale "tower in the park" developments and has a maximum FAR of 2.43. Heights of buildings within R6 districts are governed by height factor regulations which often produce tall buildings set back from the street and surrounded by open space and on-site parking. There are no height limits for height factor buildings although they must be set within a sky exposure plane which begins at a height of 60 feet above the street line and then slopes inward over the zoning lot.

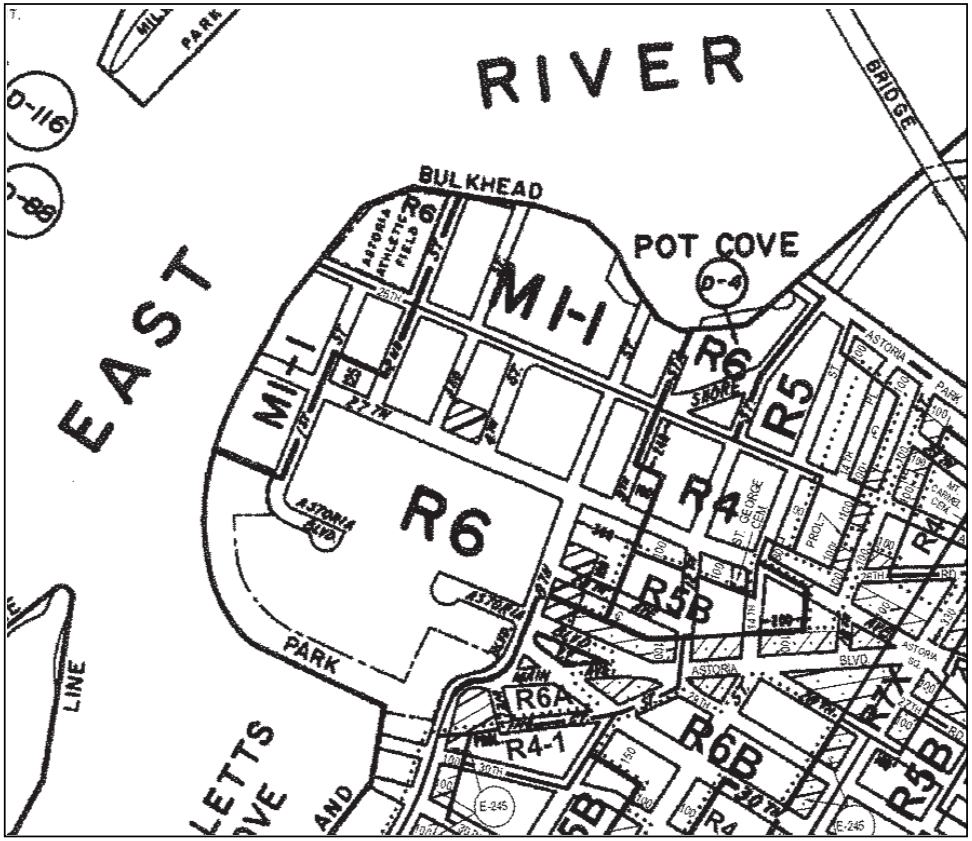
As shown in Figure 2, the proposed R7A district would be mapped along the southern portion of the rezoning area along the south side of 26th Avenue between 4th Street and 9th Street on portions of Block 908, Lot 12 and Block 909, Lot 35. R7A is a contextual residential district, which permits use groups 1-4 as-of-right with a maximum FAR of 4.0 (up to 4.6 with an Inclusionary Housing bonus) for residential and community facility uses. This zoning district allows maximum building heights of 80 feet, street wall heights of 40 to 65 feet. The building form encouraged by R7A regulations would result in residential buildings that are consistent with the scale, streetwall and density of the existing buildings.

As shown in Figure 2, the proposed R6B zoning district would be mapped south of the proposed R7A district on portions of Block 908, Lot 12 and Block 909, Lot 35. R6B is a contextual residential zoning district, which permits Use Groups 1-4 as-of-right and has a maximum FAR of 2.0 for both residential and community facility uses (up to 2.2 for residential with an Inclusionary Housing Bonus). The street wall could rise 30 to 40 feet, with a maximum building height of 50 feet. The proposed R6B district, with lower bulk, height and street wall requirements would provide consistency with the existing built context of low-scale areas.

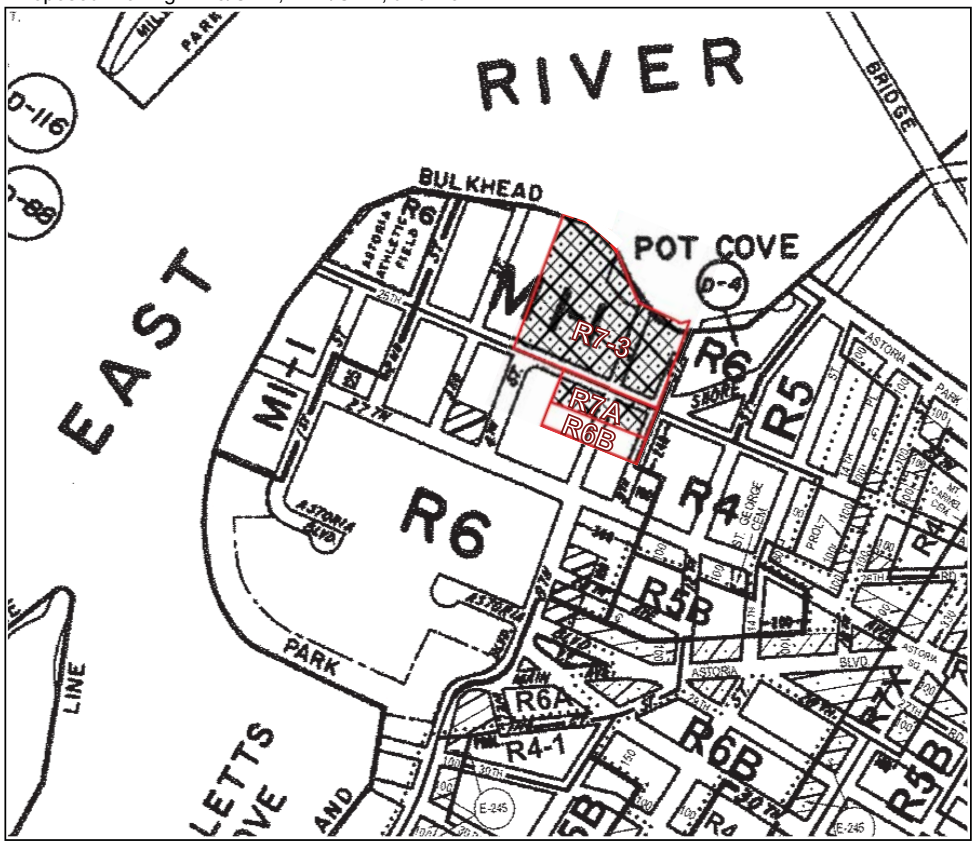
From M1-1 to R7-3

The existing low-density M1-1 zoning designations in the rezoning area would be replaced with a

Existing Zoning M1-1 & R6



Proposed Zoning R7-3/C2-4, R7A/C2-4, and R6B



Proposed Zoning District Boundary

Proposed C2-4 Commercial Overlay

contextual medium-density R7-3 residential zoning district, which would allow residential development. The proposed rezoning area is located adjacent to an existing R6 zoning district to the north of 9th Street and to the south of 26th Avenue; therefore, the proposed zoning map change would extend residential zoning with similar districts.

The existing M1-1 zoning is a light manufacturing district with high performance standards that permits Use Groups 5-14, 16 and 17 as-of-right, and has a maximum FAR of 1.0 for commercial and industrial uses. Certain community facility uses (Use Group 4) such as houses of worship and schools are also allowed in M1-1 districts up to an FAR of 2.4. Residential uses are not permitted. M1-1 zoning districts typically act as buffers between M2 and M3 heavy manufacturing zoning districts and adjacent residential or commercial zoning districts.

As shown in Figure 2, the proposed R7-3 zoning district would be mapped in the northern portion of the rezoning area along the waterfront between 4th Street and 9th Street on Block 906, Lots 1 and 5 and Block 907, Lots 1 and 8. R7-3 is a medium-density residential district, which permits use groups 1-4 as-of-right and permits a maximum FAR of 5.0 for residential and community facility uses on waterfront blocks. This zoning district allows maximum building heights of 185 feet, street wall heights of 65 feet on waterfront blocks.

C2-4 Commercial Overlays

As shown in Figure 2, C2-4 commercial overlays are proposed to be mapped on the south side of 26th Avenue over the proposed R7A district to a depth of 100 feet and on the entire waterfront portion of the rezoning area between 4th and 9th Streets. C2 commercial overlays are mapped on streets within residential districts that serve the local retail needs of the surrounding residential neighborhood. Typical retail uses include grocery stores, restaurants and beauty parlors. C2 districts permit a slightly wider range of uses than C1 districts, such as funeral homes and repair services. The proposed commercial overlays would be mapped within R7A and R7-3 districts. Within the proposed R7A and R7-3 districts, ground floor retail uses would be allowed up to 2.0 FAR in mixed residential/commercial buildings. Buildings without residential uses would also be allowed 2.0 FAR of commercial uses.

The proposed C2-4 commercial overlays would allow for local retail development in the area that currently does not exist.

Proposed Zoning Text Amendments

In addition to the aforementioned zoning map amendments, the Proposed Action includes the following zoning text amendments.

Inclusionary Housing Program

The proposed zoning text amendment modifies Section 23-922 of the New York City Zoning Resolution to make the appropriate R7-3 district an "inclusionary housing designated area." This will establish an inclusionary floor area ratio (FAR) bonus, providing opportunity and incentive for the development of affordable housing.

The proposed zoning text amendment would make the Inclusionary Housing Program (IHP) zoning regulations applicable in the proposed R7-3 zoning district in the rezoning area. The base and maximum FAR for R7-3 districts under the IHP is 3.75 and 5.0, respectively. In the areas where the IHP would be applicable, new residential developments that provide on- or off- site housing that will remain permanently affordable for low-and moderate-income families would receive increased floor area. Using

the IHP, the floor area may be increased by 1.25 square feet for each square foot of affordable housing provided, up to the maximum FAR - a 33% bonus in exchange for 20% of floor area set aside as affordable units. The additional floor area must be accommodated within the bulk regulations of the underlying zoning districts. Affordable units could be financed through city, state, and federal affordable housing subsidy programs. Within the proposed rezoning area, the entire waterfront site would be subject to the IHP.

The affordable housing requirement of the Inclusionary Housing zoning bonus could be met through the development of affordable units, on-site, or off-site either through new construction or preservation of existing affordable units. Off-site affordable units must be located within the same community district, within a half-mile of the development receiving the FAR bonus, or anywhere within Community District 1. The availability of on-site and off-site options provides maximum flexibility to ensure the broadest possible utilization of the program under various market conditions.

FRESH Food Stores

The proposed zoning text amendment modifies Section 63-02 of the New York City Zoning Resolution to apply the Food Retail Expansion to Support Health (FRESH) program to the rezoning area. FRESH provides zoning and financial incentives to promote the establishment and retention of neighborhood grocery stores in communities that lack full-line grocery stores throughout the five boroughs. The FRESH program is open to grocery store operators renovating existing retail space or developers seeking to construct or renovate retail space that will be leased by a full-line grocery store operator. Stores that benefit from the program must fall within designated FRESH-eligible areas. Stores that benefit from the FRESH program must also meet the following criteria:

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

To facilitate and encourage FRESH Food Stores in the designated neighborhoods, one additional square foot of residential floor area in a mixed-use building will be allowed for every square foot provided for a FRESH food store, up to a maximum of 20,000 square feet.

The Proposed Action would expand the designated FRESH-eligible area to the rezoning area and result in an approximately 25,000 square foot grocery store per the FRESH requirements. The proposed development would include a full-line grocery store in an area that is currently lacking such an amenity; however, at this time, the applicant is not seeking certification of a FRESH food store pursuant to ZR Section 63-30 (a ministerial action). The applicant intends to pursue this certification in the future.

Proposed City Map Amendments

The Proposed Action also involves changes to the City Map, including: (1) the establishment of 4th Street from 26th Avenue to the waterfront esplanade; (2) the elimination, discontinuance and closing of 8th Street between 27th Avenue and the waterfront; and, (3) and the establishment of a public access easement within the waterfront public access area. As a result of the proposed mapping action, 4th

Street would provide access to the residential and commercial development on the waterfront sites as well as the proposed waterfront esplanade. The public access easement would function as a public right-of-way for vehicular traffic. 8th Street would be utilized as a pedestrian walkway between 27th Avenue and the waterfront. Fourth Street would have a mapped width of 60 feet, including a 30-foot travel way and two 15-foot sidewalks. These widths are consistent with the adjacent streets connecting to this newly mapped street segment. The public access easement is proposed to be established along the waterfront, within the Public Access Area, between 4th Street and 9th Street at a width of 30 feet. New sidewalks and streets would connect the proposed new neighborhood with the surrounding neighborhood and allow for pedestrian and vehicle use. In addition, new infrastructure to support the proposed developments can be placed in the newly mapped public street.

Large-Scale General Development

The proposed development would require a Large-Scale General Development (LSGD) to allow for the transfer of floor area, lot coverage, and dwelling units. A Special Permit pursuant to ZR §74-743 would allow for this transfer between waterfront zoning lots and non-waterfront zoning lots within the LSGD. An extension of the vesting term for the LSGD Special Permits to 10 years is also being requested pursuant to ZR § 11-42(c). This would facilitate, according to the applicant, a superior site plan by authorizing the distribution of bulk within the overall density control and an increase in proposed open space.

