

2420 Arthur Kill Road Authorization

Environmental Assessment Statement

CEQR Number: 18DCP128R

Prepared by:

Environmental Studies Corp.

Prepared for:

1632 Richmond Terrace LLC

June 2018



City Environmental Quality Review

ENVIRONMENTAL ASSESSMENT STATEMENT (EAS) SHORT FORM

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

Part I: GENERAL INFORMATION

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

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

2. Project Name 2420 Arthur Kill Road Authorization

3. Reference Numbers

CEQR REFERENCE NUMBER (to be assigned by lead agency) 18DCP128R	BSA REFERENCE NUMBER (if applicable)
ULURP REFERENCE NUMBER (if applicable) N180213ZAR, N180214ZCR and N180215ZCR	OTHER REFERENCE NUMBER(S) (if applicable) (e.g., legislative intro, CAPA)

4a. Lead Agency Information			4b. Applicant Information		
NAME OF LEAD AGENCY NYC City Planning Commission			NAME OF APPLICANT 1632 Richmond Terrace LLC		
NAME OF LEAD AGENCY CONTACT PERSON Robert Dobruskin, Director, EARD			NAME OF APPLICANT’S REPRESENTATIVE OR CONTACT PERSON Hiram Rothkrug, Environmental Studies Corp.		
ADDRESS 120 Broadway, 31 st floor			ADDRESS 55 Water Mill Road		
CITY New York	STATE NY	ZIP 10271	CITY Great Neck	STATE NY	ZIP 11021
TELEPHONE 212-720-3423	EMAIL rdobrus@planning.nyc.gov		TELEPHONE 516-343-0026	EMAIL hrothkrug@environmentalstudiescorp.com	

5. Project Description

The Applicant, 1632 Richmond Terrace LLC, is seeking a CPC Authorization pursuant to ZR Section 107-68, Modification of Group Parking Facility, for a property within the Special South Richmond Development District in the Rossville neighborhood of Staten Island Community District 3. The Applicant is also seeking a CPC Certification pursuant to ZR Section 107-321, Tree Preservation, and a Chairperson Certification pursuant to ZR Section 36-592, Certification of Cross Access Connections. The proposed actions would facilitate the completion of a partially built 23,765 gsf, three-story building containing offices and storage space, a loading berth, and 72 unenclosed accessory off-street parking spaces.

Project Location

BOROUGH Staten Island	COMMUNITY DISTRICT(S) 3	STREET ADDRESS 2420 Arthur Kill Road
TAX BLOCK(S) AND LOT(S) Block 7067, Lot 120		ZIP CODE 10309
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS south side of Arthur Kill Rd. between St. Lukes Ave. and Engert St.		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M2-1 within the Special South Richmond Development District		ZONING SECTIONAL MAP NUMBER 33a

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

City Planning Commission: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> UNIFORM LAND USE REVIEW PROCEDURE (ULURP)
<input type="checkbox"/> CITY MAP AMENDMENT	<input checked="" type="checkbox"/> ZONING CERTIFICATION
<input type="checkbox"/> ZONING MAP AMENDMENT	<input checked="" type="checkbox"/> ZONING AUTHORIZATION
<input type="checkbox"/> ZONING TEXT AMENDMENT	<input type="checkbox"/> ACQUISITION—REAL PROPERTY
<input type="checkbox"/> SITE SELECTION—PUBLIC FACILITY	<input type="checkbox"/> DISPOSITION—REAL PROPERTY
<input type="checkbox"/> HOUSING PLAN & PROJECT	<input type="checkbox"/> OTHER, explain:
<input type="checkbox"/> SPECIAL PERMIT (if appropriate, specify type: <input type="checkbox"/> modification; <input type="checkbox"/> renewal; <input type="checkbox"/> other); EXPIRATION DATE:	
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION	

Board of Standards and Appeals: YES NO

<input type="checkbox"/> VARIANCE (use)
<input type="checkbox"/> VARIANCE (bulk)
<input type="checkbox"/> SPECIAL PERMIT (if appropriate, specify type: <input type="checkbox"/> modification; <input type="checkbox"/> renewal; <input type="checkbox"/> other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

LEGISLATION FUNDING OF CONSTRUCTION, specify:

RULEMAKING POLICY OR PLAN, specify:

CONSTRUCTION OF PUBLIC FACILITIES FUNDING OF PROGRAMS, specify:

384(b)(4) APPROVAL PERMITS, specify:

OTHER, explain:

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

PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC) LANDMARKS PRESERVATION COMMISSION APPROVAL

OTHER, explain:

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

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

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

SITE LOCATION MAP ZONING MAP SANBORN OR OTHER LAND USE MAP

TAX MAP FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)

PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 58,336 Waterbody area (sq. ft) and type: 0

Roads, buildings, and other paved surfaces (sq. ft.): 7,875 Other, describe (sq. ft.): 50,461 unpaved area

8. Physical Dimensions and Scale of Project (if the project affects multiple sites, provide the total development facilitated by the action)

SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 23,765

NUMBER OF BUILDINGS: 1 GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 23,765

HEIGHT OF EACH BUILDING (ft.): 44 NUMBER OF STORIES OF EACH BUILDING: 3

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

If "yes," specify: The total square feet owned or controlled by the applicant:

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

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

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

AREA OF TEMPORARY DISTURBANCE: sq. ft. (width x length) VOLUME OF DISTURBANCE: cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: sq. ft. (width x length)

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

	Residential	Commercial	Community Facility	Industrial/Manufacturing
Size (in gross sq. ft.)		23,765		
Type (e.g., retail, office, school)	units	Offices and storage		

Does the proposed project increase the population of residents and/or on-site workers? YES NO

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 0 NUMBER OF ADDITIONAL WORKERS: 86

Provide a brief explanation of how these numbers were determined: 20,887 sf of office space x 4 workers per 1,000 sf; 2,738 sf of warehouse space x 1 worker per 1,000 sf

Does the proposed project create new open space? YES NO If "yes," specify size of project-created open space: sq. ft.

Has a No-Action scenario been defined for this project that differs from the existing condition? YES NO

If "yes," see [Chapter 2](#), "Establishing the Analysis Framework" and describe briefly:

9. Analysis Year [CEQR Technical Manual Chapter 2](#)

ANTICIPATED BUILD YEAR (date the project would be completed and operational): 2020

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 6

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE:

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

- RESIDENTIAL MANUFACTURING COMMERCIAL PARK/FOREST/OPEN SPACE OTHER, specify: auto repair, electric substation, recycling, marine scrapyards

Part II: TECHNICAL ANALYSIS

INSTRUCTIONS: For each of the analysis categories listed in this section, assess the proposed project’s impacts based on the thresholds and criteria presented in the CEQR Technical Manual. Check each box that applies.

- If the proposed project can be demonstrated not to meet or exceed the threshold, check the “no” box.
- If the proposed project will meet or exceed the threshold, or if this cannot be determined, check the “yes” box.
- For each “yes” response, provide additional analyses (and, if needed, attach supporting information) based on guidance in the CEQR Technical Manual to determine whether the potential for significant impacts exists. Please note that a “yes” answer does not mean that an EIS must be prepared—it means that more information may be required for the lead agency to make a determination of significance.
- The lead agency, upon reviewing Part II, may require an applicant to provide additional information to support the Short EAS Form. For example, if a question is answered “no,” an agency may request a short explanation for this response.

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

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

*Site excavation and construction have already occurred, on an as-of-right basis; therefore, analysis of these technical areas is not warranted.

	YES	NO
(f) Would the proposed project be located in an area that is partially sewerred or currently unsewerred?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. SOLID WASTE AND SANITATION SERVICES: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14 , the project's projected operational solid waste generation is estimated to be (pounds per week): 1,118		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. ENERGY: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15 , the project's projected energy use is estimated to be (annual BTUs): 5,110,087,500		
(b) Would the proposed project affect the transmission or generation of energy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. TRANSPORTATION: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16 ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? **It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.	<input type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	<input type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	<input type="checkbox"/>	<input type="checkbox"/>
14. AIR QUALITY: CEQR Technical Manual Chapter 17		
(a) <i>Mobile Sources:</i> Would the proposed project result in the conditions outlined in Section 210 in Chapter 17 ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) <i>Stationary Sources:</i> Would the proposed project result in the conditions outlined in Section 220 in Chapter 17 ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17 ? (Attach graph as needed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Does the proposed project involve multiple buildings on the project site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. GREENHOUSE GAS EMISSIONS: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project fundamentally change the City's solid waste management system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18 ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. NOISE: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17. PUBLIC HEALTH: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality;	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	YES	NO
Hazardous Materials; Noise?		
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20 , "Public Health." Attach a preliminary analysis, if necessary.		
18. NEIGHBORHOOD CHARACTER: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21 , "Neighborhood Character." Attach a preliminary analysis, if necessary.		
19. CONSTRUCTION: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
<input type="checkbox"/> Construction activities lasting longer than two years?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> The operation of several pieces of diesel equipment in a single location at peak construction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Closure of a community facility or disruption in its services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Activities within 400 feet of a historic or cultural resource?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Disturbance of a site containing or adjacent to a site containing natural resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22 , "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.		

20. APPLICANT'S CERTIFICATION

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

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

APPLICANT/REPRESENTATIVE NAME Brian Kintish	DATE June 22, 2018
------------------------------------------------	-----------------------

SIGNATURE *Brian Kintish*

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

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

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

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

Potentially Significant Adverse Impact

IMPACT CATEGORY	YES	NO
Land Use, Zoning, and Public Policy	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Socioeconomic Conditions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Community Facilities and Services	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Open Space	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Shadows	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Historic and Cultural Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Urban Design/Visual Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Natural Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hazardous Materials	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water and Sewer Infrastructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Solid Waste and Sanitation Services	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Energy	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transportation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Air Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Greenhouse Gas Emissions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Health	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Neighborhood Character	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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


YES NO

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

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

- Positive Declaration:** If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental Impact Statement (EIS).
- Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result. The CND is prepared as a separate document and is subject to the requirements of 6 NYCRR Part 617.
- Negative Declaration:** If the lead agency has determined that the project would not result in potentially significant adverse environmental impacts, then the lead agency issues a *Negative Declaration*. The *Negative Declaration* may be prepared as a separate document (see [template](#)) or using the embedded Negative Declaration on the next page.

4. LEAD AGENCY'S CERTIFICATION

TITLE Deputy Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning, acting on behalf of the City Planning Commission
NAME Olga Abinader	DATE 6/22/2018
SIGNATURE 	

NEGATIVE DECLARATION (Use of this form is optional)

Statement of No Significant Effect

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


Reasons Supporting this Determination

The above determination is based on information contained in this EAS, which finds that the proposed project: and related actions sought before the City Planning Commission would have no significant effect on the quality of the environment. Reasons supporting this Determination are noted below.

Land Use, Zoning and Public Policy

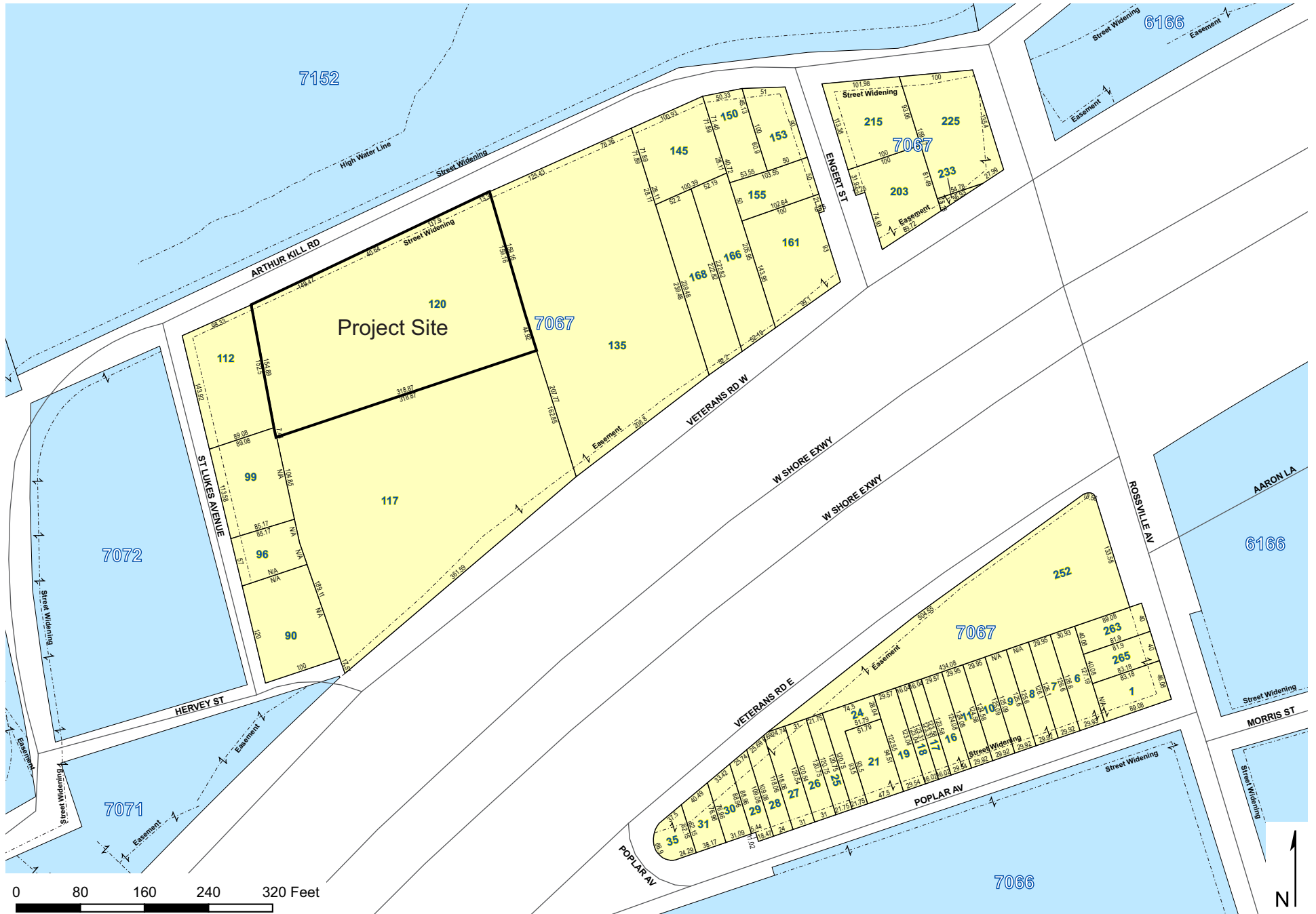
1. This EAS includes a detailed Land Use, Zoning and Public Policy section, which analyzes the potential significance of the Proposed Action on land use, zoning and public policy in the study area. The Proposed Actions would facilitate the completion of a partially built 23,765 gsf, three-story building containing offices and storage space, a loading berth, and 72 unenclosed accessory off-street parking spaces. The project area is predominantly characterized by a diverse mix of uses including commercial, industrial/manufacturing, and residential. The Proposed Action affects an area within the boundaries of the City's Waterfront Revitalization Program. An analysis was conducted (WRP Number: 17-043) that determined that the Proposed Action complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program. The analysis concludes that no significant adverse impacts related to Land Use, Zoning and Public Policy would result from the Proposed Actions.

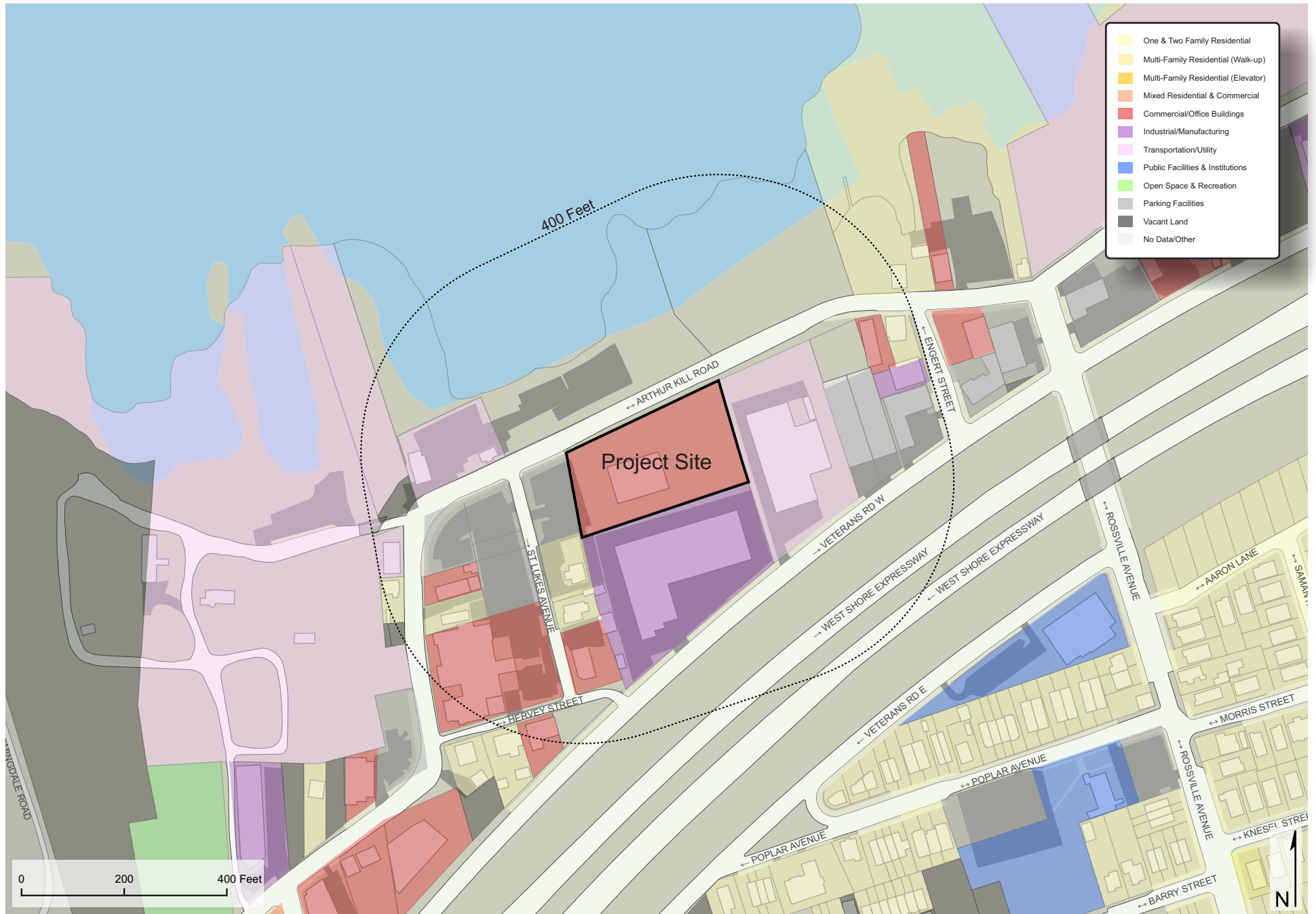
No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA).

TITLE Deputy Director, Environmental Assessment and Review Division	LEAD AGENCY Department of City Planning, acting on behalf of the City Planning Commission
NAME Olga Abinader	DATE 6/22/2018
SIGNATURE 	

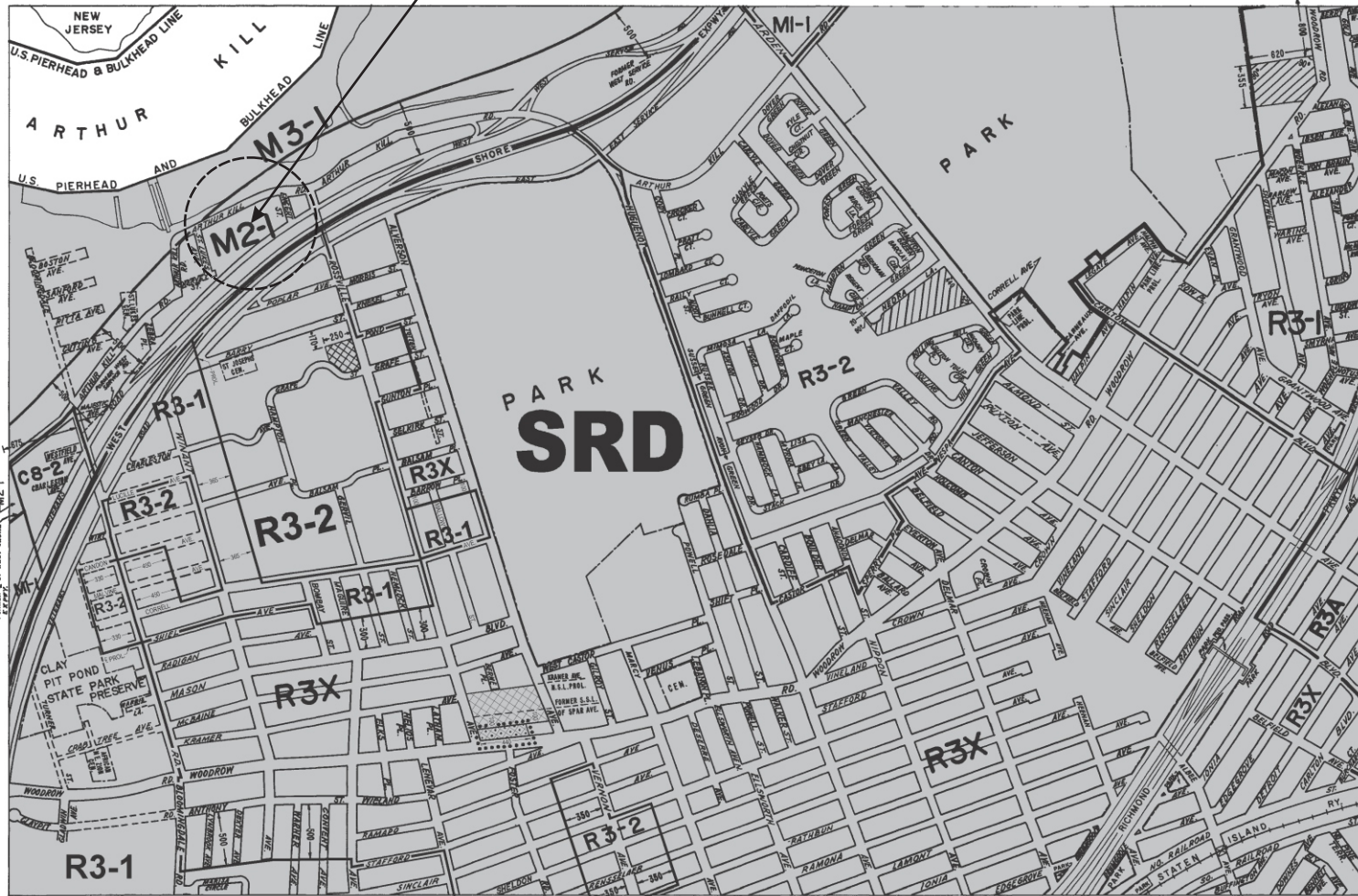
TITLE Chair, Department of City Planning	
NAME Marisa Lago	DATE 6/25/2018
SIGNATURE	







Project Site



ZONING MAP

THE NEW YORK CITY PLANNING COMMISSION

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

- R – RESIDENTIAL DISTRICT
- C – COMMERCIAL DISTRICT
- M – MANUFACTURING DISTRICT
- SPECIAL PURPOSE DISTRICT
The letter(s) within the shaded area designates the special purpose district as described in the text of the Zoning Resolution.
- AREA(S) REZONED

Effective Date(s) of Rezoning:
06-29-2011 C 080482 ZMR

Special Requirements:
For a list of lots subject to CEQR environmental requirements, see APPENDIX C.
For a list of lots subject to "D" restrictive declarations, see APPENDIX D.
For Inclusionary Housing designated areas on this map, see APPENDIX F.

MAP KEY

26b	26d
32c	33a
32d	33b
	33d

ZONING MAP 33a

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

NOTE: Where no dimensions for zoning district boundaries appear on the zoning maps, such dimensions are determined in Article VII, Chapter 6 (Location of District Boundaries) of the Zoning Resolution.

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







Project Site

Arthur Kill Road

View of Arthur Kill Road facing west (Project Site at left).



Project Site

Arthur Kill Road

View of Arthur Kill Road facing east (Project Site at right).



View from within the Project Site facing west (rear of existing building).



View of existing building on the Project Site, facing southwest.



View from within the Project Site facing east (front of existing building).



View from within the Project Site facing south (side of existing building).

2420 ARTHUR KILL ROAD AUTHORIZATION

PROJECT DESCRIPTION

INTRODUCTION

This Environmental Assessment Statement (EAS) is filed under the City Environmental Quality Review (CEQR) procedures in connection with an application made to the City Planning Commission (CPC) for an Authorization required pursuant to Zoning Resolution (ZR) Article 10, Chapter 7, Special South Richmond Development District (SSRDD). The proposed action is required for development of a property at 2420 Arthur Kill Road (Block 7067, Lot 120) in the Rossville neighborhood of Staten Island Community District 3.

PROPOSED ACTIONS

The Applicant, 1632 Richmond Terrace LLC, is seeking a CPC Authorization pursuant to ZR Section 107-68, Modification of Group Parking Facility, for a property within the Special South Richmond Development District. The Applicant is also seeking a CPC Certification pursuant to ZR Section 107-321, Tree Preservation, and a Chairperson Certification pursuant to ZR Section 36-592, Certification of Cross Access Connections. The Authorization and Certifications are for a site located at 2420 Arthur Kill Road (Block 7067, Lot 120) in the Rossville neighborhood of Staten Island Community District 3. Whereas the Certifications are ministerial actions, the Authorization is a discretionary action.

The proposed actions would facilitate the completion of a partially built 23,765 gross square foot (gsf), three-story building containing offices and storage space and a loading berth, plus 72 unenclosed accessory off-street parking spaces.

DEVELOPMENT SITE

The project site is a 58,336 square foot site at 2420 Arthur Kill Road (Block 7067, Lot 120). The site has 312.32 feet of frontage on the southern side of the road, on the block bounded by Arthur Kill Road, St. Lukes Avenue, Veterans Road North, and Engert Street. The project site is a quadrangular, with sides measuring 321.32 feet on the north (along Arthur Kill Road), 158.15 feet on the east (adjacent to Lot 135), 318.67 feet on the south (adjacent to Lot 117), and 154.89 feet on the west (adjacent to Lots 99 and 112).

