CEQR No. 21HPD009Q

Resilient Edgemere Community Initiative

Draft Scope of Work for Preparation of a Draft Environmental Impact Statement

LEAD AGENCY

Housing Preservation and Development
City of New York
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Contents

Section Page

List of Tables

List of Figures

Draft Scope of Work

Section 1: Introduction

This Draft Scope of Work outlines the technical areas to be analyzed in the preparation of an Environmental Impact Statement (EIS) in connection to the Resilient Edgemere Community Initiative. The Department of Housing Preservation and Development (HPD) is proposing a series of land use actions (collectively the "Proposed Actions") to implement recommendations of the Resilient Edgemere Community Initiative, an interagency, community-based effort to align New York City's Sandy Recovery and rebuilding investments in Edgemere with a long-term comprehensive community vision. The Resilient Edgemere Community Initiative builds on past planning efforts, such as creation of the Edgemere Urban Renewal Area in 1997. In 2017, the City released the Resilient Edgemere Community Plan, a vision for the future of Edgemere with the following goals:

- Protect the neighborhood from flooding;
- Create resilient housing and maintain the neighborhood's low density feel;
- Improve streets and transit; and
- Increase neighborhood amenities.

In order to successfully implement these four community goals, changes to existing land use, zoning, and the Edgemere Urban Renewal Area and Plan are needed. The Proposed Actions would facilitate the development of affordable housing and community amenities to benefit the neighborhood in transit-oriented areas, as well as discourage future development in areas of greater risk to coastal hazards. These actions would work in concert to leverage investments in local public infrastructure, housing, and coastal protection, while laying the groundwork for long-term coastal resilience and community development.

The Project Area is located in Queens, New York, on the eastern end of Rockaway Peninsula. Encompassing the neighborhood of Edgemere, the Project Area is located in Queens Community District 14 between the Far Rockaway and Bayswater neighborhoods to the east, the Arverne East proposed development and Nature Preserve site to the south (and further south to the Rockaway Beach and Atlantic shorefront), the Arverne neighborhood to the west, and Jamaica Bay to the north. The Project Area is generally bounded by Beach 35th Street to the east, Rockaway Freeway and Rockaway Beach Boulevard to the south, Beach 50th Street and Beach 51st Street to the west, and Jamaica Bay to the north (see **Figure 1**).

As described above, the Proposed Actions would place limitations on future development in areas of greater risk to coastal hazards. Specifically, the actions would limit new development along the Jamaica Bay waterfront, which is at highest risk of coastal flooding and may experience additional damage from waves during coastal storms. This area is generally bounded by Jamaica Bay to the north, Beach 49th Street to the west, and along a boundary which runs parallel to Beach Channel Drive to the south, and the New York City Housing Authority (NYCHA) Beach 41st Street Houses to the east.

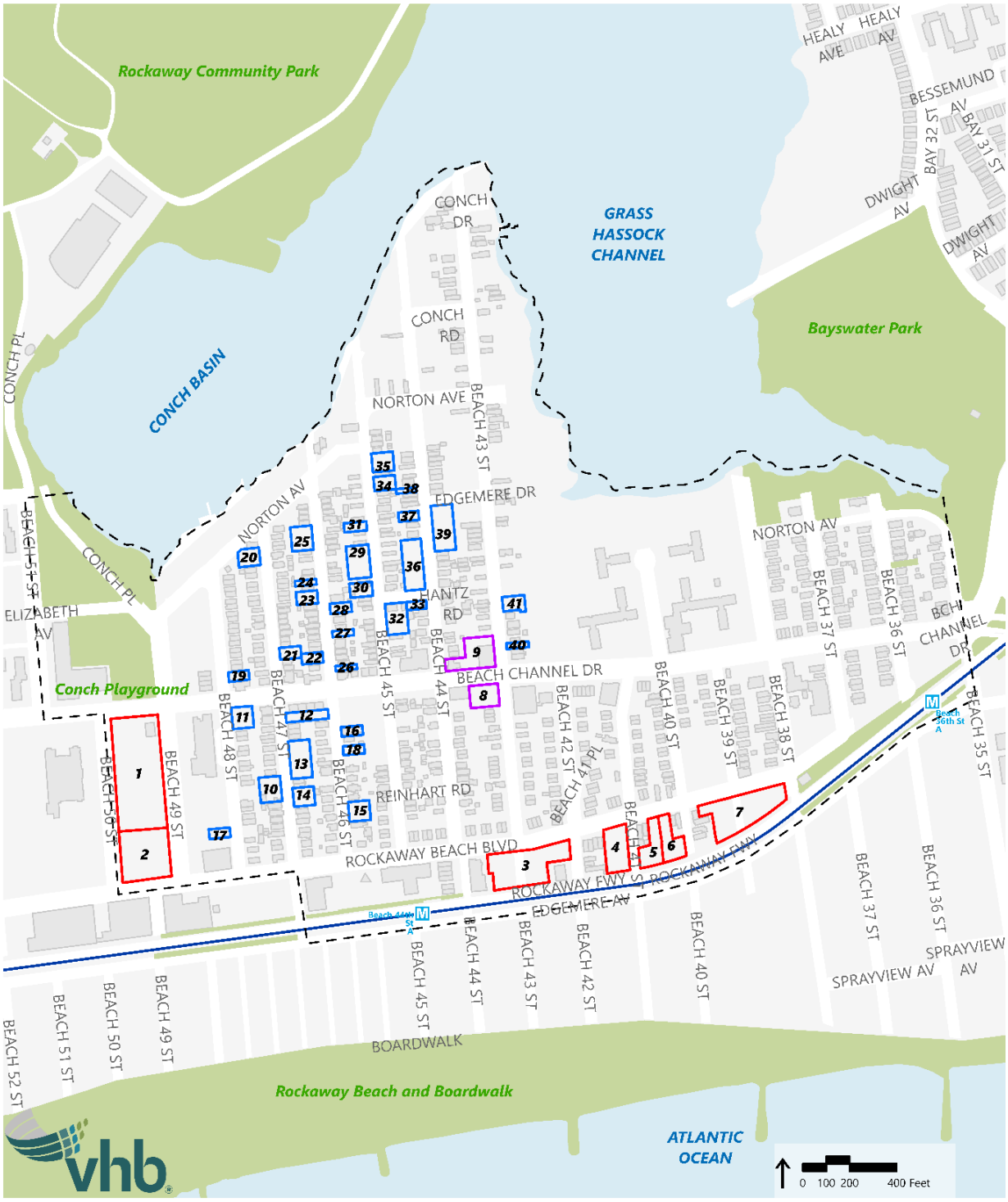
The Proposed Actions would facilitate mid-rise development of multi-family housing and commercial amenities in those portions of the Project Area that are nearest to transit, namely along Beach Channel Drive, Rockaway Beach Boulevard, and Rockaway Freeway.

In total, the reasonable worst-case development scenario (RWCDS) for the Proposed Actions are expected to result in 1,201 residential units in approximately 1,293,800 gsf, including up to 456 affordable units; approximately 144,359 gsf of local retail uses; and approximately 549 new parking spaces. This new development would occur at a number of different sites within the Project Area, including Projected Multi-Family Development Sites, Projected Commercial Infill Sites, and Projected Residential Infill Sites. Together, these sites are referred to as the Projected Development Sites in this Draft Scope of Work.

In comparison to the No-Action condition, the Proposed Actions would result in an incremental increase of 1,201 residential units, including up to 456 affordable units; approximately 142,001 gsf of local retail uses; and up to 387 parking spaces. This document provides a description of the Proposed Actions and resulting developments and includes task categories for all technical areas to be analyzed in the EIS.

An overview of the Project Area, the purpose and need for the Proposed Actions, and their specific components are discussed below. Analysis of the Proposed Actions will be prepared in conformance with City Environmental Quality Review (CEQR) guidelines, with HPD as the lead agency. Based on the Environmental Assessment Statement (EAS) dated December 18, 2020, HPD has issued a Positive Declaration declaring that the Proposed Actions have the potential to result in significant adverse environmental impacts and requiring the preparation of an EIS. The environmental analyses in the EIS will assume a development period of ten years for the RWCDS for the Proposed Actions (i.e., analysis year of 2031) and identify the cumulative impacts of other projects in areas affected by the Proposed Actions. HPD will conduct a coordinated review of the Proposed Actions with involved and interested agencies.

Figure 1 Site Location Map



Section 2: City Environmental Quality Review (CEQR) and Scoping

The purpose of the scoping process is to focus the EIS on potentially significant adverse environmental impacts by ensuring that relevant issues are identified as early as possible and studied properly, and to eliminate consideration of those impacts that are irrelevant and not significant. In addition, it allows the public, agencies, and other interested parties the opportunity to help shape the EIS by raising relevant issues regarding the focus and appropriate methods of study. The draft scoping document sets forth the analysis areas proposed to be covered in the EIS and the methodologies that are proposed to perform these analyses. During the scoping period, those interested in reviewing the Draft Scope of Work (Draft Scope) may do so and give their comments to the Lead Agency.

The public, interested agencies, Community Boards, and elected officials are invited to comment on the Draft Scope, either in writing or orally, at a public scoping meeting to be held January 19, 2021 at 4:00 PM. Written comments on the Draft Scope of Work will be accepted by the lead agency through close of business January 29, 2021. The Final Scope of Work will incorporate all relevant comments made on the Draft Scope and the Draft EIS (DEIS) will be prepared in accordance with the Final Scope.

Once the DEIS is determined by the Lead Agency to be complete, the document will be made available for public review and comment. A public hearing will be held on the DEIS in conjunction with the CPC hearing on the land use application 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 respond to all substantive comments made on the DEIS and incorporate any necessary revisions. The FEIS will then be used by the lead agency in making the required environmental findings, which are used as a basis for deciding whether to approve the requested discretionary actions, with or without modifications. According to SEQRA Part 617.11(d), these findings must:

1. Consider the relevant environmental impacts, facts, and conclusions disclosed in the final EIS;
2. Weigh and balance relevant environmental impacts with social, economic, and other considerations;
3. Provide a rationale for the agency's decision;
4. Certify that the requirements of this Part have been met; and
5. Certify that consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating as conditions to the decision those mitigative measures that were identified as practicable.

Section 3: Project Area and Background

Project Area

The Project Area is located in Queens, New York, on the eastern end of Rockaway Peninsula. Encompassing the neighborhood of Edgemere, the Project Area is located in Queens Community District 14 between the Far Rockaway and Bayswater neighborhoods to the east, the proposed Arverne East development and Nature Preserve site to the south, the Arverne neighborhood to the west, and Jamaica Bay to the north. The Project Area is generally bounded by Beach 35th Street to the east, Rockaway Freeway and Rockaway Beach Boulevard to the south, Beach 50th Street and Beach 51st Street to the west, and Jamaica Bay to the north (see **Figure 1**).

The Project Area encompasses a total of approximately 166 acres. Beach Channel Drive, Rockaway Beach Boulevard, and Rockaway Freeway transverse the Project Area from east to west. The elevated A subway line runs along Rockaway Freeway, the southern boundary of the Project Area, with stations at Beach 44th Street-Frank Avenue and Beach 36th Street. The Project Area is flanked by Rockaway Community Park and Bayswater Park to the northwest and northeast, respectively (both located outside the Project Area). Beyond the southern boundary of the Project Area is Rockaway Beach and the Atlantic shorefront.

Residential, park, and vacant land uses dominate the Project Area, with some limited commercial uses. Built form throughout the neighborhood is dominated by low-density residential buildings (with one-to-four dwelling units in two-to-four stories, both attached and detached). It is punctuated by a few low-rise commercial buildings, high-density residential buildings (namely NYCHA Beach 41st Street Houses, with buildings up to 13 stories), and recent mid-rise, multi-family, mixed-use developments (of up to eight stories). The presence of vacant land is a prevailing condition across the Project Area.

Within the Project Area, there are several subareas, each of which has a distinctive neighborhood geography that corresponds to proposed future land uses. The first consists of the area along Jamaica Bay waterfront, which is characterized by low-density, one-to-two family residences in detached and semi-detached buildings as well as some vacant parcels. This area is at highest risk of coastal flooding and may experience additional damage from waves during coastal storms and corresponds to the proposed **Hazard Mitigation Zone**.

The second subarea consists of low-density, one-to-four family residences in detached and semi-detached buildings. Generally bounded by Norton Avenue to the north, Beach 49th Street to the west, Beach Channel Drive to the south, and the NYCHA Beach 41st Street Houses to the east, this area is expected to experience ponding from tidal flooding and rain events more frequently in the future due to climate change, and corresponds to the proposed **Limited Development Zone**.

The third subarea, located south of Beach Channel Drive, consists of low-density, one-to-four family residences in semi-detached and attached buildings as well as low-rise commercial buildings. This subarea corresponds to the proposed **Neighborhood Infill Zone**.

The fourth and final subarea, located along Rockaway Beach Boulevard and Beach 50th Street, consists of low-density, one-to-four family residences in semi-detached and attached buildings as well as low-rise commercial buildings, recently constructed mid-rise, multi-family, mixed-use developments, surface parking and vacant land. Located nearest to the

elevated A subway line, which runs along the southern boundary of the Project Area, this subarea corresponds to the proposed **Mixed Use Corridor**.

Project Area Background

Edgemere is a low-lying waterfront community located on the Rockaway Peninsula, a barrier island. In the mid-nineteenth and early-twentieth centuries, Edgemere and the Eastern Rockaways were a waterfront vacation destination for wealthy New Yorkers. By the mid-twentieth century, vacationers shifted to other destinations with improvements in transportation infrastructure. Businesses closed, resort hotels were demolished or turned into apartments, and summer cottages became housing of last resort for low-income New Yorkers. At this time, the City also began building large public housing campuses in the Eastern Rockaways, including in Edgemere.

Between the 1970s and 1990s, the City acquired over 100 lots in Edgemere, primarily through in-rem foreclosures. In 1997, the City created the Edgemere Urban Renewal Area to encourage the development of housing and amenities. The corresponding Edgemere Urban Renewal Plan created a framework for the investment of $100 million in sewer and street improvements to support the construction of 800 homes for middle income homeowners. Two phases of housing were built under this plan, but development stalled following the 2008 financial crisis. In 2012, Superstorm Sandy inflicted severe damage across Edgemere, necessitating a new model of development that addresses the neighborhood's coastal vulnerabilities, while enhancing quality of life for existing and new residents.

An extensive 18-month, community-based, and inter-agency planning initiative took place in the aftermath and recovery of Superstorm Sandy. Between 2015 to 2017, it included four workshops, a mail-in survey, and door-to-door outreach—engaging over 400 residents. In 2017, the City released the Resilient Edgemere Community Plan (the "Plan"). The Plan proposes a long-term vision for the community which includes peeling development back from the vulnerable edge and terracing new development toward a transit-oriented, mixed-use spine. The Plan includes a conceptual planning framework and a set of goals, strategies, and over 60 projects led by various agencies, which together aim to turn the tide on disinvestment in Eastern Rockaway, bring affordable housing, retail, and community facilities, and grow waterfront open space and coastal ecology.

Edgemere continues to face significant flood risks and coastal hazards, which are anticipated to increase over time due to climate change. The entire neighborhood is located in the high-risk floodplain (100 year or 1% annual chance floodplain) per the 2015 Preliminary Flood Insurance Rate Map (PFIRM). In 2019, the Edgemere Drainage Study was completed. Managed by the NYC Economic Development Corporation (EDC) and the Mayor's Office of Resiliency (MOR), together with the NYC Department of Environmental Protection (DEP) and an engineering consultant, it studied the drainage impacts of sea level rise and severe storm events. It also evaluated the benefits and costs of implementing a range of coastal protection and drainage interventions to mitigate those risks. The study revealed that, in addition to coastal flood hazards, the area's low-lying geography, rising groundwater table, and the influence of tidal fluctuations make the neighborhood increasingly vulnerable to flooding, even on a sunny day.

In 2019, the U.S. Army Corps of Engineers was authorized to move forward with the Rockaway Reformulation Plan, now the East Rockaway Inlet to Rockaway Inlet and Jamaica

Bay, New York Coastal Storm Risk Reduction Project. This work is composed of two distinct projects: Atlantic Shorefront and Back Bay High Frequency Flood Risk Reduction Features. These two projects will help protect Rockaway communities from coastal flooding. The Atlantic Shorefront project will run from Beach 149th Street to Beach 19th Street, along NYC Department of Parks and Recreation (DPR) beach property, and include beach restoration with renourishment, five groin extensions, the addition of 13 new groins (similar to jetties), reinforced dunes, a beach berm, and enhanced beach crossovers for pedestrian access. This plan reduces risks of erosion and wave attack while limiting storm surge inundation and cross-peninsula flooding. For this area of Jamaica Bay, in the Back Bay High Frequency Flood Risk Reduction Features project, a combination of hard and green infrastructure is designed to reduce future flood risk and economic costs of storm events (i.e., 5 to 10 year storms) and tidal inundation for buildings, infrastructure, and the coastal ecosystem, including anticipated sea level rise over the next 50 years. Project components in Edgemere will primarily include berms and hybrid berms, rock sill structures, marsh restoration, and floodwalls. The Army Corps' architectural engineering consultants initiated the design process in 2019.