Waterfront Special Permits

The proposed development would require several waterfront special permits to modify height, setback, floor area, coverage, rear yard, court and minimum distance between buildings. A Special Permit pursuant to ZR §62-836 would allow for the granting of waivers for the height and setback provisions of §62-341(a) and §62-341(c)(1), floor area coverage provisions of §62-341(c)(3), tower footprint size limitation provision of §62-341(c)(4), maximum width of walls facing shoreline provision of §62-341(c)(5), rear yard equivalent provisions of §23-532, and minimum distance between buildings on the same zoning lot requirements of §23-711. This is being requested in order to achieve, according to the applicant, a better site plan and an enhanced relationship between the project site, streets, open space and the waterfront.

Waterfront Authorizations and Certifications

The proposed development would require an authorization pursuant to Section 62-822 of the Zoning Resolution to modify location, area and minimum dimensions of waterfront public access areas and visual corridors; modify the requirements within a waterfront public access area; and, for phased development of waterfront public access areas. In addition, the applicant would seek certification by the CPC Chairperson for compliance with waterfront public access and visual corridors pursuant to Section 62-811 of the Zoning Resolution (a ministerial action). The proposed authorizations and certification would allow, according to the applicant, development of a waterfront public access area that is superior in access, layout and amenities that will substantially add to the public use and enjoyment of the waterfront.

Additional Actions - Not Subject to City Planning Commission Approval

The Proposed Action would include improvements to stormwater infrastructure to support the new development. The Proposed Action would include the construction of new stormwater outfalls for the proposed development site to enable direct discharge of stormwater flows into the East River. An existing 8-inch outfall currently exists at 9th Street. However, it is anticipated that this existing outfall would not be sufficient to support the new development and therefore two new outfalls are being proposed as part of the project. The outfalls are proposed to be located at 9th Street and 4th Street (proposed to be mapped). These outfalls would be permitted by the New York State Department of Environmental Conservation (NYSDEC) and the United States Army Corp of Engineers (USACE), and the stormwater generated on-site would be treated for water quality prior to discharge. NYSDEC approval will also be required because part of the proposed waterfront esplanade falls within NYSDEC-regulated adjacent area. Additionally, a SPDES permit from the NYSDEC will be required for stormwater discharges during the construction period because construction on the project site involves more than one acre. These actions are subject to environmental review and will be conducted through a coordinated review with CPC, the lead agency.

The applicant also intends to seek New York City Housing Preservation and Development (HPD) approval of an Affordable Housing Plan pursuant to the Inclusionary Housing Program and potential financing from City and/or State agencies including HPD, the New York City Housing Development Corporation (HDC), and/or NYS Homes and Community Renewal (HCR) for affordable housing construction.

Project Purpose and Need

The Proposed Action, according to the applicant, is intended to provide opportunities for new residential and commercial development, as well as enhancement and upgrade of the waterfront area to provide waterfront access. The applicant believes that the Proposed Action would create opportunities for new housing development, including affordable housing, on underutilized and vacant land formerly used for manufacturing, where there is no longer a concentration of industrial activity and where strong demand for housing exists. The proposed zoning map change on the project site is required to permit construction of the proposed development. This would allow the redevelopment of a former waterfront industrial site into an economically integrated mix of residential and local retail uses consistent with the redevelopment of nearby waterfront sites to the east, and complementary to the existing neighborhood to the south and east. Thus, the Proposed Action would allow the applicant to maximize use of its property, while producing new waterfront development with a sensitive transition to the adjoining neighborhoods.

In addition, the applicant believes that the Proposed Action would significantly advance the City's Comprehensive Waterfront Plan by facilitating the redevelopment of the area's inaccessible waterfront, and completing the street grid in this area of Astoria. As noted below, the Proposed Action would allow the applicant to build-out the currently mapped but unbuilt segment of 8th Street north of 27th Avenue as a pedestrian walkway, as well as the unimproved and currently inaccessible segment of 26th Avenue. The Proposed Action would also allow the applicant to establish 4th Street as well as a public access easement within the proposed development. Building out the unimproved segment of 26th Avenue and the establishment of 4th Street and a public access easement would complete the street grid and improve traffic flow in the area, while 8th Street north of 27th Avenue would operate as a pedestrian connection to the waterfront. Thus, by completing the street grid, the Proposed Action would allow for the creation of physical and visual access to the waterfront, including a publicly accessible waterfront

esplanade, with a possible linkage to the existing publicly accessible waterfront plaza at Shore Towers Condominiums to the east.

Finally, the proposed Large-Scale General Development, including waivers of height and setback requirements, is being requested in order to redistribute floor area across the entire project site, including both the waterfront and upland parcels, thereby creating a site plan and building layout and design superior to what would be allowed as-of-right under the proposed zoning districts. The applicant believes that the proposed modification of waterfront access requirements would serve to facilitate an improved open space plan compared to what could be developed as-of-right.

Reasonable Worst-Case Development Scenario (RWCDS)

In order to assess the potential effects of the Proposed Action, a reasonable worst-case development scenario (RWCDS) for both the future without the Proposed Action (No-Action or No-Build) and the future with the Proposed Action (With-Action or Build) conditions will be analyzed for an analysis year, or Build year, of 2023. The future With-Action scenario identifies the amount, type and location of development that is expected to occur by the end of 2023 as a result of the Proposed Action. The future without the action (No-Build) scenario identifies similar development projections for 2023 absent the Proposed Action. The effect of the Proposed Action would be the incremental change in conditions between the No-Build and Build scenarios.

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

In the future without the Proposed Action, the project site would not be rezoned. It is expected that applicant would retain and fully occupy the existing light industrial and warehousing uses would remain on the project site. These consist of approximately 194,700 sf of warehouse and storage space, and an estimated 100 accessory parking spaces. Absent the Proposed Action, the upland portions of the project site, which are currently zoned R6, would be redeveloped by the applicant on an as-of-right basis. These upland parcels are estimated to accommodate approximately 166 residential units in the No-Build condition[1]. Pursuant to current zoning, approximately 83 accessory parking spaces would be required to be provided for the as-of-right residential development. In conjunction with this as-of-right residential development, the portions of the unbuilt segment of 8th Street to the south of 26th Avenue and/or portions the unimproved segment of 26th Avenue, would be built-out in order to satisfy NYC Department of Buildings requirements regarding street frontage.

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

The development program and building design for the applicant's proposed development, as described below, would represent the reasonable worst case development scenario for environmental analysis purposes, as it maximizes the site's allowable floor area ratio (FAR) pursuant to the proposed new zoning and related actions.

[1] Based on the following assumptions: lot area of approximately 65,237 sf, a maximum allowable FAR of 2.43, a 5% increase to estimate gsf, and an assumption of 1,000 gsf per unit.

Description of the Proposed Development

The applicant is requesting several actions to facilitate a proposal by the applicant to redevelop an approximately 8.7-acre site in the Astoria neighborhood of Queens Community District 1. The project site comprises a total of approximately 377,726 square feet (sf) of lot area. The project site consists of approximately 292,155 sf along the waterfront (Block 907, Lots 1 & 8, and Block 906, Lots 1 & 5) and approximately 85,571 sf of upland area (Block 908, Lot 12 and Block 909, Lot 35) located along 26th Avenue between 4th Street and 9th Street (see Figure 1).

The Proposed Action would facilitate a proposal by the applicant to construct a new mixed-use, predominantly residential, development on the approximately 377,726 sf project site (the "proposed development"). The proposed development would include the following components:

- Up to approximately 1,701,126 gross square feet (gsf) of residential floor area, comprised of a total of approximately 1,701 dwelling units, of which a minimum of 340 dwelling units (20 percent of residential floor area) would be affordable.
- Approximately 117,000 gsf of local retail space, including an approximately 25,000 gsf supermarket.
- An elementary school with approximately 456-seats (K-5).
- Approximately 940 accessory parking spaces.
- Approximately 142,000 sf of publicly accessible open space.

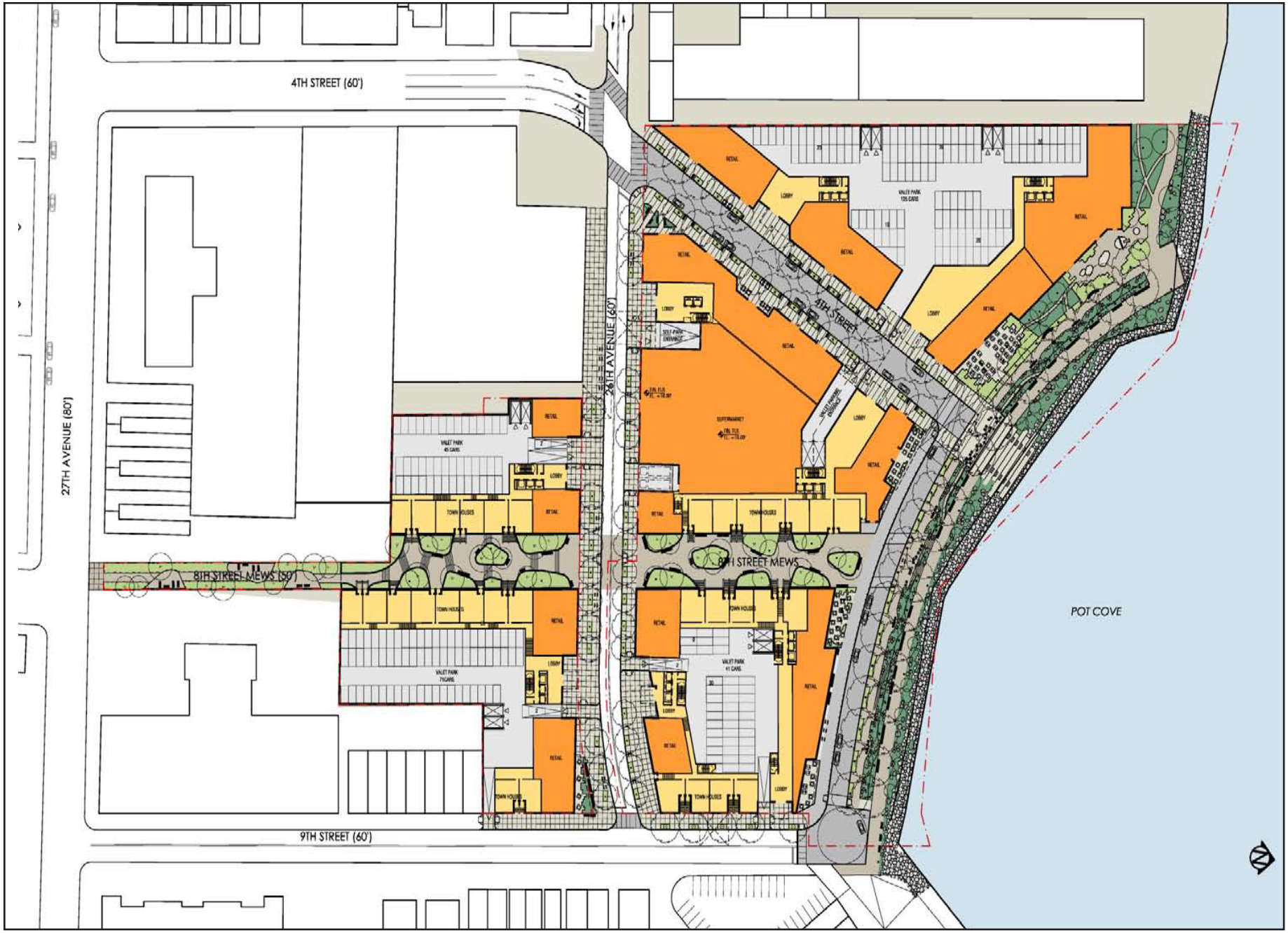
The 1,701 dwelling units are expected to include a mix of rental and condominium units. The proposed development is expected to be completed by 2023.

In conjunction with the proposed development, the mapped but unbuilt portion of 8th Street between 27th Avenue and the waterfront would be demapped and built out to provide pedestrian public access to the waterfront. In addition, the currently unimproved and inaccessible portion of 26th Avenue would also be built out in conjunction with the proposed development, thereby providing access to 9th Street and improving traffic circulation in the area. The applicant is also proposing to establish 4th Street from 26th Avenue to the waterfront esplanade to provide public access to the proposed development and the waterfront (see Figure 3).

Figure 3 provides preliminary plans for the project site. It should be noted that the applicant is currently working with DCP to refine the details of the site plan, and as such, the plan is considered preliminary at the present time. The proposed site plan consistent with their ULURP application will be included in the Final Scope of Work. As shown in these preliminary plan, the proposed development would be accessible via entrances/exits on the north and south side of 26th Avenue, the west side of 9th Street, and the east and west side of 4th Street. As also shown in Figure 3, the proposed development would be comprised of five buildings, three located along the waterfront north of 26th Avenue, and two on the upland parcels south of 26th Avenue.

Local retail would be located along all vehicular streets within the project site and would include an approximately 25,000 square foot supermarket which would comply with FRESH regulations.

At this time, the applicant anticipates making space available to the New York City School Construction Authority (SCA) for the provision of a public school, and therefore the proposed development is expected to include an approximately 456-seat elementary school. The school may include an



Source: StudioV Architects

Astoria Cove Development

Figure 3
Preliminary Site Plan

outdoor/rooftop play area. Currently, the school is proposed to be located on the upland parcel on Block 908, Lot 12.