According to the site survey, the project site terrain rises approximately four feet from north to south (that is, from the front to the rear of the property) and approximately one foot from west to east.

The site is zoned M2-1 within the Special South Richmond Development District (SSRDD). M2-1 is a medium intensity manufacturing district that permits light industrial uses (Use Group 17), automotive and semi-industrial commercial uses (Use Group 16), and a wide array of other commercial uses (Use Groups 6-14) but precludes new residential or community facility uses.

The maximum permitted floor area ratio (FAR) is 2.00, and the maximum street wall height is generally 60 feet. The SSRDD, addressed in Article 10, Chapter 7, of the Zoning Resolution, is subject to an array of special regulations, some applying generally throughout the district and others in certain locations. The district plan maps a number of sub-districts and a network of designated open space areas, none of which include the project site. The special district provisions pertinent to the project site include a requirement that buildings be set back from designated arterial streets, including Arthur Kill Road (ZR Section 107-251(b), Building setback); restrictions on alteration of the natural topography (ZR Section 107-31, Topographic Regulations); restrictions on the removal of trees at least six inches in caliper (ZR Section 107-321, Tree Preservation); requirements to plant one new tree for each thousand square feet of new development (ZR Section 107-322(a), On site) and, if a development includes ten or more open off-street parking spaces, one new tree for every four such parking spaces (ZR Sections 107-322(b), Planting for open parking areas, and 107-483, Planting and screening for open parking areas); a provision that no building may exceed four stories in height and that no other structure may exceed 50 feet in height (ZR Section 107-43, Maximum Height for Buildings or Structures); and a cap of 30 spaces as the maximum size of any group parking facility permitted as-of-right (ZR Section 107-472, Maximum size of group parking facility).

ADJACENT LOTS AND USES

The uses adjacent to the project site are a restaurant and its accessory parking lot on Lot 112 (2484 Arthur Kill Road, at the corner of St. Lukes Avenue) and an electric utility substation on Lot 135 (2390 Arthur Kill Road, extending through the block to Veterans Road West). The rear property line abuts a self-storage facility on Lot 117 (275 Veterans Road West). On its western side, the rear of the project site abuts a residential property, Lot 99 (21 St. Lukes Avenue, with a single-family home). Other uses on Block 7067 include single-family homes, a hotel, auto and truck repair shops, and a former home that has been converted to offices. No redevelopment has occurred in recent years. To the north, on the opposite side of Arthur Kill Road, are a recycling operation, the Staten Island Boat Graveyard (a marine scrapyards), and the shoreline of Arthur Kill.

BACKGROUND

The NYC Department of Buildings (DOB) issued a permit on October 28, 2009, for construction of a new three-story, 44-foot-tall, 23,625 sf building on the project site. Schedule A listed the proposed uses as machine rental and storage on the first floor, storage and accessory offices on the second floor, and storage on the third floor. The building permit has been renewed several times since 2009. A submission to DOB on July 15, 2011, stated that the building's exterior shell was complete and that the building was almost complete.

A site plan was approved on November 11, 2015. The site plan showed that six mature trees on the site would be retained.

A DOB inspector found that all mature trees had been removed from the site, and DOB issued a violation (#35171219Z) on March 2, 2016. Construction was halted. The violation remains active, as do subsequent violations for failure to correct the initial violation.

The construction application has since been reinstated, and DOB renewed the building permit on January 12, 2017.¹ The renewal request stated once again that the building's exterior shell is complete. Although a building permit remains in effect, there are several active DOB and Environmental Control Board (ECB) violations, including a Class 1 violation for removal of the trees, and construction or site preparation work cannot legally resume until the violations are cleared.

PURPOSE AND NEED OF THE PROPOSED ACTIONS

To remove the violations against the property, the CPC must certify a tree restoration plan pursuant to ZR Section 107-321, Tree Preservation. Section 107-321 further specifies that no Certificate of Occupancy may be issued unless the specified trees have been planted or a landscape performance bond has been posted. The provision also states that the CPC may also require that a restrictive declaration be recorded, specifying the terms of the implementing of the restoration plan.

Based on a requirement of one accessory off-street parking space for every 300 sf of office space specified in ZR Section 44-21, General Provisions, the proposed project would require at least 70 such parking spaces; but ZR Section 107-472, Maximum Size of Group Parking Facility, provides that in the SSRDD the maximum size of a group parking facility is 30 spaces, except as specified in Section 107-68, Modification of Group Parking Facility and Access Regulations. To satisfy the accessory off-street parking requirements for the project, the Applicant therefore needs a CPC Authorization pursuant to ZR Section 107-68, Modification of Group Parking Facility and Access Regulations, to permit accessory parking for more than 30 vehicles. The provision specifies that the CPC may condition its authorization upon compliance with an approved site and landscaping plan. (A site and landscaping plan is attached to this memo.)

ZR Sections 36-59, Cross Access Connections in the Borough of Staten Island, and 44-49, Cross Access Connections in Manufacturing Districts in the Borough of Staten Island, require that, in C4-1, C8, and all M districts in Staten Island, existing or new open parking lots adjacent to one another on the same or separate zoning lots shall be required to provide vehicular passageways (termed "cross access connections") between such open parking lots, and Section 36-592, Certification of Cross Access Connections, requires CPC Chairperson Certification that the requirements for such cross access connections have been met. The proposed open parking lot on the site would abut an existing accessory parking lot on Lot 112 to the west of the site. It is therefore necessary for the Chairperson to certify that a cross access connection is being provided between the parking lots on the project site and Lot 112.

ANALYSIS FRAMEWORK

Existing Conditions

The exterior shell of a partially completed three-story building occupies part of the project site. Construction work has been halted, and the building is vacant. The 105-by-75-foot building covers 7,875 sf, or 13.5 percent of the site. The building is approximately 61 feet from the front

¹ The permit was again renewed in March 2018.

property line, 35 feet from the rear property line, 153 feet from the eastern edge of the lot, and 61 feet from the western edge of the lot.

The remainder of the lot has been cleared of trees and other vegetation and is unpaved. It is vacant except for two 40-foot-long boats that are stored on it. A wooden fence surrounds the site.

The site has a single curb cut onto Arthur Kill Road.

The Future without the Proposed Actions

Absent the proposed actions, the project site would remain in its current condition. DOB and ECB violations would remain open, and no additional construction or grading work would be done on the site. Until the violations are removed, no work in connection with previously issued permits is permitted, and the DOB would not issue any new permits or a Certificate of Occupancy. ZR Section 107-321, Tree Preservation, states, "No building permit, reinstatement of such permit or issuance of a certificate of occupancy shall occur until the owner of the zoning lot either posts with the Comptroller of the City of New York a landscaping performance bond in an amount determined by the Commission or completes the replanting in accordance with the requirements set forth by the Commission in order to correct the planting violations."

The Future with the Proposed Actions

If the proposed actions are taken, the Applicant would complete and occupy the partially constructed three-story, 44-foot-tall building on the project site. The building would not be completed according to the plans originally filed with DOB, as a warehouse with some accessory office space, but would instead contain 20,887 sf of Use Group 6B office space and 2,878 sf of Use Group 16D storage space. The building would have a loading berth. All gross floor area would count for zoning purposes, and the FAR would be 0.40. All work would be in accordance with the site plan approved by the CPC.

The shell of the building is substantially complete, except that the physical building bulk (coverage and floor area) would be increased by 140 sf with the addition of a one-story entry vestibule. The addition would increase the building's floor area from 23,625 sf to 23,765 sf and its lot coverage from 7,875 sf to 8,015 sf (13.8 percent lot coverage). The building would have a footprint of 75' x 105' plus a one-story vestibule projection of 10' x 14'.

The remainder of the site would be devoted to 72 unenclosed accessory off-street parking spaces, vehicular circulation space, landscaping, and a 2,970 sf fenced area at the southeast corner of the property where boat trailers would be kept.

A total of 37 trees would be planted on the property, in accordance with a tree restoration plan approved by the CPC. The number of trees would be sufficient to compensate for the six mature trees that were removed from the site and to satisfy the ZR Section 107-332, Tree Requirements, and 107-483, Planting and Screening for Open Parking Areas, tree planting requirements. The trees would be planted mainly along the site's perimeter and would screen the open parking area. In addition, 13 street trees would be planted.

Vehicular access and egress would be via two curb cuts onto Arthur Kill Road. To facilitate the movement and maneuvering of 72 cars and trailered boats, an additional 24' curb cut would be added, in addition to the existing 30' curb cut. The new curb cut would be 118'-6" west of the existing curb cut and 128'-1" east of the intersection of St. Lukes Place and Arthur Kill Road. There would also be a cross access connection to the existing parking lot on Lot 112 to the west of the project site.

Under the provisions of ZR 107-68, Modification of Group Parking and Access Regulations, the CPC would condition its authorization upon compliance with a CPC-approved site and landscaping plan, showing the location and dimensions of all buildings, all parking spaces, the locations of all trees and other plantings and details about those plantings, any open storage areas, and the locations and sizes of all curb cuts and cross access connections. Therefore, although this scenario does not maximize the FAR permitted by zoning, it is a scenario to which the Applicant and any successors would be bound. (A site plan is appended to the EAS.)

The project would also include the widening of the adjacent part of Arthur Kill Road to its full mapped width, as well as street and sidewalk improvements. The additional street width would vary from 16.64' along the west lot line to 4.63' at the east lot line. New curbs and a 10' wide sidewalk would be installed. A Builder's Paving Plan has already been approved including Waiver of Curb Alignment and Waiver of Legal Grade.

REQUIRED APPROVALS

The proposed project would require a CPC Authorization pursuant to ZR Section 107-68, Modification of Group Parking Facility, plus a CPC Certification pursuant to ZR Section 107-321, Tree Preservation, and a Chairperson Certification pursuant to ZR Section 36-592, Certification of Cross Access Connections.

BUILD YEAR

The proposed project would be completed in a single phase. Based on an estimated 6-month construction period, the Build Year is assumed to be 2020.

	EXISTING CONDITION	NO-ACTION CONDITION	WITH- ACTION CONDITION	INCREMENT
LAND USE				
Residential	NO	NO	NO	
If "yes," specify the following:				
Describe type of residential structures				
No. of dwelling units				
No. of low- to moderate-income units				
Gross floor area (sq. ft.)				
Commercial	NO	NO	YES	
If "yes," specify the following:				
Describe type (retail, office, other)			Offices	
Gross floor area (sq. ft.)			20,887	+20,887
Manufacturing/Industrial	NO	NO	YES	
If "yes," specify the following:				
Type of use			Storage	
Gross floor area (sq. ft.)			2,738	+2,738
Open storage area (sq. ft.)			0	
If any unenclosed activities, specify:			N/A	
Community Facility	NO	NO	NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	YES	YES	NO	
If "yes," describe:	50,461 sf of cleared land	50,461 sf of cleared land		-50,461
Other Land Uses	YES	YES	NO	
If "yes," describe:	Partially built building structure (under construction per prior DOB approved plans, which anticipated a 23,625 gsf building and 72 parking spaces); storage uses	Partially built building structure (under construction per prior DOB approved plans, which anticipated a 23,625 gsf building and 72 parking spaces); storage uses		
PARKING				
Garages	NO	NO	NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
Lots	NO	NO	YES	
If "yes," specify the following:				
No. of public spaces			0	
No. of accessory spaces			72	+72
ZONING				
Zoning classification	M2-1 in SSRDD	M2-1 in SSRDD	M2-1 in SSRDD	

	EXISTING CONDITION	NO-ACTION CONDITION	WITH- ACTION CONDITION	INCREMENT
Maximum amount of floor area that can be developed	116,672 zsf	116,672 zsf	116,672 zsf	
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential, utility, auto repair, self-storage, hotel, offices, restaurant; M2-1 in SSRDD	Residential, utility, auto repair, self-storage, hotel, offices, restaurant; M2-1 in SSRDD	Residential, utility, auto repair, self-storage, hotel, offices, restaurant; M2-1 in SSRDD	

PART II: TECHNICAL ANALYSES

INTRODUCTION

Based on the criteria in Part II of the Environmental Assessment Statement Short Form, the following technical areas require further analysis: land use, zoning, and public policy; water and sewer infrastructure; transportation; air quality; and noise. These analyses, which follow the guidance in the *CEQR Technical Manual*, are presented below. The heading numbers correlate with the relevant chapters of the *CEQR Technical Manual*.

4. LAND USE, ZONING, AND PUBLIC POLICY

Introduction

A land use analysis characterizes the uses and development trends in the area that may be affected by an action and determines whether a proposed project is compatible with those conditions or whether it may adversely affect them. The analysis also considers the proposed project's compliance with, and effect on, the area's zoning and other applicable public policies.

According to the *CEQR Technical Manual*, a preliminary assessment that includes a basic description of existing and future land uses, as well as basic zoning information, is provided for most projects, regardless of their anticipated effects. Regarding public policy, the *CEQR Technical Manual* states, "Large, publicly-sponsored projects are assessed for their consistency with PlaNYC, the City's sustainability plan." An assessment of an action's consistency with the Waterfront Revitalization Program is required if an action would occur within the designated Coastal Zone. Public policy assessments are also appropriate if an action would occur within an area covered by an Urban Renewal Plan or a 197-A Plan.

Study Area

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

Because of the modest size of the proposed project, the land use, zoning, and public policy assessment for the proposed action considers a study area extending 400 feet around the project site. The study area extends northward to Arthur Kill, eastward to Engert Street, southward to the West Shore Expressway, and westward to the western side of Arthur Kill Road.

Need for a Preliminary Assessment

A land use and zoning assessment is appropriate for the proposed actions, which consist of zoning authorizations and certifications and which would result in new development. Although the proposed project is neither large nor publicly sponsored and the project site is not within an urban renewal area or an area covered by a 197-a Plan, the site is within the Coastal Zone and within the area addressed by the West Shore 2030 Plan. This section therefore addresses land use, zoning, and consistency with the Waterfront Revitalization Program and the West Shore 2030 Plan.

Land Use

Existing Conditions on the Project Site

The project site is a 58,336 square foot site at 2420 Arthur Kill Road (Block 7067, Lot 120). The exterior shell of a partially completed three-story building occupies part of the project site. Construction work has been halted, and the building is vacant. The 105-by-75-foot building

covers 7,875 sf, or 13.5 percent of the site. The building is approximately 61 feet from the front property line, 35 feet from the rear property line, 153 feet from the eastern edge of the lot, and 61 feet from the western edge of the lot. The remainder of the lot has been cleared of trees and other vegetation and is unpaved. It is vacant except for two 40-foot-long boats that are stored on it. A wooden fence surrounds the site. The site has a single curb cut onto Arthur Kill Road.

Existing Conditions within the Study Area

The project site is located on Block 7067, which is bounded by Arthur Kill Road, St. Lukes Avenue, Veterans Road West, and Engert Street. The uses adjacent to the project site are a restaurant and its accessory parking lot on Lot 112 (2484 Arthur Kill Road, at the corner of St. Lukes Avenue) and an electric utility substation on Lot 135 (2390 Arthur Kill Road, extending through the block to Veterans Road West). The rear property line abuts a self-storage facility on Lot 117 (275 Veterans Road West). On its western side, the rear of the project site abuts a residential property, Lot 99 (21 St. Lukes Avenue, with a single-family home). Other uses on Block 7067 include single-family homes, a hotel, auto and truck repair shops, and a former home that has been converted to offices. No redevelopment has occurred in recent years.

To the north, on the opposite side of Arthur Kill Road, are a recycling operation, the Staten Island Boat Graveyard (a marine scrapyards), and the shoreline of Arthur Kill.

To the west is Block 7072, bounded by St. Lukes Avenue on the east, Hervey Street on the north, and, because of a sharp bend in the road, Arthur Kill Road on both the south and the west. The Old Bermuda Inn, a combination banquet hall, restaurant, and bed and breakfast with three buildings and an accessory parking lot, occupies most of the block. The only other use is a much smaller eating and drinking establishment occupying a former one-family home.

The study area also includes a few properties to the south and to the west of Block 7072. A one-family home, an office building, and the Old Bermuda Inn's "botanical gardens" are located on the south side of Hervey Street. An electrical contractor's shop and a one-family home are located on the west side of Arthur Kill Road.

Future Conditions without the Proposed Actions

Absent the proposed actions, the project site would remain in its current condition. DOB and ECB violations would remain open, and no additional construction or grading work would be done on the site. Until the violations are removed, no work in connection with previously issued permits is permitted, and the DOB would not issue any new permits or a Certificate of Occupancy. ZR Section 107-321, Tree Preservation, states, "No building permit, reinstatement of such permit or issuance of a certificate of occupancy shall occur until the owner of the zoning lot either posts with the Comptroller of the City of New York a landscaping performance bond in an amount determined by the Commission or completes the replanting in accordance with the requirements set forth by the Commission in order to correct the planting violations."

No land uses are anticipated within the study area.

Future Conditions with the Proposed Actions

If the proposed actions are taken, the Applicant would complete and occupy the partially constructed three-story, 44-foot-tall building on the project site. The building would not be completed according to the plans originally filed with DOB, as a warehouse with some accessory office space, but would instead contain 20,887 sf of Use Group 6B office space and 2,878 sf of Use Group 16D storage space. The building would have a loading berth. All gross floor area would count for zoning purposes, and the FAR would be 0.40. All work would be in accordance with the site plan approved by the CPC.

The shell of the building is substantially complete, except that the physical building bulk (coverage and floor area) would be increased by 140 sf with the addition of a one-story entry vestibule. The addition would increase the building's floor area from 23,625 sf to 23,765 sf and its lot coverage from 7,875 sf to 8,015 sf (13.8 percent lot coverage). The building would have a footprint of 75' x 105' plus a one-story vestibule projection of 10' x 14'.

The remainder of the site would be devoted to 72 unenclosed accessory off-street parking spaces, vehicular circulation space, landscaping, and a small fenced area at the rear of the property where boat trailers would be kept.

A total of 37 trees would be planted on the property, in accordance with a tree restoration plan approved by the CPC. The number of trees would be sufficient to compensate for the six mature trees that were removed from the site and to satisfy the ZR Section 107-332, Tree Requirements, and 107-483, Planting and Screening for Open Parking Areas, tree planting requirements. The trees would be planted mainly along the site's perimeter and would screen the open parking area.

Vehicular access and egress would be via an existing curb cut onto Arthur Kill Road and a new, second curb cut onto Arthur Kill Road. There would also be a cross access connection to the existing parking lot on Lot 112 to the west of the project site.

The project would also include the widening of the adjacent part of Arthur Kill Road to its full mapped width, as well as street and sidewalk improvements.

The proposed actions would result in the transformation of a currently unutilized property into a site with an active, productive use, with an occupied commercial building devoted primarily to office use. Office buildings are among the various existing uses within the very mixed-use study area, and the proposed project would not cause any land use conflicts. The proposed actions would therefore not have a significant adverse impact on land use.

Zoning

Existing Conditions

The site is zoned M2-1 within the Special South Richmond Development District (SSRDD). M2-1 is a medium intensity manufacturing district that permits light industrial uses (Use Group

17), automotive and semi-industrial commercial uses (Use Group 16), and a wide array of other commercial uses (Use Groups 6-14) but precludes new residential or community facility uses. The maximum permitted floor area ratio (FAR) is 2.00, and the maximum street wall height is generally 60 feet. The SSRDD, addressed in Article 10, Chapter 7, of the Zoning Resolution, is subject to an array of special regulations, some applying generally throughout the district and others in certain locations. The district plan maps a number of sub-districts and a network of designated open space areas, none of which include the project site. The special district provisions pertinent to the project site include a requirement that buildings be set back from designated arterial streets, including Arthur Kill Road (ZR Section 107-251(b), Building setback); restrictions on alteration of the natural topography (ZR Section 107-31, Topographic Regulations); restrictions on the removal of trees at least six inches in caliper (ZR Section 107-321, Tree Preservation); requirements to plant one new tree for each thousand square feet of new development (ZR Section 107-322(a), On site) and, if a development includes ten or more open off-street parking spaces, one new tree for every four such parking spaces (ZR Sections 107-322(b), Planting for open parking areas, and 107-483, Planting and screening for open parking areas); a provision that no building may exceed four stories in height and that no other structure may exceed 50 feet in height (ZR Section 107-43, Maximum Height for Buildings or Structures); and a cap of 30 spaces as the maximum size of any group parking facility permitted as-of-right (ZR Section 107-472, Maximum size of group parking facility).

The M2-1 district and the SSRDD are mapped over all land within the study area. The area between the Arthur Kill Road shoreline and the pierhead line, occupied by a marine scrapyards, is mapped as an M3-1 heavy manufacturing district within the SSRDD. The M3-1 use and bulk regulations are similar to those governing M2-1, except that M3-1 permits Use Group 18, consisting of heavy manufacturing, utility, and scrapyards uses.

Future Conditions without the Proposed Actions

No zoning map changes are anticipated in the study area in the future without the proposed actions.

Future Conditions with the Proposed Actions

The proposed actions would not change the zoning on the project site, and the proposed project would conform with the applicable use regulations and would comply with the applicable bulk regulations.

The Applicant seeks a CPC Authorization pursuant to ZR Section 107-68, Modification of Group Parking Facility and Access Regulations, to permit accessory parking for more than 30 vehicles, which is necessary to satisfy the proposed project's accessory off-street parking requirements. The Authorization will not be granted unless the CPC makes the required findings.

The Applicant is also seeking a CPC Certification pursuant to ZR Section 107-321, Tree Preservation, which is necessary to correct an existing violation recorded against the property.

The other proposed action is a Chairperson Certification to advise DOB that zoning requirements regarding required cross-access connections have been met.

The proposed actions would not have a significant adverse impact related to zoning.

Public Policy

Waterfront Revitalization Program

The project site is within the Coastal Zone, so this section assesses the proposed project's consistency with New York City's Waterfront Revitalization Program (WRP). The project has been assigned WRP # 17-043. The site is approximately 170 feet inland from Arthur Kill, without waterfront access and inland of Arthur Kill Road. Three of the ten WRP policies are relevant to the proposed actions.

Policy 1.1: Encourage commercial and residential redevelopment in appropriate coastal zone areas.

The project site is not within a Special Natural Waterfront Area (SNWA) or Significant Maritime and Industrial Area (SMIA), and it is in a well developed area with substantial commercial development. The project site is currently unutilized. The proposed actions would therefore be consistent with Policy 1.1.

Policy 2.1: Support water-dependent and industrial uses within Significant Maritime and Industrial Areas.

This policy is relevant because the project site is within an upland area adjacent to the Staten Island West Shore SMIA; however, the site itself is not on the waterfront of within the SMIA and is separated from the SMIA by Arthur Kill Road. The policy is not actually applicable to the project site.

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

As shown in the New York City Flood Hazard Mapper, the project site is not within a 100- or 500-year-floodplain as designated on FEMA's 2015 preliminary flood maps. The proposed actions would be consistent with Policy 6.

Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published by the NPCC, or any successor thereof) into the planning and design of projects in the city's Coastal Zone.

The New York City Panel on Climate Change has projected that, relative to sea levels in the year 2000, sea levels at New York City will have risen 4 to 8 inches in the 2020s, 11 to 21 inches in the 2050s, 18 to 39 inches in the 2080s, and 22 to 50 inches by 2100. These changes will increase the frequency and severity of coastal flooding, expand existing flood zones, and increase base flood elevations at locations within existing flood zones. As shown in the New York City Flood Hazard Mapper, projected sea level rise will bring the front of the property into the 100-year

floodplain during the 2020s, much of the parking lot (but not the building) into the 100-year floodplain in the 2050s, and the entire site into the 100-year floodplain in the 2080s.

The building design does not incorporate floodproofing, and it is not elevated above the future floodplain. Nevertheless, insofar as the building as the building does not have a cellar or basement and is located towards the rear of the property, which is at a somewhat higher elevation than the front part (where the parking lot would be located), its design shows sensitivity to the potential hazards of sea level rise.

Working West Shore 2030

The project site is within the area addressed by *Working West Shore 2030: Creating Jobs, Improving Infrastructure and Managing Growth*, a plan produced by the New York City Department of City Planning and the New York City Economic Development Corporation. Specifically, the site is within the Rossville neighborhood study area, addressed in Chapter 3, Neighborhood Framework, pages 34 through 37. Two of the plan's recommendations for the neighborhood are pertinent to the proposed project:

“Support commercial development along Arthur Kill Road, interacting with destination center and nearby waterfront access amenities with access to improved transit connections.”

The proposed project is the completion of an office building with a small amount of storage use. The proposed actions would be consistent with this recommendation.

“Widen Arthur Kill Road, complete NYC DOT improvements including off-street bike/pedestrian connections and incorporate storm water and sanitary infrastructure improvements to support future development.”

The proposed project would include the widening of Arthur Kill Road and the provision of roadway and sidewalk improvements. The proposed actions would be consistent with this recommendation.

Conclusion

The proposed actions would not have a significant adverse impact relative to public policy.

13. WATER AND SEWER INFRASTRUCTURE

A water and sewer infrastructure assessment is performed to determine whether a proposed project would adversely affect New York City's water distribution or sewer system and whether the available infrastructure at a project site would be sufficient to accommodate the proposed development. A water supply analysis is appropriate if a proposed project would result in an exceptionally large demand for water (more than one million gallons per day) or if the project site is located in an area that experiences low water pressure. A wastewater and stormwater conveyance and treatment assessment is appropriate if the project site is located in either a combined sanitary and stormwater sewer area or a separately sewered area and the proposed project exceeds thresholds specified in the *CEQR Technical Manual*, is located in a partially sewered or unsewered area, or is at least five acres in size (or at least one acre if located in one of certain specified drainage areas); or if the project would involve construction of a new stormwater outfall.

The proposed project is the completion of a partially built 23,765 gsf building that would contain offices and wholesale storage space, which would use an estimated 6,417 gallons per day (gpd) according to Table 13-2 of the *CEQR Technical Manual* (2,376.5 gpd domestic and 4,40 gpd for air conditioning). The project would thus not have an exceptionally large water demand, and the project site is not within an area subject to low water pressure. A water supply analysis is not required, and the proposed actions would not have a significant adverse impact on New York City's water supply system. In an email dated June 14, 2018, the New York City Department of Environmental Protection (DEP) stated that the existing water mains should be able to handle the increase in water demand.