Despite these investments, the neighborhood's flood risks are expected to increase over time with climate change. The Proposed Actions will establish a land use and managed growth strategy to address this nuanced landscape of flood risk exposure in the long term.

Section 4: Required Approvals

The land use actions included in this application include zoning map amendments, zoning text amendments, amendments to the Edgemere Urban Renewal Plan, acquisition of real property, disposition of City-owned property, Urban Development Action Area designation and project approval, a Mayoral Zoning Override to minimum required parking, and future construction financing from HPD, including an Article XI tax exemption on certain sites. These actions are designed to mitigate long term flood risk, create affordable housing opportunities, and expand neighborhood commercial amenities alongside investments in coastal protection infrastructure and parks.

Zoning Map Amendments

Hazard Mitigation Zone

Proposed R3A (from R4-1, R4)

R3A is proposed for the majority of the Hazard Mitigation Zone, which encompasses an area generally bounded by Jamaica Bay to the north; lot 4159710021 to the west; Norton Avenue, lot 4159660030, lot 4159660053, Edgemere Drive, lot 4159650108 and lot 4159600014 to the south; and lot 4159600060 (NYCHA Beach 41st Street Houses) to the east. This zone includes areas along the Jamaica Bay waterfront that are at greatest risk of coastal flooding and may experience additional damage from waves during coastal storms. The proposed zoning change would reduce the allowable density of new development in these areas to reduce future exposure to these risks.

R3A districts permit one- and two-family detached residential buildings. The maximum FAR is 0.6, which includes a 0.1 attic allowance. The minimum required lot area is 2,375 square

feet and the minimum lot width is 25 feet. One off-street parking space is required for each dwelling unit. Community facilities are permitted at an FAR of 1.0. As discussed below, some of these regulations would be modified by the proposed Special Coastal Risk District-1.

Proposed C3A (from C3)

C3A is proposed for eight parcels within the Hazard Mitigation Zone and on the Jamaica Bay waterfront, currently zoned C3. This zone includes areas along the Jamaica Bay waterfront that are at greatest risk of coastal flooding and may experience additional damage from waves during coastal storms. The proposed zoning change would reduce the allowable density of new development in these areas to reduce future exposure to these risks.

C3A districts permit waterfront recreational activities, primarily boating and fishing. They also include facilities for docking, renting, servicing and storing fishing and pleasure boats, as well as bicycle shops, ice cream stores, and public and private beaches, as listed in Use Group 14. The maximum commercial FAR is 0.5. One off-street parking space is required for each 150 sf of commercial space. Residential development is permitted consistent with R3A district regulations. Community facilities are permitted at an FAR of 1.0. As discussed below, some of these regulations would be modified by the proposed Special District for Flood Risk-1.

Limited Development Zone

Proposed R4-1 (from R4)

R4-1 districts permit one- and two-family detached, zero lot line and semi-detached residential buildings. The maximum FAR is 0.9, which includes a 0.15 attic allowance. The minimum required lot area and lot width is 2,375 sf and 25 ft, respectively, for detached and zero lot line buildings, and 1,700 square feet and 18 ft for semi-detached buildings. One off-street parking space is required for each dwelling unit. Community facilities are permitted at an FAR of 1.0.

This particularly low-lying area is expected to experience ponding from tidal flooding and rain events more frequently in the future due to climate change. The proposed zoning change would reduce the allowable density of new development in these areas to limit future exposure to these risks. As discussed below, some of these regulations would be modified further by the proposed Special Coastal Risk District-2.

Mixed-Use Corridor

Proposed R6A and R6A/C2-4 (from R4, C4-3A, C8-1, R5/C1-2)

R6A is proposed in the mixed-use corridor, encompassing all of block 15841, bounded by Beach Channel Drive to the north, Beach 50th Street to the west, Rockaway Beach Boulevard to the south, and Beach 49th Street to the east; part of block 15852; and all of blocks 15851, 15850, 15849, 15848, and 15847 in an area generally bounded by Rockaway Beach Boulevard to the north, lot 4158520060 at Beach 44th Street to the west, Rockaway Freeway to the south, and Beach 38th Street to the east. A C2-4 commercial overlay is proposed along this corridor.

R6A district permits multi-family residential buildings. The maximum FAR is 3.0, with a 680 sf dwelling unit factor. Maximum building height is 70 ft (75 ft or 7 stories with qualifying ground floor). Parking is required at 25 to 50% of dwelling units, depending on basic or income-restricted status. As discussed below, some of these regulations would be modified by the proposed Mandatory Inclusionary Housing (MIH) text amendment.

C2-4 commercial overlay district permits local retail and commercial services, such as grocery stores, restaurants, and beauty parlors on one or two floors at a depth of 100 ft to the interior of the lot. The maximum commercial FAR is 2.0 and the minimum parking requirement is 1 space per 1,000 sf of commercial space.

Infill Zone

Proposed C2-4 Overlay (from C1-2)

A C2-4 commercial overlay district is proposed for a portion of the neighborhood on two blocks along Beach Channel Drive, bounded by Beach 43rd Street and Beach 44th Street. There is no proposed change to the underlying zoning. As compared to C1-2, a C2-4 overlay has a lower off-street parking requirement, which is expected to provide significant construction cost savings and better facilitate the potential redevelopment of these vacant and/or abandoned properties.

Proposed Removal of C1-2 and C2-2 Overlays

Removal of C1-2 and C2-2 commercial overlays on portions of two blocks (15829 and 15954) along Beach Channel Drive. Removal of these overlays will better reflect the existing land uses of these two built-out blocks, bringing the zoning map into consistency with existing conditions.

Zoning Text Amendments

Hazard Mitigation Zone

Proposed Edgemere Special Coastal Risk District-1 (CR)

The Edgemere Special Coastal Risk District-1 (SCRD-1) is proposed across the Hazard Mitigation Zone and will modify the land use regulations of the proposed R3A and C3A underlying zoning districts. The SCRD-1 is proposed to restrict residential development to one-family detached homes and prohibit community facilities with overnight sleeping accommodations. Bulk, density, and FAR are established in the proposed underlying zoning districts: R3A and C3A.

Limited Development Zone

Proposed Edgemere Special Coastal Risk District-2 (CR)

The Edgemere Special Coastal Risk District-2 (SCRD-2) is proposed across the Limited Development Zone and will modify the land use regulations of the proposed R4-1 underlying zoning district. The SCRD-2 is proposed to restrict residential development to one- and two-family detached homes and prohibit community facilities with overnight

sleeping accommodations. Bulk, density, and FAR are established in the proposed underlying zoning districts: R4-1. Further, on lots less than 25 ft wide, residential development is restricted to one-family detached buildings.

Mixed Use Corridor

Proposed Mandatory Inclusionary Housing (MIH)

Mandatory Inclusionary Housing is proposed across the Mixed-Use Corridor, in an area coterminous with the proposed R6A district. This Mandatory Inclusionary Housing Area will add density while providing for permanently affordable housing within the development of the Mixed-Use Corridor sites.

With MIH, the R6A underlying zoning district permits multi-family residential buildings with a maximum residential FAR of 3.6 and a 680-sf dwelling unit factor. Maximum building height is 80 ft (85 ft with qualifying ground floor) and 8 stories. Parking is required at 25 to 50% of dwelling units, depending on share of basic or income-restricted status.

Edgemere Urban Renewal Plan Amendments

An Urban Renewal Plan, including an Urban Renewal Area was established in Edgemere in 1997. The Urban Renewal Law authorizes the City to acquire sites in an Urban Renewal Area for redevelopment in accordance with an Urban Renewal Plan.

Amendment to the Urban Renewal Area

Expand the Edgemere Urban Renewal Area to include the following parcels, as identified in the updated Edgemere Urban Renewal Plan, pending findings of the Blight Study: Block 15837, Lot 27; Block 15960, Lot 24; Block 15961, Lot 78; Block 15962, Lot 89; Block 15840, Lots 64, 65; Block 15965, Lot 3, 12, 92, 100, 111, 112, 114, 115; and Block 15967, Lot 7.

Amendments to the Urban Renewal Plan

Proposed Land Uses

- Proposed 'Open Space' land use designation (from 'Residential' and 'Residential/Open Space' for all Urban Renewal Area sites located within the Hazard Mitigation Zone including sites 53, 54, 55, 56, 59, 60, 86, 87, p/o 61, p/o 65, p/o 62, p/o 63). This change ensures that City-owned parcels will not be developed for use other than open space in this area.
- Proposed 'Commercial/Residential' land use (from 'Residential' or 'Residential/Open Space') for all Urban Renewal Area sites 29, 30, 31, 32. This change permits commercial mixed-use development on sites in the proposed Mixed-Use Corridor.

Supplementary Controls on Redevelopment

- Proposed removal of additional height controls. Development sites will be subject to height controls of the Zoning Resolution and any permitted adjustments necessary for flood-resistant construction, including elevations.
- Proposed amendment to Density control to permit up to 1,500 dwelling units in the Area (from 800 units). This change is proposed to accommodate the additional units

projected in the proposed mixed-use corridor, including the units that are already constructed or in the development pipeline.

Extension of Urban Renewal Plan expiration date

› Proposed extension of the duration of the Urban Renewal Plan for a period of 40 years from the date of approval of the third amended plan.

Acquisition of Real Property

› Proposed acquisition of real property to facilitate development of affordable housing and neighborhood amenities.

Urban Development Action Area Program

Designation of an Urban Development Action Area (UDAA) and Approval of an Urban Development Action Area Project (UDAAP)

Large portions of the Project Area consist of underutilized land that tends to impair or arrest the sound development of the surrounding community, with or without tangible physical blight. Incentives are needed in order to induce the correction of these substandard, insanitary, and blighting conditions. The project activities would protect and promote health and safety and would promote sound growth and development. Portions of the Project Area are therefore eligible to be an Urban Development Action Area and the proposed project(s) are therefore eligible to be Urban Development Action Area Project(s) pursuant to Article 16 of the General Municipal Law.

Disposition of City-Owned Property

Certain parcels within the Project Area will be conveyed to a developer to be selected by HPD.

Construction Financing from HPD

Subsequent to completion of ULURP and a competitive RFP process, the project sponsor will seek construction financing from HPD including, but not limited to, city capital and tax exemptions pursuant to Article XI of the New York State Private Housing Finance Law. In addition, the project sponsor may seek funding from state or federal sources in the future.

Mayoral Zoning Override

HPD may, at a later date, seek a Mayoral Zoning Override to slightly reduce the minimum parking requirement on selected City-owned sites in order to facilitate the development of retail uses on the ground floor.

Disposition of City-Owned Real Property

Proposed disposition of City-owned real property to a sponsor to be determined by HPD pursuant to its disposition authorities.

Section 5: Purpose and Need for the Proposed Actions

As described above, Edgemere is a low-lying waterfront community that contains a significant amount of City-owned vacant land. An Urban Renewal Plan, including an Urban Renewal Area was established in Edgemere in 1997. The Resilient Edgemere Community Initiative is an interagency, community-based effort to align New York City's Sandy Recovery and rebuilding investments in Edgemere with a long-term comprehensive community vision. The Resilient Edgemere Community Initiative builds on past planning efforts, such as creation of the Edgemere Urban Renewal Area in 1997. In 2017, the City released the Resilient Edgemere Community Plan, a vision for the future of Edgemere with the following goals:

- Protect the neighborhood from flooding;
- Create resilient housing and maintain the neighborhood's low density feel;
- Improve streets and transit; and
- Increase neighborhood amenities.

In order to successfully implement these four community goals, changes to existing land use, zoning, and Urban Renewal Area and Plan are needed. The Proposed Actions would facilitate the development of affordable housing and commercial amenities to benefit the neighborhood in transit-oriented zones, as well as discourage future development and residential densification in areas of greater risk to coastal hazards. These actions would work in concert to leverage investments in local public infrastructure, housing, and coastal protection, while laying the groundwork for long-term coastal resilience and community development.

Specifically, the Proposed Actions would further the community goals that were identified in the 2017 Resilient Edgemere Community Plan in the following ways:

- In areas exposed to greater flood risk, limiting residential development to lower density housing and more adaptable building typologies through rezoning to lower density zoning districts and instituting a Special Coastal Risk District, and amending the Urban Renewal plan to re-designate parcels from housing to open space use in the Hazard Mitigation Zone.
- In the proposed transit-oriented commercial corridor, rezone and add commercial overlay to permit commercial uses and greater densities to facilitate mixed-use development, including Mandatory Inclusionary Housing (MIH) to maximize and ensure permanent affordable housing.
- On vacant land, designate Urban Development Action Area and seek UDAAP disposition, and URA acquisition and disposition, to facilitate development of housing and commercial amenities.

With these actions, HPD will follow with issuance of Requests for Proposals (RFP) to transform vacant City-owned assemblages into mixed-use, multi-family, affordable housing developments (i.e., the Projected Multi-Family Development Sites), as well as advance development of scattered vacant City-owned lots into low density housing (i.e., the Projected Residential Infill Sites).

Section 6: Analysis Framework

Analysis (Build) Year

For area-wide rezonings not associated with a specific development, a ten-year period is typically the length of time within which area-wide zoning map changes would be acted upon. Therefore, an analysis year of 2031 is assumed for environmental analysis purposes.

Reasonable Worst-Case Development Scenario

In order to assess the possible effects of the Proposed Actions, a RWCDS was developed for both the current (Future No-Action) and proposed zoning (Future With-Action) conditions for a 10-year period (build year 2031). The incremental difference between the Future No-Action and Future With-Action conditions will serve as the basis for the impact analyses of the EIS. To determine the With-Action and No-Action conditions, standard methodologies have been used following the *CEQR Technical Manual* guidelines employing reasonable assumptions. These methodologies have been used to identify the amount and location of future development, as discussed below.

Development Site Criteria

In projecting the amount and location of new development that would occur in the Project Area with implementation of the Proposed Actions, several factors have been considered in identifying likely development sites. These include known development proposals, past and current development trends, and the development site criteria described below.

Generally, for area-wide rezonings that create a broad range of development opportunities, new development can be expected to occur on selected, rather than all, sites within the Project Area. The first step in establishing the development scenario was to identify those sites where new development could be reasonably expected to occur.

The selection of development sites began with the baseline criteria suggested in the *2014 CEQR Technical Manual:*

- Lots located in areas where a substantial increase in permitted FAR is proposed;
- Lots with a total size of 5,000 sf or larger (may include potential assemblages totaling 5,000 sf if assemblage seems probable) or for which HPD intends to seek disposition approval;
- Underutilized lots (defined as vacant or lots constructed to less than or equal to half of the proposed FAR under the proposed zoning); and,
- Lots located in areas where changes in use would be permitted.

The resulting initial list of development sites was further refined to exclude sites that would be very unlikely to be redeveloped as a result of the Proposed Actions, for the following reasons (unless otherwise indicated through conversations with existing tenants and property owners):

- Sites where construction and/or renovation activity is actively occurring or has recently been completed;
- Sites with institutional uses, active and continuing through the build year, e.g., schools (public and private) and houses of worship, unless there are known development plans.

These facilities may meet the development site criteria, because they are built to less than half of the permitted floor area under current zoning and are on larger lots. However, these facilities have not been redeveloped or expanded despite the ability to do so, and it is extremely unlikely that the increment of additional FAR permitted under the proposed zoning would induce redevelopment or expansion of these structures.

› Sites crucial to the daily operations of utility companies;

Further criteria were applied to reflect specific observed development patterns within the Project Area. In recent years, the Edgemere neighborhood has seen few entirely new developments constructed. Accordingly, certain sites that might be typically considered development sites were excluded or determined to be less likely to be developed if they met the following criteria:

› Sites generally smaller than 7,500 sf occupied by existing residential development, excluding government-owned properties.

Definition of Projected and Potential Development Sites

To produce a reasonable, conservative estimate of future growth, the resulting list of projected development sites has been generated.. According to the *CEQR Technical Manual*, projected development sites are considered more likely to be developed within the 10-year analysis period for the Proposed Actions (i.e., by the 2031 analysis year), while potential development sites are considered less likely to be developed over the same period. The Projected Development Sites were identified based on the following criteria, specific to the Edgemere neighborhood:

› Sites closer to transit.

› Sites along main streets.

› Sites with known developers and/or development plans.

› Vacant sites, or sites with minimal structures.

› Sites that would experience a large increase in the permitted density in the future with the Proposed Actions, compared to existing zoning.

Potential development sites were identified based on the following criteria:

› Sites farther from transit.

› Sites with recent renovations.

› Sites with significant existing structures.

› Sites with existing community facility uses.

› Lots with multiple commercial tenants, which may be difficult to dislodge due to long-term leases.

› Active and successful neighborhood businesses or organizations unlikely to move.

› Sites with potential contamination due to existing uses.

› Sites that would experience lesser increases in the permitted density in the future with the Proposed Actions, compared to existing zoning.