The proposed project would include approximately 142,000 sf of publicly accessible open space which would include a waterfront esplanade that would run along the entire length of the project site, providing multi-layered active and passive recreation space. The waterfront esplanade would also be open to vehicular traffic. The proposed project would also improve the portion of 8th Street on the project site as a landscaped pedestrian walkway which would provide access from 27th Avenue to the waterfront, while also serving as a visual corridor.

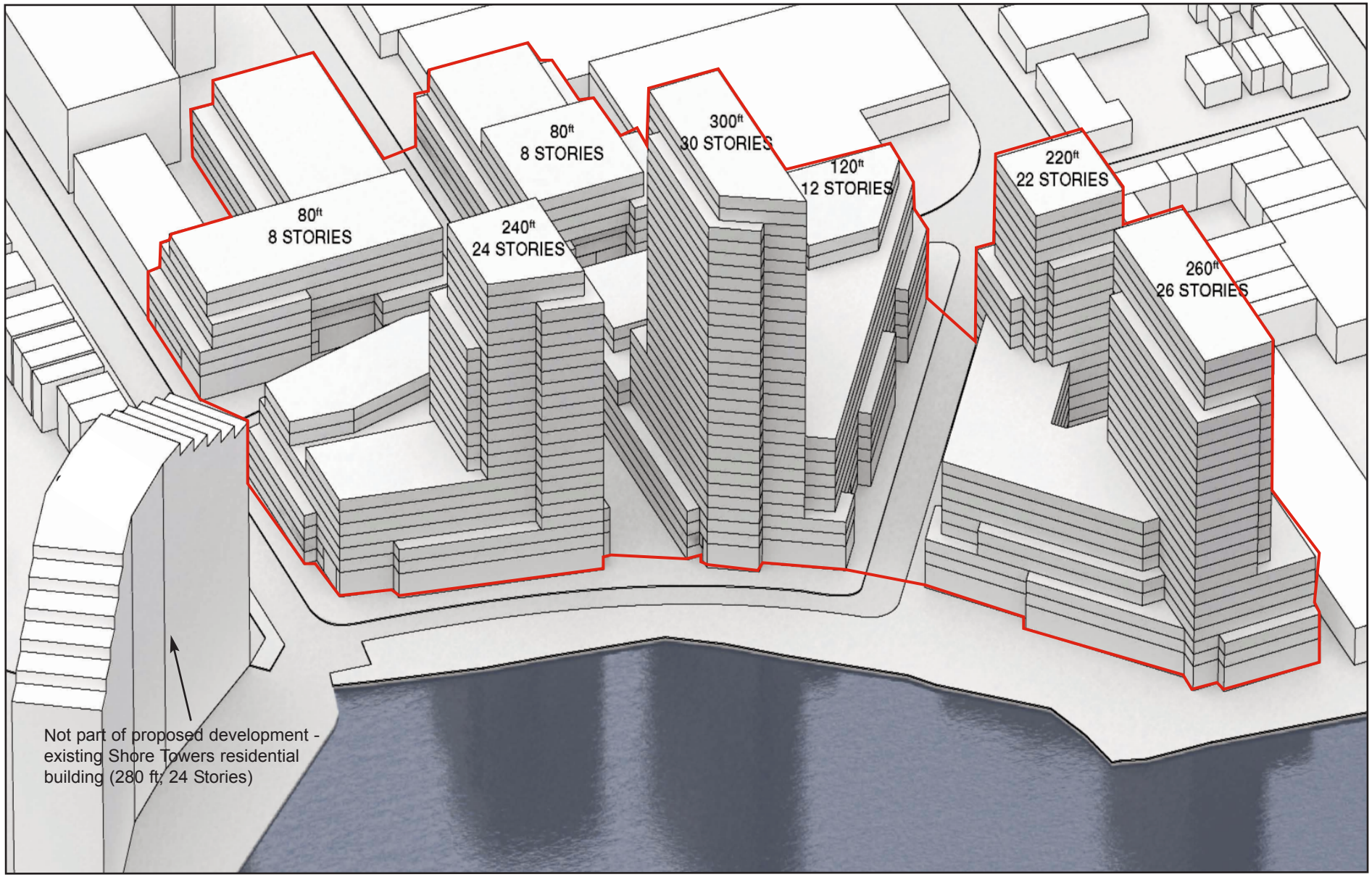
Figure 4 provides preliminary massing diagrams. Currently, the applicant is working with DCP on finalizing the proposed plans for the project site, and as such, the massing diagram is considered preliminary at the present time. The proposed massing consistent with their ULURP application will be included in the Final Scope of Work. As illustrated in the figure, the buildings comprising the proposed development will range in height from 80 feet on the upland parcels, to a maximum of 300 feet on the waterfront. The buildings located along the waterfront would have base heights between 80 to 100 feet that would be topped with towers ranging in height from 120 to 300 feet (see Figure 4). The applicant intends to construct townhouses that would be located within the base of both upland buildings and within two of the three waterfront buildings along 8th Street and 9th Street.

As there are no subway stations in the immediate vicinity of the project site, the applicant is exploring providing shuttle service for residents during the weekday AM and PM peak hours to and from the 30th Avenue station serving the N and Q lines.

Parking for the proposed project would be located below grade on both the upland and waterfront sites. The three waterfront buildings would include below grade parking. The upland buildings would include one continuous below grade parking garage.

Reasonable Worst-Case Development Scenario for Analysis Purposes

As summarized in Table 1, compared to future conditions without the Proposed Action, the RWCDS anticipates that the Proposed Action would result in a net increase of 1,535 dwelling units (approximately 1,534,674 gsf), 117,000 gsf of retail space, a 456-seat elementary school, and 857 accessory parking spaces, as well as a reduction of approximately 194,700 sf of warehouse/industrial space. This net increment would represent the basis for environmental analyses in the EIS. As noted above, at this time it is anticipated that the residential component of the proposed development would include a minimum 20 percent, or approximately 340 affordable units, and this estimate will be used for analysis purposes where applicable.



Astoria Cove Development

Figure 4

Proposed Development - Preliminary Massing Diagram

TABLE 1
Net Change in Land Uses as a Result of the Proposed Development

Use	No-Action	With-Action	Net Increment
Residential	166,452 gsf 166 DU	1,701,126 gsf 1,701 DU	1,534,674 gsf 1,535 DU
Retail - Local	--	117,000 gsf	117,000 gsf
Warehouse/Storage	194,700 gsf	--	-194,700 gsf
Public School - Elementary	--	456 seats	456 seats
Parking Spaces - Accessory	83	940	857
Open Space (publicly accessible)	--	142,000 sf	142,000 sf

As noted above, the applicant anticipates making space available to the SCA for the provision of a public school, and therefore the proposed development assumed for analysis purposes includes an approximately 456-seat elementary school. If the SCA does not commit to proceed with the development of a public school on the project site, that space would instead be occupied by residential units. The RWCDS described above conservatively assumes that the 456-seat school would be provided while maximizing the number of residential units. However, if the school is provided, the number of units provided would likely be less than the 1,701 units assumed for analysis purposes in this scoping document. It should be noted that the applicant is currently working with DCP to refine the zoning calculations for the proposed project and the final numbers will be included in the Final Scope of Work. However, the RWCDS described above represents a conservative program for environmental review purposes.

D. PROPOSED SCOPE OF WORK FOR THE EIS

As the RWCDS associated with the Proposed Action would affect various areas of environmental concern and was found to have the potential for significant adverse impacts, pursuant to the EAS and Positive Declaration, an Environmental Impact Statement (EIS) pursuant to CEQR will be prepared for the Proposed Action. The EIS will analyze the proposed development for all technical areas of concern.

The EIS will be prepared in conformance with all applicable laws and regulations, including SEQRA (Article 8 of the New York State Environmental Conservation Law) and its implementing regulations found at 6 NYCRR Part 617, New York City Executive Order No. 91 of 1977, as amended, and the Rules of Procedure for CEQR, found at Title 62, Chapter 5 of the Rules of the City of New York. The EIS will follow the guidance of the *CEQR Technical Manual*, dated June 2012, and will contain:

- A description of the Proposed Action and its environmental setting;
- A statement of the environmental impacts of the Proposed Action, including its short- and long-term effects and typical associated environmental effects;
- An identification of any adverse environmental effects that cannot be avoided if the Proposed Action is implemented;
- A discussion of reasonable alternatives to the Proposed Action;
- An identification of irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented; and
- A description of mitigation proposed to eliminate or minimize any significant adverse environmental impacts.

Based on the preliminary screening assessments outlined in the *CEQR Technical Manual* and detailed in

the EAS document, the following environmental areas would not require detailed analysis in the EIS: solid waste and sanitation services.

The specific areas to be included in the EIS, as well as their respective tasks, are described below.

TASK 1. PROJECT DESCRIPTION

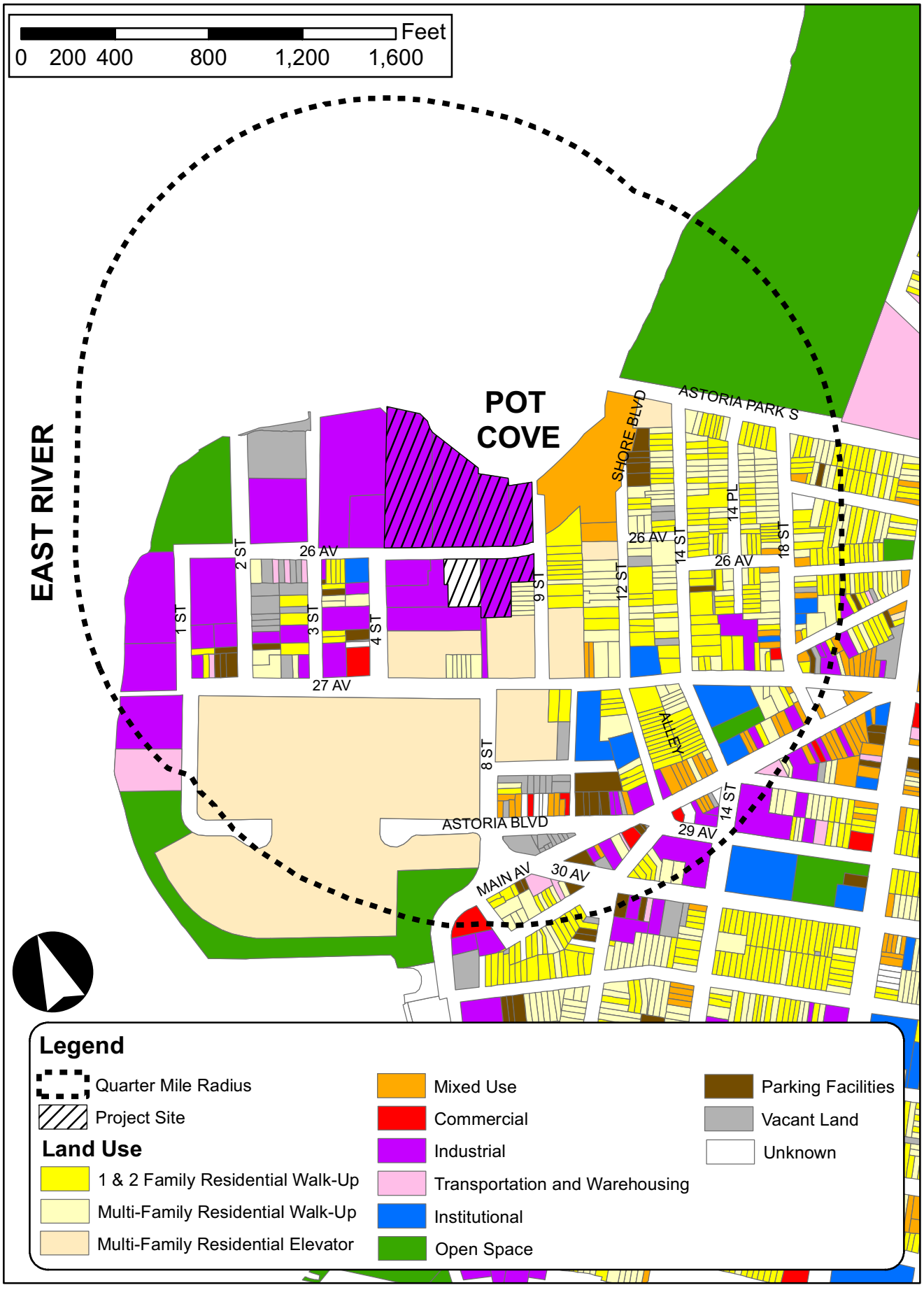
The first chapter of the EIS introduces the reader to the Proposed Action and sets the context in which to assess impacts. The chapter contains a description of the Proposed Action: its location; the background and/or history of the project; a statement of the purpose and need; key planning considerations that have shaped the current proposal; a detailed description of the Proposed Action; and discussion of the approvals required, procedures to be followed, and the role of the EIS in the process. This chapter is the key to understanding the Proposed Action and its impact, and gives the public and decision-makers a base from which to evaluate the Proposed Action.

In addition, the project description chapter will present the planning background and rationale for the actions being proposed and summarize the reasonable worst-case development scenario for analysis in the EIS. The section on approval procedures will explain the Uniform Land Use Review Procedure (ULURP) process, its timing, and hearings before the Community Board, the Queens Borough President's Office, the New York City Planning Commission (CPC), and the New York City Council. The role of the EIS as a full-disclosure document to aid in decision-making will be identified and its relationship to ULURP and the public hearings described.

