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* Willow Avenue Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency)	BSA REFERENCE NUMBER (if applicable)
18DCP007X	
ULURP REFERENCE NUMBER (if applicable)	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)
180088 ZMX and N180089 ZRX	

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY			NAME OF APPLICANT		
Department of City Planning			Markland 745 LLC		
NAME OF LEAD AGENCY CONTACT PERSON			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON		
Robert Dobruskin, Director, EARD			Hiram A. Rothkrug, EPDSCO, Inc.		
ADDRESS 120 Broadway, 31st 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 718-343-0026	EMAIL hrothkrug@epdsco.com	

5. *Project Description*

The applicant, Markland 745 LLC ("the Applicant") seeks a zoning map amendment and two zoning text amendments (the "Proposed Actions"). The Proposed Actions would affect the eastern portion a single block (Block 2562, Lots 41, 49, 56, 58, 60 & portions of Lot 61), hereafter the "Project Area"), along Willow Avenue between 133rd and 134th Streets, to modify and extend an existing MX district (MX-1) in the Port Morris section of Bronx Community District #1.

The Proposed Actions would include a zoning map amendment from M1-2 and M1-2/R6A (MX-1) to both M1-2/R6A and M1-4/R7D districts, resulting in the entirety of the subject block under Special Mixed-Use District regulations (MX-1). This would also include a zoning text amendment to §123-90 of the Zoning Resolution (ZR) to designate the Project Area as a Special Mixed Use District (MX-1); as well as an additional zoning text amendment pursuant to Appendix F of the ZR to make the Project Area applicable as a Mandatory Inclusionary Housing Area (MIHA) and would be mapped as Options 1 or 2, pursuant to §123-154(d). The zoning text amendment will establish an MIHA coterminous with the Project Area. All residential developments, enlargements, and conversions within this MIHA that meet the criteria set forth in the MIH program must comply with the requirements of one of MIH Option 1.

The Proposed Actions would facilitate a new nine-story mixed-use building on Block 2562, Lots 49, 56, 58 and 60 (hereafter, the "Development Site"), to contain 115,602 zoning square feet of floor area (5.60 FAR). The building would rise to a height of approximately 85 feet and contain 100,477 zoning square feet of residential space (126 dwelling units) and 15,125 zoning square feet of commercial retail space. The building would also contain 34 non-accessory parking spaces.

For conservative analysis purposes, a Reasonable Worst Case Development Scenario (RWCDS) was established that considers a full buildout of the Project Area. See attached Project Description for a detailed description.

Project Location

BOROUGH Bronx	COMMUNITY DISTRICT(S) 1	STREET ADDRESS 750 East 134th St., 761-767 East 133rd St., 740 East 134th St.
TAX BLOCK(S) AND LOT(S) Block 2562, Lots 41, 49, 56, 58, 60, and part of Lot 61		ZIP CODE 10454
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS West side of Willow Avenue between East 133rd and 134th Streets		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-2		ZONING SECTIONAL MAP NUMBER 6b

and M1-2/R6A (MX-1)

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

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

- ☐ CITY MAP AMENDMENT
- ☐ ZONING CERTIFICATION
- ☐ CONCESSION
- ☒ ZONING MAP AMENDMENT
- ☐ ZONING AUTHORIZATION
- ☐ UDAAP
- ☒ ZONING TEXT AMENDMENT
- ☐ ACQUISITION—REAL PROPERTY
- ☐ REVOCABLE CONSENT
- ☐ SITE SELECTION—PUBLIC FACILITY
- ☐ DISPOSITION—REAL PROPERTY
- ☐ FRANCHISE
- ☐ HOUSING PLAN & PROJECT
- ☐ OTHER, explain:
- ☐ SPECIAL PERMIT (if appropriate, specify type: ☐ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION Sections 123-90 and 123-154(d)

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

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

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION

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

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

- ☐ LEGISLATION
- ☒ FUNDING OF CONSTRUCTION, specify: Possible funding through HPD's Division of New Construction Finance
- ☐ 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.): 39,348
Waterbody area (sq. ft) and type:
Roads, buildings, and other paved surfaces (sq. ft.): 39,348
Other, describe (sq. ft.):