It is important to note that these criteria for both projected and potential sites are not exclusive—the determination of whether each site was projected or potential balanced each

site's location within the study area, proximity to other development sites, and the ability of the market to absorb new development within the 10-year analysis period.

Projected Development Sites

Based on the above criteria, a total of seven Projected Multi-Family Development Sites, two Projected Commercial Infill Sites, and 32 Projected Residential Infill Sites have been identified (see **Figure 1**). No potential development sites have been identified in the Project Area. **Table 1** identifies the uses expected to occur on the Projected Multi-Family Development Sites and the Projected Commercial Infill Sites under future No-Action and future With-Action conditions.

Table 1 RWCDS on Projected Multi-Family Development Sites and Projected Commercial Infill Development Sites

Site	No-Action/ Existing Conditions		With-Action		Increment	
	Residential (gsf)	*Commercial (gsf)*	*Residential (gsf)*	*Commercial (gsf)*	*Residential (gsf)*	*Commercial (gsf)*
1	0	2,358	394,301	24,960	394,301	22,602
2	0	0	165,648	25,560	165,648	25,560
3	0	0	175,427	17,704	175,427	17,704
4	0	0	74,948	7,564	74,948	7,564
5	0	0	58,236	5,878	58,236	5,878
6	0	0	55,465	5,598	55,465	5,598
7	0	0	177,584	17,921	177,584	17,921
8	0	0	0	14,386	0	14,386
9	0	0	0	24,790	0	24,790
Total	**0**	**2,358**	**1,101,610**	**144,359**	**1,101,610**	**142,001**

Today, the Projected Residential Infill Sites are vacant. Under the future No-Action condition, it is anticipated that they will remain vacant. In the future With-Action condition, it is anticipated that a total of 122 residential dwelling units would be constructed in approximately 192,191 gsf and 122 parking spaces would be provided. The EIS will assess both density-related and site-specific potential impacts from development on all Projected Development Sites. Density-related impacts are dependent on the amount and type of development projected on a site and the resulting impacts on traffic, air quality, community facilities, and open space. Site-specific impacts relate to individual site conditions and are not dependent on the density of projected development. Site-specific impacts include potential noise impacts from development, the effects on historic resources, and the possible presence of hazardous materials.

Development Scenario Parameters

Dwelling Unit Factor

The number of projected dwelling units in apartment buildings is determined by dividing the total amount of residential floor area by the average dwelling unit size of 850 sf and rounding to the nearest whole number.

Affordable Housing Assumptions

The recently adopted MIH program would require permanently affordable housing to be included within new residential developments, enlargements, and conversions from non-residential to residential use above a certain size within mapped MIH Areas. As noted above, the Proposed Actions include a zoning text amendment to establish a MIH Area in order to require the development of permanently affordable housing. Within this MIH Area, all housing developments, enlargements, and conversions that meet the criteria set forth in the MIH program must comply with the requirements of two primary options that pair set-aside percentages with different affordability levels to reach a range of low and moderate incomes while accounting for the financial feasibility tradeoff inherent between income levels and size of the affordable set-aside. The amount of affordable housing constructed in the future with the Proposed Actions, and income levels for this housing, would depend on several factors. On privately owned sites, the MIH program would require 25 (MIH Option 1) or 30 percent (MIH Option 2) of new housing to be affordable at a range of low and moderate income levels. In addition, sites may utilize affordable housing subsidies to produce additional affordable housing at a range of income levels; the amount and levels of affordability would vary depending on the programs utilized. On publicly controlled sites, the affordable program would be determined based on an agreement reached in conjunction with disposition of these sites. For purposes of the EIS, the following assumptions related to affordability are made:

- On Projected Multi-Family Development Sites 1 and 2, which are in private ownership, it is assumed that development will occur consistent with MIH Option 1.
- On Projected Multi-Family Development Sites 3 to 7, which are publicy-owned, it is assumed that 60 percent of the units will be Income-Restricted Housing Units as defined in the Zoning Resolution.

Parking

The RWCDS assumes that all residential developments would provide parking for the units for which it is required, with parking waived if the number of required spaces is less than 15 residential parking spaces and less than 40 commercial parking spaces.

Future No-Action Condition

In the future without the Proposed Actions (No-Action condition), the Project Area is assumed to mostly remain unchanged from existing conditions, which includes 2,358 gsf of commercial space and 118 parking spaces on Projected Multi-Family Development Site 1 and 44 parking spaces on Projected Multi-Family Development Site 2.

As relevant for each area of analysis, future growth in population and employment will be considered in the development of the No-Action condition of that study area. This will include both background growth and growth generated by known projects (developments that are under construction, planned, or proposed). Inclusion of known development will be based on but not limited to consideration of whether the project requires discretionary approvals, the status of that approval process, and the project size.

Based on 2014-2018 American Community Survey (ACS) data, the average household size for residential units in the study area is 2.92 persons per renter-occupied unit (average of Census Tracts 972.03, 972.04, and 992). Based on this ratio and standard ratios for estimating employment for commercial and community facility uses, the No-Action estimated population would include approximately seven workers.

Future With-Action Condition/Increment for Analysis

The With-Action condition reflects the future conditions with the Proposed Actions. The RWCDS would result in approximately 1,438,159 gsf of new development on the Projected Development Sites. **Table 2** provides the increment for analysis.

Table 2 Increment for Analysis

Land Use	Unit	Existing Condition	No-Action Condition	With-Action Condition	Increment
Residential	*Dwelling Units*	0	0	1,201	1,201
	Affordable Units	0	0	456	456
	Total Residential gsf	0	0	1, 293,800	1,293,800
Local Retail/ Commercial	*gsf*	2,358	2,358	144,359	142,001
Parking	*Lot Spaces*[1]	162	162	549	387
Residents[2]		0	0	3,507	3,507
Employees[3]		7	7	481	474

[1] The number of parking lot spaces was provided by the applicant. Lots may be revised based on traffic analysis.
[2] The number of residents is based on an average household size of 2.92 for the neighborhood, Edgemere (2014-2018 ACS Survey).
[3] Employee estimates were derived using ratios provided by DCP. The number of employees working in residential buildings was calculated by dividing the total residential units by 25. The number of retail workers was calculated by dividing the total retail gsf by 333.3 sf.

Of the range of scenarios that are considered reasonable and likely to occur, the scenario with the worst environmental consequences is the RWCDS.

Based on the RWCDS for the No-Action and With-Action conditions identified above, the net incremental change in development that would occur as a result of the Proposed Actions in the Project Area is identified in **Table 2**. As shown in the table, the net increment to be analyzed in the EIS would include 1,293,800 gsf of residential floor area (1,201 dwelling units, including affordable units), 142,001 gsf of commercial space, and 387 parking spaces. The total difference between the built square footage in the No-Action and With-Action conditions is approximately 1,435,801 gsf.

Table 2 also provides an estimate of the number of residents and workers on the Projected Development Sites in the No-Action and With-Action conditions. As indicated in the table, under the RWCDS, the Proposed Actions would result in a net increment of 3,507 residents and 474 workers.

Section 7: Proposed Scope of Work for the DEIS

The Draft EIS will be prepared in conformance with all applicable laws and regulations, including the State Environmental Quality Review Act (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 and Procedure for CEQR, found at Title 62, Chapter 5 of the Rules of the City of New York. As described previously, the environmental review provides a means for decision-makers to systematically consider environmental effects along with other aspects of project planning and design, to evaluate reasonable alternatives, and to identify, and mitigate where practicable, any significant adverse environmental impacts.

The EIS, following the guidance of the *2014 CEQR Technical Manual*, will contain:

- A description of the Proposed Actions and their environmental setting;
- An analysis of the potential of the reasonable worst-case development scenario to cause significant adverse impacts in a range of environmental categories, comparing conditions with the Proposed Actions in the analysis year against conditions that would exist in the absence of the Proposed Actions;
- A statement of the potential significant adverse environmental impacts of the Proposed Actions;
- A description of feasible mitigation measures that would eliminate or minimize adverse environmental impacts;
- An identification of any adverse environmental effects that cannot be avoided if the Proposed Actions are implemented because mitigation is not practicable;
- A discussion of reasonable alternatives to the Proposed Actions; and
- An identification of any irreversible and irretrievable commitments of resources that would be involved in the Proposed Actions, should they be implemented.

As noted above, the EIS will analyze the Projected Development Sites for all technical areas of concern and also evaluate the effects of the potential development sites for site-specific effects such as archaeology, shadows, hazardous materials, air quality, and noise. Based on the preliminary screening assessments as outlined in the *CEQR Technical Manual* and detailed in the EAS for the Proposed Actions dated December 18, 2020, the following technical areas were found to not have the potential to result in significant adverse impacts, and therefore no additional analysis in the EIS is warranted: community facilities and services (police, fire, and healthcare services); solid waste and sanitation services; and energy.

The first step in preparing the EIS is the preparation of a Draft Scope of Work and public scoping process. Scoping is the process of focusing the environmental impact analysis on the key issues that are to be studied in the EIS. The proposed scope of work for each technical area to be analyzed in the EIS follows. The scope of work and the proposed impact

assessment criteria below are based on the methodologies and guidance set forth in the 2014 *CEQR Technical Manual*.

Task 1: Project Description

The first chapter of the EIS introduces the reader to the Proposed Actions and sets the context in which to assess impacts. This chapter contains a description of the Proposed Actions: their location; the background and/or history of the Project Area; a statement of the purpose and need for the Proposed Actions; key planning considerations that have shaped the current proposal; a detailed description of the Proposed Actions; 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 Actions and their impact and gives the public and decision makers a base from which to evaluate the Proposed Actions.

In addition, the project description chapter will summarize the RWCDS for analysis in the EIS. The section on approval procedure will explain ULURP, UDAAP, zoning text amendment, and zoning map amendment processes, their timing, and hearings before the Community Board, the Borough President's Office, the 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 the discretionary approvals and the public hearings described.

Task 2: Land Use, Zoning, and Public Policy

A land use analysis characterizes the uses and development trends in the area that may be affected by a proposed action, and determines whether a proposed action is either compatible with those conditions or whether it may affect them. Similarly, the analysis considers the action's compliance with, and effect on, the area's zoning and other applicable public policies. This chapter will analyze the potential impacts of the Proposed Actions on land use, zoning, and public policy. As the land use, zoning, and public policy analysis is a density-related analysis, the analysis will focus on development anticipated on the Projected Development Sites. The primary land use study area will consist of the Project Area, where the potential effects of the Proposed Actions would be directly experienced. The secondary land use study area would include the neighboring areas within a 400-foot radius from the Project Area, which could experience indirect impacts. The analysis will include the following subtasks:

- Provide a brief development history of the primary (i.e., Project Area) and secondary study areas.
- Provide a description of land use, zoning, and public policy in the study area under current conditions. Recent trends in the study area will be noted. Other public policies that apply to the study area will also be described. Similarly, the analysis will consider the Proposed Actions' compliance with, and effect on, the area's zoning and other applicable public policies, including Housing New York and the Resilient Edgemere Community Plan.
- Based on field surveys and prior studies, identify, describe, and graphically portray current land use patterns in the study area. Describe the study area's development history and recent land use trends and identify major factors influencing the area's land use trends.
- Describe and map existing zoning and any recent zoning actions in the study area.

- Prepare a list of future development projects in the study area that are expected to be constructed by the build year and may influence future land use trends. Also, identify pending or known proposed zoning actions or other public policies that could affect land use patterns and trends in the study area. Based on these planned projects and initiatives, assess future land use and zoning conditions in the future without the Proposed Actions (No-Action condition).
- Describe proposed zoning and land use changes that would occur based on the Proposed Actions' RWCDS (the With-Action condition).
- Discuss the potential effects of the Proposed Actions related to issues of compatibility with surrounding land use, zoning, and other public policies, and the effect of the proposed Actions on ongoing development trends in the study area.
- In addition, as the Project Area is within the boundaries of the City's Coastal Zone, an assessment of the Proposed Actions' consistency with the City's Waterfront Revitalization Program (WRP) will be prepared. The EIS will evaluate the project's compliance with the WRP, including Policy 6.2, which requires consideration of the latest sea level rise (SLR) projections into the planning and design of projects in the coastal zone. Published SLR projections will be evaluated for various project life spans using the New York City Panel on Climate Change projections of climate change and sea level rise, published in January 2015, and mapping will be provided showing the estimated extents of future inundation during storm event scenarios. The WRP section will assess the Proposed Actions' consistency with the WRP policies.