The project site is not located within any of the drainage areas specified in the *CEQR Technical Manual*, and the proposed project would not exceed any specified threshold and would not involve construction of a new stormwater outfall. A preliminary wastewater and stormwater assessment is appropriate, however, because the project site is located in a partially sewered area that is served by municipal sanitary sewers but not stormwater sewers.

The project site is within the catchment area of the Oakwood Beach wastewater treatment plant. A 30" sanitary interceptor sewer fronts the property. Because the site is unoccupied and would remain unoccupied in the future without the proposed actions, the current and future no-action effluent flow is nonexistent. Under future with-action conditions, the effluent flow would equal the domestic water use, or 2,376.5 gpd. The project size, 23,765 sf of office space, is below the threshold of 100,000 sf of commercial space that would trigger the need for a sanitary sewer capacity analysis, as per Table 13-1 of the *CEQR Technical Manual*. In its June 14, 2018 email, DEP stated that a hydraulic analysis of the existing sewer system may be needed at the time of submittal of the site connection proposal application to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system.

The project site measures 58,336 sf. Under existing conditions, the site has 30,154 sf of permeable surface area (52 percent of the site) and 28,182 sf of impermeable surface area (7,875 sf of roof area and 20,337 sf of pavement). These numbers would not change under future no-action conditions. Under future with-action conditions, a 140 sf entry vestibule would be added to the building, and most of the rest of the site would be occupied by an accessory surface parking lot and vehicular circulation space. The amount of permeable surface area would decline to 6,466 sf (11 percent of the site), and the amount of impermeable surface area would increase to 51,870 sf (8,015 sf of roof area and 43,855 sf of pavement and walkway).

The amount of impermeable surface area would increase by 23,633 sf as a result of the proposed actions, increasing from 48 percent of the site to 89 percent. The site's runoff coefficient would increase from 0.53 to 0.80. Because the project site is not within a combined sewer area, the increased stormwater runoff would not enter the municipal sewer system and would not affect potential combined sewer overflow (CSO) incidents. The proposed actions would, however, increase the amount of runoff from the project site onto the street and other properties and towards the nearby Arthur Kill. See Table 13-1, Comparison of Existing and With-Action Volumes.

Drywells have been installed to drain stormwater runoff from the building's roof and the pavement, in accordance with a 2010 drainage master plan for Lots 117 and 120. (Lot 117, also identified as 275 Veterans Road West, is located to the immediate south of the project site and is developed with a self-storage building and accessory parking lot.) As shown in Figure 13-1, Drainage Master Plan, there are nine drywells, in two locations, to the east and west of the partially completed building.

The proposed actions would not have a significant adverse impact on water and sewer infrastructure. DEP has reviewed the analysis and concurred with this conclusion. (See Appendix C.)

TABLE 13-1: COMPARISON OF EXISTING AND WITH-ACTION VOLUME

CSO SUBCATCHMENT AREA:¹

N/A (not within a combined sewer area; sanitary sewers only, within the Oakwood Beach WWTP catchment area, nearest water body is Arthur Kill)

EXISTING

		58,366 SF (1.34 acres)				Area = XX,XXX SF (XX.XX ACRES)				
		SITE A				SITE B ²				SITE A & B
RAINFALL VOLUME (in)	RAINFALL DURATION (hr) ³	RUNOFF VOLUME DIRECT DRAINAGE (MG) ⁴	RUNOFF VOLUME TO CSS (MG)	SANITARY VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)	RUNOFF VOLUME TO RIVER (MG)	RUNOFF VOLUME TO CSS (MG)	SANITARY VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)
0.00	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.40	3.80	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.20	11.30	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	19.50	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

With-Action

		58,366 SF (1.34 acres)				Area = XX,XXX SF (XX.XX ACRES)				
		SITE A				SITE B ²				SITE A & B
RAINFALL VOLUME (in)	RAINFALL DURATION (hr) ³	RUNOFF VOLUME DIRECT DRAINAGE (MG) ⁴	RUNOFF VOLUME TO CSS (MG)	SANITARY VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)	RUNOFF VOLUME TO RIVER (MG)	RUNOFF VOLUME TO CSS (MG)	SANITARY VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)	TOTAL VOLUME TO CSS (MG)
0.00	3.80	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.00	0.38
0.40	3.80	0.01	0.00	0.38	0.38	0.00	0.00	0.00	0.00	0.38
1.20	11.30	0.03	0.00	1.12	1.12	0.00	0.00	0.00	0.00	1.12
2.50	19.50	0.07	0.00	1.93	1.93	0.00	0.00	0.00	0.00	1.93

¹ If the proposed project crosses over several different CSO subcatchment areas, the above summary table should be completed for each CSO sub-catchment area.

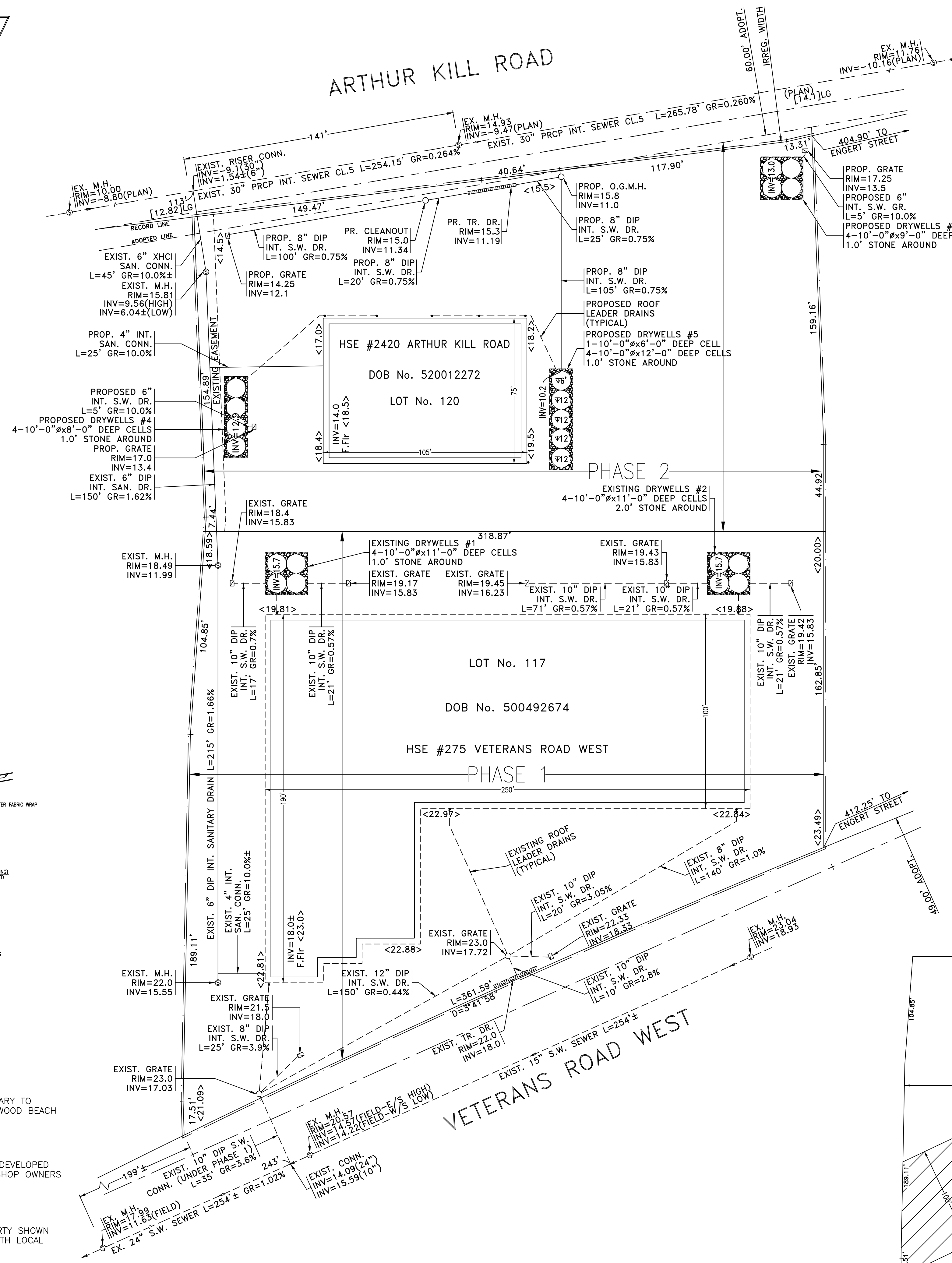
² If proposed project includes a phased implementation plan or discrete sites, assess volumes using additional cells above (e.g., Site B).

³ Based on *Intensity/duration/Frequency Rainfall Analysis, New York City and the Catskill Mountain Water Supply Reservoirs*, Vieux & Associates, Inc., April 4, 2006. The 24-hour rainfall volume is based on average rainfall intensity over 24-hours (inch/per) times 24 hrs. (Duration information provided by T. Newman & P. Jadhav, HydroQual).

⁴ The volume (calculated in WS2) of stormwater runoff from any portion of the proposed project site draining to a separate storm sewer or as overland flow directly to a waterbody should be entered here.

BLOCK 7067

PLAN: 1" = 30'



CALCULATIONS

AREA = 134,796 ϕ = 3.09 AC (TOTAL SITE), ZONE = M2-1
 PHASE 1 = 79,017 ϕ = 1.81 AC
 PHASE 2 = 55,779 ϕ = 1.28 AC

SANITARY

$Q_{avg} = \frac{(3.09)(2)(10000)}{7.48(86400)} = 0.096$ CFS
 PEAK FLOW FACTOR = 2
 $Q_{peak} = (2)(0.096) = 0.192$ CFS (TOTAL SITE)
 PHASE 1 = 0.112 CFS
 PHASE 2 = 0.080 CFS
 EXIST. 6" X.H.C.I. SAN. CONN. @ 10.0% (UNDER PHASE 1)
 CAPACITY = 1.79 CFS
 1.79 CFS > 0.192 CFS. O.K.
 OUTLET = 30" PRCP INT. SEWER @ 0.264%
 CAPACITY = 21.07 CFS
 21.07 CFS > 0.192 CFS. O.K.

STORM - TOTAL SITE

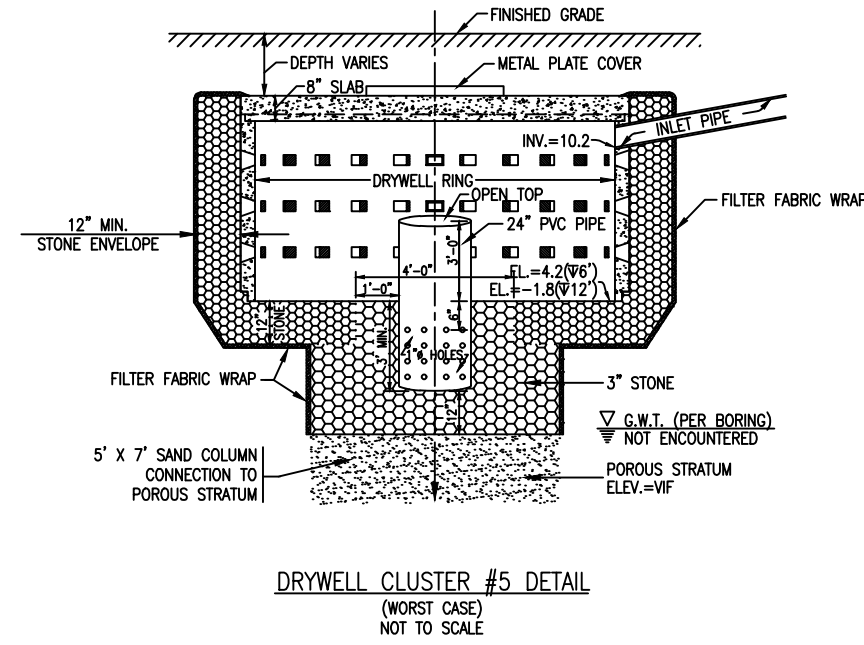
Allowable
 TRIB. AREA = 38,000 ϕ = 0.87 AC (100' DEPTH)
 $Q_{all} = (5.95)(0.85)(0.87)$
 $Q_{all} = 4.40$ CFS
Actual
 TRIBUTARY AREA = 134,796 ϕ = 3.09 AC
 ROOF = 42,339 ϕ = 0.97 AC x 1.0 = 0.9700
 PAVT = 58,829 ϕ = 1.35 AC x 0.85 = 1.1475
 GRASS = 33,630 ϕ = 0.77 AC x 0.20 = 0.1540
 3.09 AC 2.2715
 $Cw = \frac{2.2715}{3.09} = 0.735$
 $Q_{act} = (5.95)(0.735)(3.09)$
 $Q_{act} = 13.51$ CFS > $Q_{all} = 4.40$ CFS. RETENTION REQ'D

STORM - PHASE 1

TRIBUTARY AREA = 79,017 ϕ = 1.81 AC
 ROOF = 34,462 ϕ = 0.79 AC x 1.0 = 0.7900
 PAVT = 40,455 ϕ = 0.93 AC x 0.85 = 0.7905
 GRASS = 4,100 ϕ = 0.09 AC x 0.20 = 0.0180
 1.81 AC 1.5985
 $Cw = \frac{1.5985}{1.81} = 0.883$
 $Q_{act1} = (5.95)(0.883)(1.81)$
 $Q_{act1} = 9.51$ CFS > $Q_{all} = 4.40$ CFS. RETENTION REQ'D

STORM - PHASE 2

TRIBUTARY AREA = 55,779 ϕ = 1.28 AC
 ROOF = 7,875 ϕ = 0.18 AC x 1.0 = 0.1800
 PAVT = 18,374 ϕ = 0.42 AC x 0.85 = 0.3570
 GRASS = 29,530 ϕ = 0.68 AC x 0.20 = 0.1360
 1.28 AC 1.28
 $Cw = \frac{0.6730}{1.28} = 0.526$
 $Q_{act2} = (5.95)(0.526)(1.28)$
 $Q_{act2} = 4.01$ CFS TO DRYWELLS



NOTES:
 1. ALL DRYWELLS TO BE LOCATED 5'-0" MIN. FROM PROPERTY LINES AND 10'-0" MIN. FROM BUILDING LINES
 2. POROUS STRATUM MUST BE PENETRATED BY 5' MINIMUM.

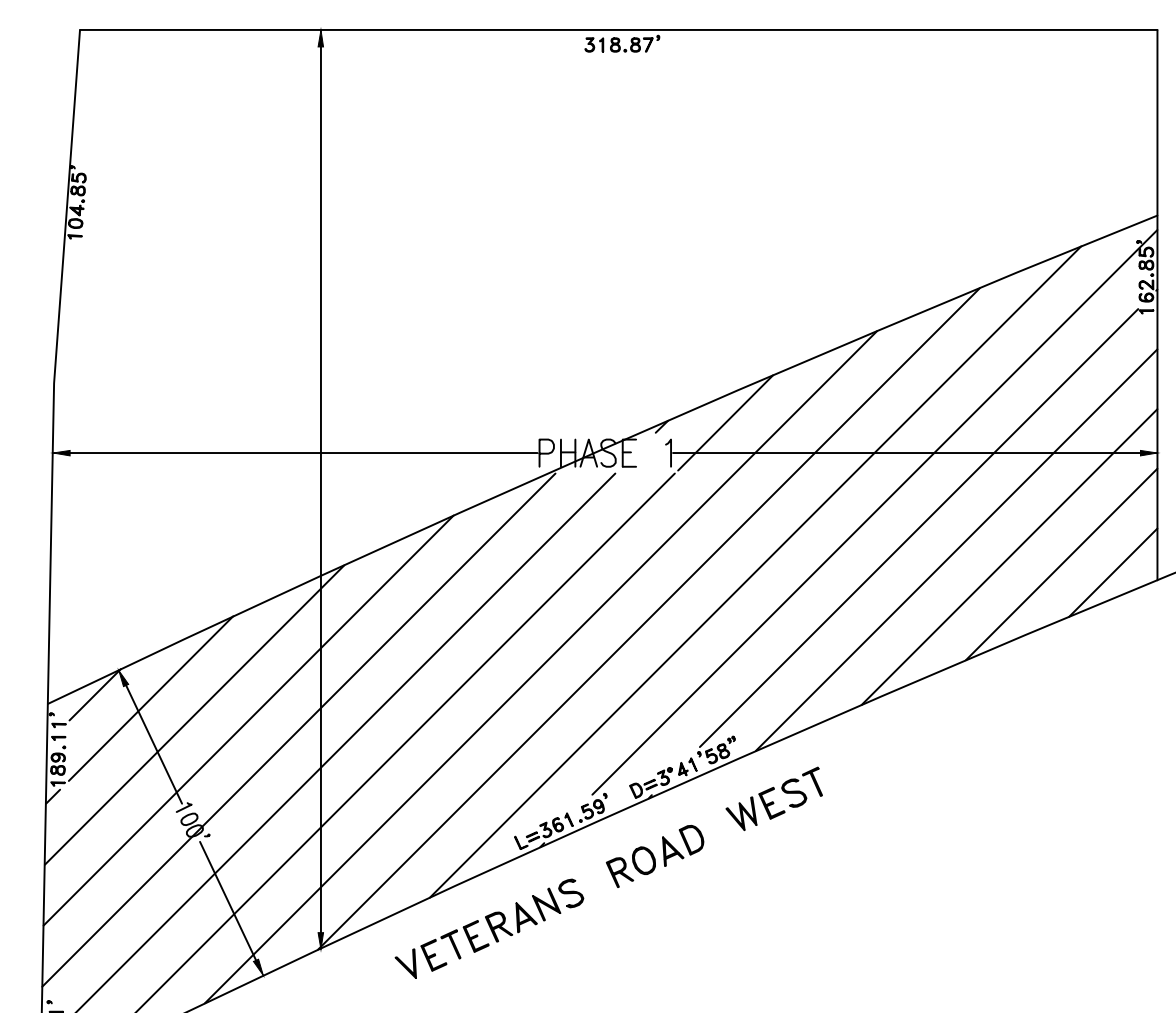
MATERIAL NOTE:
 THE PIPE AND BEDDING MATERIAL FOR THE PROPOSED CONNECTIONS SHALL CONFORM TO STANDARD N.Y.C.D.E.P. SPECIFICATIONS.

SANITARY OUTLET
 THE SANITARY DRAINS SHOWN HEREON ARE TRIBUTARY TO THE MUNICIPAL SEWAGE TREATMENT PLANT AT OAKWOOD BEACH

DEVELOPMENT NOTE
 THE OWNERS PROPERTY SHOWN HEREON WILL BE DEVELOPED WITH TWO WAREHOUSE BUILDINGS AS PART OF A SHOP OWNERS AGREEMENT.

STORM WATER NOTE
 STORM WATER RUNOFF FROM THE OWNERS PROPERTY SHOWN HEREON WILL BE DISPOSED OF IN ACCORDANCE WITH LOCAL LAW NO. 103/89

DATUM NOTE
 ELEVATIONS SHOWN HEREON ARE IN THE STATEN ISLAND DATUM WHICH IS 3.19' ABOVE MEAN SEA LEVEL AS ESTABLISHED BY THE U.S. COAST & GEODETIC SURVEY AT SANDY HOOK, N.J.



TRIBUTARY AREA MAP
 (NOT TO SCALE)
 AREA = 38,000 ϕ = 0.87 AC

MASTER PLAN

REVISIONS	JOB #	DATE	DRAFTED
DEP COMMENTS		3-6-2009	D.D.S.
DEP COMMENTS		4-20-2009	D.D.S.
DW LOCATION PHASE 1		9-9-2010	D.D.S.

PROPOSED STORM WATER & SANITARY DISPOSAL			
AT 275 VETERANS ROAD WEST 2420 ARTHUR KILL ROAD BLOCK 7067 STATEN ISLAND			
OWNER	H&E TOOL RENTAL & SALES 6451 AMBOY ROAD STATEN ISLAND, NEW YORK 10309 JEFFREY G. DORRY, VICE PRESIDENT		
Drafted by:	D.D.S.	R.S. ENGINEERING & LAND SURVEYING, P.L.L.C.	Date:
Checked by:	R.W.D.	1632 Richmond Terrace, Staten Island, NY 10310 (718) 447 8801 Fax (718) 447 8802 www.rogerssurveying.net	Sea
Project No:	121253	email: survey@mindspring.com	1'
			Job
			121

SCR-029/09 (MP)

SCALE/SIGNATURE

16. TRANSPORTATION

Introduction

In order to determine the potential for the proposed action to result in significant adverse transportation impacts, a trip generation screening analysis was performed pursuant to the methodologies identified in the *CEQR Technical Manual*.

The project site is located at 2420 Arthur Kill Road (Block 7067, Lot 120) in the Rossville neighborhood of Staten Island Community District 3. The proposed actions would facilitate the completion of a partially built 3-story building and the creation of 72 unenclosed accessory off-street parking spaces. The building would contain 20,887 sf of Use Group 6B office space and 2,738 sf of Use Group 16D storage space for boats and equipment.

Trip Generation

A preliminary Level 1 trip generation was performed for 20,887 gsf of office space and 2,738 gsf of warehouse space. Analysis was performed for the weekday AM, Midday, PM and Saturday Midday peak hours. For the office space, the person trip generation assumptions and truck trip assumptions were from Table 16-2 of the *CEQR Technical Manual*. For the warehouse space, the person trip generation assumptions, truck trip assumptions and vehicle occupancy rate were those used for the Jerome Avenue Rezoning completed recently. The modal split and vehicle occupancy assumptions were derived from the Census Bureau's American Community Survey (ACS) 2006 through 2010 five-year Reverse Journey-to-Work (RJTW) data, census tract numbers 170.10, 208.01, 208.03, 208.04, 226 and 228 in Staten Island, NY. (See Figure 16-1.)

The estimated modal split data for office development found that approximately 78% would travel by car, zero (0%) percent would travel by taxi, 16% would travel by public transit, 2% would travel by foot, and 4% would travel by other mode of travel, such as bicycle, as shown in **Exhibits A and B**. The assumptions are summarized in **Table 1**.

The results are shown in **Tables 2 and 3** for total person and vehicle trip ends. The proposed project would generate 46 (AM peak hour), 58 (Midday peak hour), 54 (PM peak hour) and 14 (Saturday Midday peak hour) person trip ends. As summarized in **Table 3**, the proposed project would generate 36, 44, 39 and 10 vehicle trip ends during the AM, Midday, PM and Saturday Midday peak hours, respectively.

As the tables show, the proposed action would add a maximum of 44 vehicle trips during any peak hour (during the Midday peak hour). The proposed action would add a maximum of 9 transit and 12 pedestrian (transit and walk-only) trip ends, also during the Midday hour.

The number of action-generated trips would not equal or exceed the CEQR thresholds of 200 trip ends for transit and pedestrians and 50 vehicle trip ends during any peak hour. No further transportation analysis would be warranted.

Conclusion

The proposed action would not result in 50 or more vehicle trips, 200 or more transit trips, or 200 or more pedestrian trips during any single hour. A significant adverse transportation impact is not anticipated.

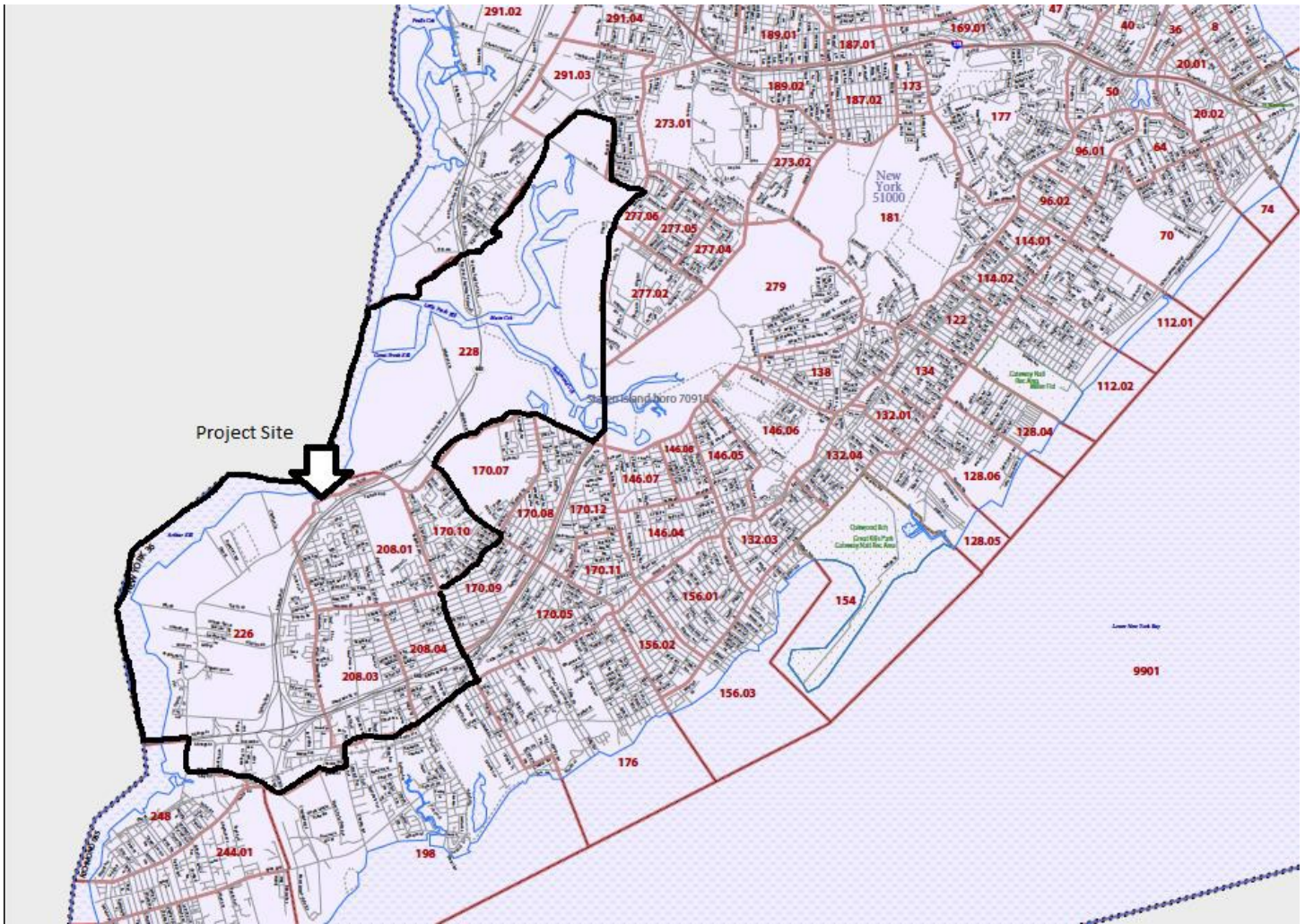


Figure 16-1: Census Tract Map

Table 1 : Transportation Planning Factors
2420 Arthur Kill Road, Staten Island, NY

Land Use:	Commercial Of- fice	Warehouse
	Space-sq.ft.	Space-sq.ft.
Size/Units:	20,887	2,738
	(1)	(4)
Trip Generation:		
Weekday	18	4.9
Saturday	3.9	1.7
	per 1,000 sq.ft.	per 1,000 sq.ft.
Linked-Trip:	0%	0%
Temporal Distribution:	(1)	(4)
AM Peak Hour	12%	8.4%
MD Peak Hour	15%	14%
PM Peak Hour	14%	8.9%
Saturday Midday Peak Hour	17%	10.6%
	(2)	(2)
Modal Split :	all periods	all periods
Auto	78%	78%
Taxi	0%	0%
Subway	4%	4%
Bus	12%	12%
Walk	2%	2%
Other	4%	4%
Total	100%	100%
	(3)	(4)
In/Out Splits:	In/Out	In/Out
AM Peak Hour	96/4	79/21
MD Peak Hour	39/61	50/50
PM Peak Hour	5/95	25/75
Saturday Midday Peak Hour	60/40	64/36
Vehicle Occupancy:	(2)	(2)
Auto	1.08	1.08
Taxi	1.4	1.4
Truck Trip Generation:	(1)	(4)
Weekday	0.32	0.67
Saturday	0.01	0.03
	per 1,000 sqft	per 1,000 s.f.
	(1)	(4)
AM Peak Hour	10%	14%
MD Peak Hour	11%	9%
PM Peak Hour	2%	1%
Saturday Midday Peak Hour	11%	9%

AM/MD/PM/Saturday Mid-day 50/50 50/50

Sources:

- (1)-2014 CEQR Technical Manual, Table 16-2.
- (2)-2006-2010 (ACS)-Reverse-Journey-to-Work (RJTW) Census Tract #'s 170.10, 208.01, 208.03, 208.4, 226 and 228 in Staten Island N.Y.
- (3)-East New York FEIS, 2016.
- (4)-Jerome Avenue Rezoning DEIS.