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): 233,760
NUMBER OF BUILDINGS: 2
GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 148,260 and 85,500
HEIGHT OF EACH BUILDING (ft.): 115 and 85
NUMBER OF STORIES OF EACH BUILDING: 9 and 7

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: 20,648
The total square feet not owned or controlled by the applicant: 18,700

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: 31,147 sq. ft. (width x length)
VOLUME OF DISTURBANCE: 373,764 cubic ft. (width x length x depth)
AREA OF PERMANENT DISTURBANCE: 373,764 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.)	178,729	23,884		
Type (*e.g.,* retail, office, school)	209 units	Retail		

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 635 NUMBER OF ADDITIONAL WORKERS: 24

Provide a brief explanation of how these numbers were determined: 3.04 (avg. HH size of Census Tracts in 1/2 mile study area) x 209 DUs. 1 employee per 1,000 gsf

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: 24

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:

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?	☒	☐
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	☒	☐
(c) Is there the potential to affect an applicable public policy?	☐	☒
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach. See attached		
(e) Is the project a large, publicly sponsored project?	☐	☒
o If "yes," complete a PlaNYC assessment and attach.		
(f) Is any part of the directly affected area within the City's Waterfront Revitalization Program boundaries?	☒	☐
o If "yes," complete the Consistency Assessment Form. See 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?	☒	☐
o Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
o Directly displace more than 500 residents?	☐	☒
o Directly displace more than 100 employees?	☐	☒
o Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
o Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	☐	☒
(b) Indirect Effects		
o **Child Care Centers:** Would the project result in 20 or more eligible children under age 6, based on the number of low or low/moderate income residential units? (See Table 6-1 in Chapter 6)	☒	☐
o **Libraries:** Would the project result in a 5 percent or more increase in the ratio of residential units to library branches? (See Table 6-1 in Chapter 6)	☐	☒
o **Public Schools:** Would the project result in 50 or more elementary or middle school students, or 150 or more high school students based on number of residential units? (See Table 6-1 in Chapter 6)	☒	☐
o **Health Care Facilities and Fire/Police Protection:** Would the project result in the introduction of a sizeable new neighborhood?	☐	☒
4. *OPEN SPACE*: CEQR Technical Manual Chapter 7		
(a) Would the proposed project change or eliminate existing open space?	☐	☒
(b) Is the project located within an under-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
o If "yes," would the proposed project generate more than 50 additional residents or 125 additional employees?	☐	☐
(c) Is the project located within a well-served area in the Bronx, Brooklyn, Manhattan, Queens, or Staten Island?	☐	☒
o If "yes," would the proposed project generate more than 350 additional residents or 750 additional employees?	☐	☐
(d) If the project in located an area that is neither under-served nor well-served, would it generate more than 200 additional residents or 500 additional employees?	☒	☐