Figure 2 Existing Zoning Map

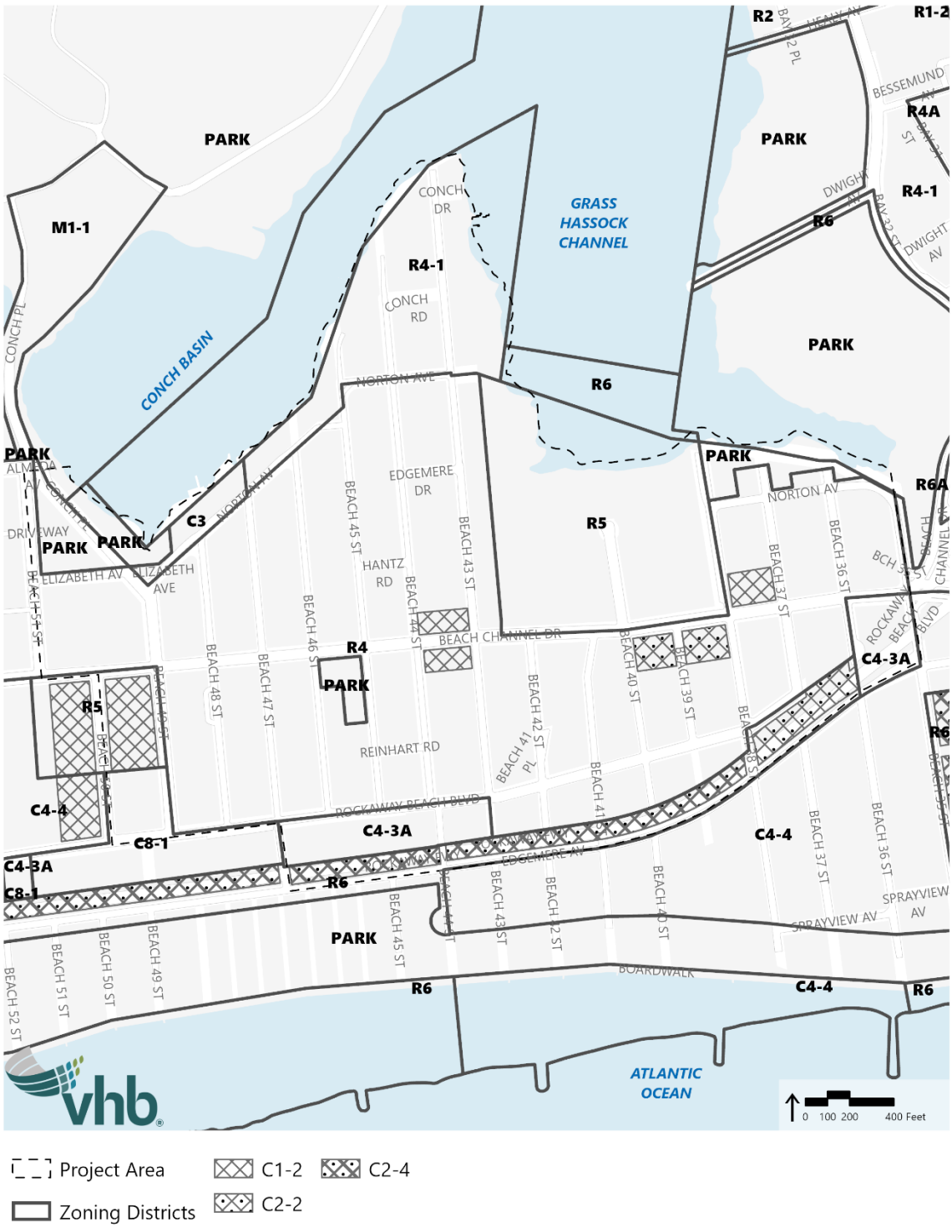


Figure 3 Proposed Zoning Map

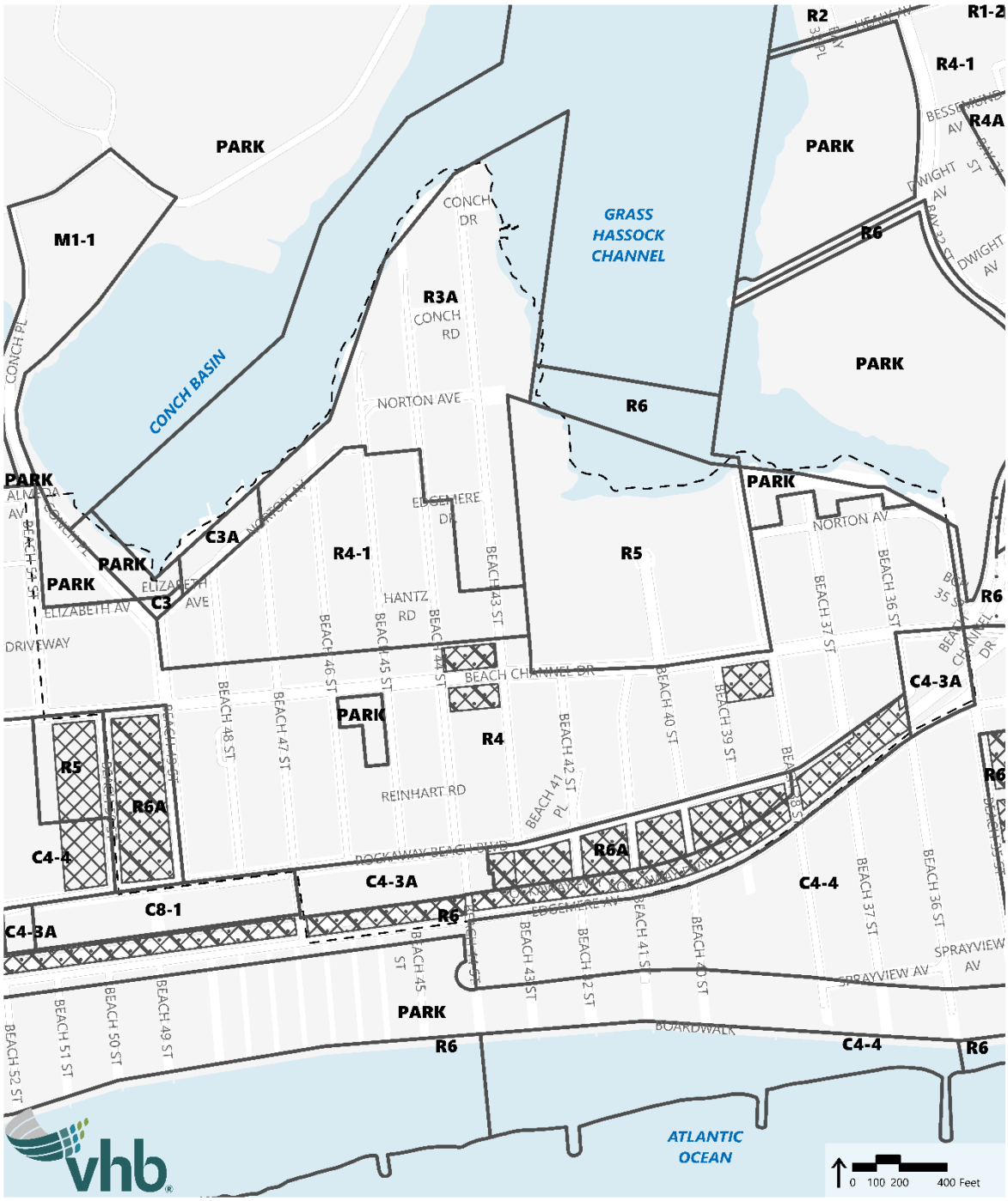


Figure 4 Land Use Map

Task 3: Socioeconomic Conditions

The socioeconomic character of an area includes its population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly changes any of these elements. Although socioeconomic changes may not result in impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area. This chapter will assess the Proposed Actions' potential effects on the socioeconomic character of the study area, described below. As the socioeconomic conditions analysis is a density-related analysis, the analysis will focus on development anticipated on the Projected Development Sites.

The five principal issues of concern with respect to socioeconomic conditions are whether a proposed action would result in significant adverse impacts due to: (1) direct residential displacement; (2) direct business and institutional displacement; (3) indirect residential displacement; (4) indirect business and institutional displacement; and (5) adverse effects on specific industries, pursuant to the *CEQR Technical Manual*. As discussed in the EAS Technical Screenings, the Proposed Actions would exceed the threshold for an analysis of indirect residential displacement only.

Indirect Residential Displacement

Indirect residential displacement is the involuntary displacement of residents that results from a change in socioeconomic conditions created by a proposed action. Indirect residential displacement could occur if a proposed project either introduces a trend or accelerates a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change, according to the *CEQR Technical Manual*. To assess this potential impact, the *CEQR Technical Manual* seeks to answer a series of threshold questions in terms of whether the project substantially alters the demographic character of an area through population change or introduction of more costly housing.

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 the study area. The presentation of study area characteristics will include population estimates, housing tenure and vacancy status, median value and rent, estimates of the number of housing units not subject to rent protection, and median household income. The preliminary assessment will carry out the following the step-by-step evaluation, pursuant to *CEQR Technical Manual* guidelines:

- Step 1: Determine if the Proposed Actions 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 Actions' population is large enough to affect real estate market conditions in the study area. If the population increase may potentially affect real estate market conditions, then Step 3 will be conducted.

› Step 3: Determine whether the study area has already experienced a readily observable trend toward increasing rents and the likely effect of the action on such trends and whether the study area potentially contains a population at risk of indirect displacement resulting from rent increases due to changes in the real estate market caused by the new population.

A detailed analysis, if warranted, would utilize more in-depth demographic analysis and field surveys 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 Actions on prevailing socioeconomic trends and, thus, impacts on the identified populations at risk.

Task 4: Community Facilities and Services

The *CEQR Technical Manual* states that a community facilities assessment is appropriate if a project would have a direct effect on a community facility (e.g., schools, child care facilities, libraries, health care facilities, police and fire protection services) or if it would have an indirect effect by introducing new populations that would overburden existing facilities. The manual further states that for public schools, libraries, and childcare centers, potential impacts depend on the size, income characteristics, and age distribution of the new population.

As detailed in the EAS, the Proposed Actions warrant a detailed indirect effects analysis of libraries, child care centers, and elementary and intermediate schools. The scope of work for these analyses follows:

Libraries

The Proposed Actions would exceed the threshold of 622 residential units for analysis of library services. The Proposed Actions would not displace or alter any library facilities; therefore, a preliminary indirect analysis will be conducted to assess increased demand on library services and whether a more detailed analysis is warranted. If a detailed analysis is warranted, the analysis will describe existing libraries within the study area, their information services, and their user population, as well as information on the services provided, levels of utilization, and branch holdings of books and other media. An estimate of holdings per resident will then be calculated for the No-Action condition, based on future population in the study area and anticipated growth in the library system. Impacts will be assessed by adding the project-generated population to the No-Action population and determining the project's effects on the library's ability to provide information services to its users based on change in holdings per resident compared to the No-Action condition. If significant adverse impacts are identified, feasible mitigation measures (if any) will be identified to avoid or reduce these impacts.

Child Care

The Proposed Actions would exceed the threshold of 139 low-income units in Queens for analysis of child care services. Accordingly, a detailed analysis of child care services will be included in the EIS. The analysis will include the following:

› Existing publicly funded group child care facilities will be identified within approximately 1.5 miles of the Project Area.

- Using publicly available information from the Administration for Children's Services' (ACS) Division of Child Care and Head Start (CCHS) or from the New York City Department of Education (DOE), each facility will be described in terms of its location, number of slots (capacity), and existing enrollment.
- Any expected increases by the analysis year in the population of children under age 6 within the eligibility income limitations for publicly funded child care services, based on CEQR methodology, will be assessed for the No-Action condition. This information will be used to determine the projected capacity or resulting deficiency in child care "slots" and the utilization rate for the study area.
- The With-Action demand will be calculated by adding the estimated number of eligible children generated by the Proposed Actions to the projected No-Action demand and calculating the effect on the number and utilization rate of child care slots.
- The significance of the project impact will be assessed based on methods identified in the *CEQR Technical Manual*. A significant adverse impact may result if the project would result in a collective child care/Head Start utilization rate of 100 percent or more, and an increase of 5 percent or more in utilization rate between the No-Action and With-Action scenarios.
- If necessary, mitigation measures will be considered to address any significant adverse impacts.

Public Schools

The Proposed Actions would exceed the thresholds for analyses of elementary and intermediate schools. Accordingly, detailed analyses of elementary and intermediate schools will be included in the EIS. The analysis will include the following:

- The primary study area for the analysis of elementary and intermediate schools is the community school district sub-district in which the Project Area is located. The Project Area is located within Community School District (CSD) 27, which will serve as the study area for the analysis of elementary schools and intermediate schools. An analysis of the Proposed Actions' potential impact on elementary and intermediate schools at the sub-district level will be performed.
- Public elementary and intermediate schools serving Queens CSD 27 will be identified and located. Existing capacity, enrollment, and utilization data for all public elementary/intermediate schools within the affected sub-district and borough, respectively, will be provided for the current (or most recent) school year, noting any specific shortages of school capacity using information from the New York City Department of Education (DOE) as made available on the City's CEQR App.
- Conditions that would exist in the No-Action condition for the sub-district and the borough will be identified, taking into consideration projected changes in future enrollments, including those associated with other developments in the affected sub-district, using the NYC School Construction Authority's (SCA) *Projected New Housing Starts*. Plans to alter school capacity either through administrative actions on the part of the DOE or as a result of the construction of new school space prior to the 2031 analysis year will also be identified and incorporated into the analyses. Planned new capacity projects from the DOE's *2020-2024 Five Year Capital Plan* may be included in the

quantitative analysis per consultation with SCA and the New York City Department of City Planning (DCP) or in a qualitative discussion.

- With-Action conditions will be analyzed, adding students likely to be generated by the Proposed Actions to the projections for the No-Action condition. Impacts will be assessed based on the difference between the With-Action projections and the No-Action projections at the sub-district level for elementary and intermediate school students for enrollment, capacity, and utilization in 2031.
- A determination of whether the Proposed Actions would result in significant adverse impacts to public schools will be made. A significant adverse impact may result, warranting consideration of mitigation, if the Proposed Actions would result in: (1) a collective utilization rate of elementary and intermediate schools in the sub-district study area and borough, respectively, that is equal to or greater than 100 percent in the With-Action condition; and (2) an increase of five percent or more in the collective utilization rate between the No-Action and With-Action conditions. If impacts are identified, further analysis would be undertaken to determine the number of dwelling units that may be constructed before a significant adverse impact would occur. If significant adverse impacts are identified, feasible mitigation measures (if any) will be identified to avoid or reduce these impacts.

Task 5: Open Space

An open space assessment is warranted if a project would have a direct effect (the elimination or alteration of open space) or an indirect effect on open space through population size (overtaxing existing open space through an increase in population). As discussed in the EAS, the Proposed Actions would introduce new development at a number of Projected Development Sites and result in the addition of some parcels for future use as open space. The Proposed Actions would also introduce approximately 3,507 additional residents and 474 additional employees, which exceeds the threshold for an analysis of indirect effects from residential population growth. Therefore, the EIS will consider the potential for the Proposed Actions to result in direct effects on existing area open spaces and will include an assessment of residential open space ratios.

The residential open space analysis will consider both passive and active open space resources within a half-mile study area. The study area would generally include those census tracts that have 50 percent or more of their area located within the applicable radius of the Project Area, as recommended in the *CEQR Technical Manual*. Existing open spaces within the study area will be identified and described. Open space ratios will then be calculated for the No-Action condition by dividing the acres of open space by the residential population. For the With-Action condition, the ratios will be calculated by adding the residential population of the RWCDS to the No-Action totals.

If the open space ratios would increase or remain substantially the same in the With-Action condition compared to the No-Action condition, no further analysis of open space would be needed. If the results of the preliminary open space assessment indicate the need for further analysis, a detailed analysis will be conducted. This analysis would consist of the following tasks:

- Characterize the study area populations by age group, both as total people and percentages of the population.

- Identify and describe open spaces within the study areas through data collection and site visits to determine types of facilities, utilization levels, accessibility, and current conditions.
- Use the data gathered in the first two tasks to assess the adequacy of the existing open space relative to the needs of study area users. This would include a quantitative and qualitative assessment that involves calculating active and passive open space ratios for residential populations; considering the effects of air quality, noise, shadows, wind, access, and safety issues on the usability of existing open spaces; determining whether the proportion of active and passive open space is appropriate for the population and age group served; and considering other data, including facility condition, utilization levels, and other factors that may encourage or deter park use.
- Assess the adequacy of open space for No-Action and With-Action conditions, taking into account expected future changes in residential population and open space.
- Assess the availability of particular types of open space for particular age groups. In conducting this assessment, the analysis focuses on where shortfalls in open space exist now (or in the future), to identify whether the shortfalls are a result of the project. For the With-Action condition, the analysis will also consider potentially significant project-related impacts such as shadow, air quality, and noise effects.

If the Proposed Actions would result in a significant adverse impact (e.g., would significantly increase shadows, noise, or air pollutant emissions at an area open space; would reduce the open space ratioby more than 5 percent in an area currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents; or would result in conflicts in open space utilization or a specific user group being underserved), potential mitigation would be identified and assessed.

Task 6: Shadows

A shadows analysis assesses whether new building mass resulting from the Proposed Actions would cast shadows on sunlight-sensitive publicly accessible resources or other resources of concern, such as natural resources, and evaluates the significance of their impact. Generally, the potential for shadow impacts exists if a project would result in new structures or additions to buildings resulting in structures over 50 feet in height that could cast shadows on publicly accessible open space, important natural features, or on historic features that are dependent on sunlight.

The Proposed Actions would permit development of several buildings greater than 50 feet in height. To analyze the potential for significant adverse shadow impacts, the EIS will include a detailed shadow analysis based on anticipated building envelopes (including bulkheads) proposed for the Projected Development Sites. The EIS will disclose the range of shadow impacts, if any, which are likely to result from the Proposed Actions. The shadows analysis will include a Tier 1 through Tier 3 screening assessment to identify whether shadows cast by the RWCDS could reach sunlight-sensitive resources at any time of year and, if so, whether the incremental shadow would be likely to cause a significant adverse impact on the resource.

- A Tier 1 Screening Assessment will be conducted to determine the longest shadow study area for the RWCDS, which is defined as 4.3 times the height of a structure (the longest shadow that would occur on December 21, the winter solstice). A base map that

illustrates the location of the Projected Development Sites in relation to the sunlight-sensitive resources and displays topographic information will be developed.

- A Tier 2 Screening Assessment will be conducted if any portion of a sunlight-sensitive resource lies within the longest shadow study area. The Tier 2 assessment will determine the areas that cannot be shaded by the projected developments, which in New York City is the area that lies beyond 108 degrees either side of true north.
- If any portion of a sunlight-sensitive resource is within the area that could be potentially shadowed by the RWCDS massing, a Tier 3 Screening Assessment will be conducted. The Tier 3 Screening Assessment will determine if shadows from the RWCDS can, in absence of intervening buildings, reach a sunlight-sensitive resource on December 21 (the winter solstice), March 21/August 21 (the spring/fall equinox), May 6 (half-way between the equinoxes and the summer solstice), or June 21 (the summer solstice). The projected shadows will be modeled with a three-dimensional computer modeling software with the capacity to accurately calculate sun angles and shadows that could be cast by the RWCDS to determine the extent and duration of new shadows that would be cast on sunlight-sensitive resources as a result of the RWCDS.

If the Tier 1 through Tier 3 analysis indicates the need for a detailed shadows analysis, the EIS will include an analysis that will take into account shadow from existing buildings. This analysis would include the following subtasks:

- The baseline condition (No-Action condition) would be established through the use of a three-dimensional modeling program that accounts for the No-Action shadows condition. The No-Action shadows condition would be compared to the future shadows conditions that would result from the Proposed Actions (With-Action condition). The analysis would illustrate the shadows cast by existing or future buildings and distinguish the additional (incremental) shadow projected to be cast by the RWCDS.
- The detailed analysis would be documented with graphics comparing No-Action and With-Action shadows on sunlight-sensitive resources that warrant detailed analysis. Graphics will illustrate the shadows that result in the No-Action condition and the shadows projected to result in the With-Action condition, with incremental shadow outlined in a contrasting color. A summary table listing the entry and exit times and total duration of incremental shadow on each applicable representative day for each affected resource would be provided.
- The significance of any shadow impacts on sunlight-sensitive resources will be assessed. If any significant adverse shadow impacts are identified, mitigation strategies will be identified and assessed.

Task 7: Historic and Cultural Resources

This chapter will assess the potential for the Proposed Actions to result in significant adverse impacts on cultural resources, including both archaeological (below ground) and architectural (above ground) resources. Cultural resources are properties (such as buildings, structures, landscapes, and archaeological sites) that are designated as New York City Landmarks (NYCLs) and Historic Districts; calendared for consideration as NYCLs by the New York City Landmarks Preservation Commission (LPC) or determined eligible for NYCL designation (NYCL-eligible); listed on the State and National Register of Historic Places (S/NR) or formally determined eligible for S/NR listing (S/NR-eligible), or contained within a

S/NR listed or eligible district; recommended by the New York State Board for listing on the S/NR; and National Historic Landmarks (NHLs). Also included are potential historic and archaeological resources (i.e., properties not identified by one of the programs listed above, but that appear to meet their eligibility requirements). Archaeological resources are physical remains, usually subsurface, of the prehistoric, Native American, and historic periods—such as burials, foundations, artifacts, wells, and privies. Architectural resources generally include historically important buildings, structures, objects, sites, and districts.