Table 2 : Estimated Person Trips
2420 Arthur Kill Road, Staten Island, NY

Land Use:	Commercial Office Space-sq.ft.	Warehouse Space-sq.ft.	Total Net Demand	
Size/Units:	20,887	2,738		
Peak hour Trips				
AM Peak Hour	45	1	46	
Midday Peak Hour	56	2	58	
PM Peak Hour	53	1	54	
Saturday Midday Peak Hour	14	0	14	
<u>Person Trips:</u>				
<i>AM Peak Hour</i>				
Auto	35	1	36	
Taxi	0	0	0	
Subway	2	0	2	2
Bus	5	0	6	6
Walk	1	0	1	1
Other	2	0	2	2
Total	45	1	46	11
<i>Midday Peak Hour</i>				
Auto	44	1	45	
Taxi	0	0	0	
Subway	2	0	2	2
Bus	7	0	7	7
Walk	1	0	1	1
Other	2	0	2	2
Total	56	2	58	12
<i>PM Peak Hour</i>				
Auto	41	1	42	
Taxi	0	0	0	
Subway	2	0	2	2
Bus	6	0	6	6
Walk	1	0	1	1
Other	2	0	2	2
Total	53	1	54	11

Saturday Midday Peak Hour

Auto	11	0	11	
Taxi	0	0	0	
Subway	1	0	1	1
Bus	2	0	2	2
Walk	0	0	0	0
Other	1	0	1	1
Total	14	0	14	4

Table 3 : Estimated Vehicular Trips

2420 Arthur Kill Road, Staten Island, NY

<u>Vehicular Trips</u>	Residential	Medical Office	Total
AM Peak Hour			
Auto (Total)	33	1	34
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	1	0	1
Truck(Balanced)	2	0	2
Total	35	1	36
Midday Peak Hour			
Auto (Total)	41	1	42
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	1	0	1
Truck(Balanced)	2	0	2
Total	43	1	44
PM Peak Hour			
Auto (Total)	38	1	39
Taxi	0	0	0
Taxi (Balanced)	0	0	0
Truck	0	0	0
Truck(Balanced)	0	0	0
Total	38	1	39
Saturday Midday Peak Hour			
Auto (Total)	10	0	10
Taxi	0	0	0
Taxi (Balanced)	0	0	0

Truck	0	0	0
Truck(Balanced)	0	0	0
Total	10	0	10

17. AIR QUALITY

Introduction

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. To assess potential health hazards due to ambient air quality, the impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered. The analysis framework, as mandated by the State Environmental Review Act, follows the 2014 *CEQR Technical Manual*. This section assesses the following:

- The potential for changes in vehicular travel associated with proposed development activities to result in significant mobile source (vehicular related) air quality impacts.
- The potential for emissions from the heating, ventilation and air conditioning (HVAC) systems of the proposed development to significantly impact nearby existing land uses.

Air Pollutants and Applicable Standards and Guidelines

National Air Quality Standards

The U.S. Environmental Protection Agency (EPA) has identified six pollutants, known as criteria pollutants which are being of concern nationwide, and established threshold concentration based upon adverse effect on human health. The six pollutants and their characteristics are:

- Carbon Monoxide (CO) is mainly produced by motor vehicles from the incomplete combustion of gasoline. The impact of CO on the ambient air is analyzed next to roadways, intersections, parking lots, and parking garages vents as these locations are the most affected.
- Nitrogen Dioxide (NO₂) is a main concern related to the burning of natural gas. Emitted NO_x from the burning of fossil fuel gradually convert to NO₂ in a chemical reaction that is effected by ozone concentration and the presence of sunlight. In a micro scale analysis, buildings HVAC systems are analyzed for NO₂ impact.
- Ozone (O₃) is formed by chemical reaction between hydrocarbons and nitrogen oxides and its impact is analyzed on a regional scale by monitoring stations.

- Lead (Pb) in the ambient air is monitored on a regional level. In a project scale analysis, impact due to Lead concentration levels are analyzed if a new source, such as lead smelters, is introduced into the environment or if a project is located next to a lead emitter.
- Particulate Matter emissions are associated with both stationary sources and mobile sources. Two sizes of particulate matters are analyzed: Inhalable Particles (PM₁₀) and Fine Particulate Matter (PM_{2.5}), where the subscript number refers to the diameter of the particulate matter in micrometers.
- Sulfur Dioxide (SO₂) emission is principally associated with stationary sources that burn oil or coal.

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA, and New York State has adopted the NAAQS as the State ambient air quality standards. The relevant standards together with their health-related averaging periods are presented in Table 17-1.

Table 17-1: National AND New York States Ambient Air Quality

Pollutant	Averaging Period	National and State Standards
NO ₂	Maximum 1-Hour Concentration	0.10 ppm (188 µg/m ³)
	Annual Arithmetic Average	0.053 ppm (100 µg/m ³)
PM _{2.5}	24-Hour Concentration	35 µg/m ³
	Average of 3 Consecutive Annual Means	12 µg/m ³

NO₂ NAAQS

Nitrogen oxide (NO_x) emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The NO_x in these emissions are then gradually converted to NO₂, which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source).

The 1-hour NO₂ NAAQS standard of 0.100 ppm (188 ug/m³) is the 3-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating 1-hour NO₂ concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NO_x to NO₂; Tier 2 applies a conservative ambient NO_x/NO₂ ratio of 80% to the NO_x estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's PVMRM module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO₂ within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8th highest daily maximum 1-hour NO₂ concentrations or total 1-hour NO₂ concentrations if hourly NO₂ background concentrations are added within the model.

Per the *CEQR TECHNICAL MANUAL*, a Tier 1 approach is initially applied, followed by a Tier 2 application of NO_x/NO₂ ratio of 80% to the NO_x modeled concentration to determine

whether violation of the NAAQS is likely to occur. A less conservative Tier 3 approach is then applied if exceedances of the 1-hour NO₂ NAAQS were estimated.

The annual NO₂ standard is 0.053 ppm (100 ug/m³). In order to conservatively estimate annual NO₂ impacts, a NO₂ to NO_x ratio of 0.75 percent, which is recommended by the NYCDEP for an annual NO₂ analysis, was applied.

New York State Standards

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the New York State Department of Environmental Conservation (NYSDEC) has established guidelines for maximum allowable concentration of “noncriteria pollutants,” which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short-term Guideline Concentrations. The most recent DAR-1 guidelines were created on July 14, 2016.

NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

NYC Interim Guidelines

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a PM_{2.5} significant impact criteria (based on concentration increments). These criteria are called *de minimis* and they are more stringent than the NAAQS and the state standards as the criteria set a maximum increase of pollutant concentration that is below the national standard. If the estimated impacts of a proposed project are less than the *de minimis* criteria, the impacts are not considered to be significant. As outlined in the *CEQR Technical Manual*, PM_{2.5} significant impacts are evaluated as follow:

- Predicted 24-hour maximum PM_{2.5} concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average PM_{2.5} concentration increments greater than 0.3 µg/m³ at any receptor location for stationary sources.

Background Concentrations

Determination of significant impact criteria is evaluated by adding the background concentrations at the nearest NYSDEC monitoring station to the concentrations of criteria pollutants in the ambient air of the project area.

Background concentrations of relevant criteria pollutants were obtained from the NYSDEC’s annual report for 2015 at the IS 52 and the Botanical Garden monitoring stations.

Table 17-2: Background Concentration at the Queens College and JHS 126 Monitoring Stations (NYSDEC 2015 Report)

Pollutant	Averaging Period	Background Concentration	Monitoring Station
NO ₂	Maximum 1-Hour Concentration	113.2 µg/m ³	Queens College
	Annual Arithmetic Average	40.8 µg/m ³	
PM _{2.5}	24-Hour Concentration	23.0 µg/m ³	JHS 126
	Average of 3 Consecutive Annual Means	9.1 µg/m ³	

The *de minimis* criteria for PM_{2.5} was evaluated as described in the NYC Interim Guidelines and the concentration increment are presented below:

- 24-hour PM_{2.5} 6.0 µg/m³
- Annual PM_{2.5} 0.3 µg/m³

The Proposed Project

The project site is located at 2420 Arthur Kill Road (Block 7067, Lot 120) in the Rossville neighborhood of Staten Island Community District 3. The proposed actions would facilitate the completion of a partially built 3-story building and the creation of 72 unenclosed accessory off-street parking spaces. The building would contain offices, storage space (for boats and equipment), and a loading berth. The building would rise to a height of 44 feet, and would contain 23,765 gross square feet (gsf) of floor area.

Mobile Source Emissions

Projects may result in significant mobile source impacts when they generate vehicular traffic, change traffic patterns, or add new uses near mobile sources of pollutants. Per CEQR guidelines, a detailed analysis is conducted to predict whether the proposed actions could potentially have a significant adverse air quality impact if certain threshold criteria are met or exceeded, while proposed projects that do not meet or exceed the threshold criteria are not expected to have a mobile source impact. Projects that require a detailed analysis model the ambient air CO and PM₁₀/PM_{2.5} concentrations – the mobile source pollutants of concern – and compare the modeled concentrations with the applicable air quality standard.

For this area of the city, the threshold volume for a detailed analysis of CO concentration is an increment of 170 vehicles during any peak hour. The traffic generated by the completion and occupancy of the project site building would not reach that level. (See Section 16, Transportation, above.) Therefore, no CO detailed air quality analysis is required, and no significant CO mobile source air quality impacts are expected as a result of the proposed development.

According to the *CEQR Technical Manual*, a PM_{2.5} detailed analysis is required if a threshold criterion, determined by the number of project-generated peak hour heavy-duty diesel vehicles (HDDVs) or the equivalent in vehicular emission, is exceeded. The threshold criteria depend on the type of road and the incremental vehicular traffic as followed:

- 12 or more HDDVs for paved roads with 5,000 vehicles;
- 19 or more HDDVs for collector roads;
- 23 or more HDDVs for principal and minor arterials; or
- 23 or more HDDVs for expressways and limited access roads.

The maximum HDDV trip generation resulting from the completion and occupancy of the project site building would not meet or exceed even the lowest of these thresholds. Therefore, no detailed air quality analysis is required, and no significant mobile source air quality impacts are expected as a result of the proposed project.

In addition to the building itself, the proposed project would include a 72-space accessory surface parking lot, and the *CEQR Technical Manual* recommends a mobile source assessment for the introduction of parking facilities if the number of spaces would exceed a threshold criterion. The threshold size, per CEQR guidelines, is a facility that would contain at least 85 off-street parking spaces. Because the 72-space unenclosed accessory off-street parking lot would not meet the threshold criterion, no detailed air quality analysis is required, and no significant mobile source air quality impacts are expected as a result of the proposed actions.

HVAC Systems Analysis

The HVAC analysis considers the potential for emissions from the HVAC system of the proposed project to significantly impact existing land uses within 400 feet of the project site.

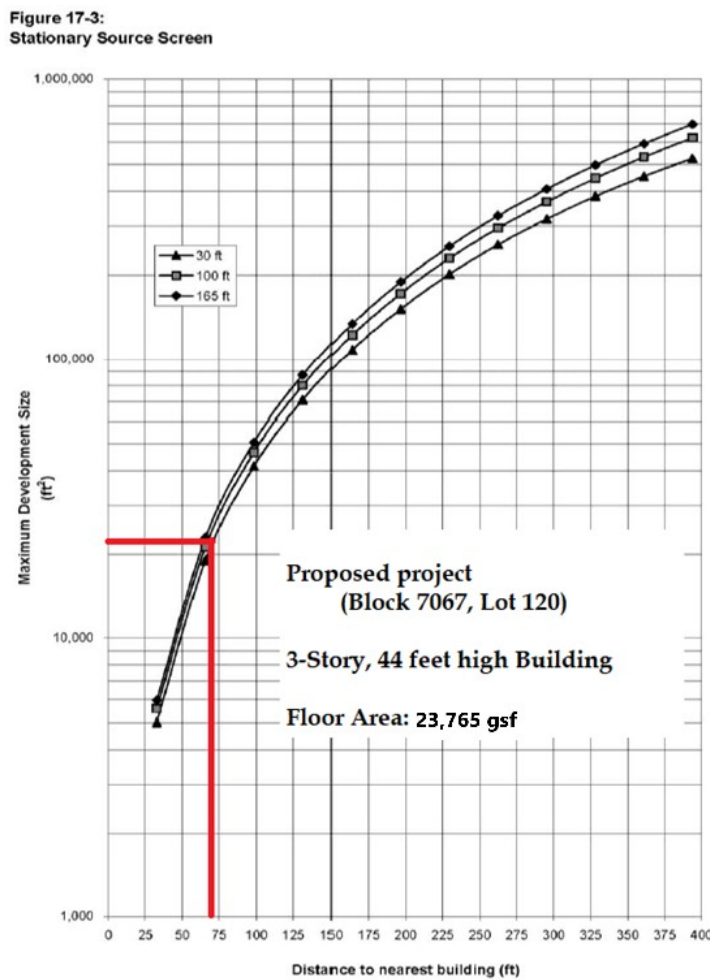
As outlined in the *CEQR Technical Manual*, the analysis of buildings' HVAC systems follows stationary sources methodology, and based on CEQR recommendations, a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system boiler emissions can be significant. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

The potential for stationary source emissions from heat and hot water systems to have a significant adverse impact on nearby receptors depends on the type of fuel that would be used, the height of the stack venting the emissions, the distance to the nearest building whose height is at least as great as the venting stack height, whether the building is residential or nonresidential, and the square footage of the development served by the system. The *CEQR Technical Manual* provides a screening analysis based on these factors, which was utilized to determine the potential for significant impacts from the proposed project's HVAC system.

If the actual distance between a stack and the affected building is greater than the threshold distance for a building size, then that building passes the screening analysis (and no significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, then there is a potential for a significant impact, and a detailed analysis would be required.

The analysis employed the nomograph depicted in Figure 17-3 of the *CEQR Technical Manual*, using the curve for a 30-foot stack height (as the 30 feet curve height is closest to but not higher than the proposed stack height, as the CEQR screening procedure requires) and plotting the size of the development (the vertical axis) against distance from the exhaust stack (the horizontal axis). A horizontal line was drawn from the vertical axis (at the point representing 23,625 gsf) to the line's intersection with the appropriate curve, and a vertical line was then drawn from the point of intersection to the horizontal axis. The point at which the vertical line strikes the horizontal axis represents a conservative estimate of the maximum distance between the exhaust stack and a receptor at which a significant impact could occur. If any sensitive receptor is located within that threshold distance, a detailed analysis is required; if not, then no further analysis is required to determine that exhaust from the building's boiler system would not have a significant adverse impact on the closest sensitive receptor. The result is shown in Figure 17-1.

Figure 17-1: The Project Site Minimum Distance - All Fuels HVAC Screen Nomograph



The screening analysis nomograph shows that a detailed analysis would be required for any existing building that is 44 feet or taller and at a distance of less than 73 feet from the project site. A review of existing land uses in the area shows that the nearest building of similar or greater height is the 3-story, 46-foot-tall building at 2512 Arthur Kill Road (Block 7072, Lot 1), which is 277 feet from the project site. Therefore, the proposed actions pass the screening analysis, and the emissions from the proposed development's HVAC system would not significantly impact any existing land use.

Conclusion

Air quality analyses addressed mobile and stationary source emissions resulting from the proposed project. Emissions from project-related vehicle trips would not cause significant air quality impacts to receptors at the local or neighborhood scale, and emissions from project-related heating, ventilation, and air conditioning systems (HVACs) would not cause significant air quality impacts to receptors at the local scale.

Also, although it has been determined that an assessment of existing nearby sources is not warranted, such an analysis was performed, demonstrating that no significant air quality impacts to the proposed project are anticipated from air toxics and that no existing large or major sources are located within 1,000 feet of the project site. (See Appendix C.)

In summary, no significant adverse impacts associated with air quality are anticipated.

19. NOISE

Introduction

The purpose of a noise assessment under CEQR is to determine whether an action would (1) raise noise levels significantly at existing or anticipated sensitive noise receptors (such as residences or schools) or (2) introduce new sensitive uses (such as residential buildings or schools) at locations subject to unacceptably high ambient noise levels.

The assessment is concerned with both mobile and stationary noise sources. Mobile sources are those that move in relation to a noise-sensitive receptor. They include automobiles, buses, trucks, aircraft, and trains. Stationary sources of noise do not move in relation to a noise-sensitive receptor. Typical stationary noise sources of concern include machinery or mechanical equipment associated with industrial and manufacturing operations; building heating, ventilating, and air conditioning (HVAC) systems; speakers for public address and concert systems; playground noise; and spectators at concerts or sporting events. An action could raise noise levels either by introducing new stationary noise sources (such as outdoor playgrounds or rooftop air conditioning compressors) or by increasing mobile source noise (generally by generating additional traffic).

Similarly, an action could introduce new residences or other sensitive receptors that would be subject to noise from either stationary or mobile sources. The *CEQR Technical Manual* defines *sensitive receptor* as a “defined area where human activity may be adversely affected when noise levels exceed predefined thresholds of acceptability or when levels increase by predefined thresholds of change, used for noise analyses. Examples include, but are not limited to, residences, hotels, motels, health care facilities, nursing homes, schools, houses of worship, court houses, public meeting facilities, museums, libraries, parks, outdoor theaters, golf courses, zoos, campgrounds, beaches, *etc.*” The proposed actions would not result in such uses, but would instead facilitate the development of office and warehouse space, which are permitted as-of-right at this location.

Noise Fundamentals

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

Because the human ear can detect such a wide range of sound pressures, sound pressure is converted to sound pressure level (SPL), which is measured in units called decibels (dB). The decibel is a relative measure of the sound pressure with respect to a standardized reference quantity. Because the dB scale is logarithmic, a relative increase of 10 dB represents a sound pressure that is 10 times higher. However, humans do not perceive a 10-dB increase as 10 times louder. Instead, they perceive it as twice as loud. Table 19-1 lists some noise levels for typical daily activities.

**Table 19-1
Noise Levels of Common Sources**

Sound Source	SPL (dB(A))
Air Raid Siren at 50 feet	120
Maximum Levels at Rock Concerts (Rear Seats)	110
On Platform by Passing Subway Train	100
On Sidewalk by Passing Heavy Truck or Bus	90
On Sidewalk by Typical Highway	80
On Sidewalk by Passing Automobiles with Mufflers	70
Typical Urban Area	60-70
Typical Suburban Area	50-60
Quiet Suburban Area at Night	40-50
Typical Rural Area at Night	30-40
Isolated Broadcast Studio	20
Audiometric (Hearing Testing) Booth	10
Threshold of Hearing	0
<p><i>Notes: A change in 3dB(A) is a just noticeable change in SPL. A change in 10 dB(A) is perceived as a doubling or halving in SPL.</i></p> <p><i>Source: 2014 CEQR Technical Manual</i></p>	

Sound is often measured and described in terms of its overall energy, taking all frequencies into account. However, the human hearing process is not the same at all frequencies. Humans are less sensitive to low frequencies (less than 250 Hz) than mid-frequencies (500 Hz to 1,000 Hz) and are most sensitive to frequencies in the 1,000- to 5,000-Hz range. Therefore, noise measurements are often adjusted, or weighted, as a function of frequency to account for human perception and sensitivities. The most common weighting networks used are the A- and C-weighting networks. These weight scales were developed to allow sound level meters, which use filter networks to approximate the characteristic of the human hearing mechanism, to simulate the frequency sensitivity of human hearing. The A-weighted network is the most commonly used, and sound levels measured using this weighting are denoted as dBA. The letter "A" indicates that the sound has been filtered to reduce the strength of very low and very high frequency sounds, much as the human ear does. C-weighting gives nearly equal emphasis to sounds of most frequencies. Mid-range frequencies approximate the actual (unweighted) sound level, while the very low and very high frequency bands are significantly affected by C-weighting

The following is typical of human response to relative changes in noise level:

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

The SPL that humans experience typically varies from moment to moment. Therefore, various descriptors are used to evaluate noise levels over time. Some typical descriptors are defined below.

- L_{eq} is the continuous equivalent sound level. The sound energy from the fluctuating SPLs is averaged over time to create a single number to describe the mean energy, or intensity, level. High noise levels during a measurement period will have a greater effect on the L_{eq} than low noise levels. L_{eq} has an advantage over other descriptors because L_{eq} values from various noise sources can be added and subtracted to determine cumulative noise levels.
- $L_{eq(24)}$ is the continuous equivalent sound level over a 24-hour time period.

The sound level exceeded during a given percentage of a measurement period is the percentile-exceeded sound level (L_x). Examples include L_{10} , L_{50} , and L_{90} . L_{10} is the A-weighted sound level that is exceeded 10% of the measurement period.

The decrease in sound level caused by the distance from any single noise source normally follows the inverse square law (i.e., the SPL changes in inverse proportion to the square of the distance from the sound source). In a large open area with no obstructive or reflective surfaces, it is a general rule that at distances greater than 50 feet, the SPL from a point source of noise drops off at a rate of 6 dB with each doubling of distance away from the source. For “line” sources, such as vehicles on a street, the SPL drops off at a rate of 3 dB(A) with each doubling of the distance from the source. Sound energy is absorbed in the air as a function of temperature, humidity, and the frequency of the sound. This attenuation can be up to 2 dB over 1,000 feet. The drop-off rate also will vary with both terrain conditions and the presence of obstructions in the sound propagation path.

Impact Determination and Noise Standards and Guidelines

In 1983 the New York City Department of Environmental Protection (DEP) adopted the City Environmental Protection Order-City Environmental Quality Review (CEQR) noise standards for exterior noise levels. These standards are the basis for classifying noise exposure into four categories based on the L_{10} : Acceptable, Marginally Acceptable, Marginally Unacceptable, and Clearly Unacceptable, as shown in Table 19-2.

For sensitive receptors introduced by the proposed action, with-action condition noise levels in dB(A) $L_{10(1)}$ are compared with the values contained in the Noise Exposure Guidelines. If these noise levels would exceed the Marginally Acceptable levels, a significant impact would occur unless the building design provides a composite building attenuation that would be sufficient to reduce these levels to an acceptable interior noise level. These values are shown in Table 19-3.

For noise increases caused by project-induced traffic, or for stationary noise sources introduced by the proposed action, if the no-action levels are less than 60 dB(A) $L_{eq(1)}$ and the analysis period is not at nighttime, an increase of 5 dB(A) $L_{eq(1)}$ or more in the future with the project would be considered a significant impact. In order for the 5 dB(A) threshold to be valid, the

resultant action condition noise level would have to be equal to or less than 65 dB(A). If the No-Action noise level is equal to or greater than 62 dB(A) $L_{eq(1)}$, or if the analysis period is a nighttime analysis period, the incremental significant impact threshold would be 3 dB(A) $L_{eq(1)}$. If the No-Action noise level is 61dB(A) $L_{eq(1)}$, the maximum incremental increase would be 4 dB(A), since an increase higher than this would result in a noise level higher than the 65 dB(A) $L_{eq(1)}$ threshold and be considered significant.