TASK 2. LAND USE, ZONING, AND PUBLIC POLICY

This chapter will analyze the potential impacts of the Proposed Action on land use, zoning, and public policy. The land use, zoning and public policy analysis will be consistent with the methodologies presented in the *CEQR Technical Manual*. In completing the following subtasks, the land use study area will consist of the project site, where the land use impacts will be straightforward and direct (reflecting the proposed development), and the neighboring areas where indirect impacts may be felt. For the purpose of environmental analysis, the study area will extend approximately a ¼-mile from the borders of the project site, as illustrated in Figure 5. Subtasks will include the following:

- Provide a brief development history of the project site and surrounding study area.
- Provide a description and map of existing land uses and zoning in the area affected by the Proposed Action and the surrounding study area. Other public policies that apply to the study area will also be described, including PlaNYC and the City's Waterfront Revitalization Program. Recent development trends in the land use study area will also be noted.
- Based on field surveys and prior studies, identify, describe, and graphically portray predominant land use patterns for the balance of the land use study area. Based on consultations with New York City Department of City Planning and other public or private agencies and local real estate brokers, describe recent land use trends in the study area and major factors influencing those land use trends.
- Prepare a list of future development projects in the study area that would be expected to be constructed by the 2023 Build Year and may influence future land use trends. Also, identify pending zoning actions or other public policy actions that could affect land use patterns and trends in the study area in coordination with NYCDCP. Based on these planned projects and


Feet
0 200 400 800 1,200 1,600
EAST RIVER
POT COVE
ASTORIA PARK S
SHORE BLVD
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14 ST
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9 ST
2 ST
1 ST
3 ST
4 ST
27 AV
8 ST
ALLEY
ASTORIA BLVD
29 AV
30 AV
MAIN AV
Legend
Quarter Mile Radius
Project Site
Land Use
1 & 2 Family Residential Walk-Up
Multi-Family Residential Walk-Up
Multi-Family Residential Elevator
Mixed Use
Commercial
Industrial
Transportation and Warehousing
Institutional
Open Space
Parking Facilities
Vacant Land
Unknown

initiatives, assess future conditions in the land use and zoning study area in the future without the Proposed Action (No-Build condition).

- Describe proposed zoning changes, and the potential land use changes based on the Proposed Action's RWCDS (Build condition).
- Assess effects of the Proposed Action on land use and land use trends, public policy, and zoning in the study area. Discuss the Proposed Action's potential effects related to issues of compatibility with surrounding land use, consistency with zoning and other public policy (including PlaNYC), the effect of the loss of manufacturing zoning, and the effect of the proposed development on ongoing development trends and conditions in the area.
- The project is located in the New York City Coastal Zone, and therefore, it will be assessed for its consistency with the city's Waterfront Revitalization Program (WRP). The analysis will assess, for those relevant policies identified on the project's Consistency Assessment Form (provided as Appendix A to the EAS), the consistency of the Proposed Action and resultant proposed development with the WRP policies.

TASK 3. SOCIOECONOMIC CONDITIONS

This chapter will examine the effects of the Proposed Action on socioeconomic conditions in the study area, including population characteristics, increase in economic activity, and the potential displacement of businesses and employment. Screening analyses will be conducted pursuant to the *CEQR Technical Manual* methodology. The analysis will present sufficient information regarding the effects of the Proposed Action to make a preliminary assessment either to rule out the possibility of significant impacts or to establish that more detailed analysis is required to make a determination as to impacts. The preliminary assessment will examine five areas of concern including (1) direct residential displacement; (2) direct business displacement; (3) indirect residential displacement; (4) indirect business displacement; and (5) adverse effects on specific industries. For each area of concern, if it has been determined that a socioeconomic impact is likely or cannot be ruled out based on the preliminary screening assessment, then a detailed analysis will be conducted.

As there are no residential uses and few business establishments and employees currently located on the project site, detailed analyses for direct business displacement and direct residential displacement are not warranted. The existing businesses at the project site will be identified, including a description of the type of businesses, and estimate of the number of employees.

According to the *CEQR Technical Manual*, projects that are small to moderate in size would typically not have significant socioeconomic effects unless they are likely to generate socioeconomic conditions that are very different from existing conditions in the area. Residential development of 200 units or less or commercial development of 200,000 square feet or less would typically not result in significant socioeconomic impacts. For projects exceeding these thresholds, the *CEQR Technical Manual* indicates that preliminary assessments of indirect residential displacement and indirect business displacement are appropriate.

The proposed development would represent a sizeable increase in the residential population in the area. According to the *CEQR Technical Manual*, a residential development of 200 dwelling units or more might result in significant socioeconomic impacts. As the proposed project would create a net total of approximately 1,535 dwelling units (including a minimum of 340 affordable units), it could result in significant socioeconomic impacts, particularly indirect residential displacement. Therefore, a detailed analysis of the socioeconomic effects of indirect residential displacement will be provided in the EIS.

The proposed development would represent a moderate increase in the retail inventory of the surrounding area. The proposed mixed-use development would include a total of approximately 117,000 square feet of local retail space on the project site (including an approximately 25,000 sf supermarket). As such, it does not exceed the CEQR threshold and would therefore be unlikely to result in significant adverse socioeconomic impacts. Further, the local retail anticipated under the Proposed Action would not significantly affect business conditions in any specific industry or any category of businesses, nor would it indirectly reduce employment or impair the economic viability of any specific industry or category of business, as such concerns are contemplated by the *CEQR Technical Manual*. Therefore, as discussed in the EAS, further analysis of indirect business displacement and adverse effects on specific industries is not warranted for the EIS.

The socioeconomic analysis in the EIS will therefore focus primarily on the residential component of the proposed development along with, a minimum, a preliminary assessment for direct business displacement. Subtasks include:

Direct Residential and Business Displacement

The EIS will disclose that there is no direct displacement of residences and no additional analysis is required.

For direct business displacement, the type and extent of businesses and workers to be directly displaced by the proposed development will be disclosed. According to the *CEQR Technical Manual*, if a project would directly displace more than 100 employees, a preliminary assessment of direct business displacement is appropriate. The preliminary assessment will determine (1) whether the businesses to be displaced provide products or services essential to the local economy that would no longer be available in its "trade area" to local residents or businesses due to the difficulty of either relocating the businesses or establishing new, comparable businesses; and (2) whether a category of businesses is the subject of other regulations or publicly adopted plans to preserve, enhance, or otherwise protect it. It is not anticipated that a detailed direct business displacement analysis will be warranted; however, if found to be necessary, it will be conducted in accordance with the *CEQR Technical Manual*.

Indirect Residential Displacement

The indirect residential displacement analysis will use the most recent available U.S. Census data, New York City Department of Finance's Real Property Assessment Data (RPAD) database, as well as current real estate market data, to present demographic and residential market trends and conditions for a ½-mile study area. The presentation of study area characteristics will include population, housing value and rent, estimates of the number of housing units not subject to rent protection, and median household income. Following *CEQR Technical Manual* guidelines, the preliminary assessment will perform the following step-by-step evaluation:

- **Step 1**: Determine if the proposed project would add substantial new population with different income as compared with the income of the study area population. If the expected average incomes of the new population would be similar to the average incomes of the study area populations, no further analysis is necessary. If the expected average incomes of the new population would exceed the average incomes of the study area populations, then Step 2 of the analysis will be conducted.
- **Step 2**: Determine if the proposed project population is large enough to affect real estate market conditions in the study area. If the population increase is greater than 5 percent in the study area as

a whole or within any identified subareas, then Step 3 will be conducted. If the population increase is greater than 10 percent in the study areas as a whole or within any identified subarea, then a detailed analysis is required.

- **Step 3**: Consider whether the study area has already experienced a readily observable trend toward increasing rents and the likely effect of the action on such trends. This evaluation will consider the following:

    a. If the vast majority of the study area has already experienced a readily observable trend toward increasing rents and new market development, further analysis is not necessary. However, if such trends could be considered inconsistent and not sustained, a detailed analysis may be warranted.

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

    c. If those trends do exist near to or within smaller portions of the study area, the action could have the potential to accelerate an existing trend. In this circumstance, a detailed analysis will be conducted.

If the preliminary assessment finds that the proposed project would introduce a trend or accelerate an existing trend of changing socioeconomic conditions that may have the potential to displace a residential population and substantially change the socioeconomic character of the neighborhood, a detailed analysis will be conducted. The detailed analysis would utilize more in-depth demographic analysis and field survey to characterize existing conditions of residents and housing, identify populations at risk of displacement, assess current and future socioeconomic trends that may affect these populations, and examine the effects of the proposed action on prevailing socioeconomic trends and, thus, impacts on the identified population at risk.

TASK 4. COMMUNITY FACILITIES

The demand for community facilities and services is directly related to the type and size of the new population generated by development resulting from the Proposed Action. The Proposed Action would add a net increment of approximately 1,535 new residential units to the area (compared to No-Build conditions), of which a minimum of 340 units would be affordable. According to the *CEQR Technical Manual,* the number and type of new residential units to be developed as a result of the Proposed Action would trigger detailed analyses of potential impacts on public schools, libraries, and publicly funded day care centers. The Proposed Action would also increase the capacity in the study area by adding an approximately 456-seat elementary school as part of the proposed development. According to the *CEQR Technical Manual*, a detailed analysis of police and fire services and health care facilities is required if a Proposed Action would (a) introduce a sizeable new neighborhood where one has not previously existed, or (b) would displace or alter a hospital or public health clinic, fire protection services facility, or police station. As the Proposed Action would not result in any of the above, no significant adverse impacts would be expected to occur, and a detailed analysis of police/fire services and health care facilities is not required.

Public Schools

- According to the *CEQR Technical Manual*, the primary study area for the analysis of elementary and intermediate schools should be the school districts' "sub-district" in which the project is located. The project site is located within sub-district 3 of Community School District 30, which will

constitute the primary study area. The Proposed Action also triggers an analysis of high schools, which are assessed on a borough-wide basis (primary study area).

- Identify and locate the public elementary and intermediate schools serving the primary study area defined above. Existing capacity, enrollment, and utilization data for all public elementary and intermediate schools within sub-district 3 of Community School District 30 will be provided for the current or most recent school year, noting any specific shortages of school capacity. In accordance with *CEQR Technical Manual* guidelines, similar data will be provided for high schools within the study area.

- Identify conditions that would exist in the future without the Proposed Action (No-Build condition), taking into consideration projected changes in future enrollment, including those associated with other developments in the vicinity of the project site, and plans to alter school capacity either through administrative actions on the part of the New York City Department of Education or as a result of the construction of new school space. Planned new capacity projects from the DOE's Five Year Capital Plan will not be included in the quantitative analysis unless the projects have commenced site preparation and/or construction. They may, however, be included in a qualitative discussion. As per CEQR guidelines, the No-Action condition RWCDS for a borough high school analysis will be obtained from the SCA's *Projected New Housing Starts* for the 2010-2014 Five Year Capital Plan. The Queens school districts will be aggregated into borough totals, which will be used for the No-Action borough high school analysis.

- Analyze future conditions with the Proposed Action, adding students likely to be generated by the proposed development to the projections for the future No-Action condition, as well as the additional 456 elementary seats expected to be developed as part of the proposed development. Project impacts will be assessed based on the difference between the future With-Action projections and the future No-Action projections (at the school sub-district level for elementary and intermediate schools and at the borough level for high schools) for enrollment, capacity and utilization in 2023.

- Determine whether the Proposed Action would result in a significant impact. A significant adverse impact may result, warranting consideration of mitigation, if the Proposed Action would result in: (1) a collective utilization rate of the elementary and/or intermediate schools in the sub-district study area that is equal to or greater than 100 percent in the With-Action Condition(a determination of impact significance for high schools is conducted at the borough level); and (2) an increase of five percent or more in the collective utilization rate between the No-Action and With-Action conditions.

Libraries

- Identify the local public library branch(es) serving the area within approximately three-quarters of a mile from the project site, which is the distance that one might be expected to travel for such services. Show the identified local public library branch(es) within a ¾-mile radius on a map.
- Describe existing population served by the branch(es), using information gathered for the socioeconomic conditions assessment, information services provided by branch(es), circulation, holdings, level of utilization, and other relevant existing conditions. Details on library operations will be based on publicly available information and/or consultation with library officials. If applicable, holdings per resident may be estimated to provide a quantitative gauge of available resources in the applicable branch libraries in order to form a baseline for the analysis.

- For No-Build conditions, projections of population change in the area and information on any planned changes in library services or facilities will be described and the effects of these changes on library services will be assessed. Using the information gathered for the existing conditions, holdings per resident in the No-Build condition will be estimated.
- Determine the effects of the addition of the population resulting from the Proposed Action on the library's ability to provide information services to its users. Holdings per resident in the Build Scenario will be estimated and compared to the No-Build holdings estimate.
- Determine whether the Proposed Action would result in a significant impact. According to the *CEQR Technical Manual*, if the Proposed Action would increase the ¾-mile study area population by five percent or more over No-Build levels, and it is determined, in consultation with the appropriate library agency that this increase would impair the delivery of library services in the study area, a significant impact may occur, warranting consideration of mitigation.