According to the *CEQR Technical Manual*, a historic and cultural resources assessment is required if there is the potential to affect either archaeological or architectural resources. For this undertaking, while the Project Area includes the entire Edgemere neighborhood, the Area of Potential Effect (APE) for cultural resources is limited to the Projected Development Sites.

A search of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP or SHPO) Cultural Resource Information System (CRIS) and LPC online resources identified one S/NR-eligible architectural resource—the St. Gertrude the Good Church Complex Historic District—within 400 feet of the APE that would need to be considered for visual and contextual effects. There are no NYCLs within a 400-foot radius of the APE. The CRIS database indicates that the APE is not within an area of archaeological sensitivity, due to a lack of previously recorded archaeological sites in the vicinity. However, the LPC's Archaeological Evaluation and Sensitivity Assessment of the Prehistoric and Contact Period Aboriginal History of the Borough of Queens, New York City authored by Eugene Boesch in 1997, which takes into account former landforms and other cultural factors rather than only previously recorded sites, indicates that much of the Rockaway Peninsula, including the APE, is within an area of high Native American archaeological sensitivity. The actual archaeological potential for the APE is dependent on the specific history of the Projected Development Sites and the degree of disturbance that has occurred on the parcels that may have affected potential archaeological resources on them.

Therefore, the EIS will consider the potential for the Proposed Actions to affect both archaeological and architectural resources, in consultation with LPC and SHPO.

Task 8: Urban Design and Visual Resources

Urban design is the totality of components that may affect a pedestrian's experience of public space. An assessment 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. The Proposed Actions would permit development of several buildings with a proposed height of up to 85 feet in an area currently occupied by vacant or under-utilized lots, resulting in a physical change to the streetscape that will change the pedestrian experience. Therefore, an assessment of urban design and visual resources will be provided in the EIS.

The urban design study area will include a primary study area, consisting of the area within 400-feet of the Projected Development Sites, and a secondary study area, consisting of the remainder of the Project Area. For visual resources, publicly accessible view corridors within the study area from which such resources are visible will be identified. The assessment will consist of the following:

- Based on field visits, the urban design and visual resources of the directly affected area and adjacent study area will be described using text, photographs, and other graphic material, as necessary, to identify critical features, use, bulk, form, and scale.
- In coordination with the Land Use analysis, the changes expected in the urban design and visual character of the study area due to known development projects in the future No-Action condition will be described.
- Potential changes that could occur in the urban design character of the study area due to the Proposed Actions will be described. The analysis will focus on general building types, as well as elements such as street wall height, setback, and building envelope. Photographs and/or other graphic material will be utilized, where applicable, to assess the potential effects on urban design and visual resources, including view of/to resources of visual or historic significance. This analysis will describe how the Proposed Actions would affect the area's defining elements of urban design in the With-Action condition compared to the future No-Action condition.
- The significance of the potential changes will be assessed. The significance of any impacts will be determined by considering the degree to which the Proposed Actions will change the built environment's arrangement, appearance, or functionality and whether the change would negatively affect a pedestrian's experience of the area. If necessary, mitigation measures to avoid or reduce potential significant adverse impacts will be identified.

Task 9: Natural Resources

Natural resources are defined in the *CEQR Technical Manual* as the City's biodiversity (plants, wildlife and other organisms); any aquatic or terrestrial areas capable of providing suitable habitat to sustain the life processes of plants, wildlife or other organisms; and any areas capable of functioning in support of the ecological systems that maintain the City's environmental stability.

An assessment of natural resources and potential impacts to same is appropriate if natural resources exist on or near the Project Area. Based on initial field observations, the Project Area includes vacant/undeveloped parcels that support vegetated habitats and associated wildlife. Moreover, the Project Area is located within the Jamaica Bay Watershed and includes vegetated shoreline habitats along Conch Basin and Grass Hassock Channel. Accordingly, the EIS will identify the existing natural resources at and in the vicinity of the Project Area and assess the potential for the Proposed Actions to result in direct and/or indirect effects to the identified natural resources. The existing natural resources assessment will consist of ecological field surveys and desktop review of government and non-government agency databases and will include the following:

- Terrestrial, tidal and subtidal ecological communities will be identified and assessed through field surveys, pursuant to the New York Natural Heritage Program (NYNHP) publication *Ecological Communities of New York State* (Edinger et. al., 2014).
- Inventories of observed and expected plant and wildlife species will be compiled based upon field observations and review of agency databases, including the New York State Breeding Bird Atlas, Cornell Lab of Ornithology, Audubon New York, the New York State Amphibian and Reptile Atlas Project and the New York Flora Atlas.

- With respect to the adjacent tidal habitats and organisms, available data and studies of Jamaica Bay will be reviewed and summarized, including Jamaica Bay Wildlife Refuge studies, National Marine Fisheries Service (NMFS) Essential Fish Habitat data and New York State Department of State (NYSDOS) Significant Coastal Fish and Wildlife Habitat data.
- In order to determine if records exist for rare/protected species or communities at and in the vicinity of the Project Area, the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper and New York Nature Explorer databases will be consulted and a records request will be submitted to the NYNHP. For federally-listed species, a United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) species list will be generated and reviewed.
- A summary of federal, New York State and New York City regulatory agency jurisdictions over natural resources that occur within and adjacent to the Project Area will be provided.

The impact assessment will include an analysis of the effects of the Proposed Actions on the ecological communities, flora, and fauna identified during the existing natural resources assessment described above. Anticipated direct and indirect impacts (as defined in the *CEQR Technical Manual*) to these resources will be examined and discussed. Finally, the assessment will include a discussion of potential avoidance, minimization, and mitigation measures for any identified adverse impacts to natural resources.

Task 10: Hazardous Materials

A hazardous materials assessment determines whether the Proposed Actions may increase the exposure of people or the environment to hazardous materials, and, if so, whether this increased exposure would result in potential significant public health or environmental impacts. The potential for significant impacts related to hazardous materials can occur when: (a) elevated levels of hazardous materials exist on a site and the project would increase pathways to human or environmental exposures; (b) a project would introduce new activities or processes using hazardous materials and the risk of human or environmental exposure is increased; or (c) the project would introduce a population to potential human or environmental exposure from off-site sources.

The EIS will identify sites that would potentially impact the Project Area and will categorize these sites as either Areas of Concern (AOCs) or Recognized Environmental Conditions (RECs). AOCs will be defined as environmental conditions, either within the Project Area or at neighboring properties that are of environmental concern, but due to distance, gradient location, or the nature of the RWCDS, will not likely impact the implementation of the Proposed Actions. RECs will be defined as environmental conditions either within the Project Area or at neighboring properties where contamination, including contaminated soils, groundwater and/or soil vapor, may exist and has the potential to affect the implementation of the Proposed Actions.

The hazardous materials assessment will determine which, if any, of the Projected Development Sites may have been adversely affected by present or historical uses at or adjacent to the sites. As per the *CEQR Technical Manual*, for projects covering a large geographic area (e.g., area-wide rezonings), portions of the typical scope for a Phase I

Environmental Site Assessment (ESA), such as site inspections, may not be possible. As such, the EIS will include a preliminary screening assessment, including the following tasks:

- *Historical Source Review* – Review of historical sources including Sanborn Fire Insurance Maps, aerial photographs, topographical maps, and city directory listings. These sources will be used to develop a history of previous uses of properties within the Project Area and identify areas of potential historical environmental impact.
- *Regulatory Database Review* – Review Federal, State and local regulatory database records for evidence of hazardous waste generation, spills, or site use with the potential to impact environmental quality within the Project Area. This will include reviewing the United State Environmental Protection Agency (USEPA) for location of National Priority List (NPL or Superfund) and Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) sites, Emergency Response Notification System finds, and Resource Conservation and Recovery Act (RCRA) Hazardous Waste Handlers and Treatment/Storage/Disposal Facilities (TSDF) lists, NYSDEC for hazardous waste spills, current State Pollutant Discharge Elimination System sites, Inactive Hazardous Waste Disposal Sites, Major Oil Storage Facilities, Chemical Bulk Storage and Petroleum Bulk Storage Facilities, Toxic Release Inventory System, Solid Waste Facilities, etc. In addition to the above, other readily available sources will be used as applicable.
- *Physical Setting and Geological Conditions* – Review and evaluate physical setting sources to determine the topographic, geologic, and hydrologic conditions within the Project Area.
- *Interviews* – Interview past and present owners and occupants, as available and appropriate.
- *Site Reconnaissance* – Where available, conduct site external reconnaissance of properties identified as having a potential of hazardous waste or contamination within the Project Area that could impact implementation of the Proposed Actions. This includes the presence of possible monitoring wells, vent pipes, and/or manufacturing/commercial/ industrial uses that could indicate environmental impact.

Based on the above, the EIS will determine if any sites warrant institutional controls, such as (E) designations (for privately owned sites) or land disposition restrictions (for any City-owned parcels). The EIS determination will conform to the procedures identified in the *CEQR Technical Manual*, Section 11-15 (Environmental Requirements) of the Zoning Resolution of the City of New York and Chapter 24 of Title 15 of the Rules of the City of New York governing the placement of (E) designations.

Task 11: Water and Sewer Infrastructure

As discussed in the EAS, a preliminary assessment of the Proposed Actions' effects on water water and infrastructure is warranted as the Project Area is located in the Rockaway peninsula and the RWCDS for the Proposed Actions would result in the incremental development of more than 50 residential units or 100,000 square feet of commercial use, which is the *CEQR Technical Manual* threshold for analysis in R4 districts that are located in separately sewered areas. Therefore, the EIS will include a water and sewer infrastructure analysis that will consider the potential for significant adverse impacts resulting from the RWCDS for the Proposed Actions.

Water Supply

- The existing water distribution system serving the Project Area will be described based on information obtained from DEP's Bureau of Water Supply and Wastewater Collection.
- The existing water demand generated on the Projected Development Sites will be estimated.
- Water demand generated by the Projected Development Sites identified in the RWCDS will be projected for future No-Action and With-Action conditions.
- The effects of the incremental demand on the City's water supply system will be assessed to determine if there would be impacts to water supply or pressure. The incremental water demand will be the difference between the water demand on the Projected Development Sites in the With-Action condition and the demand in the No-Action condition.

Wastewater and Stormwater Infrastructure

- The appropriate study area for the assessment will be established in accordance with the guidelines of the *CEQR Technical Manual* and in consultation with DEP. The Proposed Actions' directly affected area is primarily located within the service area of the Rockaway Wastewater Treatment Plant (WWTP).
- The existing stormwater drainage system and surfaces (pervious or impervious) on the Projected Development Sites will be described, and the amount of stormwater generated on those sites will be estimated using DEP's volume calculation worksheet.
- The existing sewer system serving the Project Area will be described based on records obtained from DEP. The existing flows to the Rockaway WWTP, which serves the directly affected area, will be obtained for the latest twelve-month period, and the average dry weather monthly flow will be presented.
- Any changes to the sewer system and surface area expected in the future without the Proposed Actions will be described, as warranted.
- Future stormwater generation from the Projected Development Sites will be assessed to determine the Proposed Actions' potential to result in impacts. Changes to the Projected Development Sites' surface area will be described, runoff coefficients and runoff for each surface type/area will be presented, and volume and peak discharge rates from the sites will be determined based on the DEP volume calculation worksheet.
- Sanitary sewage generation for the Projected Development Sites identified in the RWCDS will also 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 Rockaway WWTP.

A more detailed assessment may be required if increased sanitary or stormwater discharges from the RWCDS associated with the Proposed Actions are predicted to affect the capacity of portions of the existing sewer system, exacerbate combined sewer overflow (CSO) volumes/frequencies, or contribute greater pollutant loadings in stormwater discharged to receiving water bodies. If warranted, the EIS will include a detailed analysis based on conclusions from the preliminary infrastructure assessment and coordinated with DEP.

Task 12: Transportation

This section of the EIS will evaluate whether the Proposed Actions would result in significant impacts on vehicular traffic, parking, transit services, pedestrian circulation, or vehicular and pedestrian safety. Should significant impacts be identified per *CEQR Technical Manual* criteria, the EIS will evaluate transportation system improvements to mitigate those impacts.

As transportation analyses are typically dependent on density, they will focus on development anticipated on the Projected Development Sites. As described above, the Proposed Actions are expected to induce new residential and commercial development, which would generate additional vehicular travel and demand for parking, as well as additional subway and bus riders and pedestrian traffic.

The transportation analysis will include the subtasks outlined below.

Travel Demand Analysis

Trip generation projections will be developed by travel mode for each of the land uses comprising the RWCDS, using trip generation rates, temporal distributions, modal splits, average vehicle occupancies, and in/out splits that are published in the *CEQR Technical Manual* or in previously-conducted EISs or EASs, or databases available from the Institute of Transportation Engineers' (ITE) or other professional reference materials. This will be done for the weekday AM, midday, and PM peak periods, and for the Saturday peak period to be determined in coordination with DCP and the New York City Department of Transportation (DOT).

A Level 1 screening assessment will be prepared to determine whether the RWCDS would generate vehicle, transit, and/or pedestrian trip levels that would exceed the thresholds outlined in the *CEQR Technical Manual*. The Level 1 screening assessment will disclose projected peak hour person, vehicle, transit, and pedestrian trips for the four analysis periods.

A Level 2 screening assessment will be prepared for vehicular, transit, and pedestrian trips. This will include the distribution and assignment of trips through the study area's roadway network, subway and bus services, and pedestrian network, and the identification of the specific intersections and subway and bus lines that would require a detailed quantitative analyses.

A Travel Demand Analysis (TDA) Technical Memorandum will be prepared that documents the assumptions and analysis findings. The TDA Technical Memorandum will provide the framework of assumptions for the analysis that will be undertaken in the EIS. A draft of the memo is provided as an attachment to this Draft Scope of Work (see **Attachment A**).

Traffic Analysis

› Define a traffic study area consistent with the *CEQR Technical Manual* guidelines of intersections along logical traffic routes to and from the Projected Development Sites, and critical locations within their vicinity. Traffic study area intersections will be identified primarily along the principal roadways—Beach Channel Drive, Rockaway Beach Boulevard, Seagirt Boulevard, and Edgemere Avenue—based on CEQR screening analysis and in consultation with DOT.

- Create a baseline traffic network for existing conditions. It is expected that this will be done by conducting intersection through and turning movement counts as well as utilizing data sourced from DOT and other EIS's at intersections within the study area during the weekday AM, midday, and PM peak periods, and the Saturday midday/afternoon period.[1] Automatic Traffic Recorder (ATR) machine counts will also be conducted for a full week and two weekends and will be used to determine if the one-day manual counts need to be adjusted for average weekday conditions. ATR machines will be placed at representative locations within the traffic study area. Field observations will be conducted of traffic operations that will be used to calibrate subsequent level of service analyses to observed field conditions. Vehicle classification counts (e.g., autos, taxis, trucks, buses) will be conducted at representative intersections within the traffic study area.
- Identify the weekday AM, weekday midday, weekday PM and Saturday peak hours and prepare traffic volume maps for each of the five traffic peak hours.
- Inventory streets and intersections for street and lane widths, lane use designations, posted parking regulations and parking maneuvers, signal phasing and timing, and other factors needed to calculate intersection capacities.
- Determine existing traffic conditions for intersections being analyzed according to Highway Capacity Manual (HCM) procedures—i.e., existing volume-to-capacity (v/c) ratios, average vehicle delays, and levels of service for individual traffic movements and lane groups and overall approaches to the intersection. The analysis will be conducted utilizing standard practice software packages—i.e., Highway Capacity Software (HCS) or Synchro 11.
- Develop future No Action traffic volumes using the annual background traffic growth rate cited in the *CEQR Technical Manual* plus traffic expected to be generated by significant development projects expected to be operational by the analysis year.
- Identify any proposed changes to the street network expected to occur by the analysis year and incorporate changes to intersection capacity or operational conditions attributable to those changes.
- Determine future No-Action traffic conditions for the intersections being analyzed.
- Develop future With-Action traffic volumes by adding project-generated traffic assignments to the future No Action traffic volumes.
- Identify proposed changes to the street network expected to occur in conjunction with the RWCDS, such as revised access points to the public street network, and incorporate changed capacity or operational conditions, if applicable, into the With-Action conditions analysis.
- Determine future With-Action traffic conditions for the intersections being analyzed and identify significant adverse traffic impacts, based on changes to traffic levels of service, using criteria stipulated in the *CEQR Technical Manual*.
- If significant adverse impacts are identified, identify and evaluate feasible and practical traffic improvement measures needed to mitigate these impacts.

[1] Due to COVID-19, the existing condition will be derived by comparing new data and historic data collected before the pandemic. Where warranted, new data will be adjusted to reflect typical conditions consistent with pre-COVID-19 periods.