**Table 19-2
CEQR Noise Exposure Guidelines for use in City Environmental Impact Review¹**

Receptor Type	Time Period	Acceptable General External Exposure	Airport ³ Exposure	Marginally Acceptable General External Exposure	Airport ³ Exposure	Marginally Unacceptable General External Exposure	Airport ³ Exposure	Clearly Unacceptable General External Exposure	Airport ³ Exposure
1. Outdoor area requiring serenity and quiet ²		$L_{10} \leq 55$ dBA	$L_{dn} \leq 60$ dBA		$L_{dn} \leq 60$ dBA		$L_{dn} \leq 60$ dBA		$L_{dn} \leq 75$ dBA
2. Hospital, Nursing Home		$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 65$ dBA		$65 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
3. Residence, residential hotel or motel	7 am to 10 pm	$L_{10} \leq 65$ dBA		$65 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
	10 pm to 7 am	$L_{10} \leq 55$ dBA		$55 < L_{10} \leq 70$ dBA		$70 < L_{10} \leq 80$ dBA		$L_{10} > 80$ dBA	
4. School, museum, library, court house of worship, transient hotel or motel, public meeting room, auditorium, out-patient public health facility		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
5. Commercial or office		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)		Same as Residential Day (7 AM-10 PM)	
6. Industrial, public areas only ⁴	Note 4	Note 4	Note 4	Note 4	Note 4				

Notes:

-) In addition, any new activity shall not increase the ambient noise level by 3 dBA or more;
 - 1 Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries as given by American National Standards Institute (ANSI) Standards; all values are for the worst hour in the time period.
 - 2 Tracts of land where serenity and quiet are extraordinarily important and serve an important public need and where the preservation of these qualities is essential for the area to serve its intended purpose. Such areas could include amphitheatres, particular parks or portions of parks or open spaces dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. Examples are grounds for ambulatory hospital patients and patients and residents of sanitariums and nursing homes.
 - 3 One may use the FAA-approved L_{dn} contours supplied by the Port Authority, or the noise contours may be computed from the federally approved INM Computer Model using flight data supplied by the Port Authority of New York and New Jersey.
 - 4 External Noise Exposure standards for industrial areas of sounds produced by industrial operations other than operating motor vehicles or other transportation facilities are spelled out in the New York City Zoning Resolution, Sections 42-20 and 42-21. The referenced standards apply to M1, M2, and M3 manufacturing districts and to adjoining residence districts (performance standards are octave band standards).

Source: New York City Department of Environmental Protection (adopted policy 1983).

**Table 19-3
Required Attenuation Values to Achieve Acceptable Interior Noise Levels**

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

Note: ^AThe above composite window-wall attenuation values are for residential dwellings and community facility development. Commercial office spaces and meeting rooms would be 5 dBA less in each category. All the above categories require a closed window situation and hence alternate means of ventilation.

^BRequired attenuation values increase by 1 dBA increments for L_{10} values greater than 80 dBA.

Source: New York City Department of Environmental Protection, 2012.

Potential for Additional Stationary Source Noise

The proposed actions would result in the completion and occupancy of a partially completed commercial building, which would contain 20,887 sf of office space and 2,738 sf of storage space for boats and equipment. Enclosed office and storage space is not a substantial stationary noise sources. All rooftop mechanical equipment, including air conditioner compressors, would be enclosed and would comply with New York City Noise Code requirements, which limit noise levels generated by such equipment to 65 dBA during the daytime (7AM to 10 PM) and 55 dBA during the nighttime. The proposed actions would therefore not have the potential to cause a significant adverse stationary source noise impact.

Potential for Additional Mobile Source Noise

The proposed project is below the CEQR threshold for a traffic impact assessment. It can therefore be assumed that the additional traffic volumes would be too low to cause a 3 dBA increase in $L_{eq(1)}$ noise levels, which would require a doubling of PCE traffic volumes along an adjacent street. The proposed actions would therefore not have the potential to cause a significant adverse mobile source noise impact.

Conclusion

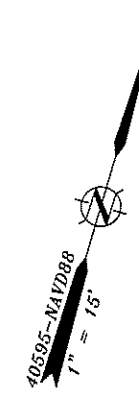
For the reasons cited above, the proposed actions would not result in a significant adverse noise impact.

APPENDIX A
SURVEY AND SITE PLAN

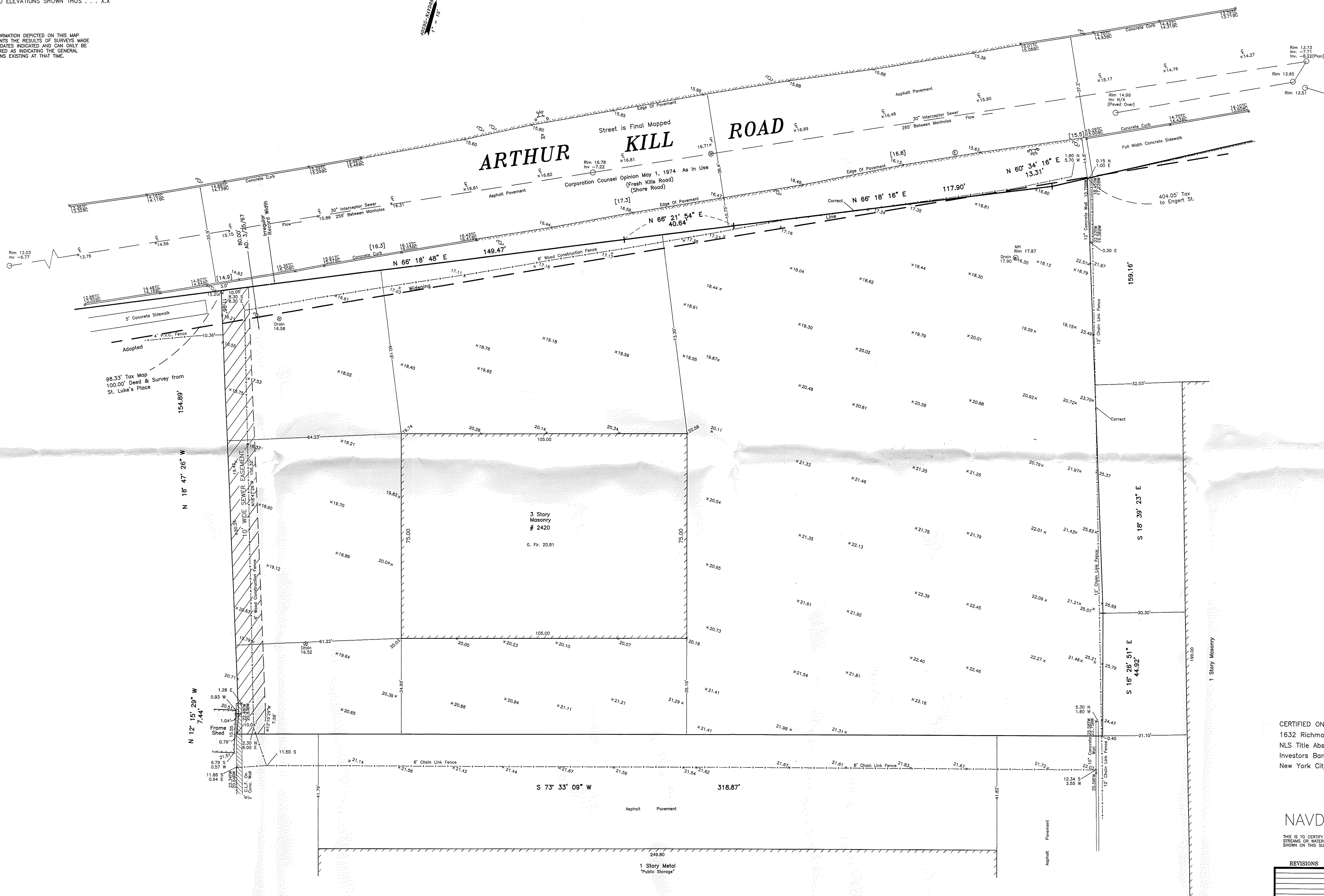
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LEGAL GRADE SHOWN THUS (X.X)
 EXISTING GRADES SHOWN THUS (X.X)
 PROPOSED GRADES SHOWN THUS (X.X)
 GROUND ELEVATIONS SHOWN THUS X.X

NOTE:
 THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.



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CERTIFIED ONLY TO:
 1632 Richmond Terrace LLC
 NLS Title Abstract LLC
 Investors Bank
 New York City Industrial Development Agency

NAVD 88

THIS IS TO CERTIFY THAT THERE ARE NO ERRORS OR MISREPRESENTATIONS ON THE PROPERTY SHOWN ON THIS SURVEY.

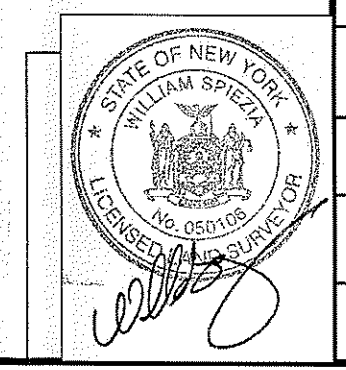
G-001.

Map of Survey
 Rossville
 November 2, 2015
 Tax Lots 120
 Tax Block 7067
 Filed Map Lots
 Filed Map Block
 Filed Map
 Deed
 Borough of Staten Island
 County of Richmond
 New York, NY

UTILITY NOTE:
 The Underground Utility Information Shown Hereon Is One Of Several Possible Interpretations Of The Record Data As Provided By The Respective Utility Companies. Rogers Surveying, PLLC Assumes No Responsibility For The Actual Location, Size, And Depth Of Any Utility Lines. The Location And Depth Of All Underground Utilities Must Be Verified With The Respective Utility Prior To Any Design And Construction Or Excavation.

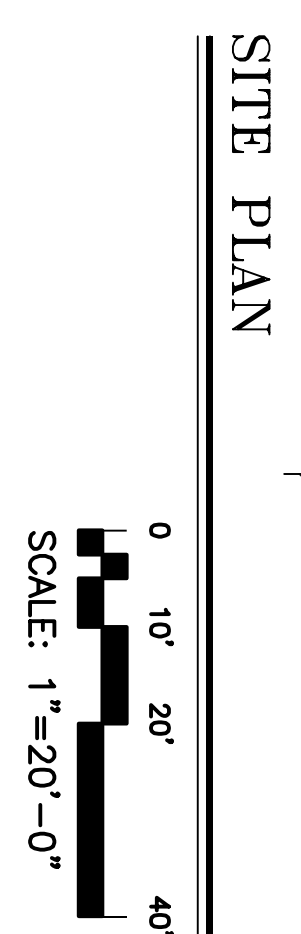
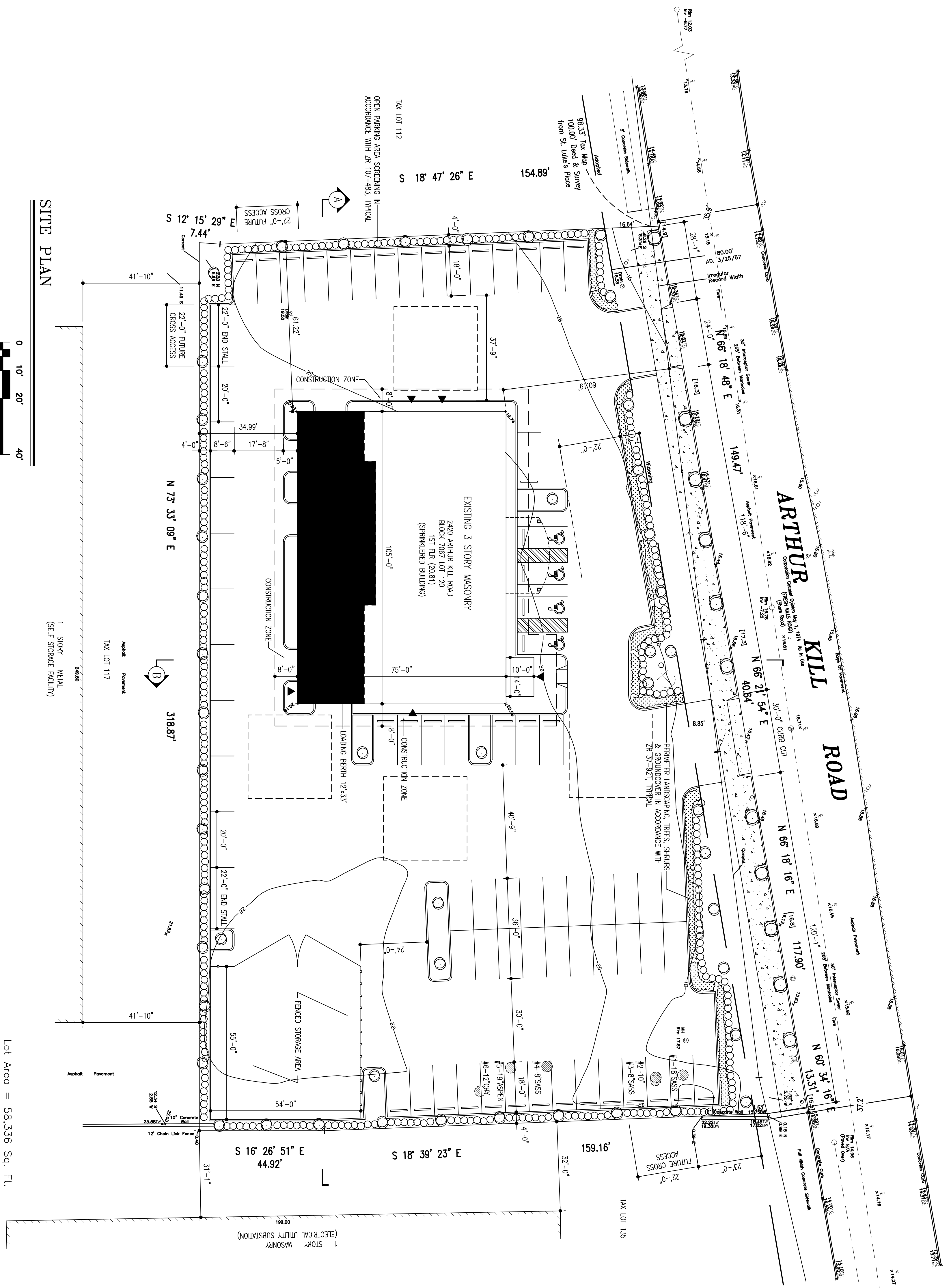
DATUM NOTE:
 COORDINATES AND BEARINGS SHOWN ARE REFERENCED TO THE BOROUGH OF STATEN ISLAND, AS ESTABLISHED BY THE U.S. COAST & GEODETIC SURVEY BOGART SYSTEM).
 ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

Lot Area = 58,336 Sq. Ft.

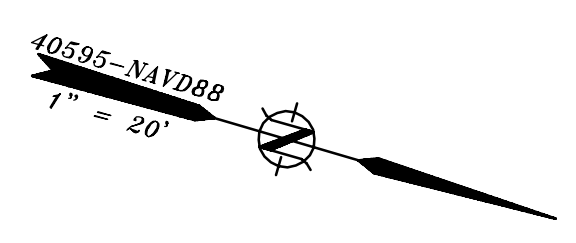


REVISIONS	JOB #	DATE	FB. / PG.

# 2420 Arthur Kill Road			
Staten Island, New York			
Drafted by: PL		Date: 10/17/16	Scale: 1" = 15'
Checked by: WS		ROGERS SURVEYING, PLLC 1632 Richmond Terrace Staten Island, N.Y. 10310 (718) 447-7311 www.rogerssurveying.net	Job No.: 40595
Dwg. File: 40595-NAVDB8			F.B./Pg. 942/59-62
Disk No. 246		South Richmond Topographical	



Lot Area = 58,336 Sq. Ft.



GENERAL DATA

BLOCK	7067
LOT	117
HOUSE #	2420
MAP	336
ZONE	MZ-1
COMMUNITY BOARD	503
SPECIAL ZONING DISTRICT	SPECIAL SOUTH RICHMOND DISTRICT
OUTSIDE DESIGNATED OPEN SPACE	ARTHUR KILL RD (NO STRACK REO)
ARTERIAL STREET	
NOT A PARK STREET	
SPECIAL ZONING DISTRICT	SPECIAL SOUTH RICHMOND DISTRICT
OUTSIDE WETLANDS	
OUTSIDE FLOOD HAZARD	

REQUIRED DEPARTMENT OF CITY PLANNING ACTIONS
 ZR 107-68 AUTHORIZATION FOR MODIFICATION OF GROUP PARKING FACILITY AND ACCESS REGULATIONS
 ZR 107-321 CERTIFICATION FOR PRESERVATION
 ZR 36-592 CERTIFICATION OF CROSS ACCESS CONNECTIONS

ZONING DATA

LOT AREA	58,336 SF
BUILDING FLOOR AREA:	
1ST FLOOR WAREHOUSE	2,979 SF
2ND FLOOR OFFICE SPACE	7,975 SF
3RD FLOOR OFFICE SPACE	7,975 SF
TOTAL FLOOR AREA	23,765 SF
FAR	4.0 < 2.0

IMPERVIOUS AREA

EXISTING CONDITION	PROPOSED CONDITION
LOT AREA 58,366 SF	58,366 SF
IMPERVIOUS AREA 28,211.93 SF (48%)	51,870.47 SF (89%)
PERVIOUS AREA 30,154.07 SF (52%)	6,485.53 SF (11%)

*PROPERTY CONDITION PER APPROVED NB APPLICATION 529072272

CUT & FILL AREAS

CUT SF	FILL SF	CUT YARDS	FILL YARDS	NET YARDS
48,000 SF	10,336 SF	1999 YDS	14 YDS	1965 YDS (CUT)

LEGEND

- [] LEAK GRADE
- < > PROPOSED GRADE
- () EXISTING GRADE

TREE LEGEND

- NEW TREE TO BE PLANTED
- ⊗ EXISTING TREE TO REMAIN
- ⊗ EXISTING TREE TO BE REMOVED
- ⊗ EXISTING TREE REMOVED WITHOUT PERMIT

LEGEND

- ▲ BUILDING ENTRY
- ⊕ FINE HYDRANT
- UTILITY POLE
- SHRUB
- 1ST FLOOR WAREHOUSE AREA

REQUIRED PARKING

USE GROUP B8, PARKING CATEGORY B1
 1 CAR REQUIRED FOR EACH 300.0 SF OF ZONING FLOOR AREA
 21,027 / 300 = 70 CARS

USE GROUP 160, PARKING CATEGORY C
 1.0 CAR REQUIRED FOR EACH 2,000.0 SF OR 1.0 CAR FOR EACH 3 EMPLOYEES
 WHICHEVER WILL REQUIRE FEWER NUMBER OF SPACES, FOR BUILDINGS WITH A MINIMUM OF 10,000 SF OR 15 EMPLOYEES

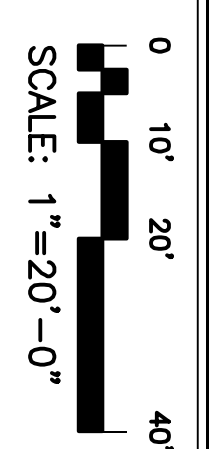
USE GROUP 16 BUILDING AREA - 21,738 SF THEREFORE NO PARKING REQUIRED

TOTAL PARKING REQUIRED = 70 CARS
 PARKING FOR 72 CARS PROVIDED

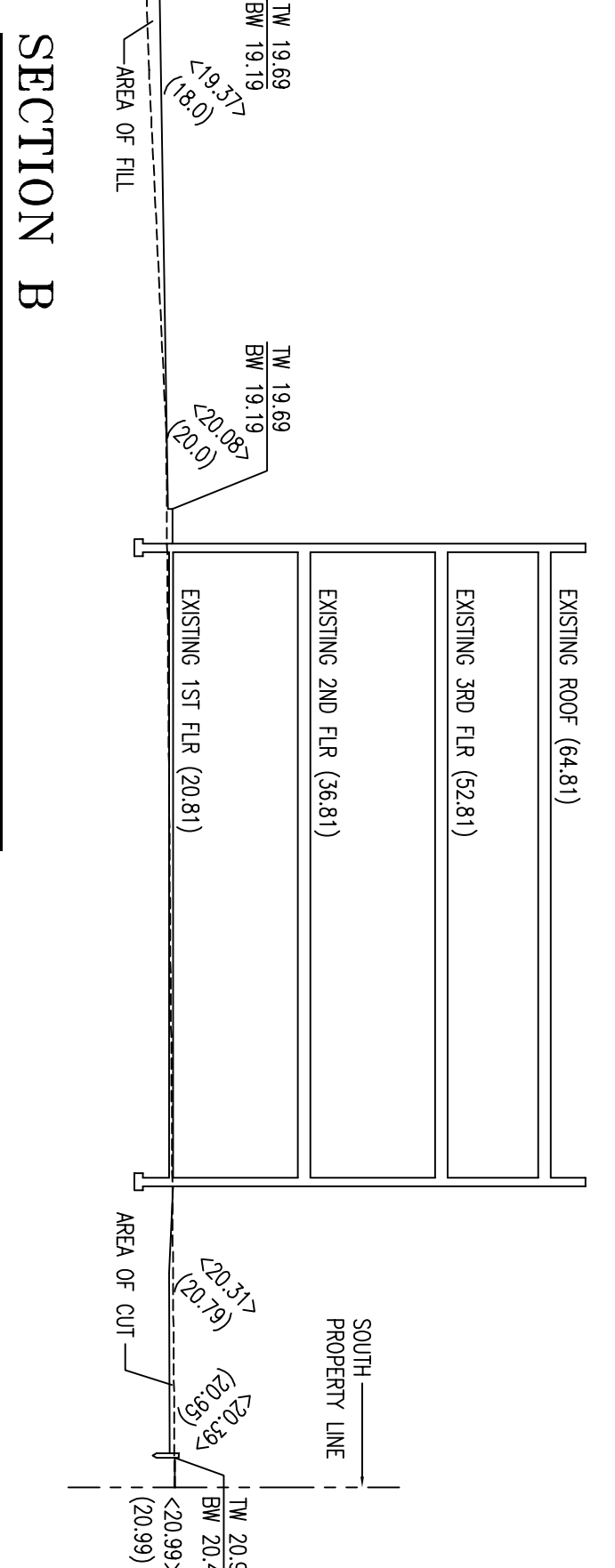
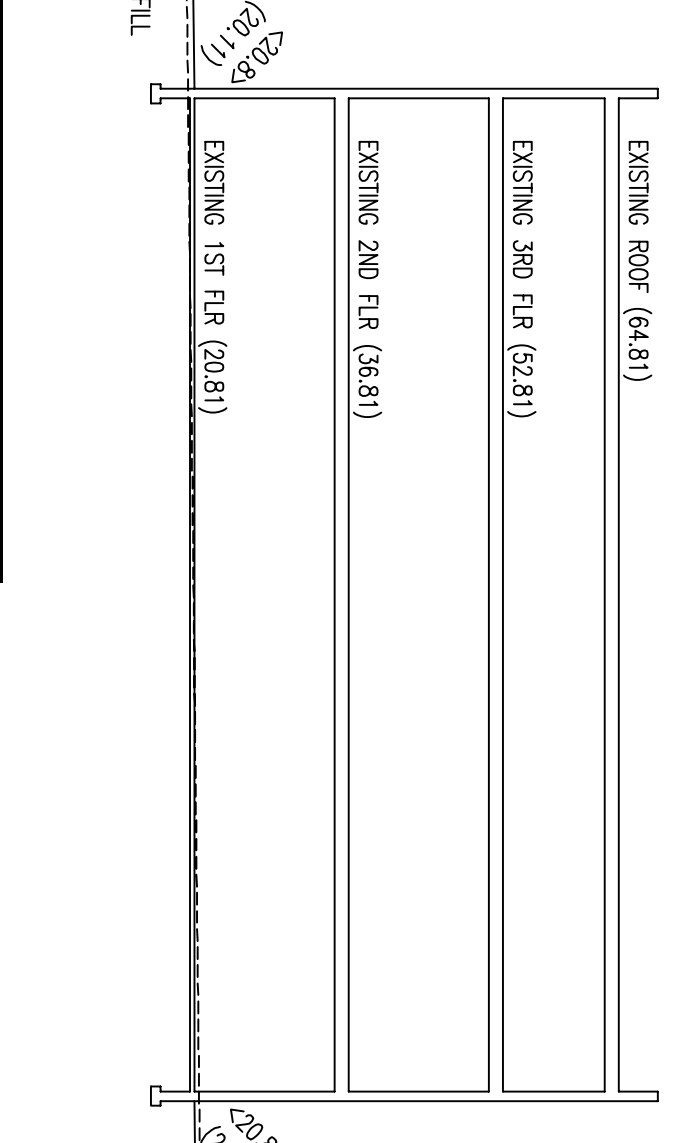
REQ. OFF STREET LOADING BERTHS

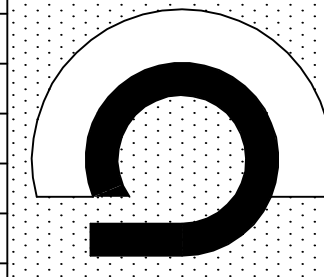
AS PER SECTION ZR 44-52, MZ-1 ZONING	ACTUAL BLDG FLOOR AREA	REQUIRED BERTHS
BUILDING FLOOR AREA	21,027 SF	NONE
HOTELS, OFFICES OR COURT HOUSES		NONE
FRESH-25,000 SF		NONE
MANUFACTURING OR STORAGE		NONE
USES: USE GROUP 160	21,738 SF	NONE
FRESH-8,000 SF - NONE		
NEXT-17,000 SF - 1		
REQUIRED BERTHS FOR 23,765 SF BLDG - 0		
LOADING BERTHS PROVIDED - 1		

SITE PLAN



Lot Area = 58,336 Sq. Ft.





calvanico associates
 2535 victory blvd, staten island, n.y. 10314
 (718) 494-0444

PROJECT
 2420 ARTHUR KILL ROAD
 STATEN ISLAND, NY

DRAWING TITLE
 SITE PLAN & RESTORATION PLAN

SCALE & SIGNATURE

DATE	1.25.17
PROJECT NO.	7609
DRAWING BY	DN
CHECKED BY	
CD FILE	

DRAWING No. A-001.00
 1 OF 1

APPENDIX B
WRP MATERIALS

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the [New York City Waterfront Revitalization Program](#) (WRP) which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: _____