Child Care Centers

- Identify existing public day care and Head Start facilities within approximately 1.5 miles of the project site. Describe each facility in terms of its location, ages served, capacity, and number of available slots in consultation with the Administration for Children's Services (ACS).
- For No-Build conditions, information will be obtained on any changes planned for day care programs or facilities in the area, including closing or expansion of existing facilities and establishment of new facilities. Any expected increase in the population of children under 6 within the eligibility income limitations will be discussed as potential additional demand; and the potential effect of any population increases on demand for day care services in the study area will be assessed. The available capacity or resulting deficiency in slots and the utilization rate for the study area will be calculated for the No-Build condition.
- The potential effects of the additional eligible children resulting from the proposed development will be assessed by comparing the estimated net demand over capacity to the net demand over capacity estimated in the No-Build analysis.
- Determine whether the Proposed Action would result in a significant impact. According to the *CEQR Technical Manual*, a significant adverse impact may result, warranting consideration of mitigation, if the Proposed Action would result in: (a) a collective utilization rate of the group child care/Head Start centers in the study area that is greater than 100 percent in the Build condition; and (b) an increase of five percent or more in the collective utilization rate of the child care/Head Start centers in the study area between the No-Build and Build scenarios.

TASK 5. OPEN SPACE

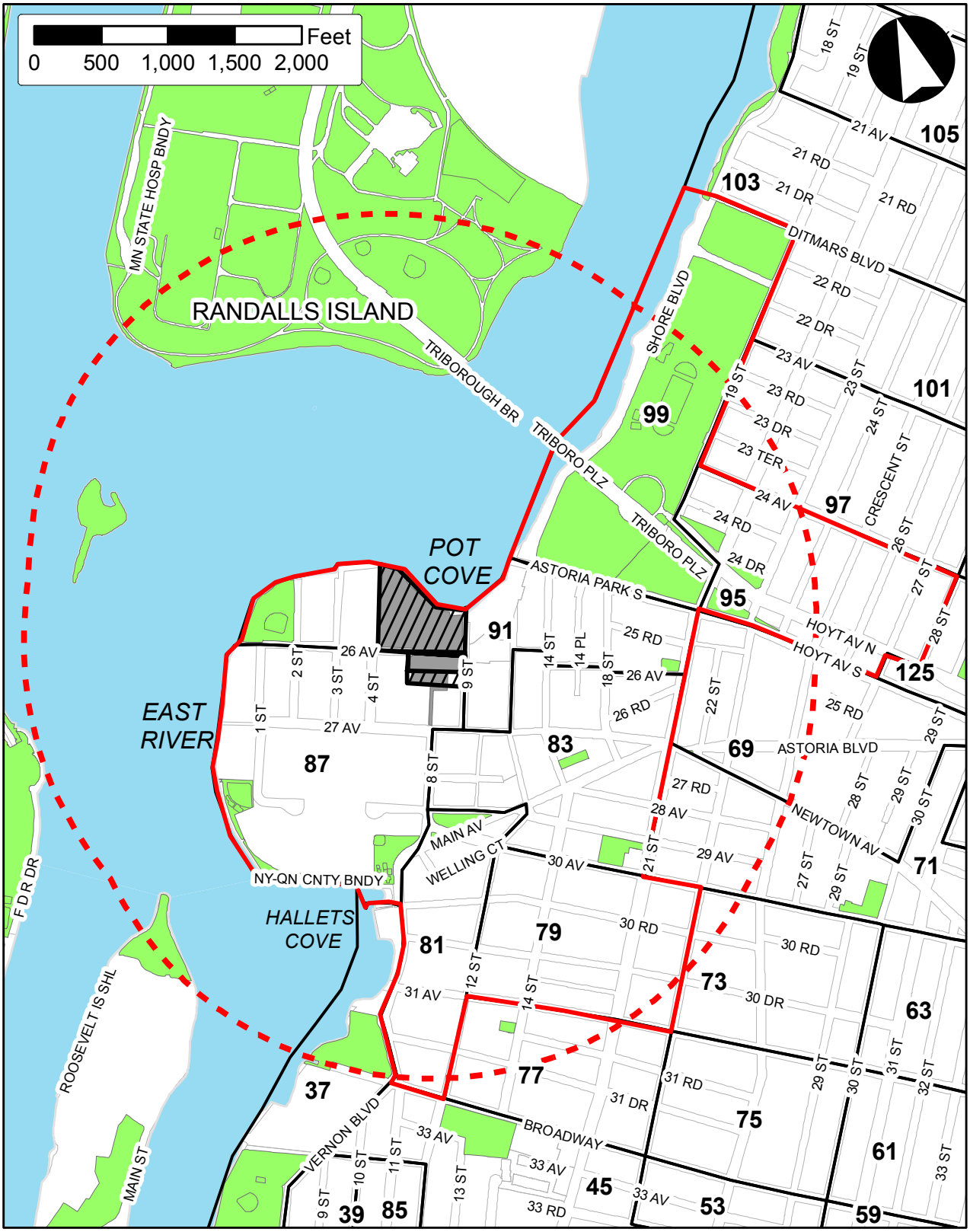
The Proposed Action would add up to approximately 1,535 net additional residential units (compared to No-Build conditions), and would therefore increase the demands for existing local parks and recreational facilities. As discussed in the Project Description, the proposed project would provide approximately 142,000 sf of publicly accessible open space. The Proposed Action would generate more than the CEQR threshold of 200 residents, but is not expected to exceed the CEQR threshold of 500 net additional workers. Therefore, a detailed open space analysis is warranted for the residential population only, which would be included in the EIS pursuant to the following sub-tasks.

- As the Proposed Action would primarily introduce new residents to the area (the number of new workers would not exceed the threshold for worker analysis), the analysis will focus on both active and passive open space resources.
- Using 2010 Census data, calculate the total residential population of the open space study area. As per CEQR guidelines and as shown in Figure 6, the open space study area is defined as the area within a ½-mile boundary from the project site, adjusted to include all census tracts with at least 50 percent of their land area within the ½-mile radius.
- Inventory existing active and passive open spaces within the open space study area. The condition and usage of existing facilities will be described based on the inventory and field visits. Jurisdiction, features, user groups, quality/condition, factors affecting usage, hours of operation, and access will be included in the description of facilities. Acreage of these facilities will be determined and total study area acreage calculated. The percentage of active and passive open space will also be calculated. A map showing the locations of open spaces keyed to the inventory will be provided.
- Based on the inventory of facilities and residential study area populations, open space ratios will be calculated for the residential population in the study area, and compared to City guidelines to assess adequacy. As per the *CEQR Technical Manual*, open space ratios are expressed as the amount of open space acreage per 1,000 user population, and will be calculated for active and passive open space, as well as the ratio for the aggregate open space.
- Assess expected changes in future levels of open space supply and demand in the 2023 analysis year, based on other planned development projects within the open space study area. Any new open space or recreational facilities that are anticipated to be operational by the analysis year will also be accounted for. Open space ratios will be developed for future No-Build conditions and compared with existing ratios to determine changes in future levels of adequacy.
- Assess the effects on open space supply and demand resulting from increased residential populations added by the Proposed Action. Any new accessory open space facilities proposed as part of the proposed development would also be taken into account. The assessment of the Proposed Action's impacts will be based on a comparison of open space ratios for the future No-Build versus future Build conditions. In addition to the quantitative analysis, qualitative analysis will be performed to determine if the changes resulting from the Proposed Action constitute a substantial change (positive or negative) or an adverse effect to open space conditions. Accessory open space to be provided as part of the proposed development would be included in the qualitative assessment.
- If the results of the impact analysis identify a potential for a significant impact, discuss potential mitigation measures.

TASK 6. SHADOWS

This chapter will examine the Proposed Action's potential for significant and adverse shadow impacts pursuant to *CEQR Technical Manual* criteria. Generally, the potential for shadow impacts exists if an action would result in new structures, or additions to existing structures, greater than 50 feet in height that could cast shadows on important natural features, publicly accessible open space, or on historic features that are dependent on sunlight. The Proposed Action would result in buildings of greater than 50 feet, with shadows cast on the East River, which is a sunlight sensitive natural resource, and potentially Hellgate Field, located 800 feet to the west of the project site. Therefore, a preliminary

Open Space Study Area (Census Tracts Within the 1/2-Mile Radius)



Legend

- Half Mile Radius
- Open Space Study Area
- Projected Development Site
- Proposed Rezoning Area
- 91 Census Tracts
- Open Space

assessment will be conducted, which will be coordinated with the EIS analysis of open space and natural resources. The preliminary screening assessment will include the following tasks:

- Develop a base map illustrating the project site in relation to publicly-accessible open spaces, historic resources with sunlight-dependent features, and natural features in the area.
- Perform a preliminary screening assessment to ascertain whether shadows from the proposed development could reach any sunlight-sensitive resources at any time of year.

If the preliminary screening assessment cannot eliminate the possibility of new shadows reaching sunlight-sensitive resources, a detailed analysis will be performed. This will include the following tasks:

- Develop a three-dimensional computer model of the elements of the base map developed in the preliminary assessment.
- Develop a "worst-case" three-dimensional representation of the proposed development.
- Develop three-dimensional representations of the No-Build condition at the project site.
- Determine the extent and duration of new shadows that would be cast on sunlight-sensitive resources as a result of the Proposed Action on four representative days of the year.
- Document the analysis with graphics comparing shadows resulting from the No-Build condition with shadows resulting from the Proposed Action, with incremental shadow highlighted in a contrasting color.
- Provide a summary table listing the entry and exit times and total duration of incremental shadow on each applicable representative day for each affected resource.
- Assess the significance of any shadow impacts on sunlight-sensitive resources.

TASK 7. HISTORIC AND CULTURAL RESOURCES

A historic resources assessment is required if there is the potential to affect either archaeological or architectural resources. According to *CEQR Technical Manual* guidelines, impacts on historic architectural resources are considered on those sites directly affected by the Proposed Action and in the area surrounding identified development sites. As discussed in the EAS, the New York City Landmarks Preservation Commission (LPC) has determined that the project site does not contain any designated historic architectural resources, and there are no designated architectural resources within an approximate 400-foot radius of the project site; however, an assessment of architectural resources will be conducted to verify that there are no resources that could meet the eligibility criteria that could be affected by the Proposed Action.

Because the proposed development would result in new in-ground disturbance, the Proposed Action has the potential to result in impacts to archaeological resources. *Per CEQR Technical Manual* guidelines, archaeological resources are considered only in those areas where new in-ground disturbance is likely to occur, which are limited to the lots comprising the project site. A LPC review of archaeological sensitivity models and historic maps indicates that there is potential for the recovery of remains from 19th Century and Native American occupation for portions of the project site (Block 906, Lot 1; Block 908, Lot 12; and Block 909, Lot 35). Accordingly, those specific lots warrant further study and assessment for their potential sensitivity to yield remains of archaeological and historical significance. As such, an archaeological documentary study (Phase IA) will be prepared for the lots identified by LPC to clarify these initial findings and provide the threshold for the next level of review.

Archaeology

In coordination with the research conducted for the land use and hazardous materials tasks, this chapter of the EIS will include an overview of the study area's history and land development. This history will be detailed enough to determine whether any potential archaeological resources may be on the site, requiring further study. Subtasks will include:

- Based on City and State files, identify and map inventoried archaeological resources and/or sensitive locations.
- Determine the earliest dates of available municipal water and sewer services in the streets within the study area.
- For those lots identified by LPC or other record searches as archaeologically sensitive, prepare a Phase IA Archaeological Documentary Report. The work will document the site history, its development and uses, and the potential for the site to contain significant undisturbed archaeological features. Identify categories of resources that may be present and their potential to remain undisturbed on the site.
- Summarize the results of the Phase IA analysis in the EIS. Submit the full report to LPC for review.
- Assess probable impacts of the Proposed Project on archaeological resources.

TASK 8. URBAN DESIGN/VISUAL RESOURCES

A preliminary analysis of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning, including the following: 1) projects that permit the modification of yard, height, and setback requirements; and 2) projects that result in an increase in built floor area beyond what would be allowed 'as-of-right' or in the future without the Proposed Action. CEQR stipulates a detailed analysis for projects that would result in substantial alterations to the streetscape of the neighborhood by noticeably changing the scale of buildings.

The project site is currently characterized by low-density industrial uses including light industrial/ warehousing uses as well as open storage areas. The area surrounding the project site includes predominantly low-density light industrial and warehousing uses, as well as residential uses to the south and east, including a high-rise (23-story) residential building to east, across 9th Street from the project site. The surrounding area also includes visual resources, with views toward the East River, the Manhattan skyline, Randall's Island, and the RFK (Triborough) Bridge. As the Proposed Action would increase the permitted density and the built floor area on the northern portion of the project site (which is currently zoned M1-1), a detailed analysis or urban design and visual resources will be provided in the EIS. The assessment will be based on *CEQR Technical Manual* methodologies, and include the following:

- Based on field visits, describe the project site and the urban design and visual resources of the surrounding area, using text and photographs as appropriate.
- In coordination with the land use task, describe the changes expected in the urban design and visual character of the study area due to planned development projects in the future without the Proposed Action (No-Build condition).
- Describe the potential changes that could occur in the urban design character of the study area as a result of the Proposed Action (Build condition). Photographs and/or other graphic material will be utilized, where applicable, to assess the potential effects on urban design and visual resources,

including views of/to resources of visual or historic significance (landmark structures, historic districts, parks, etc.).

Construction of large buildings at locations that experience high wind conditions may result in an exacerbation of wind conditions due to 'channelization' or 'downwash' effects that may affect pedestrian safety. A screening assessment of whether a pedestrian wind analysis would be warranted will be provided in the EIS as channelized wind pressure from between tall buildings and/or parallel tall buildings may cause winds that jeopardize pedestrian safety. A detailed pedestrian wind analysis will be prepared in accordance with *CEQR Technical Manual* guidelines if warranted as a result of the screening assessment.