Parking Analysis

› Determine the amount of parking demand expected to be generated by the RWCDS and whether projected parking would be sufficient to accommodate the demand by comparing the quantity of parking spaces to estimated levels of demand. If the parking demand analysis shows that parking provided on-site would not be sufficient to accommodate the project's demand, then a detailed parking analysis would be performed. This would consist of an inventory of existing off-site parking facilities within a quarter-mile radius of the Projected Development Sites, per *CEQR Technical Manual* guidelines, and an assessment of the available capacity at these facilities. In addition, an inventory of on-street parking spaces will also be conducted. Future No-Action conditions would be evaluated based on the application of an annual background growth rate to the existing demand. The No-Action parking demand and supply would then be compared to the With-Action condition, taking into account any new parking facilities developed as part of the RWCDS. This information would be presented in a parking utilization table that compares the future No-Action and With-Action condition and identifies excess capacity and/or parking shortfalls.

Transit Analysis

Subways

› Identify and describe the subway routes and stations serving the Projected Development Sites (assumed to be the Beach 44th Street – Frank Avenue [A] and Beach 36th Street [A] Edgemere stations), station access facilities, hours of operation, and frequency of service. If the CEQR thresholds for analysis are exceeded at any subway station (i.e., an increase of 200 or more passengers at a station), further analysis of that station will be undertaken consistent with CEQR methodologies to determine the potential for significant adverse impacts based on changes to the volume-to-capacity ratio at subway station elements (i.e. turnstiles, stairways, etc.).

› If the CEQR thresholds for analysis are exceeded on any individual subway route (i.e., an increase of 200 or more passengers on a single subway line), further analysis of that route will be undertaken consistent with CEQR methodologies to determine the potential for significant adverse impacts based on the changes to the subway line load levels.

Buses

› Identify and describe the bus routes and bus stops serving the Projected Development Sites, hours of operation, and frequency of service. If the CEQR thresholds for analysis are exceeded on any individual bus route (i.e., an increase of 50 or more bus passengers on a single bus line in one direction), further analysis of that route will be undertaken consistent with CEQR methodologies to determine the potential for significant adverse impacts.

› Assign project-generated bus trips to study area bus routes and stops, and determine whether there would be significant impacts on bus load levels based on the changes to the bus load levels, and the proposed measures needed to mitigate the potential impacts.

Pedestrian Analysis

- Conduct pedestrian counts at intersections along key walking routes between the Projected Development Sites and subway stations, bus stops, and other potentially affected locations in the traffic study area.[2] Based on CEQR criteria, these counts will be conducted at sidewalks and signal-controlled crosswalks and corner reservoir areas during the weekday AM, midday, and PM, and Saturday midday/afternoon analysis periods.
- Establish the specific peak pedestrian hours to be analyzed for weekday AM, midday and PM, and Saturday peak hours. Develop pedestrian volume maps for each analysis peak hour.
- Determine existing pedestrian conditions for the intersections being analyzed using HCM procedures and in accordance with *CEQR Technical Manual* protocols.
- Develop future No-Action pedestrian volumes using the annual background traffic growth rate cited in the *CEQR Technical Manual* plus pedestrian traffic expected to be generated by significant development projects expected to be operational by the analysis year.
- Identify any proposed changes to the street network expected to occur under No-Action conditions by the analysis year and incorporate resulting changed capacity or operational conditions.
- Develop future With-Action pedestrian volumes by adding project-generated pedestrian assignments to the future No Action pedestrian volumes.
- Identify proposed changes to the roadway network expected to occur in conjunction with the RWCDS, such as revised access points to the public street network and incorporate changed capacity or operational conditions into the future With-Action pedestrian analyses as applicable.
- Identify significant adverse pedestrian impacts, based on changes to levels of service, using criteria stipulated in the *CEQR Technical Manual*.
- If significant adverse impacts are identified, identify and evaluate feasible and practical mitigation/traffic improvement measures needed to mitigate these impacts.

Safety

This section of the EIS will include a review of vehicular and pedestrian crash data for the most recent three-year period for which such data are available, and a summary of the number and severity of crashes by year for each of the traffic study area intersections. The analysis will determine whether any of the analysis intersections are considered high accident locations based on *CEQR Technical Manual* criteria and will also assess whether traffic generated by the RWCDS would contribute materially to safety risks at such locations. The EIS will identify potential safety improvements, if warranted.

[2] Due to COVID-19, DOT paused transportation data collection on March 11, 2020. If pedestrian counts are not able to be taken, an alternative methodology for deriving existing conditions will be developed with DOT.

Task 13: Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both.

Mobile source impacts could arise when an action increases or causes a redistribution of traffic, creates any other mobile sources of pollutants, or adds new uses near existing mobile sources. Other mobile source impacts could be produced by parking facilities, parking lots, or garages. Stationary source impacts could occur with actions that create new stationary sources of emissions that can affect surrounding uses, such as industrial or manufacturing facilities, hospitals, or other large institutional uses, or building's boilers; or when new sensitive uses are created near to and are affected by existing or planned future emission sources. The *CEQR Technical Manual* states that an air quality assessment is warranted for actions that can result in significant air quality impacts.

The Proposed Actions could potentially exceed CEQR screening criteria for mobile source air quality analysis. Stationary source screening and detailed analysis will be needed for the Projected Development Sites, as well as industrial source analysis and evaluation of other large or major emissions sources in the study area.

Existing Conditions

A representative air quality monitor(s) will be identified and existing air quality conditions will be characterized by obtaining the latest three years of available U.S. Environmental Protection Agency (EPA)/NYSDEC monitoring data for the six criteria pollutants. Data will be obtained from EPA's AirData website and design values comparable to each of the National Ambient Air Quality Standards (NAAQS) reported. The attainment status of Queens County for each criteria pollutant will be discussed.

Mobile Source Analysis

Emissions resulting from RWCDS-generated traffic may have the potential to significantly increase air pollutant levels at nearby sensitive land uses and proposed uses. The primary air quality issue related to the RWCDS is whether traffic generated during peak traffic periods would:

- Cause or exacerbate a violation of the 1-hour or 8-hour ambient air quality standard for carbon monoxide (CO);
- Exceed the DEP CO *de minimis* criteria near any of these locations during the peak traffic period;
- Exceed the NAAQS for 24-hour PM_{10} and the CEQR *de minimis* thresholds for 24-hour and annual $PM_{2.5}$

The mobile source screening analysis will be performed per Sections 210 and 311 of the *CEQR Technical Manual*. If the number of incremental vehicular trips introduced by the RWCDS is higher than the *CEQR Technical Manual* screening thresholds for CO and $PM_{2.5.}$, the EIS will include a detailed analysis of mobile source emissions. If a detailed CO and/or PM_{10} and $PM_{2.5}$ analysis is warranted, the analysis will be conducted using the EPA's MOVES emission model and CAL3QHC (for CO only) or AERMOD (for CO and PM) dispersion model. Traffic data (i.e., traffic volumes, vehicle classifications and traffic speeds, etc.) will be

obtained from **Task 12, Transportation**, supplemented by information about road types and traffic speeds from the New York State Department of Transportation and New York Metropolitan Transportation Council (NYMTC), respectively.

Results of the CO, PM_{10} and $PM_{2.5}$ concentrations will be compared to the NAAQS and CEQR *de minimis* criteria to determine the potential for a significant adverse mobile source impact. If exceedances are predicted, mitigation measures will be identified and applied.

Parking Facility Analysis

The EIS will include an analysis to estimate potential air quality impacts at one "worst-case" parking facility. The "worst-case" parking facility will be the parking facility that has the maximum number of vehicles entering and exiting at peak periods, and is closest to the nearest sensitive receptor (i.e., wherever there is public access or there are operable windows). The analysis will follow *CEQR Technical Manual* guidelines depending on the type of the facility to estimate vehicular emissions from within the facility and adjacent roadways. CO and $PM_{2.5}$ pollutant concentrations will be estimated and compared to the NAAQS and CEQR *de minimis* criteria.

Stationary Source Analysis

The stationary source air quality analysis is a site-related analysis that focuses on the potential for stationary source air quality impacts resulting from development anticipated on Projected Development Sites. The stationary source air quality analysis will determine the effects of emissions from Projected Development Sites' fossil-fuel-fired heating and hot water systems to significantly impact existing land uses or to significantly impact any of the other Projected Development Sites (i.e., project-on-project impacts). In addition, an analysis of emissions from industrial sources will be performed for industrial sources within a 400 foot radius of the Project Area. Large and major sources of emissions within a 1,000 foot radius of the Project Area will also be considered, as per the *CEQR Technical Manual*.

HVAC Analysis

The analysis of the HVAC systems of the Projected Development Sites will consider impacts following the screening procedures outlined in the *CEQR Technical Manual* to determine the potential for impacts on existing developments as well as "project-on-project" impacts. The nearest existing building and/or projected development of a similar or greater height will be analyzed as a potential receptor. It will be assumed that exhaust stacks will be located three feet above roof height (as per the *CEQR Technical Manual*). The following stepwise analysis process will be undertaken for each site:

1. If no information on the boiler fuel is given, the analysis will assume that No. 2 fuel oil will be utilized.
2. If the No. 2 fuel oil analysis results in potentially significant impacts, the development will be analyzed using natural gas, which is a cleaner burning fuel.
3. If the natural gas detailed analysis still demonstrates the potential for significant impacts, the analysis will consider low NO_x and more efficient boilers.

4. Finally, if low NO_x boilers do not eliminate impacts, variations in building heights and/or setbacks and other mitigation measures will be used to identify potential restrictions to prevent impacts.

The HVAC detailed analysis stack exhaust temperature and exit velocity will be determined based on typical values from the DEP boiler database. HVAC emissions will be estimated using the EPA's AP-42 emission factors, building size, and the annual consumption rates from the latest Energy Information Administration (EIA) Commercial Building Energy Consumption Survey.

The HVAC detailed analyses will be performed using the latest EPA-approved version of the AERMOD model and five years of representative meteorological data.

- Concentrations of nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and fine particulate matter ($PM_{2.5}$) will be determined at affected sites. When analyzing No. 2 fuel oil, the relevant pollutants are SO_2 and $PM_{2.5}$. The pollutants of concern when analyzing natural gas combustion are NO_2 and $PM_{2.5}$. To identify maximum pollutant concentrations, receptors would be placed at all facades on buildings that could be potentially impacted. Predicted values will be compared with NAAQS for NO_2, SO_2 and the CEQR de minimis criteria for $PM_{2.5}$.
- One-hour average NO_2 concentration increments associated with the Projected Development Sites' HVAC systems will be estimated using the AERMOD model's Plume Volume Molar Ratio Method (PVMRM) module. The PVMRM module incorporates hourly background ozone concentrations to estimate NO_x transformation within the source plume. The calculation of design values (total concentration comparable to the statistical form of the NAAQS) for the one-hour NO_2 standard will be consistent with EPA guidance.

Industrial Source Analysis

For the industrial source analysis, the following will be undertaken:

- A DEP database search and permit records will be reviewed to identify industrial sources within 400 feet of the study area. A Google and zoning map survey will be performed to confirm the operational status of the sites identified in the permit search, and to identify any additional sites that have sources of emissions that would warrant an analysis.
- Emission rates for industrial sources within the Project Area, if found, will be estimated based on air permit data. If industrial sites are present that do not pass the *CEQR Technical Manual* industrial source screening procedure, detailed analysis will be conducted using either AERSCREEN or AERMOD.
- Predicted worst-case impacts on the Projected Development Sites will be compared with the short-term guideline concentrations (SGCs) and annual guideline concentrations (AGCs) recommended in NYSDEC's DAR-1 AGC/SGC Tables.

Large and Major Source Analysis

The *CEQR Technical Manual* requires an analysis of projects that may result in a significant adverse impact due to certain types of new uses located near a "large" or "major" emissions source. Major sources are defined as those located at facilities that have a Title V or Prevention of Significant Deterioration air permit, while large sources are defined as those

located at facilities that require a State Facility Permit. To assess the potential effects of these existing sources on the Projected Development Sites, a review of existing permitted facilities within 1,000 feet of the Project Area will be conducted using NYSDEC database. If any such sources are identified within this area, a detailed analysis of these sources on the Projected Development Sites will be conducted using AERMOD. Short-term and annual average emission rates for any relevant large or major sources will be determined based on the permits, and resultant concentrations will be compared to the relevant NAAQS.

Task 14: Greenhouse Gas Emissions and Climate Change

Greenhouse Gas Emissions

Increased greenhouse gas (GHG) emissions are changing the global climate and are predicted to lead to wide-ranging effects on the environment, including rising sea levels, increases in temperature, and changes in precipitation levels. Although this is occurring on a global scale, the environmental effects of climate change are also likely to be felt at the local level. The Proposed Actions exceed the 350,000-square-foot threshold for greenhouse gas emissions assessment in the *CEQR Technical Manual*. Therefore, GHG emissions generated by the Proposed Actions will need to be addressed, and an assessment of consistency with the City's established GHG reduction goal and policies including Climate Mobilization Act will be conducted as part of the EIS. The assessment will examine GHG emissions from the Proposed Actions' operations and construction, as outlined below.

- The scope of GHG assessement and pollutants for analysis will be discussed.
- City, State, and Federal goals, policies, regulations, standards, and benchmarks for GHG emissions will be described.
- Direct and indirect sources of GHG from the Projected Development Sites will be identified and evaluated.
- The operations' GHG will be qualitatively assessed and compared to the City, State and Federal goals and reduction policies.
- Additional GHG reduction measures, if required, will be proposed and discussed including building efficient buildings, using clean power, transit-oriented development and sustainable transportation.
- To assess GHG for construction, typical types of construction materials and equipment will be discussed along with opportunities for alternative approaches that may serve to reduce GHG emissions associated with construction including reducing construction operations emissions, and using building materials with low carbon intensity among other measures.

Climate Change

The Project Area is located within the current 100- and 500-year flood zone, and is therefore susceptible to storm surge and coastal flooding. This section of the EIS will include a qualitative discussion of potential effects of climate change and potential design measures that could be incorporated into new development projected to occur. It will draw from the assessment of the Proposed Actions' consistency with the City's WRP, which will be prepared in **Task 2, Land Use, Zoning, and Public Policy**.

Task 15: Noise

A detailed noise analysis will be included in the EIS, as the Proposed Actions would result in additional vehicle trips and would introduce new sensitive receptors in the vicinity of heavily trafficked roadways as well as an elevated subway line, located along the southern limits of the Project Area.

The noise analysis, as prescribed by the *CEQR Technical Manual*, will examine both the Proposed Actions' potential effects on existing sensitive noise receptors (including residences, health care facilities, schools, open space, etc.) and the potential noise exposure at new sensitive uses introduced by the Proposed Actions. If significant adverse impacts are identified, CEQR requires such impacts to be mitigated or avoided to the greatest extent practicable. The Proposed Actions would result in new residential and commercial development, and would also alter traffic conditions in the area. Noise, which is a general term used to describe unwanted sound, will likely be affected by these development changes.

It is assumed that outdoor mechanical equipment would be designed to meet applicable regulations, which are more stringent than *CEQR Technical Manual* impact criteria, and consequently no detailed analysis of potential noise impacts due to outdoor mechanical equipment will be performed. Consequently, the noise analysis will examine the level of building attenuation necessary to meet CEQR interior noise level requirements. The following tasks will be performed in compliance with *CEQR Technical Manual* guidelines:

- Existing ambient noise conditions will be characterized by either conducting noise measurements or referencing previous measurements conducted as part of City-reviewed Environmental Assessment Statements (EAS) or EISs.[3]
  - Should DOT allow noise data collection, noise survey locations will be selected to represent sites of new sensitive uses in the With-Action condition. These noise survey locations will be placed in areas to be analyzed for building attenuation and will focus on areas of potentially high ambient noise where residential uses are proposed. At the identified locations, noise measurements will be conducted during typical weekday morning, midday, and afternoon peak, and Saturday midday/afternoon periods (coinciding with the traffic peak periods). Noise measurements will be recorded in conformance with *CEQR Technical Manual* procedures and will be measured in units of "A" weighted decibel scale (dBA) as well as one-third octave bands. The measured noise level descriptors will include equivalent noise level (L_{eq}), maximum level (L_{max}), minimum level (L_{min}), and statistical percentile levels such as L_1, L_{10}, L_{50}, and L_{90}. A summary table of existing measured noise levels will be provided as part of the EIS.
  - Should DOT continue the pause to noise data collection, previous noise measurements conducted as part of EISs and EASs such as Averne East EAS (CEQR No. 20HPD081Q) will be used to characterize existing conditons. The primary factor relating to ambient noise conditions is the proximity to transportation sources, such as roads and trains, and the volume of traffic and train activity present. As such, the previous measurements will be related to the Project Area based on these factors.

[3] Due to COVID-19, DOT paused data collection on March 11, 2020, including noise measurements.

- Based on the traffic studies conducted for **Task 14, Transportation**, a screening analysis will be conducted to determine whether there are any locations where there is the potential for the RWCDS to result in significant noise impacts (i.e., doubling Noise Passenger Car Equivalents [PCEs]) due to action-generated traffic. Following procedures outlined in the *CEQR Technical Manual* for assessing mobile source noise impacts, future No-Action and With-Action noise levels will be estimated at the noise receptor locations.
- If the results of the screening analysis indicate that any sensitive receptor location would experience a doubling of traffic between the Future No-Action and Future With-Action conditions, a detailed mobile source noise analysis would be performed at that location in compliance with *CEQR Technical Manual* guidelines.
- The level of building attenuation necessary to satisfy CEQR requirements (a function of the exterior noise levels) will be determined based on the highest L_{10} noise level estimated at each monitoring site.