Name of Applicant Representative: _____

Address: _____

Telephone: _____ Email: _____

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

2. Purpose of activity

C. PROJECT LOCATION

Borough: _____ Tax Block/Lot(s): _____

Street Address: _____

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

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission

Yes No

- | | | |
|-----------------------------------------------------------|------------------------------------------------------|--------------------------------------------|
| <input type="checkbox"/> City Map Amendment | <input type="checkbox"/> Zoning Certification | <input type="checkbox"/> Concession |
| <input type="checkbox"/> Zoning Map Amendment | <input type="checkbox"/> Zoning Authorizations | <input type="checkbox"/> UDAAP |
| <input type="checkbox"/> Zoning Text Amendment | <input type="checkbox"/> Acquisition – Real Property | <input type="checkbox"/> Revocable Consent |
| <input type="checkbox"/> Site Selection – Public Facility | <input type="checkbox"/> Disposition – Real Property | <input type="checkbox"/> Franchise |
| <input type="checkbox"/> Housing Plan & Project | <input type="checkbox"/> Other, explain: _____ | |
| <input type="checkbox"/> Special Permit | | |
- (if appropriate, specify type: Modification Renewal other) Expiration Date: _____

Board of Standards and Appeals

Yes No

- Variance (use)
- Variance (bulk)
- Special Permit
- (if appropriate, specify type: Modification Renewal other) Expiration Date: _____

Other City Approvals

- | | |
|------------------------------------------------------------|-------------------------------------------------------------------|
| <input type="checkbox"/> Legislation | <input type="checkbox"/> Funding for Construction, specify: _____ |
| <input type="checkbox"/> Rulemaking | <input type="checkbox"/> Policy or Plan, specify: _____ |
| <input type="checkbox"/> Construction of Public Facilities | <input type="checkbox"/> Funding of Program, specify: _____ |
| <input type="checkbox"/> 384 (b) (4) Approval | <input type="checkbox"/> Permits, specify: _____ |
| <input type="checkbox"/> Other, explain: _____ | |

State Actions/Approvals/Funding

- State permit or license, specify Agency: _____ Permit type and number: _____
- Funding for Construction, specify: _____
- Funding of a Program, specify: _____
- Other, explain: _____

Federal Actions/Approvals/Funding

- Federal permit or license, specify Agency: _____ Permit type and number: _____
- Funding for Construction, specify: _____
- Funding of a Program, specify: _____
- Other, explain: _____

Is this being reviewed in conjunction with a [Joint Application for Permits?](#) Yes No

E. LOCATION QUESTIONS

1. Does the project require a waterfront site? Yes No
2. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters? Yes No
3. Is the project located on publicly owned land or receiving public assistance? Yes No
4. Is the project located within a FEMA 1% annual chance floodplain? (6.2) Yes No
5. Is the project located within a FEMA 0.2% annual chance floodplain? (6.2) Yes No
6. Is the project located adjacent to or within a special area designation? See [Maps – Part III](#) of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).
 - Significant Maritime and Industrial Area (SMIA) (2.1)
 - Special Natural Waterfront Area (SNWA) (4.1)
 - Priority Maritime Activity Zone (PMAZ) (3.5)
 - Recognized Ecological Complex (REC) (4.4)
 - West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (2.2, 4.2)

F. WRP POLICY ASSESSMENT

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

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

		Promote	Hinder	N/A
I	Support and facilitate commercial and residential redevelopment in areas well-suited to such development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.1	Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4	In areas adjacent to SMIA's, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.	<input type="checkbox"/>	<input type="checkbox"/>	

		Promote	Hinder	N/A
2	Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.1	Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Provide infrastructure improvements necessary to support working waterfront uses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.1.	Support and encourage in-water recreational activities in suitable locations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Support and encourage recreational, educational and commercial boating in New York City's maritime centers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3	Minimize conflicts between recreational boating and commercial ship operations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4	Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5	In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Protect and restore the quality and function of ecological systems within the New York City coastal area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.1	Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2	Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3	Protect designated Significant Coastal Fish and Wildlife Habitats.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.4	Identify, remediate and restore ecological functions within Recognized Ecological Complexes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.5	Protect and restore tidal and freshwater wetlands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6	In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7	Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.8	Maintain and protect living aquatic resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Promote	Hinder	N/A
5	Protect and improve water quality in the New York City coastal area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1	Manage direct or indirect discharges to waterbodies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2	Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3	Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4	Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.5	Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.1	Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2	Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in <i>New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms</i>) into the planning and design of projects in the city's Coastal Zone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.3	Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4	Protect and preserve non-renewable sources of sand for beach nourishment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.1	Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.2	Prevent and remediate discharge of petroleum products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.3	Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Provide public access to, from, and along New York City's coastal waters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.1	Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.2	Incorporate public access into new public and private development where compatible with proposed land use and coastal location.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.3	Provide visual access to the waterfront where physically practical.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.4	Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Submission Requirements

For all actions requiring City Planning Commission approval, materials should be submitted to the Department of City Planning.

For local actions not requiring City Planning Commission review, the applicant or agent shall submit materials to the Lead Agency responsible for environmental review. A copy should also be sent to the Department of City Planning.

For State actions or funding, the Lead Agency responsible for environmental review should transmit its WRP consistency assessment to the Department of City Planning.

For Federal direct actions, funding, or permits applications, including Joint Applicants for Permits, the applicant or agent shall also submit a copy of this completed form along with his/her application to the [NYS Department of State Office of Planning and Development](#) and other relevant state and federal agencies. A copy of the application should be provided to the NYC Department of City Planning.

The Department of City Planning is also available for consultation and advisement regarding WRP consistency procedural matters.

New York City Department of City Planning

Waterfront and Open Space Division
120 Broadway, 31st Floor
New York, New York 10271
212-720-3696
wrp@planning.nyc.gov
www.nyc.gov/wrp

New York State Department of State

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

Applicant Checklist

- Copy of original signed NYC Consistency Assessment Form
- Attachment with consistency assessment statements for all relevant policies
- For Joint Applications for Permits, one (1) copy of the complete application package
- Environmental Review documents
- Drawings (plans, sections, elevations), surveys, photographs, maps, or other information or materials which would support the certification of consistency and are not included in other documents submitted. All drawings should be clearly labeled and at a scale that is legible.
- Policy 6.2 Flood Elevation worksheet, if applicable. For guidance on applicability, refer to the WRP Policy 6.2 Guidance document available at www.nyc.gov/wrp

Attachment to the Consistency Assessment Form for 2420 Arthur Kill Road

Policy 1.1: Encourage commercial and residential redevelopment in appropriate coastal zone areas.

The project site is not within a Special Natural Waterfront Area (SNWA) or Significant Maritime and Industrial Area (SMIA), and it is in a well developed area with substantial commercial development. The project site is currently unutilized. The proposed actions would therefore be consistent with Policy 1.1.

Policy 2.1: Support water-dependent and industrial uses within Significant Maritime and Industrial Areas.

This policy is relevant because the project site is within an upland area adjacent to the Staten Island West Shore SMIA; however, the site itself is not on the waterfront of within the SMIA and is separated from the SMIA by Arthur Kill Road. The policy is not actually applicable to the project site.

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

As shown in the New York City Flood Hazard Mapper, the project site is not within a 100- or 500-year-floodplain as designated on FEMA's 2015 preliminary flood maps. The proposed actions would be consistent with Policy 6.

Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published by the NPCC, or any successor thereof) into the planning and design of projects in the city's Coastal Zone.

The New York City Panel on Climate Change has projected that, relative to sea levels in the year 2000, sea levels at New York City will have risen 4 to 8 inches in the 2020s, 11 to 21 inches in the 2050s, 18 to 39 inches in the 2080s, and 22 to 50 inches by 2100. These changes will increase the frequency and severity of coastal flooding, expand existing flood zones, and increase base flood elevations at locations within existing flood zones. As shown in the New York City Flood Hazard Mapper, projected sea level rise will bring the front of the property into the 100-year floodplain during the 2020s, much of the parking lot (but not the building) into the 100-year floodplain in the 2050s, and the entire site into the 100-year floodplain in the 2080s. The building design does not incorporate floodproofing, and it is not elevated above the future floodplain. Nevertheless, insofar as the building as the building does not have a cellar or basement and is located towards the rear of the property, which is at a somewhat higher elevation than the front part (where the parking lot would be located), its design shows sensitivity to the potential hazards of sea level rise.

NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Worksheet

COMPLETE INSTRUCTIONS ON HOW TO USE THIS WORKSHEET ARE PROVIDED IN THE "CLIMATE CHANGE ADAPTATION GUIDANCE" DOCUMENT AVAILABLE AT www.nyc.gov/wrp

Enter information about the project and site in highlighted cells in Tabs 1-3. HighTab 4 contains primary results. Tab 5, "Future Flood Level Projections" contains background computations. The remaining tabs contain additional results, to be used as relevant. Non-highlighted cells have been locked.

Background Information	
Project Name	2420 Arthur Kill Road Authorization
Location	2420 Arthur Kill Road, Staten Island (Block 7067, Lot 120)
Type(s)	<input checked="" type="checkbox"/> Residential, Commercial, Community Facility <input type="checkbox"/> Parkland, Open Space, and Natural Areas <input type="checkbox"/> Tidal Wetland Restoration <input type="checkbox"/> Critical Infrastructure or Facility <input type="checkbox"/> Industrial Uses <input type="checkbox"/> Over-water Structures <input type="checkbox"/> Shoreline Structures <input type="checkbox"/> Transportation <input type="checkbox"/> Wastewater Treatment/Drainage <input type="checkbox"/> Coastal Protection
Description	If the proposed actions are taken, the Applicant would complete and occupy a partially completed building with three stories and no subsurface level. The building's exterior shell is substantially complete except for a 140 sf one-story entry vestibule. It would contain 23,765 gsf (20,887 sf of office space and 2,878 sf of storage space). The building footprint would be 8,015 sf (13.8% lot coverage). The remainder of the site would be devoted to 72 unenclosed accessory off-street parking spaces, vehicular circulation space, landscaping, and a small fenced area at the rear of the property where boat trailers would be kept. A total of 37 trees would be planted on the property, in accordance with a tree restoration plan approved by the CPC. The planned
Planned Completion date	2020

The New York City Waterfront Revitalization Program Climate Change Adaptation Guidance document was developed by the NYC Department of City Planning. It is a guidance document only and is not intended to serve as a substitute for actual regulations. The City disclaims any liability for errors that may be contained herein and shall not be responsible for any damages, consequential or actual, arising out of or in connection with the use of this information. The City reserves the right to update or correct information in this guidance document at any time and without notice.

For technical assistance on using this worksheet, email wrp@planning.nyc.gov, using the message subject "Policy 6.2 Worksheet Error."

Last update: June 7, 2017

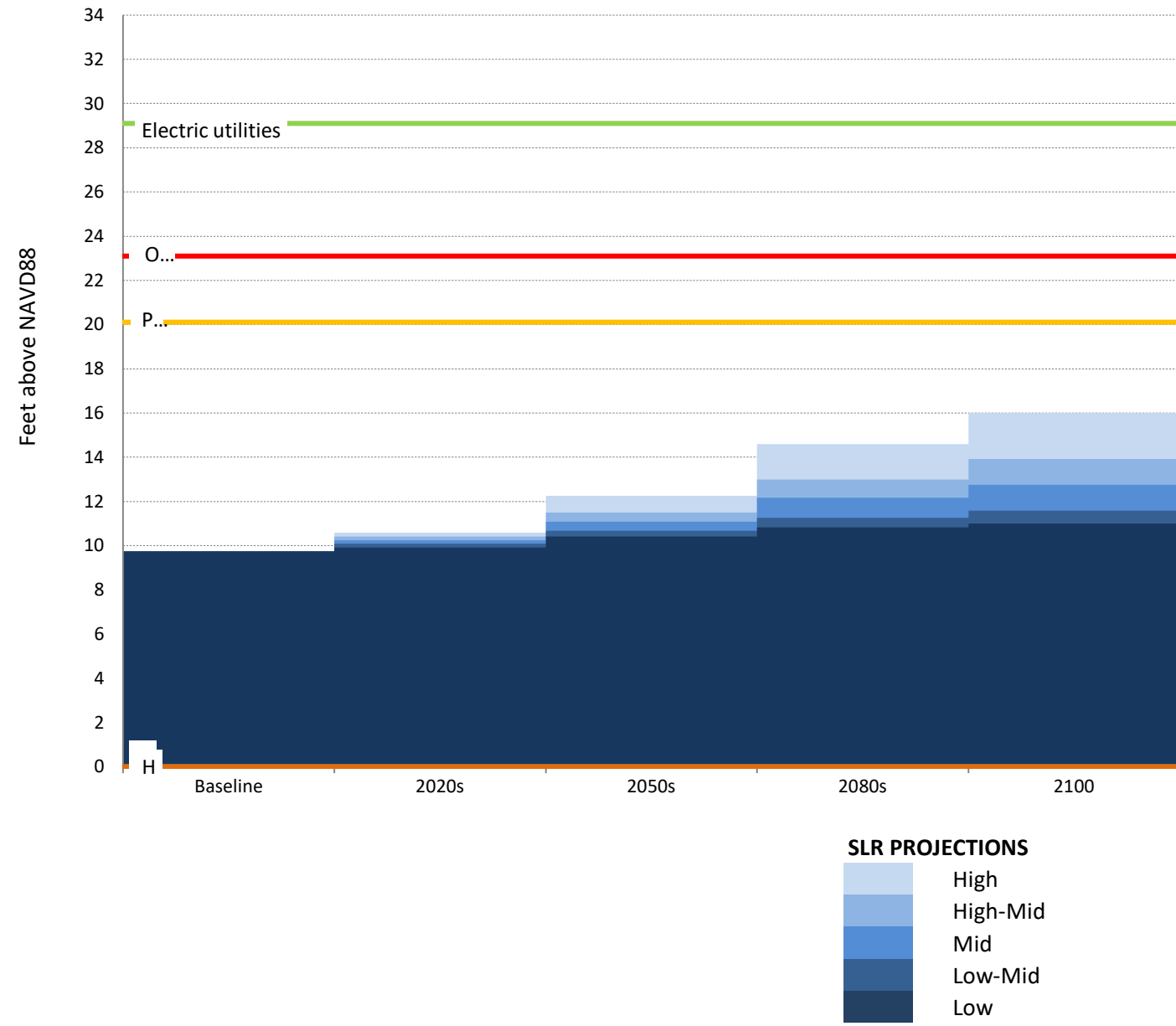
Establish current tidal and flood heights.

	FT (NAVD88)	Feet	Datum	Source
MHHW	9.75	9.75	NAVD88	<i>NOAA data for Bergen Point West Reach Station</i>
1% flood height	13.00	13.00	NAVD88	<i>NYC Flood Hazard Mapper</i>
<i>As relevant:</i>				
0.2% flood height	10.80	10.80	NAVD88	<i>NYC Flood Hazard Mapper</i>
MHW	9.43	9.43	NAVD88	<i>NOAA data for Bergen Point West Reach Station</i>
MSL	7.01	7.01	NAVD88	<i>NOAA data for Bergen Point West Reach Station</i>
MLLW	4.24	4.24	NAVD88	<i>NOAA data for Bergen Point West Reach Station</i>

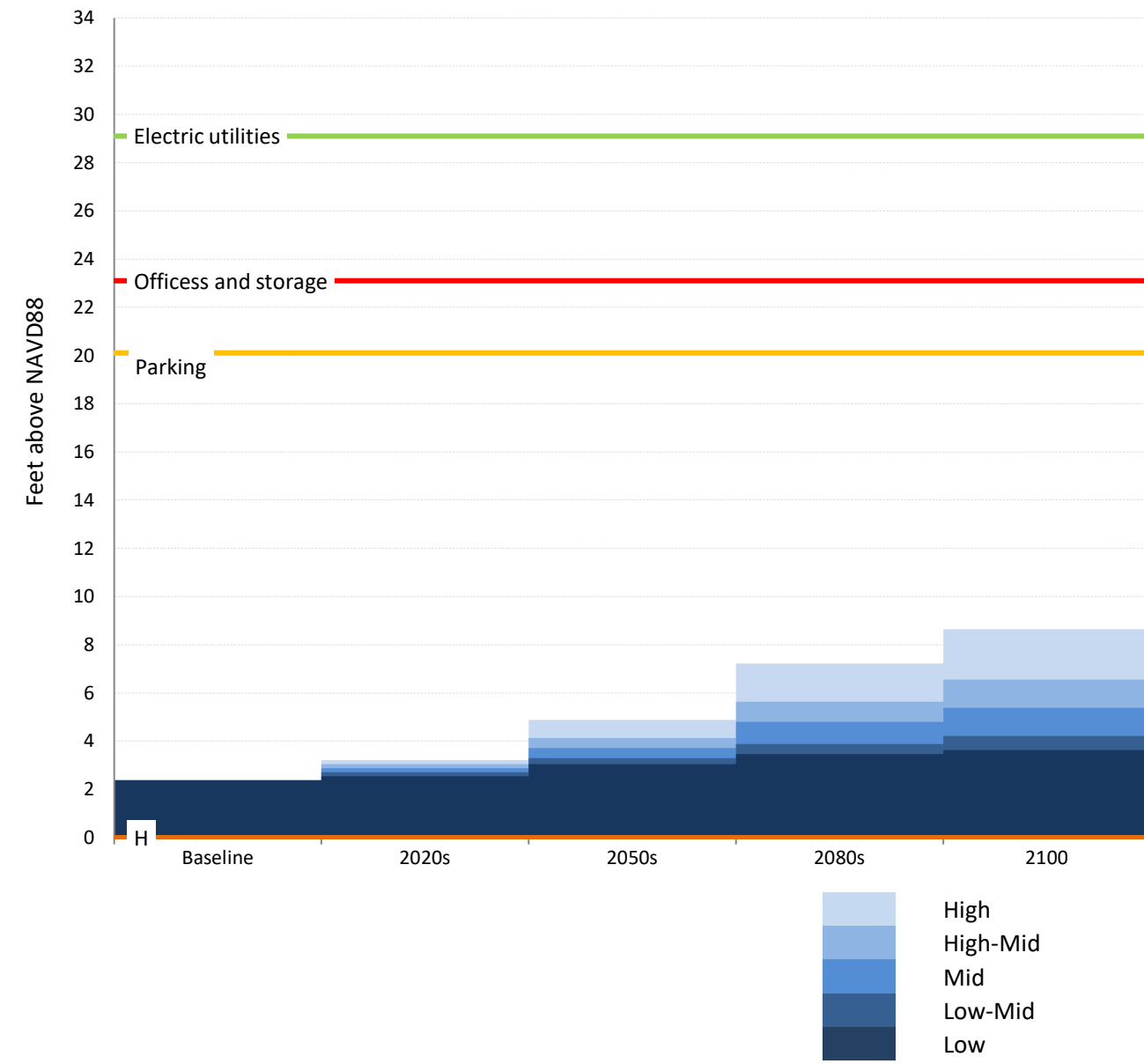
Data will be converted based on the following datums:

Datum	FT (NAVD88)
NAVD88	0.00
NGVD29	-1.10
Manhattan Datum	1.65
Bronx Datum	1.51
Brooklyn Datum (Sewer)	0.61
Brooklyn Datum (Highway)	1.45
Queens Datum	1.63
Richmond Datum	2.09
Station	9.00
MLLW	4.24

Mean Higher High Water + Sea Level Rise



1% Flood Elevation + Sea Level Rise



	SLR (ft)						SLR (in)				
	Low	Low-Mid	Mid	High-Mid	High		Low	Low-Mid	Mid	High-Mid	High
Baseline	0.00	0.00	0.00	0.00	0.00	2014	0	0	0	0	0
2020s	0.17	0.33	0.50	0.67	0.83	2020s	2	4	6	8	10
2050s	0.67	0.92	1.33	1.75	2.50	2050s	8	11	16	21	30
2080s	1.08	1.50	2.42	3.25	4.83	2080s	13	18	29	39	58
2100	1.25	1.83	3.00	4.17	6.25	2100	15	22	36	50	75

	MHHW+SLR (ft above NAVD88)						MLLW+SLR (ft above NAVD88)				
	Low	Low-Mid	Mid	High-Mid	High		Low	Low-Mid	Mid	High-Mid	High
Baseline	9.75	9.75	9.75	9.75	9.75	Baseline	4.24	4.24	4.24	4.24	4.24
2020s	9.92	10.08	10.25	10.42	10.58	2020s	4.41	4.57	4.74	4.91	5.07
2050s	10.42	10.67	11.08	11.50	12.25	2050s	4.91	5.16	5.57	5.99	6.74
2080s	10.83	11.25	12.17	13.00	14.58	2080s	5.32	5.74	6.66	7.49	9.07
2100	11.00	11.58	12.75	13.92	16.00	2100	5.49	6.07	7.24	8.41	10.49

	1%+SLR (ft above NAVD88)						MSL+SLR (ft above NAVD88)				
	Low	Low-Mid	Mid	High-Mid	High		Low	Low-Mid	Mid	High-Mid	High
Baseline	13.00	13.00	13.00	13.00	13.00	Baseline	7.01	7.01	7.01	7.01	7.01
2020s	13.17	13.33	13.50	13.67	13.83	2020s	7.18	7.34	7.51	7.68	7.84
2050s	13.67	13.92	14.33	14.75	15.50	2050s	7.68	7.93	8.34	8.76	9.51
2080s	14.08	14.50	15.42	16.25	17.83	2080s	8.09	8.51	9.43	10.26	11.84
2100	14.25	14.83	16.00	17.17	19.25	2100	8.26	8.84	10.01	11.18	13.26

	0.2%+SLR (ft above NAVD88)				
	Low	Low-Mid	Mid	High-Mid	High
Baseline	10.80	10.80	10.80	10.80	10.80
2020s	10.97	11.13	11.30	11.47	11.63
2050s	11.47	11.72	12.13	12.55	13.30
2080s	11.88	12.30	13.22	14.05	15.63
2100	12.05	12.63	13.80	14.97	17.05

	0	1
Offices and storage	23	23.1
Parking	20	20.1
Electric utilities	29.1	29.1
D	0	0
E	0	0
F	0	0
G	0	0
H	0	0

SLR (in)

Low	Low-Mid	Mid	High-Mid	High
0	0	0	0	0
2	4	6	8	10
8	11	16	21	30
13	18	29	39	58
15	22	36	50	75

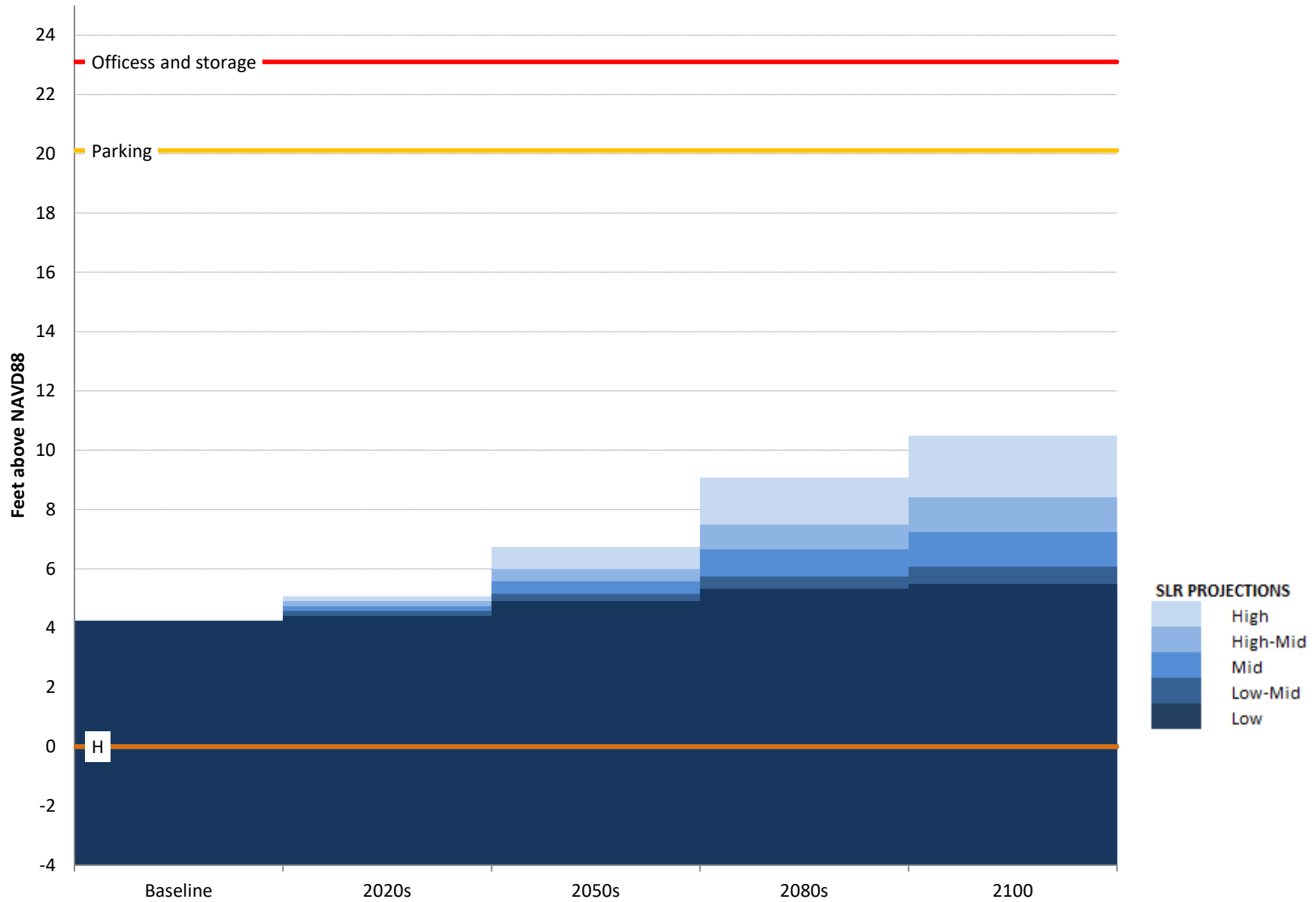
MLLW+SLR (ft above NAVD88)

Low	Low-Mid	Mid	High-Mid	High
4.24	4.24	4.24	4.24	4.24
4.41	4.57	4.74	4.91	5.07
4.91	5.16	5.57	5.99	6.74
5.32	5.74	6.66	7.49	9.07
5.49	6.07	7.24	8.41	10.49