TASK 9. NATURAL RESOURCES

The project site lies along Hell Gate – a narrow tidal strait in the East River that separates Astoria from Randall's Island/Wards Island – and is mostly developed with shoreline protection measures (riprap). It is not anticipated that the proposed development would entail any in-water disturbance; however, new outfalls are proposed as part of the Proposed Action.

The EIS will provide an assessment of natural resources. Any existing natural resources on or in the vicinity of the project site would be identified, including any significant fish habitats in the adjacent waterway. The Proposed Action's potential impacts on any identified natural resources would be assessed, including short-term construction effects (if any) as well as any potential long-term effects such as additional run-off, etc. A discussion of any related permits that may be required would be provided. It is expected that the natural resources assessment will include the following subtasks:

- Describe the water quality conditions along the project site, including water quality trends and projection data as are available through existing literature and studies (e.g., the New York City Department of Environmental Protection [NYCDEP] Harbor Survey). This section will describe the general water quality characteristics of the East River, including currents, tidal range, water quality classification, and overall pollutant loads and chemical and biological conditions.
- Data on aquatic resources/habitats will be reviewed and presented for the study area. This task will also be undertaken using published literature, including the identification of essential fish habitats. The presence of tidal wetlands will be based on existing New York State Department of Environmental Conservation (NYSDEC) tidal wetlands maps.
- While there are limited issues with respect to terrestrial resources (flora and fauna) since most of the upland is developed, the project site will be characterized based on a review of aerial photography and a field visit.
- The New York State Natural Heritage Program and the U.S. Fish and Wildlife Service will be contacted to obtain any data on the potential presence of rare or endangered plant or animal species in the study area, and essential fish habitats along the East River.
- A projection will be made of natural resources conditions through the 2023 analysis year based on anticipated future conditions without the Proposed Action.
- An assessment of potential impacts from the Proposed Action will be presented analyzing any potential water quality and river disturbance issues, impacts to any fish and bird habitats, and terrestrial resources. A stormwater analysis will be performed that will specify how stormwater flows would be treated, and managed, and an analysis of appropriate Best Management Practices (BMP's) to be implemented will also be included in the EIS. Impact issues could include additional

flow from outfalls (see also Task 11, "Water and Sewer Infrastructure," below). Any potential impacts on rare or endangered species or essential fish habitats will be identified. The need for any additional State or Federal approvals or will also be described.

This analysis will also evaluate the potential for impacts due to any combined sewer overflow resulting from the Proposed Action (see also Task 11, "Water and Sewer Infrastructure," below).

TASK 10. HAZARDOUS MATERIALS

The objective of the hazardous materials assessment is to determine whether the project site may have been adversely affected by current or historical uses at or adjacent to the site. The Proposed Action would result in new residential development in areas currently zoned for manufacturing, and therefore has the potential to result in significant hazardous materials impacts.

This chapter of the EIS will primarily examine the potential for impacts related to subsurface contamination, including an evaluation of the existing soil and groundwater conditions in areas that would be affected by the Proposed Action. This chapter will summarize the results of the project site's Phase I Environmental Site Assessment and any other subsequent relevant studies. It will also include discussion of any measures required to be implemented prior to or during construction of the proposed development to avoid significant impacts, such as implementation of a Remedial Action Plan and Construction Health and Safety Plan, if warranted.

TASK 11. WATER AND SEWER INFRASTRUCTURE

The *CEQR Technical Manual* outlines thresholds for analysis of a project's water demand and its generation of wastewater and stormwater. As discussed in detail in the EAS, for the Proposed Action, an analysis of water supply is not warranted as the proposed development would not result in a demand of more than 1 million gpd and the proposed development is not located in an area that experiences low water pressure. A preliminary assessment of the Proposed Action's effects on wastewater and stormwater infrastructure is warranted because the Proposed Action would result in the development of more than 400 dwelling units in Queens (although it does not exceed the commercial threshold of 150,000 sf). Therefore, this chapter will analyze the Proposed Action's potential effects on wastewater and stormwater infrastructure. NYCDEP will be consulted during the preparation of the preliminary stormwater and wastewater infrastructure assessment.

- The existing stormwater drainage system and surfaces (pervious or impervious) on the project site will be described, and the amount of stormwater generated on the site will be estimated using NYCDEP's volume calculation worksheet. Drainage areas with direct discharges and overland flow will be presented.
- The existing sewer system serving the project site will be described based on records obtained from NYCDEP. Records obtained will include sewer network maps, drainage plans, capacity information for sewer infrastructure components, and other Freedom of Information Law (FOIL) requests (such as sewer backup complaints/repair data) if warranted. The existing flows to the Bowery Bay water pollution control plant (WPCP) that serves the site will be obtained for the latest 12-month period, and the average dry weather monthly flow will be presented. Existing capacity information for pump stations, regulators, etc. downstream of the affected drainage area will be presented.

- Any changes to the site's stormwater drainage system and surface area expected in the future without the Proposed Action will be described. Any changes to the sewer system that are expected to occur in the future without the Proposed Action will be described based on information provided by NYCDEP.
- Assess future stormwater generation from the proposed development and assess the Proposed Action's potential to create impacts. The project site does contain an existing 8-inch outfall within 9th Street. However, it is anticipated that this existing outfall would not be sufficient to support the new development and therefore two new outfalls are being proposed as part of the project. As such, two new outfalls are proposed for the site and would be described. The project's stormwater management plan will be assessed and incorporated into the infrastructure assessment. The assessment will also discuss any planned sustainability elements and best management practices (BMPs) that are intended to reduce stormwater runoff from the site. Changes to the site's proposed surface area (pervious or impervious) will be described, and runoff coefficients and runoff for each surface type/area will be presented. Volume and peak discharge rates of stormwater from the site will be determined based on the NYCDEP volume calculation worksheet.
- Sanitary sewage generation for the proposed development will be estimated. The effects of the incremental demand on the system will be assessed to determine if there will be any impact on operations of the WPCP.
- Based on the assessment of future stormwater and wastewater generation, the change in flows and volumes to the combined sewer system and/or waterbodies due to the Proposed Action will be determined.

TASK 12. ENERGY

According to the *CEQR Technical Manual*, actions resulting in new construction would not create significant energy impacts because all new structures requiring heating and cooling are subject to the New York State Energy Conservation Code, which reflects State and City energy policy. Therefore, a detailed energy assessment is not required. For CEQR analysis purposes, energy analysis focuses on an action's consumption of energy. This chapter will include an estimate of the additional energy consumption associated with the proposed project and describe the energy systems that will supply the proposed project with electricity and/or natural gas. This will include descriptions of the capacity and existing demand of the entire systems, and of the distribution networks serving the project.

TASK 13. TRANSPORTATION

The proposed new residential, commercial, and community facility uses would generate additional vehicular travel and increase demand for parking, as well as pedestrian traffic and subway and bus riders. These new trips have the potential to affect the area's transportation systems. Therefore, the transportation studies for the EIS will include the following analyses.

Traffic

The proposed development program exceeds the minimum development density screening thresholds specified in Table 16-1 of the *CEQR Technical Manual*. Therefore, a trip generation forecast is required to determine if the project would generate 50 or more vehicle trips. Based on preliminary analyses conducted by the applicant, the Proposed Action is expected to generate more than 50 additional

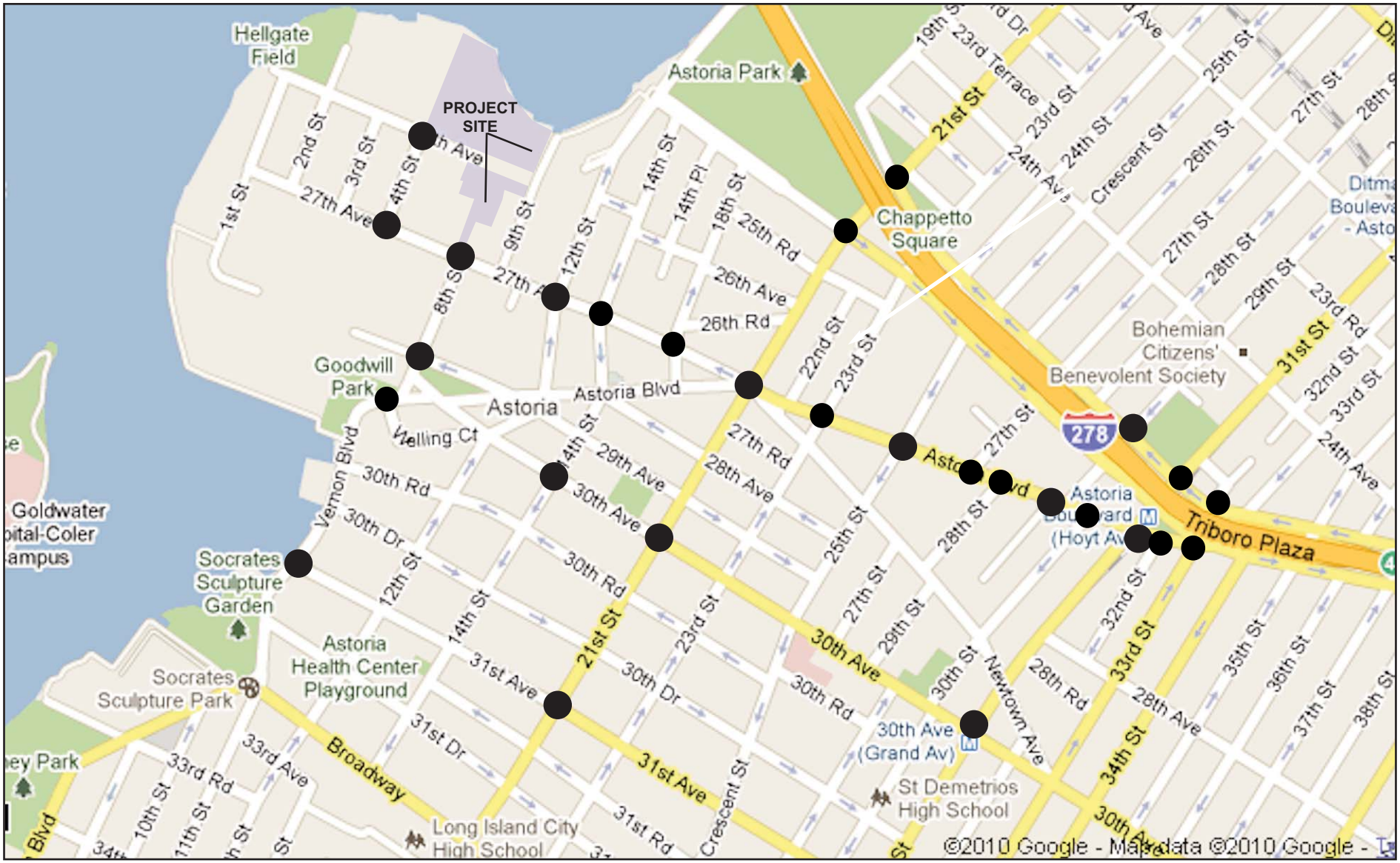
vehicular trips in the weekday AM, midday, and PM peak hours. Therefore, the EIS will provide a detailed traffic analysis focusing on those peak hours and intersections where the highest concentrations of project-generated demand would occur. The EIS traffic analysis will include the following:

- Select peak hours for analysis and define a traffic study area consisting of intersections to be analyzed adjacent to the project site and along major routes leading to and from the site. Based on preliminary trip generation estimates for the proposed residential and commercial uses, the EIS will analyze weekday AM, midday, and PM peak hours. Approximately 28 intersections would be analyzed, as listed below and shown in Figure 7.

  1. 26th Avenue @ 4th Street
  2. 27th Avenue @ 4th Street
  3. 27th Avenue @ 8th Street
  4. 27th Avenue @ 12th Street
  5. Astoria Boulevard @ 21st Street
  6. Astoria Boulevard @ Crescent Ave
  7. Astoria Boulevard @ 29th St
  8. Astoria Boulevard @ 31st St
  9. Astoria Boulevard N. @ 29th St
  10. 8th St and 29th Ave
  11. 30th Ave @14th St
  12. 30th Ave @21st St
  13. 30th Ave @31st St
  14. 31st Ave @ Vernon Boulevard
  15. 31st Ave @ 21st St
  16. Vernon Boulevard/Main Avenue @ 8th St/Welling Court
  17. 27th Avenue @ 14th St
  18. 27th Avenue @ 18th St
  19. Hoyt Avenue North @ 21st St
  20. Astoria Park South/Hoyt Avenue South @ 21st St
  21. Astoria Boulevard @23rd St
  22. Astoria Boulevard @ 27th St
  23. Astoria Boulevard @28th St
  24. Hoyt Avenue South @ RFK Bridge Off-Ramp/29th St
  25. Astoria Boulevard @ 30th St
  26. Hoyt Avenue North @ 31st St
  27. Hoyt Avenue South/Astoria Blvd @ 33rd St
  28. Hoyt Avenue North/Astoria Blvd @ 32nd St

- Conduct a count program for traffic analysis locations that includes a mix of automatic traffic recorder (ATR) machine counts and manual intersection turning movement counts, along with vehicle classification counts and travel time studies (speed runs) as support data for air quality and noise analyses. ATRs will provide 24-hour traffic volumes for a full week at selected arterial locations. Where applicable, available information from recent studies in the vicinity of the study area will be compiled, including data from such agencies as the New York City Department of Transportation (DOT) and the New York City Department of City Planning (DCP).

- Inventory physical data at each of the analysis intersections, including street widths, number of traffic lanes and lane widths, pavement markings, turn prohibitions, and parking regulations.