Task 16: 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, water 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, a detailed analysis will be provided for the specific technical area or areas.

Task 17: 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 Proposed Actions have the potential to alter certain elements contributing to the Project Area's neighborhood character. Therefore, a neighborhood character analysis will be provided in the EIS.

An assessment of neighborhood character will be provided in the EIS to determine whether changes expected in other technical analysis areas—land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; transportation; and noise—may affect a defining feature of neighborhood character. The assessment will:

- Identify the defining features of existing neighborhood character;
- Summarize changes in the character of the neighborhood that can be expected in the future With-Action condition and compare to the future No-Action condition;

- Evaluate whether the Proposed Actions have the potential to affect these defining features, either through the potential for a significant adverse impact or a combination of moderate effects in the relevant technical areas;
- Determine the significance of the potential changes to neighborhood character.

Task 18: Construction

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 typically considered when construction activity has the potential to affect transportation conditions, archaeological resources and the integrity of historic resources, community noise levels, and area air quality conditions. In addition, because soils may be disturbed during construction, any action proposed for a site that has been found to have the potential to contain hazardous materials should also consider the potential construction impacts that could result from contamination.

According to the *CEQR Technical Manual,* multi-sited projects with overall construction periods lasting longer than two years and that are near to sensitive receptors should undergo a preliminary impact assessment. Therefore, this chapter of the EIS will provide a preliminary impact assessment following the guidelines in the *CEQR Technical Manual*. The preliminary assessment will:

- Summarize construction regulations in New York City as they would apply to the Projected Development Sites, including a discussion of governmental oversight of construction in New York City, which is extensive and involves a number of City, State, and Federal agencies, each with specific areas of responsibility;
- Identify New York City regulations that apply to construction within the City, including regulations related to construction hours;
- Describe general construction practices, including practices related to access, deliveries, and staging areas; lane and walkway closures; public safety; and rodent control;
- Describe the major stages of construction associated with building construction, which include excavation and foundation, superstructure, exterior façade, interior finishes, and site work[4] and describe, in general, those stages of construction that result in greater intensity of air pollutant and noise emissions and a greater number of worker and truck traffic associated with construction activities;
- Provide a general overview of a potential construction schedule associated with the Projected Development Sites. However, because the Projected Development Sites would be developed following the release of RFPs for these sites, the construction schedule to be included in the EIS is considered preliminary.

In addition, the preliminary assessment will analyze:

- **Historic Resources:** Using information from **Task 7, Historic and Cultural Resources**, summarize the potential effects on archaeological and architectural resources from construction at the Projected Development Sites.

[4] Demolition is another stage of construction, and typically is a more intense stage as it relates to air and noise emissions; however, as the Projected Development Sites are vacant, no demolition would occur as a result of the Proposed Actions.

- **Natural Resources:** Using information from **Task 9, Natural Resources**, summarize the potential effects on natural resources from construction at the Projected Development Sites.
- **Hazardous Materials:** Using information from **Task 10, Hazardous Materials**, summarize the potential effects from construction due to potential contamination at the Projected Development Sites.
- **Transportation:** The volume of traffic that would be generated during the peak quarter of construction activities will be estimated, accounting for construction worker trips made by automobile and the volume of trucks during the construction peak period, as well operational trips from project components completed during the construction periods. Construction worker modal share will be based on census information and/or data utilized in other EISs. If no significant adverse traffic impacts are identified in the operational analysis; construction peak lane geometry, signal timing, and parking regulations are consistent with those of the operational peak hours; and capacity of the roadway network related to construction activities (such as roadway closures, lane closures or narrowing, parking prohibitions, etc.) are not expected to cause a deterioration in local or regional traffic flow, then a determination will then be made as to whether the combination of background volumes plus construction-related trips during construction peak hours would be lower than projected peak-hour traffic volumes during project operation. If so, no potential impacts would be expected during the construction period, and no construction mitigation would be needed beyond what would be required for the With-Action condition. However, if significant adverse traffic impacts are identified in the operational analysis, or construction peak hour volumes are higher than peak hour volumes during project operation, a quantitative evaluation of selected intersections may be warranted consistent with the methods discussed under **Task 12, Transportation**.

  Consistent with CEQR requirements, the analysis will include an estimate of the number of construction workers expected to drive to the site, the number of parking spaces needed, and whether there will be sufficient parking on-site (including existing and proposed parking) to accommodate this demand. If it is determined that off-site parking would be needed, a parking inventory of both on-street and off-street parking resources within the vicinity of the project site will be performed and an assessment of capacity presented. This assessment will also evaluate the potential effect of construction activities, such as lane and sidewalk closures.
- **Air Quality:** The air quality section will include a discussion of measures that are required to be implemented to reduce air emissions during construction as well as other mitigation measures that are typically implemented.
- **Noise:** The noise section will include a discussion of noise and vibration measures that are typically implemented to reduce emissions and the potential for adverse effects, including both source and path controls.

Task 19: Mitigation

Where significant adverse impacts have been identified, measures to mitigate those impacts will be described, where feasible. These measures will be developed and coordinated with the responsible City/State agencies as necessary. In the event that one or more significant

adverse impacts cannot be mitigated, the reason that mitigation is not practicable will be discussed and these impacts will be described as unavoidable adverse impacts.

Task 20: Alternatives

SEQRA requires that alternatives to the Proposed Actions be identified and evaluated in an EIS so that the decision-maker may consider whether alternatives exist that would minimize or avoid adverse environmental effects while achieving the goals and objectives of the Proposed Actions. The selection of alternatives to a proposed actions is determined by taking into account the nature of the specific Proposed Actions, their stated purpose and need, the potential impacts that would result from the Proposed Actions, and the feasibility of potential alternatives. Consistent with SEQRA, a No-Action Alternative will be considered. In addition, if any significant adverse impacts are identified, a No Unmitigated Significant Adverse Impact Alternative will be considered, which includes an assessment of the project that would result in no unmitigated impacts. Additional alternatives to the Proposed Actions will also be considered once the full extent of the Proposed Actions' impacts has been identified. The alternatives analysis will be qualitative, except where significant adverse impacts have been identified.

Task 21: EIS Summary Chapters

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

- **Executive Summary:** The executive summary will use relevant material from the body of the EIS to describe the Proposed Actions, their environmental impacts, measures to mitigate those impacts, and alternatives to the Proposed Actions. As described in the *CEQR Technical Manual,* it will contain:
  - A brief project description;
  - A summary and list of each action;
  - A summary of the significant adverse impacts, if any;
  - A summary of the mitigation measures, if any, to reduce or eliminate any significant adverse impacts;
  - Any important trade-offs identified in the other summary chapters;
  - A summary of the unavoidable adverse impacts, if any;
  - A short discussion of alternatives;
  - The analysis areas examined in the EIS; and
  - The analysis areas eliminated in the EIS for further study, and the reasons why.
- **Unavoidable Adverse Impacts:** This chapter will summarize any significant adverse impacts that are unavoidable if the Proposed Actions are implemented regardless of the mitigation employed (or if mitigation is not feasible).
- **Growth-Inducing Aspects of the Proposed Actions:** This chapter will summarize the "secondary" impacts that may trigger further development.
- **Irreversible and Irretrievable Commitments of Resources:** This chapter will summarize the Proposed Actions and their impacts in terms of the loss of environmental

resources (use of fossil fuels and materials for construction, etc.), both in the immediate future and in the long term.

Memorandum

To: NYC Department of Housing Preservation and Development
CC: Glen Price – NYCDCP
Allison Ruddock, Marty Taub, Alfred Yeung – VHB

Date: December 18, 2020

Project #: 20349.00

From: Jacoub Reda – VHB

Re: Edgemere Rezoning EIS – Travel Demand Analysis Memorandum (DRAFT)

INTRODUCTION AND SUMMARY OF KEY FINDINGS

This memorandum summarizes the travel demand assumptions and transportation screening analysis for the proposed Edgemere Rezoning Environmental Impact Statement (EIS) supporting the Resilient Edgemere Community Initiative. The Project Area is located in the Edgemere neighborhood of Queens, NY, on the eastern end of Rockaway Peninsula (see Figure 1). It provides a detailed description of the project analysis framework and travel demand assumptions used to determine the number of trips generated by the proposed rezoning, the projected volume of person trips and vehicle trips in the peak travel hours, and the determination of which peak hours can be screened out and which potentially warrant detailed counts and analyses per *CEQR Technical Manual* criteria.

As described below, detailed analyses of bus, subway, pedestrian and traffic conditions will be required per *CEQR Technical Manual* guidelines and will be included in the EIS. According to the preliminary transit screening assessments included in this memorandum, detailed transit analyses are warranted for one bus route (Q22), one subway line (A line), and one subway station (Beach 44th Street/Frank Avenue Station). The detailed transit analyses will be conducted for both the weekday AM and PM peak hours.

The EIS will include detailed pedestrian assignments and will identify which specific pedestrian elements require detailed analyses. These locations will be along direct routes to and from nearby bus and subway stops as well as within the vicinity of the larger projected development sites. For traffic, the study area will focus on representative intersections around the project development sites and at key intersections throughout the peninsula. A preliminary selection of intersections identified 20 locations warranting detailed analyses. For both pedestrian and traffic analyses, analysis locations will be identified in consultation with the NYC Department of Transportation (NYCDOT). The vehicular traffic analyses will be conducted for the weekday AM, midday, and PM peak hours and for the Saturday midday/afternoon peak hour. A parking analysis will also be conducted.

ANALYTICAL FRAMEWORK

Table 1 summarizes the Reasonable Worse Case Development Scenario (RWCDS) under both No-Action and With-Action conditions. According to the RWCDS, the proposed actions would result in an increase of 1,201 dwelling units (DUs), 142,001 gross square feet (gsf) of commercial space and 387 parking spaces on 41 projected development sites. While the commercial spaces could include multiple non-residential uses, for travel demand forecasting purposes, the commercial space is assumed to be local retail use.

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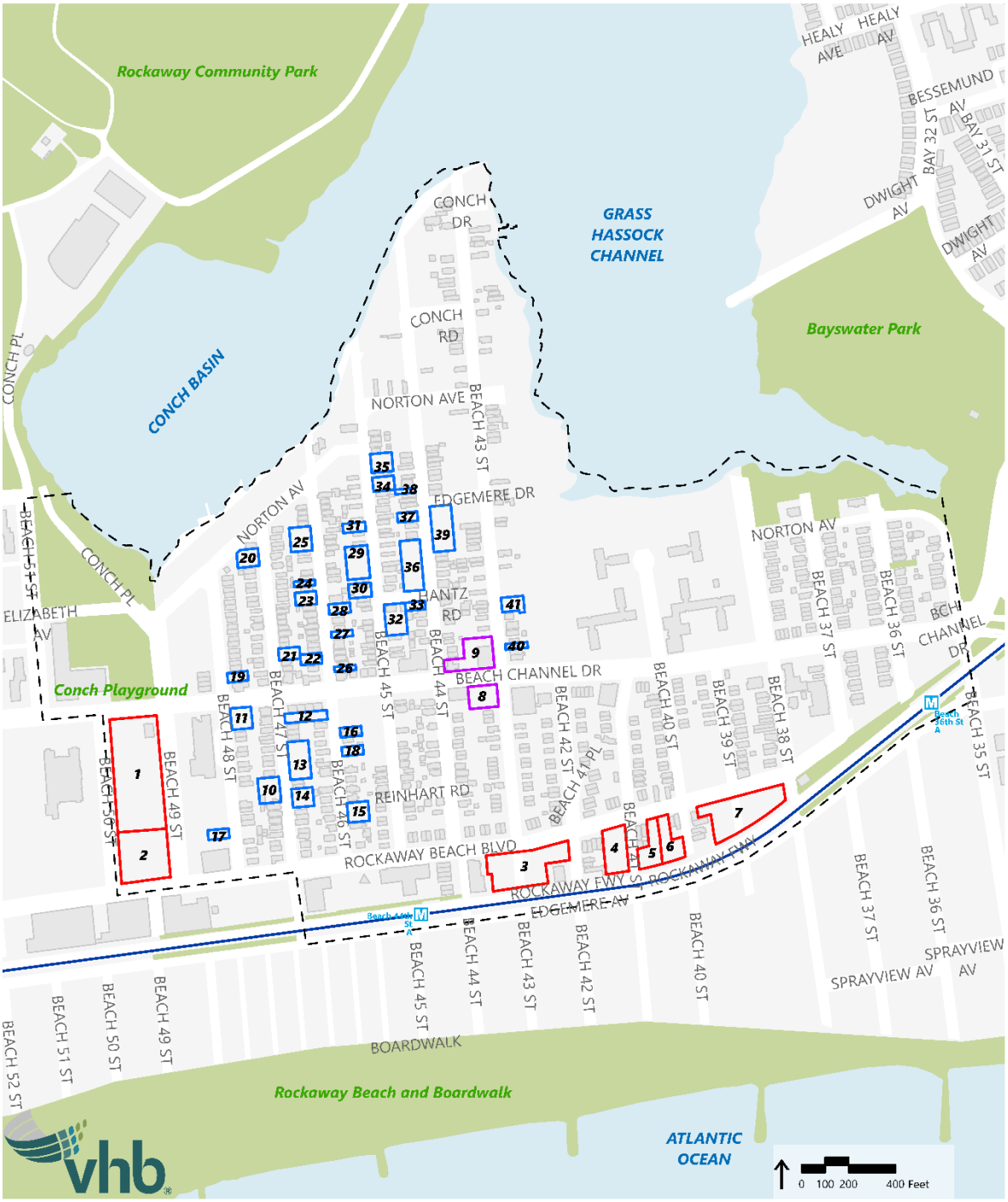
Table 1: RWCDS

	No-Action			With-Action			Increment		
Site	Residential (DUs)	Commercial (gsf)	Parking Spaces	Residential (DUs)	Commercial (gsf)	Parking Spaces	Residential (DUs)	Commercial (gsf)	Parking Spaces
1	-	2,358	118	387	24,690	170	387	22,602	52
2	-	-	44	162	25,560	71	162	25,560	27
3	-	-	-	172	17,704	60	172	17,704	60
4	-	-	-	73	7,564	26	73	7,564	26
5	-	-	-	57	5,878	20	57	5,878	20
6	-	-	-	54	5,598	19	54	5,598	19
7	-	-	-	174	17,921	61	174	17,291	61
8	-	-	-	-	14,386	-	-	14,386	-
9	-	-	-	-	24,790	-	-	24,790	-
10 to 41	-	-	-	122	-	122	122	-	122
Total*	**0**	**2,358**	**162**	**1,201**	**144,359**	**549**	**1,201**	**142,001**	**387**

Note: Due to rounding, overall totals may be slightly different than the sum of individual site programs

Figure 1: Location Map



CEQR TRANSPORTATION ANALYSIS SCREENING

According to the *2014 CEQR Technical Manual* procedures for transportation analysis, a two-tiered screening process is to be undertaken to determine whether a quantified analysis is necessary. The first step, the Level 1 (Trip Generation) screening, determines whether the volume of peak hour person and vehicle trips generated by the proposed actions would remain below the minimum thresholds that would necessitate further study. These thresholds are:

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

If the proposed actions result in increments that would exceed any of these thresholds, a Level 2 (Trip Assignment) screening assessment is typically performed. Under this assessment, project-generated trips (for each mode that exceeds the Level 1 thresholds listed above) are assigned to and from the site through their respective networks (streets, bus and subway lines, sidewalks, etc.) based on expected origin-destination patterns and travel routes.

Level 1 Screening Assessment (Trip Generation)

The travel demand factors used to calculate the projected number of trips were obtained from the *2014 CEQR Technical Manual*, American Community Survey (ACS) journey-to-work data, New York City Department of Transportation (NYCDOT) survey data, and the *2018 Peninsula Hospital Site Redevelopment FEIS*. Table 2 summarizes the travel demand assumptions used for the weekday AM, midday and PM peak hours, and the Saturday peak hour.