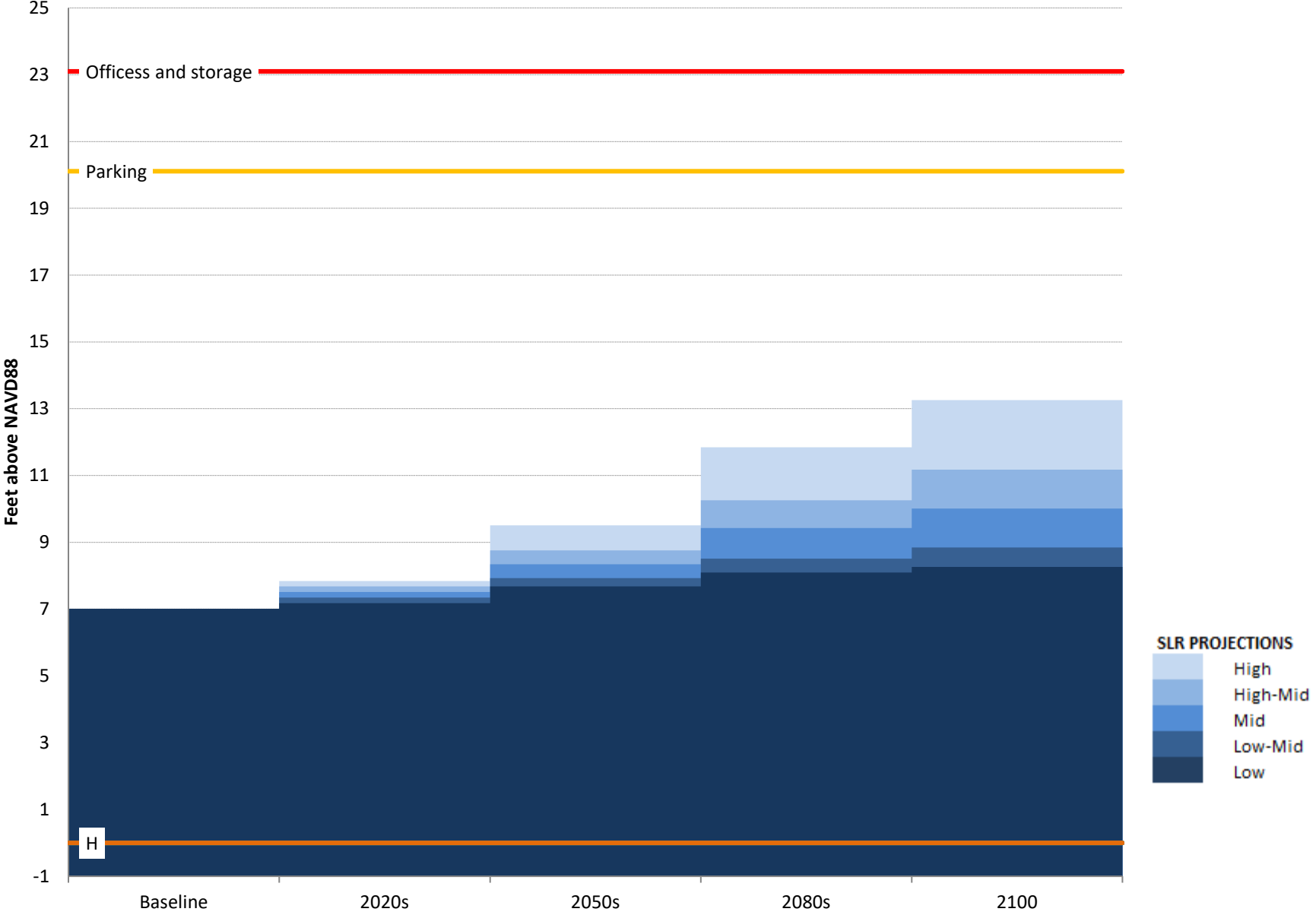
MSL+SLR (ft above NAVD88)

Low	Low-Mid	Mid	High-Mid	High
7.01	7.01	7.01	7.01	7.01
7.18	7.34	7.51	7.68	7.84
7.68	7.93	8.34	8.76	9.51
8.09	8.51	9.43	10.26	11.84
8.26	8.84	10.01	11.18	13.26

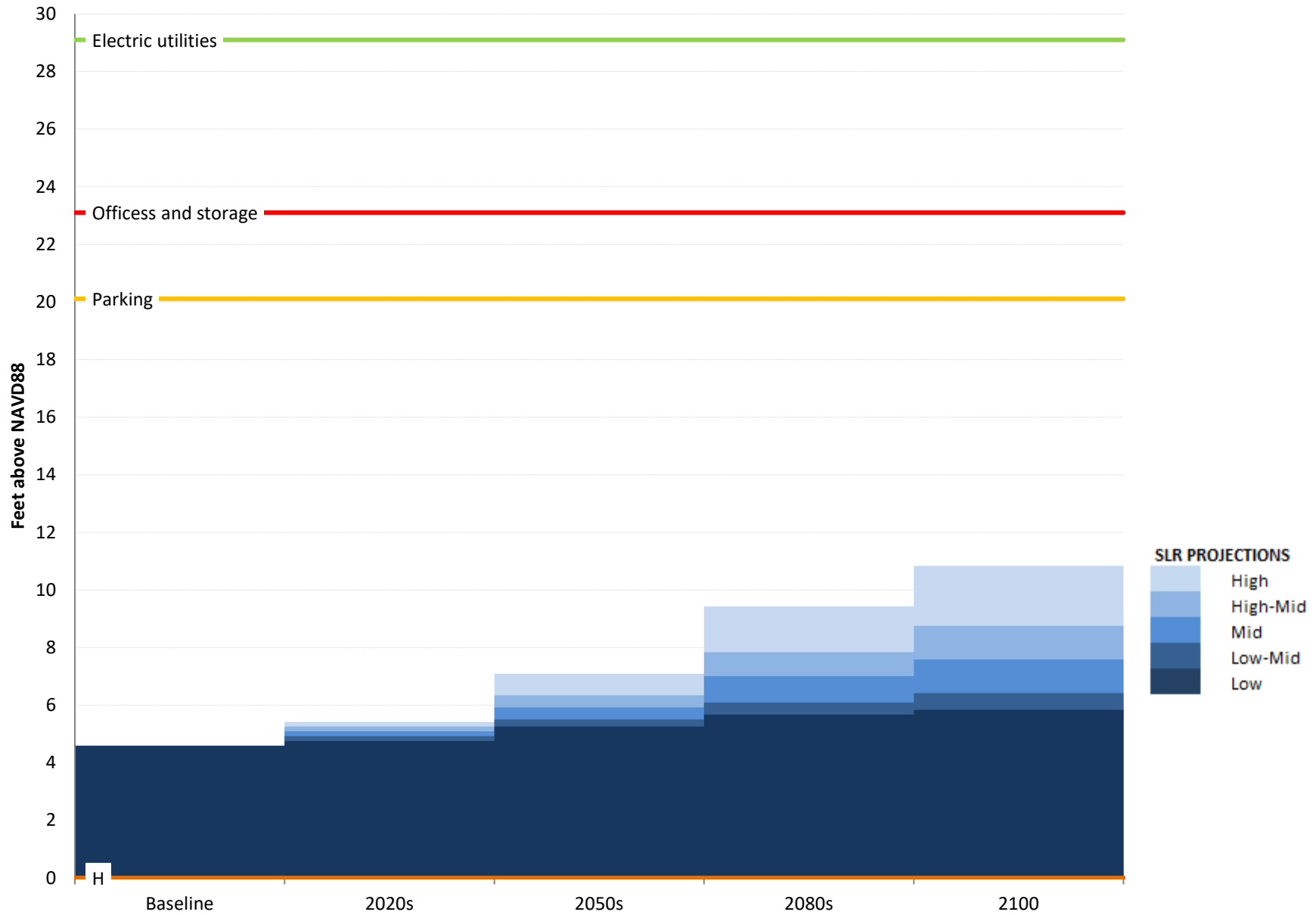
Mean Lower Low Water + Sea Level Rise



Mean Sea Level + Sea Level Rise



0.2% Flood Elevation + Sea Level Rise



APPENDIX C
DEP SIGNOFF

From: Estesén, Terrell
To: [Olga Abinader \(DCP\)](#)
Cc: [Rachel Antelmi \(DCP\)](#); [Wimbish, Mitchell](#); [Asfare, Bushra](#)
Subject: RE: 2420 Arthur Kill Road
Date: Thursday, June 14, 2018 4:30:27 PM

Hi Olga – DEP has the following comments on the EAS for 2420 Arthur Kill Rd:

Sewer System – The proposed development will generate 2,376.5 gpd of sanitary flow in the adjacent sewers. A hydraulic analysis of the existing sewer system may be needed at the time of submittal of the site connection proposal application to determine whether the existing sewer system is capable of supporting higher density development and related increase in wastewater flow, or whether there will be a need to upgrade the existing sewer system.

Water System – Existing water mains should be capable to handle increase in water demand.

Thank you.

From: Wimbish, Mitchell
Sent: Thursday, June 07, 2018 1:05 PM
To: Olga Abinader (DCP) <OABINAD@planning.nyc.gov>
Cc: Rachel Antelmi (DCP) <RAntelmi@planning.nyc.gov>; Estesén, Terrell <TerrellE@dep.nyc.gov>
Subject: RE: 2420 Arthur Kill Road

Hello Olga,

The EAS is under review with DEP's Bureau of Water and Sewer Operations. They will provide comments no later than June 14.

Thanks

Mitchell Wimbish | Project Manager | NYC Environmental Protection
Bureau of Environmental Planning & Analysis | Office of Wastewater Review & Special Projects
718 595 4451 | mwimbish@dep.nyc.gov

From: Olga Abinader (DCP) <OABINAD@planning.nyc.gov>
Sent: Thursday, June 07, 2018 9:58 AM
To: Wimbish, Mitchell <MitchellW@dep.nyc.gov>
Cc: Rachel Antelmi (DCP) <RAntelmi@planning.nyc.gov>
Subject: 2420 Arthur Kill Road

Mitchell,

Hello and we hope that this email finds you well! Regarding the EAS for the 2420 Arthur Kill Road project tomorrow, is DEP comfortable with the conclusions of no impact significance related to water and sewer infrastructure, as indicated in the EAS?

Thanks,
Olga

Olga Abinader

Deputy Director • Environmental Assessment and Review Division

NYC Dept. of City Planning

120 Broadway, 31st Floor • New York, NY 10271

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APPENDIX D
AIR QUALITY

AIR QUALITY

Introduction

Ambient air quality describes pollutant levels in the surrounding environment to which the public has access. To assess potential health hazards due to ambient air quality, the impact of air pollutants emitted by motor vehicles (mobile source) and by fixed facilities (stationary source) are analyzed, where the effects of both the proposed project on ambient air quality and the ambient air quality effect on the proposed project are considered. The analysis framework, as mandated by the State Environmental Review Act, follows the 2014 *CEQR Technical Manual*. This section assesses the following:

- The potential for changes in vehicular travel associated with proposed development activities to result in significant mobile source (vehicular related) air quality impacts.
- The potential for emissions from the heating, ventilation and air conditioning (HVAC) systems of the proposed development to significantly impact nearby existing land uses.
- The potential for air toxic emissions released from existing industrial facilities to significantly impact the proposed development within 400 feet of the proposed development.
- The potential for significant air quality impacts from the emissions of existing HVAC systems with a 20 or more million Btu per hour (MMBtu/hr) design capacity to significantly impact the proposed development within 400 feet of the proposed development.
- The potential for significant air quality impacts from the emissions of facilities that require Prevention of Significant Deterioration permits (Title V), and facilities which require a state facility permit to significantly impact the proposed development within 1,000 feet of the proposed development.

Air Pollutants and Applicable Standards and Guidelines

National Air Quality Standards

The U.S. Environmental Protection Agency (EPA) has identified six pollutants, known as criteria pollutants which are being of concern nationwide, and established threshold concentration based upon adverse effect on human health. The six pollutants and their characteristics are:

- Carbon Monoxide (CO) is mainly produced by motor vehicles from the incomplete combustion of gasoline. The impact of CO on the ambient air is analyzed next to roadways, intersections, parking lots, and parking garages vents as these locations are the most affected.
- Nitrogen Dioxide (NO₂) is a main concern related to the burning of natural gas. Emitted NO_x from the burning of fossil fuel gradually convert to NO₂ in a chemical reaction that is effected by ozone concentration and the presence of sunlight. In a micro scale analysis, buildings HVAC systems are analyzed for NO₂ impact.
- Ozone (O₃) is formed by chemical reaction between hydrocarbons and nitrogen oxides and its impact is analyzed on a regional scale by monitoring stations.

- Lead (Pb) in the ambient air is monitored on a regional level. In a project scale analysis, impact due to Lead concentration levels are analyzed if a new source, such as lead smelters, is introduced into the environment or if a project is located next to a lead emitter.
- Particulate Matter emissions are associated with both stationary sources and mobile sources. Two sizes of particulate matters are analyzed: Inhalable Particles (PM₁₀) and Fine Particulate Matter (PM_{2.5}), where the subscript number refers to the diameter of the particulate matter in micrometers.
- Sulfur Dioxide (SO₂) emission is principally associated with stationary sources that burn oil or coal.

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for the criteria pollutants by EPA, and New York State has adopted the NAAQS as the State ambient air quality standards. The relevant standards together with their health-related averaging periods are presented in Table 1.

Table 1: National and New York States Ambient Air Quality

Pollutant	Averaging Period	National and State Standards
NO ₂	Maximum 1-Hour Concentration	0.10 ppm (188 µg/m ³)
	Annual Arithmetic Average	0.053 ppm (100 µg/m ³)
PM _{2.5}	24-Hour Concentration	35 µg/m ³
	Average of 3 Consecutive Annual Means	12 µg/m ³

NO₂ NAAQS

Nitrogen oxide (NO_x) emissions from gas combustion consist predominantly of nitric oxide (NO) at the source. The NO_x in these emissions are then gradually converted to NO₂, which is the pollutant of concern, in the atmosphere (in the presence of ozone and sunlight as these emissions travel downwind of a source).

The 1-hour NO₂ NAAQS standard of 0.100 ppm (188 ug/m³) is the 3-year average of the 98th percentile of daily maximum 1-hour average concentrations in a year. For determining compliance with this standard, the EPA has developed a modeling approach for estimating 1-hour NO₂ concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NO_x to NO₂; Tier 2 applies a conservative ambient NO_x/NO₂ ratio of 80% to the NO_x estimated concentrations; and Tier 3, which is the most precise approach, employs AERMOD's PVMRM module. The PVMRM accounts for the chemical transformation of NO emitted from the stack to NO₂ within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8th highest daily maximum 1-hour NO₂ concentrations or total 1-hour NO₂ concentrations if hourly NO₂ background concentrations are added within the model.

Per the *CEQR TECHNICAL MANUAL*, a Tier 1 approach is initially applied, followed by a Tier 2 application of NO_x/NO₂ ratio of 80% to the NO_x modeled concentration to determine

whether violation of the NAAQS is likely to occur. A less conservative Tier 3 approach is then applied if exceedances of the 1-hour NO₂ NAAQS were estimated.

The annual NO₂ standard is 0.053 ppm (100 ug/m³). In order to conservatively estimate annual NO₂ impacts, a NO₂ to NO_x ratio of 0.75 percent, which is recommended by the NYCDEP for an annual NO₂ analysis, was applied.

New York State Standards

As mentioned, New York State has adopted the national standard, NAAQS. In addition, the New York State Department of Environmental Conservation (NYSDEC) has established guidelines for maximum allowable concentration of “noncriteria pollutants,” which are potentially toxic or carcinogenic pollutants. The maximum allowable guidelines set a maximum 1-hour and annual averaging time concentrations and are published in the DAR-1 AGC/SGC Table, where AGC/SGC refers to Annual and Short-term Guideline Concentrations. The most recent DAR-1 guidelines were created on July 14, 2016.

NYSDEC also regulates pollutants that produce discomfort due to odors, where significant discomfort is evaluated on quantity, characteristic or duration.

NYC Interim Guidelines

In addition to the NAAQS, the *CEQR Technical Manual* requires that projects subject to CEQR apply a PM_{2.5} significant impact criteria (based on concentration increments). These criteria are called *de minimis* and they are more stringent than the NAAQS and the state standards as the criteria set a maximum increase of pollutant concentration that is below the national standard. If the estimated impacts of a proposed project are less than the *de minimis* criteria, the impacts are not considered to be significant. As outlined in the *CEQR Technical Manual*, PM_{2.5} significant impacts are evaluated as follow:

- Predicted 24-hour maximum PM_{2.5} concentration increase of more than half the difference between the 24-hour background concentration and the 24-hour standard; or
- Predicted annual average PM_{2.5} concentration increments greater than 0.3 µg/m³ at any receptor location for stationary sources.

Background Concentrations

Determination of significant impact criteria is evaluated by adding the background concentrations at the nearest NYSDEC monitoring station to the concentrations of criteria pollutants in the ambient air of the project area.

Background concentrations of relevant criteria pollutants were obtained from the NYSDEC’s annual report for 2015 at the IS 52 and the Botanical Garden monitoring stations.

Table 2: Background Concentration at the Queens College and JHS 126 Monitoring Stations (NYSDEC 2015 Report)

Pollutant	Averaging Period	Background Concentration	Monitoring Station
NO ₂	Maximum 1-Hour Concentration	113.2 µg/m ³	Queens College
	Annual Arithmetic Average	40.8 µg/m ³	
PM _{2.5}	24-Hour Concentration	23.0 µg/m ³	JHS 126
	Average of 3 Consecutive Annual Means	9.1 µg/m ³	

The *de minimis* criteria for PM_{2.5} was evaluated as described in the NYC Interim Guidelines and the concentration increment are presented below:

- 24-hour PM_{2.5} 6.0 µg/m³
- Annual PM_{2.5} 0.3 µg/m³

The Proposed Project

The project site is located at 2420 Arthur Kill Road (Block 7067, Lot 120) in the Rossville neighborhood of Staten Island Community District 3. The proposed actions would facilitate the completion of a partially built 3-story building and the creation of 72 unenclosed accessory off- street parking spaces. The building would contain offices, storage space (for boats and equip- ment), and a loading berth. The building would rise to a height of 44 feet, and would contain 23,765 gross square feet (gsf) of floor area.

Mobile Source Emissions

Projects may result in significant mobile source impacts when they generate vehicular traffic, change traffic patterns, or add new uses near mobile sources of pollutants. Per CEQR guidelines, a detailed analysis is conducted to predict whether the proposed actions could potentially have a significant adverse air quality impact if certain threshold criteria are met or exceeded, while proposed projects that do not meet or exceed the threshold criteria are not expected to have a mobile source impact. Projects that require a detailed analysis model the ambient air CO and PM₁₀/PM_{2.5} concentrations – the mobile source pollutants of concern – and compare the modeled concentrations with the applicable air quality standard.

For this area of the city, the threshold volume for a detailed analysis of CO concentration is an increment of 170 vehicles during any peak hour. The traffic generated by the completion and occupancy of the project site building would not reach that level. (See EAS Section 16, Transportation.) Therefore, no CO detailed air quality analysis is required, and no significant CO mobile source air quality impacts are expected as a result of the proposed development.

According to the *CEQR Technical Manual*, a PM_{2.5} detailed analysis is required if a threshold criterion, determined by the number of project-generated peak hour heavy-duty diesel vehicles (HDDVs) or the equivalent in vehicular emission, is exceeded. The threshold criteria depend on the type of road and the incremental vehicular traffic as followed:

- 12 or more HDDVs for paved roads with 5,000 vehicles;
- 19 or more HDDVs for collector roads;
- 23 or more HDDVs for principal and minor arterials; or
- 23 or more HDDVs for expressways and limited access roads.

The maximum HDDV trip generation resulting from the completion and occupancy of the project site building would not meet or exceed even the lowest of these thresholds. Therefore, no detailed air quality analysis is required, and no significant mobile source air quality impacts are expected as a result of the proposed project.

In addition to the building itself, the proposed project would include a 72-space accessory surface parking lot, and the *CEQR Technical Manual* recommends a mobile source assessment for the introduction of parking facilities if the number of spaces would exceed a threshold criterion. The threshold size, per CEQR guidelines, is a facility that would contain at least 85 off-street parking spaces. Because the 72-space unenclosed accessory off-street parking lot would not meet the threshold criterion, no detailed air quality analysis is required, and no significant mobile source air quality impacts are expected as a result of the proposed actions.

HVAC Systems Analysis

The HVAC analysis considers the potential for emissions from the HVAC system of the proposed project to significantly impact existing land uses within 400 feet of the project site.

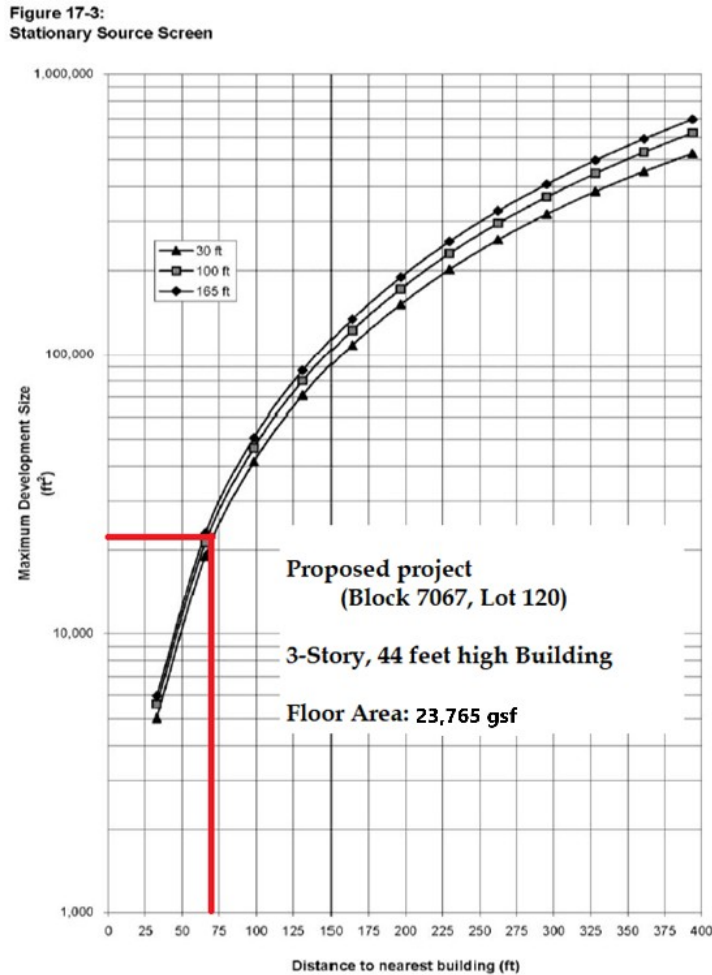
As outlined in the *CEQR Technical Manual*, the analysis of buildings' HVAC systems follows stationary sources methodology, and based on CEQR recommendations, a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water system boiler emissions can be significant. This CEQR screening procedure is applicable to buildings that are not less than 30 feet from the nearest building of similar or greater height. Otherwise, a detailed dispersion analysis is required.

The potential for stationary source emissions from heat and hot water systems to have a significant adverse impact on nearby receptors depends on the type of fuel that would be used, the height of the stack venting the emissions, the distance to the nearest building whose height is at least as great as the venting stack height, whether the building is residential or nonresidential, and the square footage of the development served by the system. The *CEQR Technical Manual* provides a screening analysis based on these factors, which was utilized to determine the potential for significant impacts from the proposed project's HVAC system.

If the actual distance between a stack and the affected building is greater than the threshold distance for a building size, then that building passes the screening analysis (and no significant impact is predicted). However, if the actual distance is less than the threshold distance for a building, then there is a potential for a significant impact, and a detailed analysis would be required.

The analysis employed the nomograph depicted in Figure 17-3 of the *CEQR Technical Manual*, using the curve for a 30-foot stack height (as the 30 feet curve height is closest to but not higher than the proposed stack height, as the CEQR screening procedure requires) and plotting the size of the development (the vertical axis) against distance from the exhaust stack (the horizontal axis). A horizontal line was drawn from the vertical axis (at the point representing 23,625 gsf) to the line's intersection with the appropriate curve, and a vertical line was then drawn from the point of intersection to the horizontal axis. The point at which the vertical line strikes the horizontal axis represents a conservative estimate of the maximum distance between the exhaust stack and a receptor at which a significant impact could occur. If any sensitive receptor is located within that threshold distance, a detailed analysis is required; if not, then no further analysis is required to determine that exhaust from the building's boiler system would not have a significant adverse impact on the closest sensitive receptor. The result is shown in Figure 1.

Figure 1: The Project Site Minimum Distance - All Fuels HVAC Screen Nomograph



The screening analysis nomograph shows that a detailed analysis would be required for any existing building that is 44 feet or taller and at a distance of less than 73 feet from the project site. A review of existing land uses in the area shows that the nearest building of similar or greater height is the 3-story, 46-foot-tall building at 2512 Arthur Kill Road (Block 7072, Lot 1), which is 277 feet from the project site. Therefore, the proposed actions pass the screening analysis, and the emissions from the proposed development's HVAC system would not significantly impact any existing land use.

Industrial, Major, and Large Sources and Odor Producing Facilities

As outlined in the *CEQR Technical Manual*, projects that would introduce new uses near industrial sources, major sources, large sources, and odor producing facilities may result in potentially significant adverse air quality impacts. The study area considers industrial sources within 400 feet of the Project Site and major sources, large sources, and odor producing facilities within 1,000 feet of the Project Site. These sources are categorized as follows:

Industrial sources are identified as commercial, industrial, or processing facilities that are likely to have NYCDEP operational permits.

Major emission sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits.

Large emission sources are identified as sources located at facilities which require a State facility permit, such as solid waste or medical waste incinerators, asphalt and concrete plants, or large printing facilities.

Odor producing facilities are operations that have the potential to cause discomfort, such as: solid waste management facilities, water pollution control plants (i.e., sewage treatment plants), and incinerators.