Astoria Cove Development

Figure 7
Traffic Study Area

Signal phasing and timing data for each signalized intersection included in the analysis will be obtained from DOT.

- Determine existing traffic operating characteristics at each analysis intersection including capacities, volume-to-capacity (v/c) ratios, average vehicle delays, and levels of service (LOS) per traffic movement, per intersection approach, and per overall intersection. The methodology of the 2000 Highway Capacity Manual (HCS+, Version 5.5) will be used for the analysis. Allowances for any on-going construction or temporary road closures will be made.
- Based on available sources, 2010 US Census data and standard references, estimate the travel demand for the future without the Proposed Action (the No-Build condition), which will include the demand from significant development sites planned in the vicinity of the study area by the analysis year. This will include daily and hourly person trips, and a modal distribution to estimate trips by auto, taxi, and other modes. A truck trip generation forecast will also be prepared. Mitigation measures accepted for all No-Build projects and other NYCDOT initiatives will be included in the future No-Build network.
- Compute the future 2023 No-Build traffic volumes based on an approved background traffic growth rate (0.5% per year for years one through five, and 0.25% per year for subsequent years) for the study area and any significant development projects expected to be completed in the future without the Proposed Action. Incorporate any planned changes to the roadway system anticipated by the project Build year, and determine the No-Build intersection v/c ratios, delays and levels of service.
- Based on available sources, 2010 US Census data, and standard references, develop a travel demand forecast for the proposed development. Assign that volume of traffic in each analysis period to the approach and departure routes likely to be used, and prepare traffic volume networks for the future with the Proposed Action (Build) condition for each analyzed peak hour. Determine the resulting v/c ratios, delays, and LOS at analyzed intersections for the 2023 Build condition.
- Identify the Proposed Action's potential to have significant adverse traffic impacts, in accordance with *CEQR Technical Manual* criteria.
- Identify and evaluate traffic mitigation measures, as appropriate, for all significantly impacted locations in the study area, where practicable. This includes potential mitigation for the street system, including possible roadway modifications, new signal installations, signage, signal changes, and parking regulation changes. Development of these measures will be coordinated with DOT and other agencies as necessary. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

Parking

The EIS will provide a parking analysis to determine if the accessory parking to be provided as part of the proposed development is sufficient to accommodate the projected peak demand. Based on a preliminary parking demand analysis, the proposed development would not provide sufficient accessory parking to accommodate its peak overnight demand, and as such, a quantitative on-street parking analysis is be warranted. The EIS parking assessment will include the following:

- Develop a parking accumulation profile, by use, for the proposed development by the analysis year. Based on the accumulation profile, an assessment will be provided to determine whether there would be any excess parking demand.

As the on-site supply would not accommodate the overnight demand, the following tasks will be included in the EIS:

- Conduct an inventory of the public parking lots and garages in the study area, noting their locations, capacities, and peak weekday levels.
- Document on-street parking regulations and inventory the number of legal on-street parking spaces within the study area, noting their general utilization levels on a typical weekday.
- Project future parking availability based on an annual background growth rate of 0.5 percent per year. Any existing parking facilities expected to be removed or relocated or other changes to parking conditions in the future as a result of the Proposed Action will be factored into this assessment.
- Evaluate the capacity of the on-street system to accommodate any overflow from the site.

Transit

According to the general thresholds used by the Metropolitan Transportation Authority and specified in the *CEQR Technical Manual*, detailed transit analyses are not required if the Proposed Action is expected to result in less than 200 new peak hour subway or bus transit riders, as fewer than this number of new transit trips is considered unlikely to create significant impacts on existing transit facilities.

Subway

Based on preliminary trip generation estimates, the Proposed Action is expected to exceed the *CEQR Technical Manual* threshold of more than 200 total peak hour subway trips and 200 peak hour subway trips at a single station during one or more peak hours. The 30th Avenue station on the N and Q lines would be the closest facility to the project site and would be the assumed destination for the majority of the subway trips. Because of the distance between the project site and this station, a shuttle service is anticipated between the 30th Avenue Station and the project site. Additionally, it is assumed that approximately 20 percent of the total subway trips would utilize the 21st Street – Queensbridge station on the F line which can be accessed by the Q103 bus route. However, this would result in less than 200 peak hour subway trips at this station and therefore analysis of this station would not be warranted. As such, the majority of subway transit trips generated by the proposed development are expected to be assigned to the 30th Avenue station. Generally, detailed analyses are not provided during the weekday midday peak hours as subway system ridership is substantially lower during these time periods than during the weekday AM and PM peak periods and incremental demand from an individual project can be accommodated without noticeably affecting system operations. Therefore, the EIS will provide a detailed subway transit analysis for the weekday AM and PM peak hours only, for the 30th Avenue station. This analysis will focus on the key stairways and entrance control areas of the station, and will include the following subtasks:

- A detailed analysis of subway station stairways and entrance control areas will be conducted at the 30th Avenue subway station in the weekday AM and PM peak hours.
- The analysis will be conducted based on counts conducted at those control areas and/or pedestrian circulation elements that would be traversed by significant concentrations of project-generated trips.
- Conditions and volumes in the future without the Proposed Action will be determined using background growth rates specified in the *CEQR Technical Manual* and accounting for any trips generated by No-Build developments.

- Conditions and volumes in the future with the Proposed Action will be determined based on the assignment of project-generated subway trips.
- Any potential impacts on the analyzed subway stations will be identified using CEQR impact criteria. Transit mitigation, if any, will be determined in conjunction with the lead agency and NYC Transit.

Bus

Bus routes serving the study area include the Q102, Q103 and Q18 bus routes, which travel along 27th Avenue. The Q102 and Q18 bus routes both provide access to the 30th Avenue subway station. The Q103 bus route provides access to the 21st Street – Queensbridge station on the F line. Although the Proposed Action would result in more than 200 bus trips (bus only and subway to bus transfer trips) in the AM, midday, and PM peak period, it is expected that the bus only trips would be divided among the three bus routes serving the project site and the subway to bus transfer trips would be assigned to the Q103. As the number of trips on the Q103 would result in over 50 trips on a single route in a given direction in the AM and PM peak hours, a detailed analysis of the Q103 in the AM and PM peak hours would be warranted. Although the Proposed Action is projected to result in more than 50 trips on the Q103 in a given direction during the weekday midday peak period, these trips would be off-peak when the bus system has ample capacity. As such, this off-peak period will not be analyzed in the EIS. It is not expected that any other route would experience 50 or more trips in one direction in any of the peak hours. The detailed analysis will include the following:

- The analysis will include documenting existing AM and PM peak hour Q103 route services and peak load point ridership, determining conditions in the future without the Proposed Action (No-Build), assignment of project-generated bus trips, including subway trips with a bus transfer, to bus routes serving the site and assessing the effects of new project-generated peak hour bus trips (Build).

Pedestrians

Except for trips by auto or taxi, all project-generated trips would include a walk component using local sidewalks, street corners, and crosswalks to access the project site. As a result, there would be more than 200 pedestrian trips in all peak hours, with volumes highest on those facilities closest to the project site entrances and gradually diminishing as project-generated pedestrian volumes become more dispersed further from the site. Accordingly, the EIS will provide detailed pedestrian analyses for the pedestrian facilities in the immediate vicinity of the project site, with a focus on 26th Avenue. In addition, as the proposed project includes a shuttle service to the 30th Avenue subway station with a drop-off/pick-up location proposed along the north side of 30th Avenue at 31st Street, the northwest corner of 31st Street and 30th Avenue would also be assessed in the pedestrian analysis. This analysis will include the following subtasks:

- Conduct and analyze pedestrian counts at critical locations in the study area. Corners, crosswalks, and adjoining sidewalks will be evaluated at locations receiving the greatest concentration of action-generated pedestrian trips. Pedestrian assignment diagrams will be prepared to assist in identifying these locations. It is expected that up to three(3) locations will be analyzed:
  - 26th Avenue (north and south sidewalks) east of 8th Street
  - 26th Avenue (north and south sidewalks) west of 8th Street
  - 30th Avenue (northwest corner) at 31st Street

- Identify the potential for the Proposed Action to have significant pedestrian impacts, through a comparison of future No-Build to the future Build conditions.
- If significant pedestrian impacts are identified, feasible mitigation measures, including widening crosswalks, extending corners, and eliminating sidewalk obstructions, will be explored to alleviate these impacts.

Vehicular and Pedestrian Safety

Traffic accidents involving pedestrians as well as bicycles at key study area intersections will be researched and documented. These data will be analyzed to determine if any of the studied locations may be classified per CEQR criteria as high vehicle crash or high pedestrian/bike accident locations and whether trips and changes resulting from the proposed project would adversely affect vehicular and pedestrian safety in the area. The potential for the Proposed Action to have significant pedestrian and/or bicycle impacts will be identified and possible remedies and/or improvements will be proposed for DOT consideration.

Goods Deliveries

The proposed development would provide loading berths in compliance with zoning and based on the projected demand for loading capacity. The EIS will provide an assessment of the ability of the proposed development to accommodate goods delivery demand without interfering with vehicular or pedestrian traffic or compromising safety.

- Identify the number and location of loading berths for goods delivery and the circulation plan for delivery vehicles. Assess the capacity of proposed loading areas to accommodate the expected volume of deliveries and the ability to do so without interfering with vehicular, pedestrian, and bicycle traffic or compromising safety.

TASK 14. AIR QUALITY

The air quality studies for the proposed development will include both mobile and stationary source analyses. The number of project-generated vehicle trips may exceed the *CEQR Technical Manual* screening thresholds above which detailed analyses of mobile source emissions of carbon monoxide (CO) and particulate matter (PM) on ambient pollutant levels in the study area are required, and thus these detailed analyses will be performed. (For Queens, the threshold for conducting an analysis of carbon monoxide (CO) emissions corresponds to 170 vehicles at a given intersection in the peak hour.) The need for conducting an analysis of PM emissions is based on the number of peak hour heavy-duty diesel vehicle traffic or its equivalent in vehicular PM2.5 emissions as determined using the worksheet discussed on page 17-10 of the *CEQR Technical Manual*. In addition, since the proposed development will provide a new accessory parking garages, the effects of CO emissions from parking vehicles will be analyzed.

The stationary source air quality impact analysis will assess the effects of emissions (e.g., sulfur dioxide, particulate matter, and nitrogen oxides) from the proposed development's heat and hot water systems. The proposed development will also introduce new residential uses in an area that is currently zoned for manufacturing uses. Therefore, an analysis to examine the potential for impacts from light industrial uses in the surrounding area on the proposed sensitive uses will be performed. In addition, emissions

from large sources within 1,000 feet of the development site, and commercial, institutional and large scale residential uses will be examined for their potential impact on the proposed development.

No waterborne ferries or tugboats would operate adjacent to the project site, and the emissions from vehicular traffic on the RFK (Triborough) Bridge are located too far from the proposed project site (more than 1,000 feet away) to adversely impact the proposed residential developments.

Mobile Source Analysis

The mobile source analysis methodology is relatively straightforward: it entails selecting appropriate receptor sites, calculating vehicular emissions, calculating pollutant levels using dispersion models that have been approved by the applicable air quality review agencies (i.e., U.S. Environmental Protection Agency, NYSDEC, and NYCDEP), and determining whether the project would result in potential impacts. The methodologies used for this analysis would be consistent with the *CEQR Technical Manual*.

The specific work program for the mobile source air quality study will include the following tasks, with certain tasks performed only if the vehicle or emissions thresholds specified in the CEQR *Technical Manual* are exceeded:

- Gather existing air quality data. Collect and summarize existing ambient air quality data for the study area. Specifically, ambient air quality monitoring data published by NYSDEC will be compiled for the analysis of ambient background conditions.
- Determine receptor locations for microscale analysis. Select critical intersection locations in the study area, and outside the study area, based on data obtained from the traffic analysis. Receptor locations will include locations where maximum project impacts and high pollutant levels are expected. It is anticipated that two intersection locations would be analyzed: 26th Avenue at 4th Street and at 9th Street. The analysis will be performed only for the pollutants for which the CEQR thresholds for performing a detailed analysis are exceeded.
- Select dispersion model for analysis. EPA's CAL3QHC screening model will be used for CO analysis, if needed. EPA's CAL3QHCR refined intersection model will be used at intersections that are found to exceed CO standards or de minimis criteria using the CAL3QHC screening model, and, if needed, for the PM10/PM2.5 intersection analysis. For the CAL3QHCR analysis, five years of meteorological data from LaGuardia Airport and concurrent upper air data from Brookhaven, New York for the simulation program, will be used.
- Select "worst-case" meteorological conditions. Worst-case conditions to be assumed for the microscale CO analysis are a 1.0 meter/second wind speed, Class D stability, and temperature and persistence factors as recommended in the *CEQR Technical Manual*.
- Select an appropriate emission calculation methodology and input parameters needed to compute emission source strengths. The task will involve computing vehicular cruise and idle emissions using EPA's MOBILE6.2 model with NYCDEP- and/or NYSDEC-supplied information as input to the model, to account for the state vehicle inspection and maintenance (I&M) program (including any applicable future I&M programs), and the state anti-tampering program. The CEQR *Technical Manual* recommended winter temperature of 43 degrees Fahrenheit for the Borough of Queens will be used as input to the model for calculating CO emissions.
- If a CO analysis is required, determine existing pollutant levels. At each mobile source receptor location, calculate maximum 1- and 8-hour CO concentrations for up to two weekday peak periods and one peak hour period on the weekend. No field monitoring will be performed as part of this study.