Table 2: Travel Demand Factors

Land Use	Residential	Local Retail
Person Daily Trip Generation Rate		
	Weekday/ Saturday	**Weekday/ Saturday**
	8.18/9.08[1]	205.0/240.0[2]
	per dwelling unit	*per 1,000 SF*
Linked Trip Credit	0%	25%
Peak Temporal Distribution		
Weekday AM	9.0%[1]	3.0%[2]
Weekday Midday	6.0%[1]	19.0%[2]
Weekday PM	8.0%[1]	10.0%[2]
Saturday	8.0%[1]	10.0%[2]
Modal Split (%)		
	All Periods	**All Periods**
Auto	46.8[3]	33.0[5]
Taxi	1.0[3]	0.0[5]
Bus	14.1[3]	6.0[5]
Subway	32.1[3]	2.0[5]
Walk	6.0[3]	59.0[5]
Vehicle Occupancy		
	Weekday/Saturday	**All Periods**
Auto	1.09/1.09[3]	2.00[4]
Taxi	1.40/1.30[4]	2.00[4]
Directional Distribution		
	In/Out	**In/Out**
Weekday AM	22%/78%[1]	50%/50%[4]
Weekday Midday	50%/50%[1]	50%/50%[4]
Weekday PM	63%/37%[1]	50%/50%[4]
Saturday	51%/49%[1]	55%/45%[4]
Delivery Trip Rate		
	Weekday/ Saturday	**Weekday/ Saturday**
	0.06/0.02[2]	0.35/0.04[2]
	per dwelling unit	*per 1,000 SF*
Delivery Temporal Distribution		
Weekday AM	12.0%[2]	8.0%[2]
Weekday Midday	9.0%[2]	11.0%[2]
Weekday PM	2.0%[2]	2.0%[2]
Saturday	9.0%[2]	11.0%[2]
Delivery Trip Directional Split (In/Out) – 50%/50%		

Sources:

(1) NYCDOT residential survey data
(2) *2014 CEQR Technical Manual*
(3) ACS journey-to-work (2014-2018) data for Queens Tracts 964, 972.02, 972.03, 72.04, 992, 998.01, 998.02 and 1008.02
(4) *2018 Peninsula Hospital Site Redevelopment FEIS*
(5) NYCDOT Queens local retail survey data; adjusted in consultation with DOT

Residential

For the residential use, trip generation rates, temporal distributions and directional distributions were obtained from NYCDOT residential survey data. The trip generation rates used were 8.18 daily person trips per DU for weekday and 9.08 daily person trips per DU for Saturday. For the temporal distributions, 9 percent, 6 percent, 8 percent and 8 percent were used for the weekday AM, midday, PM and Saturday peak hours, respectively. For the directional distributions, 22 percent "in" for the weekday AM peak hour, 50 percent "in" for the weekday midday peak hour, 63 percent "in" for the weekday PM peak hour, and 51 percent "in" for the Saturday peak hour were used. Modal splits of 46.8 percent by auto, 1.0 percent by taxi, 14.1 percent by bus, 32.1 percent by subway, and 6.0 percent by walk for all peak hours were based on 2014-2018 ACS journey-to-work data for Queens census tracts 964, 972.02, 972.03, 972.04, 992, 998.01, 998.02 and 1008.02. For all peak hours, the auto vehicle occupancy rate of 1.09 was based on the ACS journey-to-work data. For the weekday and Saturday peak hours, the taxi vehicle occupancy rates of 1.40 and 1.30, respectively, were based on the *Peninsula Hospital Site Redevelopment FEIS*.

For residential delivery trips, trip generation rates of 0.06 and 0.02 daily delivery trip per DU for weekday and Saturday, respectively, and temporal distributions of 12 percent, 9 percent, 2 percent, and 9 percent for the weekday AM, midday, PM, and Saturday peak hours, respectively, were obtained from the *CEQR Technical Manual*.

Local Retail

For the local retail use, trip generation rates of 205 daily person trips per 1,000 square feet (sf) for weekday and 240 daily person trips per 1,000 sf for Saturday were obtained from the *CEQR Technical Manual*. A linked trip credit of 25 percent was assumed. Temporal distributions of 3 percent, 19 percent, 10 percent, and 10 percent, for the weekday AM, midday, PM and Saturday peak hours, respectively, were also obtained from the *CEQR Technical Manual*. Modal splits of 33 percent by auto, 6 percent by bus, 2 percent by subway, and 59 percent by walk for all periods were based on NYCDOT Queens local retail survey data which were adjusted to reflect local characteristics. For both, the weekday peak hours and the Saturday peak hour, auto and taxi vehicle occupancy rates of 2.00 were based on the *Peninsula Hospital Site Redevelopment FEIS*. Directional distributions of 50 percent "in" for the weekday AM, midday, and PM peak hours; and 55 percent "in" for the Saturday peak hour were also based on the *Peninsula Hospital Site Redevelopment FEIS*.

For retail delivery trips, trip generation rates of 0.35 and 0.04 daily delivery trips per 1,000 sf for weekday and Saturday, respectively, and a temporal distribution rate of 8 percent, 11 percent, 2 percent, and 11 percent for the weekday AM, midday, PM and Saturday peak hours, respectively, were obtained from the *CEQR Technical Manual*.

Level 1 Screening Results

The estimated increase in person and vehicle trips expected to result from the proposed actions was based on the RWCDS shown in Table 1 and the travel demand factors in Table 2. The estimated person trips by mode (i.e., auto, taxi, bus, subway, and walk-only) are provided in Table 3 and are discussed in this section.

Table 3: Trip Generation Summary – Person Trips

Mode	Weekday AM			Weekday Midday			Weekday PM			Saturday		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	193	433	626	814	814	1,628	590	488	1,078	673	573	1,246
Taxi	1	5	6	1	1	2	5	1	6	4	4	8
Bus	44	111	155	164	164	328	129	102	231	142	127	269
Subway	64	226	290	131	131	262	179	111	290	164	155	319
Walk	207	232	439	1,241	1,241	2,482	669	659	1,328	854	702	1,556
Total	509	1,007	1,516	2,351	2,351	4,702	1,572	1,361	2,933	1,837	1,561	3,398

Transit and Pedestrians

The total number of person trips generated by the proposed action are provided in Table 3. The number of transit trips per peak hour is detailed below:

- During the weekday AM peak hour, the proposed action would generate an increase of 155 bus trips and 290 subway trips.
- During the weekday midday peak hour, the proposed action would generate an increase of 328 bus trips and 262 subway trips.
- During the weekday PM peak hour, the proposed action would generate an increase of 231 bus trips and 290 subway trips.
- During the Saturday peak hour, the proposed action would generate an increase of 269 bus trips and 319 subway trips.

Transit analyses generally examine conditions only during the commuter peak periods (weekday AM and PM) when overall transit demand and the potential for significant adverse impacts are typically highest. Therefore, as the proposed action is expected to generate over 200 subway trips in the weekday AM and PM peak hours, and over 200 bus trips in the weekday PM peak hour, Level 2 trip assignments are necessary to determine if detailed subway and bus analyses are warranted per *CEQR Technical Manual* guidelines.

Pedestrian trips include walk-only trips to and from the projected development sites plus walking connections between the projected development sites and bus stops and subway stations. Project-generated pedestrian trips are expected to total 884 pedestrian trips in the weekday AM peak hour, 3,072 pedestrian trips in the weekday midday peak hour, and 1,849 pedestrian trips in the weekday PM peak hour, and 2,144 pedestrian trips in the Saturday peak hour.

As the number of incremental pedestrian peak hour trips is expected to exceed the CEQR threshold of 200 pedestrian trips per hour, a Level 2 trip assignment is necessary to determine if detailed pedestrian analyses are warranted per *CEQR Technical Manual* guidelines.

Traffic and Parking

Table 4 summarizes the peak hour vehicular volumes expected to be generated under the With-Action condition. The volumes include trips via autos, taxis (balanced assuming no overlap between inbound and outbound trips per *CEQR Technical Manual* guidelines), and commercial delivery vehicles. The hourly vehicle trips generated by the proposed

action would be 512 vehicles per hour (vph) during the weekday AM peak hour, 934 vph in the weekday midday peak hour, 708 vph in the weekday PM peak hour, and 815 vph in the Saturday peak hour. The volume of vehicle trips generated by the proposed action would exceed the 50-vehicle trip threshold during all peak hours, therefore, a Level 2 trip assignment is necessary to determine if a detailed traffic and parking analysis is warranted per *CEQR Technical Manual* guidelines.

Table 4: Trip Generation Summary – Vehicle Trips

	Weekday AM			Weekday Midday			Weekday PM			Saturday		
	In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Auto	137	357	494	464	464	928	396	302	698	428	371	799
Taxi	5	5	10	2	2	4	5	5	10	8	8	16
Delivery	4	4	8	1	1	2	0	0	0	0	0	0
Total	146	366	512	467	467	934	401	307	708	436	379	815

Level 2 Screening Assessment (Trip Assignment)

As described above, the number of trips expected to be generated by the proposed action would exceed the *2014 CEQR Technical Manual* Level 1 screening thresholds for vehicle, transit (subway and bus) and pedestrian trips. Project-generated trips will be assigned through the surrounding transit and street networks based on existing transit services and routes to and from projected development sites.

Bus

Preliminary bus assignments were conducted for the weekday AM and PM commuter periods in order to identify routes that would require detailed analysis. Bus transit options within the Edgemere neighborhood include the Q22 and Q52-SBS local bus routes and the QM17 express bus route. The Q22 bus provides local weekday and weekend service between the Far Rockaway and Roxbury neighborhoods in Queens. The Q52-SBS bus provides local weekday and weekend service between the Far Rockaway and Woodside neighborhoods in Queens. The QM17 bus provides weekday-only express service between Far Rockaway, Queens and Midtown, Manhattan. As the QM17 bus only operates during the weekday AM and PM commuter periods, all bus trips in the weekday midday and Saturday peak hours were assigned to the Q22 bus route.

According to 2012-2016 American Association of State Highway and Transportation Officials (AASHTO) CTPP journey-to-work data for Queens Tracts 964, 972.02, 972.03, 72.04, 992, 998.01, 998.02 and 1008.02, approximately 23 percent of bus riders commute to Manhattan. Therefore, for the weekday AM peak hour, 23 percent of outbound bus trips generated by residential use were assigned to the QM17 and the remaining 77 percent of residential use outbound trips plus all residential use inbound trips were assigned to the local routes. Vice versa, for the weekday PM peak hour, 23 percent of inbound bus trips generated by residential use were assigned to the QM17 and 77 percent of residential use inbound trips plus all residential use outbound trips were assigned to the local routes. For bus trips generated by local retail use, it was assumed riders would utilize the local bus routes, Q22 and/or Q52-SBS, where appropriate. Due to proximity considerations, it was assumed that local-route bus trips generated by projected development sites located east of Beach 49th Street would utilize the Q22 route. Local-route bus trips generated by sites west of Beach 49th Street were distributed between the Q22 and Q52-SBS according to 2019 average ridership data.

Table 5 summarizes the volume of weekday AM and PM peak hour project-generated person trips assigned to bus routes. As shown in Table 5, the Q22 bus route is expected to incur increases of 50 or more riders in both the eastbound and westbound directions during the weekday AM and PM peak hours and will therefore require detailed analysis.

Table 5: Project-Generated Person Trips by Bus

Mode	Route/Line	Direction	Weekday AM			Weekday PM		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Bus	Q22	EB	18	35	53	47	42	89
		WB	17	36	53	47	42	89
	Q52-SBS	EB	5	10	15	11	9	19
		WB	4	11	15	10	9	19
	QM17	EB	0	0	0	14	0	14
		WB	0	19	19	0	0	0

Note: EB=eastbound; WB=westbound

Subway

Preliminary subway assignments were conducted for the weekday AM and PM commuter periods in order to identify routes that would require detailed analysis. Two subway stations, the Beach 36th Street Edgemere Station and the Beach 44th Street/Frank Avenue Station, are located within a quarter-mile radius of the projected development sites. Both stations are served by the A subway line. Subway rider trips generated by sites west of Beach 40th Street were assigned to the Beach 44th Street/Frank Avenue Station, while trips for sites east of Beach 40th Street were assigned to the Beach 36th Street Edgemere Station. Table 6 summarizes the volume of weekday AM and PM peak hour project-generated person trips assigned to subway lines nearest the project site.

Table 6: Project-Generated Person Trips by Subway

Subway Station	Line	Weekday AM			Weekday PM		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Beach 36th Street	A	10	33	43	26	17	43
Beach 44th Street/ Frank Avenue	A	54	193	247	153	94	247

As shown in Table 6, the Beach 44th Street/Frank Avenue Station is expected to incur increases of 200 or more subway riders in both commuter peak hours. Therefore, key circulation elements (e.g., street stairs and fare arrays) expected to attract concentrated levels of project-generated demand will be analyzed. These analysis elements will include the following:

Beach 44th Street/Frank Avenue Station Elements

- Two street stairs located on the north sidewalk on Rockaway Freeway between Beach 44th and Beach 47th Streets
- Fare control turnstiles

As all subway trips would utilize the A subway line, detailed subway line-haul analyses are warranted for both the weekday AM and PM peak hours.

Pedestrians

A pedestrian trip assignment will be conducted in order to identify sidewalks, corners and crosswalks requiring detailed analysis. As described above, pedestrian trips include walk-only trips and walking connections linked to transit trips. The pedestrian analysis will focus on pedestrian elements where new trips generated by projected development sites are expected to be most concentrated – elements in the vicinity of major sites and along portions of the street network in direct route to and from transit entrances and stops. Walk-only pedestrian trips would generally be distributed across local avenues and cross streets extending out towards the surrounding areas to and from populated areas and attractions.

Traffic

The assignments of project-generated auto and taxi trips will reflect the surrounding street network configuration and be based on anticipated trip origins and routes to the projected development sites via nearby arterial connections and major local streets. Delivery trips will be assigned along truck route connections into the Rockaway Peninsula (i.e. Rockaway Boulevard, the Cross Bay Veterans Memorial Bridge, and the Marine Parkway Bridge) then routed to Beach Channel Drive, which is the only designated truck route in the Edgemere neighborhood. In general, the street network limits for the traffic assignments will extend between Beach 62nd Street to the west and Beach 31st Street to the east and also include a select number of critical intersections further out. In addition, the traffic assignments will reflect the proposed street closure of Rockaway Freeway between Beach 59th Street and Beach 35th Street included in the final report for *Access to Opportunity: A Transportation & Housing Study in the Eastern Rockaways* and other key improvements/mitigation measures associated with current and future developments independent of this rezoning action.

Residential Trips

Residential use vehicle assignments will be based on 2012-2016 AASHTO CTPP journey-to-work data for Queens Tracts 964, 972.02, 972.03, 72.04, 992, 998.01, 998.02 and 1008.02. Based on the CTTP data, 1 percent of trips will be assumed destined for the Bronx, 14 percent for Brooklyn, 5 percent for Manhattan, 56 percent for other Queens neighborhoods, 22 percent for Long Island, and 2 percent for other areas – e.g., New Jersey, Staten Island, Westchester County, Rockland County and Orange. These trips will be assigned primarily, along routes within Edgemere and adjacent areas. More specifically, approximately two-thirds of the trips will be assigned to local streets and arterials en route to and from major highways and bridges into the Rockaway Peninsula, while one-third will be assigned to local streets en route to and from neighboring areas in the peninsula. Approximately 41 percent of trips will be assigned via the Cross Bay Bridge, 12 percent via the Marine Parkway Bridge, and 14 percent via the Nassau Expressway, while the remaining 33 percent of trips will be assigned to local arterials that extend through the peninsula.

Local Retail Trips

Retail uses serve the local community. Local retail trips will be assigned based on the distribution of population densities within the immediate surrounding areas (approximately a half-mile radius of the rezoning area).

As access into and out of the study area is limited, traffic volumes are expected to concentrate and travel along the primary eastbound/westbound corridors such as Beach Channel Drive and Rockaway Beach Boulevard to and from the projected development sites. As is typically done for area-wide rezoning analyses, representative intersections will be

selected for analysis. These locations will be selected in consultation with NYCDOT and will include intersections most likely to be used by concentrations of project-generated traffic adjacent to the projected development sites as well as critical intersections that serve as points of entry into the Edgemere neighborhood. According to a preliminary assessment, the 20 intersections shown in Figure 2 and listed below have been identified (this list is not final; continued consultation with DOT may result in the identification of additional intersections).

- Beach Channel Dr/Seagirt Blvd and Beach 35th St
- Beach Channel Dr and Beach 37th St
- Beach Channel Dr and Beach 40th St
- Beach Channel Dr and Beach 44th St
- Beach Channel Dr and Beach 49th St
- Beach Channel Dr and Beach 62nd St
- Arverne Blvd/Rockaway Blvd and Beach 54th St
- Arverne Blvd and Beach 56th St (the signalized intersection)
- Arverne Blvd and Beach 59th St
- Rockaway Beach Blvd and Beach 38th St
- Rockaway Beach Blvd and Beach 41st St
- Rockaway Beach Blvd and Beach 44th St
- Rockaway Beach Blvd and Beach 49th St
- Rockaway Beach Blvd and Beach 50th St
- Rockaway Beach Blvd and Beach 56th St
- Rockaway Beach Blvd and Beach 59th St
- Seagirt Blvd and Rockaway Freeway
- Seagirt Blvd/Edgemere Ave and Beach 32nd St
- Edgemere Ave and Beach 44th St
- Edgemere Ave and Beach 54th St

Parking

Per *CEQR Technical Manual* Guidelines, a detailed analysis of parking is generally required if a detailed traffic analysis is warranted. A detailed parking analysis will be included in the EIS and, if the anticipated parking capacity provided by the projected development sites under the With-Action condition is not sufficient to accommodate demand, an analysis of on-street and off-street parking conditions within an approximately quarter-mile radius of the sites will be included.

Figure 2: Traffic Analysis Locations

Stop Controlled Intersection

Signalized intersection