Information regarding potential emissions of toxic air pollutants from existing industrial sources within 400 feet of the project site, and emissions of air pollutants from existing major and large sources within 1,000 feet of the project site were developed using the following methodology:

A study area was developed that includes all non-residential facilities with potential air toxic emissions located within 400 feet of the Project Site using the Zoning and Land Use application (ZoLa);

Google Street View, on-line searches, and land surveys were used to identify and categorize facilities;

A search was performed to identify permits listed in the EPA Envirofacts database in this study area;

The NYCDEP online Clean Air Tracking System (CATS) was consulted to determine whether air emissions permits had been issued for any of the nonresidential lots; and

A formal request, with blocks and lot numbers, was sent to the NYCDEP to review the current and expired status processing type permits identified in the NYCDEP CATS database.

No existing large combustion sources, such as power plants, cogeneration facilities, etc., located within 1,000 feet of the project site were identified. In addition, no odor producing facility was identified within 1,000 feet of the project site. As such, no analysis was warranted.

A search of the EPA Envirofacts database identified the Expressway Collision Center at 211 Veterans Road as a possible toxic air emitter. The facility is an auto body shop located approximately 300 feet east of the project site. The Expressway Collision Center facility was also identified in the NYCDEP database, and its emissions are addressed below.

The land survey study identified 27 non-residential land uses in the 400-foot study area, and the current use of each of these non-residential uses was identified. Figure 2 shows the study area and the locations with non-residential uses. The current use at each of the non-residential lots is presented in Table 3, along with any NYCDEP permits. Industrial processing permits start with a "P," and combustion permits with a "C".

Figure 2: Potential Industrial or Manufacturing Uses within 400 feet of the Project Site

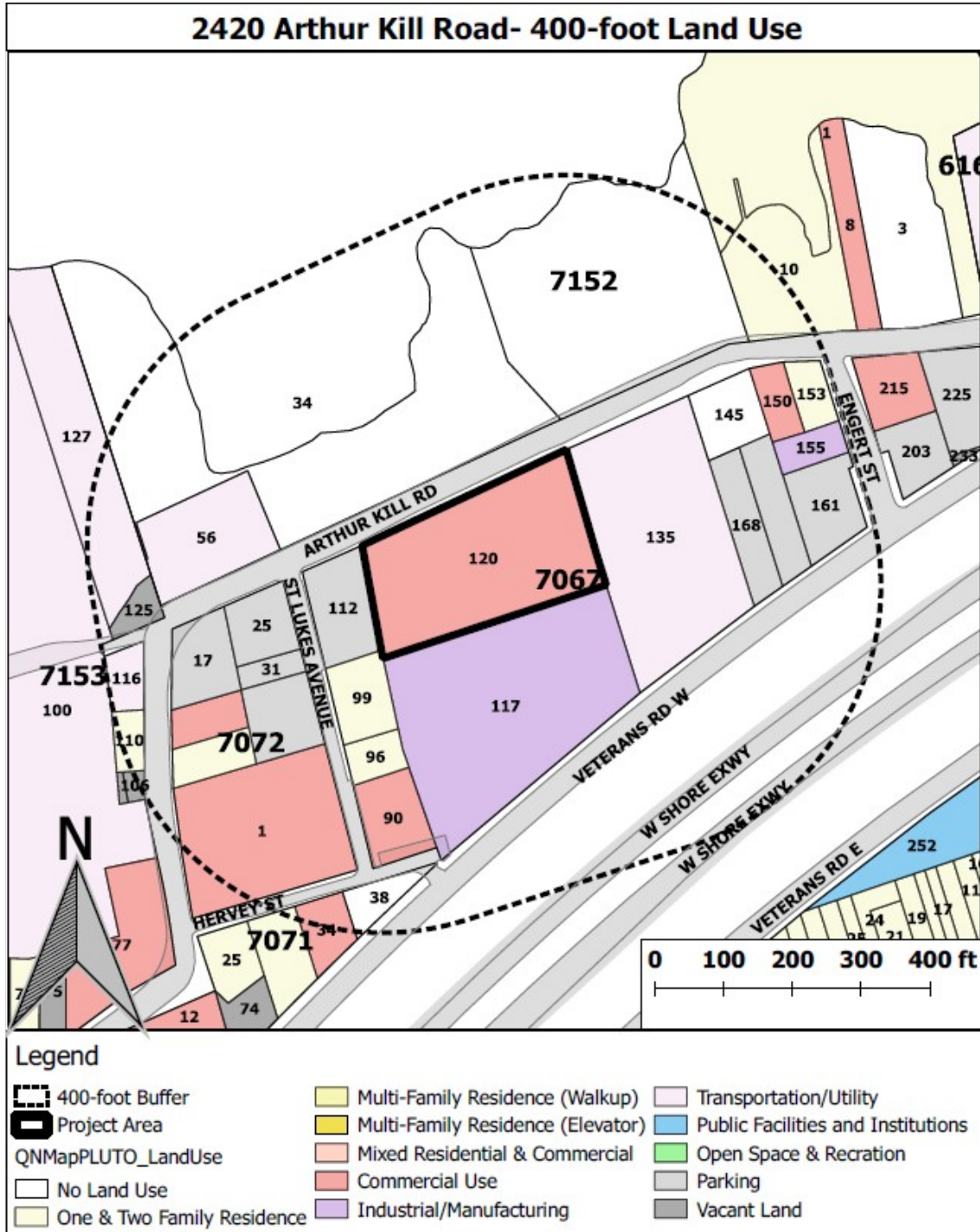


Table 3: Non-Residential Uses within 400 Feet of the Project Site

Block	Lot	Address	CATS info	Current Use (Land Survey)
7067	145	Arthur Kill Road	No Record	Vacant land
	117	275 Veterans Road West	No Record	Storage facility
	120	2420 Arthur Kill Road	No Record	Project Site
	155	20 Engert Street	No Record	Wholesale food products
	112	Arthur Kill Road	No Record	Restaurant and its parking
	168	231 Veterans Road West	PB050108	A & B Collision (Auto body)
	161	211 Veterans Road West	PB014209	Expressway Collision Center (Auto body)
	166	227 Veterans Road West	No Record	Auto & truck mechanic shop
	135	2390 Arthur Kill Road	PB009605	Electric utility substation
	150	2372 Arthur Kill Road	No Record	Residential
7071	90	39 St Lukes Avenue	No Record	The Wedding Cottage Bed & Breakfast
	38	Veterans Road West	No Record	Open space/garden
7072	34	18 Hervey Street	No Record	Multi-tenant office building (PC, CPA, Ballroom Plus, Partners in Sound (photography and sound))
	31	14 St Lukes Avenue	No Record	Parking
	13	2484 Arthur Kill Road	No Record	bar/restaurant
	33	22 St Lukes Avenue	No Record	Parking
	1	2512 Arthur Kill Road	No Record	Old Bermuda Inn
	17	Arthur Kill Road	No Record	Parking
7152	25	Arthur Kill Road	No Record	Parking
	56	2453 Arthur Kill Road	No Record	Donjon Recycling (metal recycling), no emission point
	34	Arthur Kill Road	No Record	point
7153	18	Arthur Kill Road	No Record	Vacant land
	127	Arthur Kill Road	No Record	Vacant land
	100	2575 Arthur Kill Road	No Record	Donjon Recycling, no emission point
	116	2477 Arthur Kill Road	No Record	Laredo Electric - warehouse/office
	125	Arthur Kill Road	No Record	Vacant land/Parking
	106	Arthur Kill Road	No Record	Storage yard

The record search results show that three facilities have operational permits with current status from the NYCDEP. Permit PB009605 is for an emergency generator of the Con Edison substation located at 2390 Arthur Kill Road (Block 7067, Lot 135). Per CEQR guidelines, emergency generators are exempt, and therefore the emissions associated with permit PB009605 were not included in the analysis. The other two facilities are auto body shops. The emissions from these facilities are discussed below. As seen in Table 3, no other facility in the study area was identified as a toxic air emitter.

The two facilities with NYCDEP operational permits are:

- A & B Collision, located at 231 Veterans Road West – Permits: PB050108, PB050208, and PB050008.
- Expressway Collision Center, located at 211 Veterans Road West – Permit: PB014209.

A & B Collision (Block 7067, Lot 168) has two processing permits for paint spray booths and a processing permit for a work preparation station where the sealer is applied. The stacks' locations, obtained from the certificates, are all 235 feet from the lot line of the project site, and 6 feet above the facility rooftop. Per the certificates, both the spray booths and the preparation station operate 4 hours per day and 250 days per year. The contaminants listed in each of the permits are solids (NY identification number NY079-00-0) and solvents (NY identification number NY998-00-0). The maximum hourly spraying activity associated with each permit is 0.25 gallon per hour, and the emissions of solids from each emission point is captured by fiberglass filter with a 90 percent capture efficiency. In addition, the stacks' (emission point) parameters of 34-inch in diameter and flow rates of 12,000 cubic feet per minute were obtained from the certificates.

Expressway Collision Center (Block 7067, Lot 161) has a processing permit for a paint spray booth. The stack's location, obtained from the certificate, is 308 feet from the lot line of the project site, 19 feet above grade, and 6 feet above the facility rooftop. Per the certificate, the spray booth operates 6 hours per day and 250 days per year. The contaminants listed in each of the permits are solids (NY identification number NY079-00-0) and solvents (NY identification number NY998-00-0). The maximum hourly spraying activity associated with the permit is 0.25 gallon per hour, and the emissions of solids is captured by fiberglass filter with an 80 percent capture efficiency. In addition, the stack's (emission point) parameters of 30-inch in diameter and flow rates of 12,600 cubic feet per minute were obtained from the certificate.

Conventional coatings – paints, varnishes, lacquers, sealers, stains, and water thinned paints – comprises compounds grouped into solids and volatile organic compounds (VOCs), which are mostly solvents. The coatings contain 30 to 85 percent solvents by volume and this amount is regulated by the EPA and NYSDEC. Per NYCDEP guidance and as outlined in the EPA AP-42, the analysis assumes that all VOCs are emitted. Each VOC contaminant is analyzed with the SGC/AGC guideline concentration. Particulates are fluid or solids particles grouped together. Per NYSDEC DAR-1, particulates are collectively analyzed with the more stringent concentration guideline. These two groups, VOC and particulates, are discussed here:

In accordance with NYCDEP, emissions of solids are analyzed as PM₁₀ and PM_{2.5}. The particle size distribution was obtained from the EPA AP-42, Appendix B1, Page B.1-12, Particle Size Distribution Data and Sized Emission Factors for Selected Sources, Table 4.2.2.8 Automobile and Light-Duty Truck Surface Coating Operations, Automobile Spray Booths. The facilities solids emission rates are displayed in Table 4.

Table 4: PM₁₀/PM_{2.5} Emission Rate from the Auto Body Facilities

Contaminant	Permitted Emission Rate		Fraction of Particle Size Percent	Emission rate			
	lb/hr	lb/yr		Short-term		Annual	
				lb/hr	g/s	lb/yr	g/s
A & B Collision PB050208 (Emission Point #1)							
PM ₁₀	0.008	6.5	46.7	3.74E-03	4.71E-04	3.04E+00	4.37E-05
PM _{2.5}			28.6	2.29E-03	2.88E-04	1.86E+00	2.67E-05
A & B Collision PB050108 (Emission Point #2)							
PM ₁₀	0.008	6.5	46.7	3.74E-03	4.71E-04	3.04E+00	4.37E-05
PM _{2.5}			28.6	2.29E-03	2.88E-04	1.86E+00	2.67E-05
A & B Collision PB050008 (Emission Point #3)							
PM ₁₀	0.008	6.5	46.7	3.74E-03	4.71E-04	3.04E+00	4.37E-05
PM _{2.5}			28.6	2.29E-03	2.88E-04	1.86E+00	2.67E-05
Expressway Collision Center PB014209							
PM ₁₀	0.065	97.6	28.6	1.86E-02	2.34E-03	2.79E+01	4.01E-04
PM _{2.5}			46.7	3.04E-02	3.82E-03	4.56E+01	6.56E-04

The mixture of different compounds, identified collectively as VOC, have no guideline values in the NYSDEC DAR-1 database. The mixture comprises of compounds of varying toxicities. As the composition of the coating substance was not included in the operational permit, a representative composition by percent weight was obtained from the approved CEQR action Solow Centers Air Toxics Analysis – March 25, 2010 (hereinafter “Solow Report”). The Solow Report analyzed the emissions of auto bodies operating without a NYCDEP permit. Table 3 of the Solow Report shows the VOC chemicals that makeup the representative paint, and each chemical quantity in percentage weight. The Solow Report VOC by percentage weight and the facilities 1-hour and annual VOC emissions were used to calculate the chemicals emission rates. The ingredients that make up the representative paint, along with their Chemical Abstract Service (CAS) number, by percent weight and the hourly and annual emission rates are presented in Table 5.

**Table 5: Auto Body Facilities' VOC Short-Term and Annual Emission Rates
(Chemicals and their Percentage Weight from the Solow Report Table 3)**

Contaminant name	CAS No.	Percent Weight	1-Hour		Annual	
			lb/hr	g/s	lb/yr	g/s
A & B Collision PB050208 (Emission Point #1)						
Acetone	67-64-1	43%	1.00E+00	1.26E-01	8.00E+02	1.15E-02
Aromatic Petroleum Distillate	64742-94-5	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Butane	106-97-8	11%	2.56E-01	3.22E-02	2.05E+02	2.94E-03
Ethanol	64-17-5	2%	4.65E-02	5.86E-03	3.72E+01	5.35E-04
Ethyl 3-Ethoxypropionate	763-69-9	9%	2.09E-01	2.64E-02	1.67E+02	2.41E-03
Ethylbenzene	100-41-4	5%	1.16E-01	1.46E-02	9.30E+01	1.34E-03
Methyl Ethyl Ketone	78-93-3	8%	1.86E-01	2.34E-02	1.49E+02	2.14E-03
N-Butyl Acetate	123-86-4	5%	1.16E-01	1.46E-02	9.30E+01	1.34E-03
Propane	74-98-6	11%	2.56E-01	3.22E-02	2.05E+02	2.94E-03
Stoddard Solvent	8052-41-3	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Toluene	108-88-3	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Xylene	1330-20-7	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
A & B Collision PB050108 (Emission Point #2)						
Acetone	67-64-1	43%	1.00E+00	1.26E-01	8.00E+02	1.15E-02
Aromatic Petroleum Distillate	64742-94-5	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Butane	106-97-8	11%	2.56E-01	3.22E-02	2.05E+02	2.94E-03
Ethanol	64-17-5	2%	4.65E-02	5.86E-03	3.72E+01	5.35E-04
Ethyl 3-Ethoxypropionate	763-69-9	9%	2.09E-01	2.64E-02	1.67E+02	2.41E-03
Ethylbenzene	100-41-4	5%	1.16E-01	1.46E-02	9.30E+01	1.34E-03
Methyl Ethyl Ketone	78-93-3	8%	1.86E-01	2.34E-02	1.49E+02	2.14E-03
N-Butyl Acetate	123-86-4	5%	1.16E-01	1.46E-02	9.30E+01	1.34E-03
Propane	74-98-6	11%	2.56E-01	3.22E-02	2.05E+02	2.94E-03
Stoddard Solvent	8052-41-3	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Toluene	108-88-3	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Xylene	1330-20-7	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
A & B Collision PB050008 (Emission Point #3)						
Acetone	67-64-1	43%	1.00E+00	1.26E-01	8.00E+02	1.15E-02
Aromatic Petroleum Distillate	64742-94-5	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Butane	106-97-8	11%	2.56E-01	3.22E-02	2.05E+02	2.94E-03
Ethanol	64-17-5	2%	4.65E-02	5.86E-03	3.72E+01	5.35E-04
Ethyl 3-Ethoxypropionate	763-69-9	9%	2.09E-01	2.64E-02	1.67E+02	2.41E-03
Ethylbenzene	100-41-4	5%	1.16E-01	1.46E-02	9.30E+01	1.34E-03
Methyl Ethyl Ketone	78-93-3	8%	1.86E-01	2.34E-02	1.49E+02	2.14E-03
N-Butyl Acetate	123-86-4	5%	1.16E-01	1.46E-02	9.30E+01	1.34E-03
Propane	74-98-6	11%	2.56E-01	3.22E-02	2.05E+02	2.94E-03
Stoddard Solvent	8052-41-3	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Toluene	108-88-3	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03
Xylene	1330-20-7	10%	2.33E-01	2.93E-02	1.86E+02	2.68E-03

Table 5 continued						
Expressway Collision Center PB014209						
Acetone	67-64-1	43%	1.33E+00	1.68E-01	2.00E+03	2.88E-02
Aromatic Petroleum Distillate	64742-94-5	10%	3.10E-01	3.91E-02	4.65E+02	6.69E-03
Butane	106-97-8	11%	3.41E-01	4.30E-02	5.12E+02	7.36E-03
Ethanol	64-17-5	2%	6.20E-02	7.81E-03	9.30E+01	1.34E-03
Ethyl 3-Ethoxypropionate	763-69-9	9%	2.79E-01	3.52E-02	4.19E+02	6.02E-03
Ethylbenzene	100-41-4	5%	1.55E-01	1.95E-02	2.33E+02	3.34E-03
Methyl Ethyl Ketone	78-93-3	8%	2.48E-01	3.12E-02	3.72E+02	5.35E-03
N-Butyl Acetate	123-86-4	5%	1.55E-01	1.95E-02	2.33E+02	3.34E-03
Propane	74-98-6	11%	3.41E-01	4.30E-02	5.12E+02	7.36E-03
Stoddard Solvent	8052-41-3	10%	3.10E-01	3.91E-02	4.65E+02	6.69E-03
Toluene	108-88-3	10%	3.10E-01	3.91E-02	4.65E+02	6.69E-03

As outlined in the *CEQR Technical Manual's* Air Pollutants and Applicable Standards/Guidelines section, the predicted concentrations are compared with the maximum allowable concentration. If the predicted concentrations are below the allowable maximum concentrations, no significant adverse air quality impacts are expected. If the predicted concentrations are above the allowable maximum concentrations, a cumulative detailed analysis and 24-hour peak load emission during work period using AERSCREEN or AERMOD dispersion models are performed. As such, the predicted concentrations of the criteria pollutants were compared with the NAAQS or the *de minimis*. All other contaminants' concentrations were compared with the DAR-1 SGC and AGC guideline criteria.

For estimating potential impacts from a single industrial emission source of toxic air pollutants, the *CEQR TM* recommends using a screening procedure as a first step in the analysis. For impacts from multiple sources, the impact concentrations from each source are added. This procedure uses the *CEQR TM* Table 17-3, "Industrial Source Screen" pre-tabulated pollutant concentrations at different averaging times for a generic emission rate of 1 gram per second. This approach, which can be used to estimate maximum short-term and annual average concentration values at various distances (from 30 to 400 feet) from an emission source, was utilized as a first step to assess the potential impacts of the emissions from the permitted facility.

The distances of the facilities' stacks to the lot line of the project site were measured in ZoLa, and the *CEQR* pre-tabulated concentrations corresponding to distances less than or equal to the measured distances were utilized. The pre-tabulated concentrations are displayed in Table 6.

Table 6: CEQR Manual Table 17-3 Industrial Source Screen Pre-Tabulated Concentrations

Facility Name	Distance from Source (ft) Actual/ CEQR Distance	1-Hour ($\mu\text{g}/\text{m}^3$)	24-Hour ($\mu\text{g}/\text{m}^3$)	Annual ($\mu\text{g}/\text{m}^3$)
A & B Collision (All Emission Points)	235/ 230	2,657	924	131
Expressway Collision Center	308/ 300	1,891	594	84

The impact of pollutants emitted from multiple sources were cumulatively added to predict the combined concentration at the project site.

As the distances of the emission points of A & B Collision are equal, the emissions from the facility stacks were added as if they are emitted from a single emission point situated 230 feet from the Project Site.

The *CEQR Technical Manual* Table 17-3 Industrial Source Screen short-term and annual maximum predicted concentrations of the 1 gram per second dispersion analyses were multiplied by the calculated emission rates, and the predicted concentrations from each facility were compared with the respective threshold criteria. Impact concentrations of pollutants emitted from both facilities were added and the cumulative results compared with the respective threshold criteria. The cumulative results of the criteria pollutants are displayed in Table 7.

Table 7: Criteria Pollutants Dispersion Analyses Results (A & B Collision Center Impact Concentrations from all the Facility Emissions Points Combined)

Criteria Pollutant	Threshold Standard	Predicted Concentration ($\mu\text{g}/\text{m}^3$)	Background Concentration ($\mu\text{g}/\text{m}^3$)	Total Concentration ($\mu\text{g}/\text{m}^3$)	Threshold Criteria ($\mu\text{g}/\text{m}^3$)
A & B Collision (All Emission Points for Permits PB050008, PB050108, PB050208)					
PM ₁₀ 24-Hour	NAAQS	1.30	48	49.3	150
PM _{2.5} 24-Hour	<i>de minimis</i>	0.80	N.A.	0.80	7.65
PM _{2.5} Annual	<i>de minimis</i>	0.011	N.A.	0.011	0.3
Expressway Collision Center PB014209					
PM ₁₀ 24-Hour	NAAQS	1.95	48	50.0	150
PM _{2.5} 24-Hour	<i>de minimis</i>	1.19	N.A.	1.19	7.65
PM _{2.5} Annual	<i>de minimis</i>	0.03	N.A.	0.03	0.3
Cumulative Concentrations					
PM ₁₀ 24-Hour	NAAQS	3.3	48	51.3	150
PM _{2.5} 24-Hour	<i>de minimis</i>	1.99	N.A.	1.99	7.8
PM _{2.5} Annual	<i>de minimis</i>	0.04	N.A.	0.04	0.3

As displayed in Table 7, the facilities' independent impact concentrations and cumulative impact concentrations, with the background concentration added where applicable, are below the threshold criteria.

The *CEQR Technical Manual* Table 17-3 Industrial Source Screen was used to evaluate the solvents, VOC, impact. The predicted concentrations of the 1 gram per second dispersion analyses were multiplied by the calculated emission rates, and the predicted concentrations compared

with the NYSDEC SGC/AGC guidelines where applicable (some contaminants do not have short-term guideline). The facilities independent impact concentrations and the facilities cumulative impact concentrations of the non-criteria pollutants are displayed in Table 8.

Table 8: Non-Criteria Pollutants Dispersion Analysis Results

Contaminant name	CAS No.	1-Hour	SGC	Annual	AGC
		µg/m ³	µg/m ³	µg/m ³	µg/m ³
A & B Collision (All Emission Points for Permits PB050008, PB050108, PB050208)					
Acetone	67-64-1	334.70	180000.0	1.51	30000.0
Aromatic Petroleum Distillate	64742-94-5	77.84	0.0	0.35	100.0
Butane	106-97-8	85.62	238000.0	0.39	0.0
Ethanol	64-17-5	15.57	0.0	0.07	45000.0
Ethyl 3-Ethoxypropionate	763-69-9	70.05	140.0	0.32	64.0
Ethylbenzene	100-41-4	38.92	0.0	0.18	1000.0
Methyl Ethyl Ketone	78-93-3	62.27	13000.0	0.28	5000.0
N-Butyl Acetate	123-86-4	38.92	95000.0	0.18	17000.0
Propane	74-98-6	85.62	0.0	0.39	43000.0
Stoddard Solvent	8052-41-3	77.84	0.0	0.35	900.0
Toluene	108-88-3	77.84	37000.0	0.35	5000.0
Xylene	1330-20-7	77.84	22000.0	0.35	100.0
Expressway Collision Center PB014209					
Acetone	67-64-1	317.61	180000.0	2.10	30000.0
Aromatic Petroleum Distillate	64742-94-5	73.86	0.0	0.49	100.0
Butane	106-97-8	81.25	238000.0	0.54	0.0
Ethanol	64-17-5	14.77	0.0	0.10	45000.0
Ethyl 3-Ethoxypropionate	763-69-9	66.48	140.0	0.44	64.0
Ethylbenzene	100-41-4	36.93	0.0	0.24	1000.0
Methyl Ethyl Ketone	78-93-3	59.09	13000.0	0.39	5000.0
N-Butyl Acetate	123-86-4	36.93	95000.0	0.24	17000.0
Propane	74-98-6	81.25	0.0	0.54	43000.0
Stoddard Solvent	8052-41-3	73.86	0.0	0.49	900.0
Toluene	108-88-3	73.86	37000.0	0.49	5000.0
Xylene	1330-20-7	73.86	22000.0	0.49	100.0
Cumulative Concentrations					
Acetone	67-64-1	652.31	180000.0	3.61	30000.0
Aromatic Petroleum Distillate	64742-94-5	151.70	0.0	0.84	100.0
Butane	106-97-8	166.87	238000.0	0.92	0.0
Ethanol	64-17-5	30.34	0.0	0.17	45000.0
Ethyl 3-Ethoxypropionate	763-69-9	136.53	140.0	0.75	64.0
Ethylbenzene	100-41-4	75.85	0.0	0.42	1000.0
Methyl Ethyl Ketone	78-93-3	121.36	13000.0	0.67	5000.0
N-Butyl Acetate	123-86-4	75.85	95000.0	0.42	17000.0
Propane	74-98-6	166.87	0.0	0.92	43000.0
Stoddard Solvent	8052-41-3	151.70	0.0	0.84	900.0
Toluene	108-88-3	151.70	37000.0	0.84	5000.0
Xylene	1330-20-7	151.70	22000.0	0.84	100.0

As displayed in Table 8, the facilities VOCs' independent impact concentrations and cumulative impact concentrations are below the AGC/SGC standards.

As the VOCs predicted concentrations are below the AGC/SGC standards, and the particulate matter concentrations are below the NAAQS and *de minimis* guidelines, no significant toxic air quality impacts are expected as a result of the industrial sources facilities to the proposed project.

Conclusion

Air quality analyses addressed mobile sources, stationary HVAC systems, and air toxics. The results of the analyses are summarized below.

- Emissions from project-related vehicle trips would not cause significant air quality impacts to receptors at the local or neighborhood scale.
- Emissions from project-related heating, ventilation, and air conditioning systems (HVACs) would not cause significant air quality impacts to receptors at the local scale.
- No significant air quality impacts to the proposed project are anticipated from air toxics.
- As no existing large or major sources are located within 1,000 feet of the project site, emissions from these types of existing stationary sources would not cause a significant air quality impact to the proposed project.