- Compare existing levels with standards. Existing pollutant levels (both calculated and measured levels from NYSDEC monitoring stations) will be compared with National Ambient Air Quality Standards (NAAQS).
- For the pollutants requiring a detailed analysis, determine future levels without the Proposed Action. Pollutant levels without the Proposed Action will be determined for the future analysis year of 2023. At each receptor location, maximum 1- and 8-hour CO concentrations, maximum 24-hour PM10 concentrations, and maximum 24-hour and annual PM2.5 concentrations will be calculated as needed for each of the peak periods analyzed.
- If detailed analyses are required, future CO and PM10 pollutant levels without the Proposed Action will be compared to NAAQS to determine compliance with standards.
- If detailed analyses are required, determine future CO, PM10, and PM2.5 pollutant levels with the Proposed Action. Pollutant levels with the Proposed Action will be determined for the future analysis year. At each receptor location, maximum 1- and 8-hour incremental, maximum PM2.5 incremental, and total CO and PM10 concentrations will be calculated for each of the peak periods analyzed, in accordance with the *CEQR Technical Manual*.
- Compare future levels with the Proposed Action with standards. If detailed analyses are required, future CO and PM10 pollutant levels with the Proposed Action will be compared with NAAQS to determine compliance with standards. CO concentration increments will be compared with the city's de minimis criteria (i.e., a comparison of future levels with the Proposed Action versus future levels without the Proposed Action) to determine project impacts. PM2.5 concentration increments will be compared with the NYCDEP interim guidance criteria.
- Assess the potential CO impacts associated with the proposed accessory parking garage(s). A screening analysis will be used following the procedures prescribed in the *CEQR Technical Manual* to determine maximum potential worst-case impacts. Cumulative impacts from on-street sources and emissions from the proposed garage will be calculated, where appropriate. Future CO pollutant levels will be compared with standards and applicable de minimis criteria.
- Assess the consistency of the Proposed Action with the State Implementation Plan (SIP). An assessment to determine the consistency of the Proposed Action with the strategies contained in the applicable SIP for the area will also be performed.

Stationary Source Analyses

HVAC Analysis

The analysis process would be conducted, in accordance with the *CEQR Technical Manual* procedures, as follows:

- The effects of emissions from stationary sources associated with the Proposed Action will be addressed. Analyses will be performed using the screening procedures from the *CEQR Technical Manual* to determine whether emissions from any substantial on-site HVAC facilities are significant. Impacts on existing or planned developments with sensitive uses, such as residences or community facilities, will be determined as part of this task, and a cumulative analysis will be performed to assess impacts on off-site sensitive receptor location.
- If warranted, analyze the potential combined impacts from clusters of HVAC emissions (i.e., HVAC emissions from buildings resulting from the Proposed Action of approximately the same height that are located in close proximity to one another) to significantly impact existing land uses and other buildings resulting from the Proposed Action. Clusters will be selected based on the sizes of

the buildings that comprise the cluster, proximity of the cluster buildings to each other, and the difference in stack heights no more than 10 to 15 feet with no city street in between.

Industrial Source Analysis

The analysis process would be conducted, in accordance with the *CEQR Technical Manual* procedures, as follows:

- A field survey will be performed to determine if there are any manufacturing or processing facilities within 400 feet of the project site. The DEP's Bureau of Environmental Compliance (BEC) files will be examined to determine if there are permits for any industrial facilities that are identified. A review of federal and state permits will also be conducted. Based on this information, a determination will be made of whether further detailed analysis is necessary.
- If detailed analysis is necessary, the AERMOD dispersion model screening database will be used to estimate the short-term and annual concentrations of critical pollutants at the potential receptor sites. Predicted worst-case impacts on the project will be compared with the shortterm guideline concentrations (SGC) and annual guideline concentrations (AGC) reported in the DEC's DAR-1 AGC/SGC Tables to determine the potential for significant impacts. In the event that violations of standards are predicted, measures to reduce pollutant levels to within standards will be examined. A health risk assessment will also be performed to determine any public health impacts from these emissions on future residents.

TASK 15. Greenhouse Gas Analysis (GHG)

As the proposed project would exceed 350,000 sf of development, the analysis of GHG emissions will be included as a separate chapter in the EIS.

- Sources of GHG from the proposed development will be identified. The pollutants for analysis will be discussed, as well as the various city, state, and federal goals, policy, regulations, standards and benchmarks for GHG emissions.
- Fuel consumption will be estimated for the proposed buildings based on the calculations of energy use estimated for the project in the "Energy" screening analysis conducted as part of the EAS document.
- GHG emissions associated with project-related traffic will be estimated for the Proposed Action using data from the project's "Transportation" analysis. A calculation of Vehicle Miles Traveled (VMT) will be prepared.
- The types of construction materials and equipment proposed will be discussed along with opportunities for alternative approaches that may serve to reduce GHG emissions associated with construction.
- A qualitative discussion of stationary and mobile sources of GHG emissions will be provided in conjunction with a discussion of goals for reducing GHG emissions to determine if the project is consistent with GHG reduction goals, including building efficient buildings, use of clean power, transit-oriented development and sustainable transportation, reduction of construction operations emissions, and use of building materials with low carbon intensity.

TASK 16. NOISE

As the Proposed Action involves residential development in an existing manufacturing zone, noise studies will be completed to determine whether standard window wall attenuation would be sufficient or if portions of the proposed development would require additional noise attenuation that would ensure acceptable indoor noise conditions. In addition, the potential for project-induced traffic to affect sensitive existing and future land uses would be evaluated by estimating future vehicular traffic-induced noise levels and comparing them with traffic noise levels in the No-Build scenario at the sensitive receptor sites most likely to be affected.

No detailed analysis of potential noise impacts due to outdoor mechanical equipment will be performed, as outdoor mechanical equipment would be designed to meet applicable regulations. Moreover, the project site is not located in the vicinity of air or rail facilities, and is more than two miles away from the mapped noise contours for LaGuardia airport. The following tasks would be performed in compliance with guidelines contained in the *CEQR Technical Manual*:

- Select appropriate noise descriptors. Appropriate noise descriptors for building attenuation purposes would be selected. Based on CEQR criteria, the noise analysis would examine the L10, and 1-hour equivalent (Leq(1)) noise levels.
- Select receptor locations for building attenuation purposes. Two types of receptor sites would be selected: 1) sites where the Proposed Action would have the potential for significant noise impacts due to project-generated traffic, and 2) sites where proposed new construction would require specification of window/wall attenuation that would ensure acceptable indoor noise conditions as prescribed in regulations.
- Determine existing noise levels. A 20-minute measurement would be performed during typical weekday AM, midday, and PM peak periods. Hourly Leq, L1, L10, L50, and L90 values will be recorded.
- Determine amount of any building attenuation required for residential and commercial uses as applicable. The level of building attenuation necessary to satisfy CEQR requirements is a function of exterior noise levels and will be determined. Measured values will be compared to appropriate standards and guideline levels. As necessary, recommendations regarding noise attenuation measures needed for the proposed development to achieve compliance with standards and guideline levels will be made.
- Determine whether project-generated traffic would have the potential for causing a significant noise impact. If project-generated traffic would result in a doubling of Noise PCEs (passenger-car-equivalents), a detailed mobile source noise analysis would be prepared.
- If the proposed school would have an outdoor play area, an analysis of the potential for significant adverse noise impacts due to the play area would be provided. Using the methodology outlined in the *CEQR Technical Manual*, noise levels, associated with the proposed school's play area, will be calculated at nearby noise-sensitive uses. The analysis results will be compared to CEQR impact criteria.

TASK 17. PUBLIC HEALTH

According to the *CEQR Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability and premature death; and reducing

inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on public health may occur as a result of a proposed project, and if so, to identify measures to mitigate such effects.

According to the guidelines of the CEQR Technical Manual, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other CEQR analysis areas, such as air quality, hazardous materials, or noise. If unmitigated significant adverse impacts are identified in any of these technical areas and the lead agency determines that a public health assessment is warranted, an analysis will be provided for the specific technical area or areas.

TASK 18. NEIGHBORHOOD CHARACTER

The character of a neighborhood is established by numerous factors, including land use patterns, the scale of its development, the design of its buildings, the presence of notable landmarks, and a variety of other physical features that include traffic and pedestrian patterns, noise etc. The area surrounding the project site is composed of residential development to the south and east, transportation uses and commercial/warehouse uses. Vacant, undeveloped land and parking lots are also prevalent throughout the area.

The proposed development has the potential to alter certain constituent elements of the affected area's neighborhood character, including land use patterns, socioeconomic conditions, traffic and noise levels, and therefore an analysis will be provided in the EIS. As suggested by the *CEQR Technical Manual*, the study area for neighborhood character will be coterminous with the ¼-mile land use study area. The chapter will summarize changes that can be expected in the character of the neighborhood in the future without the Proposed Action (No-Build condition) as well as describing the Proposed Action's impacts on neighborhood character. Subtasks will include:

- Describe the predominant factors that contribute to defining the character of the neighborhood, drawing on relevant EIS chapters.
- Summarize changes in the character of the neighborhood that can be expected in the future No-Build condition based on planned development projects, public policy initiatives, and planned public improvements, as applicable.
- Summarize changes in the character of the neighborhood that can be expected in the future Build condition, based on the RWCDS, and compare to the future No-Build condition. A qualitative assessment will be presented, which will include a description of the potential effects of the Proposed Action on neighborhood character.

TASK 19. CONSTRUCTION IMPACTS

Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. Construction impacts are usually important when construction activity has the potential to affect traffic conditions, archaeological resources and the integrity of historic resources, community noise patterns, air quality conditions, and mitigation of hazardous materials. For this chapter of the EIS, the construction schedule for the proposed development will be described, along with a discussion of the likely staging areas, placement of equipment, the temporary loss of traffic lanes, and number of workers. The analysis will be based on the peak construction period of the project. Technical areas to be analyzed include the following:

- Project Site. This section will assess any physical changes to the project site resulting from the proposed construction. A discussion of construction staging, compliance with building codes and other applicable laws, etc. will be provided.
- Transportation Systems. This assessment will qualitatively consider losses in lanes, sidewalks, and other transportation services on the adjacent streets during the various phases of construction, and identify the increase in vehicle trips from construction workers and equipment. If warranted under CEQR guidelines, a travel demand forecast for the project's construction period will be prepared.
- Air Quality. The construction air quality impact section will contain a qualitative discussion of both mobile air source emissions from construction equipment and worker and delivery vehicles, and fugitive dust emissions. It will discuss measures to reduce impacts. Based on the findings of the qualitative analysis, a quantitative analysis may be necessary and would be included in the EIS if warranted.
- Noise Impacts. The construction noise impact section will contain a qualitative discussion of noise from construction activity. Based on the findings of the qualitative analysis, a quantitative analysis may be necessary and would be included in the EIS if warranted.
- Hazardous Materials. In coordination with the work performed for hazardous materials, above, summarize actions to be taken during project construction to limit exposure of construction workers to potential contaminants.
- Natural Resources/Waterfront. In coordination with the work performed for the natural resources task, assess the Proposed Action's potential short-term construction related impacts on any identified natural resources adjacent to the site. It is anticipated that a Stormwater Pollution Prevention Plan SWPPP would be prepared to comply with NYSDEC requirements.
- As appropriate, the construction assessment will discuss the other areas of environmental concern, including Land Use, Zoning and Public Policy, Socioeconomic Conditions, Community Facilities, Open Space, Historic and Cultural Resources, and Infrastructure, for potential construction-related impacts.

TASK 20. MITIGATION

Where significant adverse project impacts have been identified in Tasks 2 through 16, measures to mitigate those impacts will be described. These measures will be developed and coordinated with the responsible City/State agencies as necessary, including NYCDOE, NYCSCA, NYCDOT, and NYCDEP. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

TASK 21. ALTERNATIVES

The purpose of an alternatives section in an EIS is to examine development options that would tend to reduce project-related impacts. At this time, the provision of ferry service at the project site is being considered; however, it should be noted that this would be contingent upon the City's approval to extend the existing ferry service to this area. Given this, the EIS is anticipated to have a minimum of three alternatives: a) a No-Action Alternative, b) a no impact or no significant impact alternative, and c) a proposed development with ferry service (at the project site) alternative. Additional alternatives may be defined once the full extent of the Proposed Action's impacts has been identified. The alternatives analysis is qualitative, except where significant adverse impacts of the Proposed Action have been identified. The level of analysis depends on an assessment of project impacts determined by the analysis connected with the appropriate tasks.

TASK 22. SUMMARY EIS CHAPTERS

In accordance with CEQR guidelines, the EIS will include the following three summary chapters, where appropriate to the Proposed Action:

- **Unavoidable Adverse Impacts** - which summarizes any significant adverse impacts that are unavoidable if the Proposed Action is implemented regardless of the mitigation employed (or if mitigation is not feasible).
- **Growth-Inducing Aspects of the Proposed Action** - which generally refer to "secondary" impacts of a Proposed Action that trigger further development.
- **Irreversible and Irretrievable Commitments of Resources** - which summarizes the Proposed Action and its impacts in terms of the loss of environmental resources (loss of vegetation, use of fossil fuels and materials for construction, etc.), both in the immediate future and in the long term.

TASK 23. EXECUTIVE SUMMARY

Once the EIS technical sections have been prepared, a concise executive summary will be drafted. The executive summary will use relevant material from the body of the EIS to describe the proposed development, the necessary approvals, study areas, environmental impacts predicted to occur, measures to mitigate those impacts, unmitigated and unavoidable impacts (if any), and alternatives to the proposed project.