	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?	☒	☐
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	☐	☒
6. *HISTORIC AND CULTURAL RESOURCES*: CEQR Technical Manual Chapter 9		
(a) Does the proposed project site or an adjacent site contain any architectural and/or archaeological resource that is eligible for or has been designated (or is calendared for consideration) as a New York City Landmark, Interior Landmark or Scenic Landmark; that is listed or eligible for listing on the New York State or National Register of Historic Places; or that is within a designated or eligible New York City, New York State or National Register Historic District? (See the GIS System for Archaeology and National Register to confirm)	☐	☒
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	☒	☐
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. See attached		
7. *URBAN DESIGN AND VISUAL RESOURCES*: CEQR Technical Manual Chapter 10		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	☒	☐
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	☐	☒
8. *NATURAL RESOURCES*: CEQR Technical Manual Chapter 11		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of Chapter 11?	☐	☒
o If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the Jamaica Bay Watershed?	☐	☒
o If "yes," complete the Jamaica Bay Watershed Form, and submit according to its instructions.		
9. *HAZARDOUS MATERIALS*: CEQR Technical Manual Chapter 12		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	☒	☐
(b) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to hazardous materials that preclude the potential for significant adverse impacts?	☐	☒
(c) Would the project require soil disturbance in a manufacturing area or any development on or near a manufacturing area or existing/historic facilities listed in Appendix 1 (including nonconforming uses)?	☒	☐
(d) Would the project result in the development of a site where there is reason to suspect the presence of hazardous materials, contamination, illegal dumping or fill, or fill material of unknown origin?	☐	☒
(e) Would the project result in development on or near a site that has or had underground and/or aboveground storage tanks (*e.g.*, gas stations, oil storage facilities, heating oil storage)?	☐	☒
(f) Would the project result in renovation of interior existing space on a site with the potential for compromised air quality; vapor intrusion from either on-site or off-site sources; or the presence of asbestos, PCBs, mercury or lead-based paint?	☐	☒
(g) Would the project result in development on or near a site with potential hazardous materials issues such as government-listed voluntary cleanup/brownfield site, current or former power generation/transmission facilities, coal gasification or gas storage sites, railroad tracks or rights-of-way, or municipal incinerators?	☐	☒
(h) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify:	☐	☒
10. *WATER AND SEWER INFRASTRUCTURE*: CEQR Technical Manual Chapter 13		
(a) Would the project result in water demand of more than one million gallons per day?	☐	☒
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	☐	☒
(c) If the proposed project located in a separately sewered area, would it result in the same or greater development than the amounts listed in Table 13-1 in Chapter 13?	☐	☒
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	☐	☒
(e) If the project is located within the Jamaica Bay Watershed or in certain specific drainage areas, including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	☐	☒

	YES	NO
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	☐	☒
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	☐	☒
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	☐	☒
11. *SOLID WASTE AND SANITATION SERVICES*: CEQR Technical Manual Chapter 14		
(a) Using Table 14-1 in Chapter 14, the project's projected operational solid waste generation is estimated to be (pounds per week): 10,445		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	☐	☒
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	☐	☒
12. *ENERGY*: CEQR Technical Manual Chapter 15		
(a) Using energy modeling or Table 15-1 in Chapter 15, the project's projected energy use is estimated to be (annual BTUs): 27,810,857		
(b) Would the proposed project affect the transmission or generation of energy?	☐	☒
13. *TRANSPORTATION*: CEQR Technical Manual Chapter 16		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in Chapter 16?	☒	☐
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	☐	☒
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? ***It should be noted that the lead agency may require further analysis of intersections of concern even when a project generates fewer than 50 vehicles in the peak hour. See Subsection 313 of Chapter 16 for more information.*	☐	☐
o Would the proposed project result in more than 200 subway/rail or bus trips per project peak hour?	☐	☒
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction) or 200 subway trips per station or line?	☐	☐
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	☐	☒
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop?	☐	☐
14. *AIR QUALITY*: CEQR Technical Manual Chapter 17		
(a) *Mobile Sources*: Would the proposed project result in the conditions outlined in Section 210 in Chapter 17?	☒	☐
(b) *Stationary Sources*: Would the proposed project result in the conditions outlined in Section 220 in Chapter 17?	☒	☐
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed) See attached	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☐	☒
(b) Would the proposed project introduce new or additional receptors (see Section 124 in Chapter 19) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	☒	☐
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	☒	☐
(d) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	☐	☒
17. *PUBLIC HEALTH*: CEQR Technical Manual Chapter 20		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality;	☐	☒

	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?	☐	☒
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in Chapter 21, "Neighborhood Character." Attach a preliminary analysis, if necessary. See attached		
19. *CONSTRUCTION*: CEQR Technical Manual Chapter 22		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	☐	☒
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	☐	☒
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, *etc.*)?	☐	☒
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	☐	☒
o The operation of several pieces of diesel equipment in a single location at peak construction?	☐	☒
o Closure of a community facility or disruption in its services?	☐	☒
o Activities within 400 feet of a historic or cultural resource?	☐	☒
o Disturbance of a site containing or adjacent to a site containing natural resources?	☐	☒
o Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	☐	☒
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in Chapter 22, "Construction." It should be noted that the nature and extent of any commitment to use the Best Available Technology for construction equipment or Best Management Practices for construction activities should be considered when making this determination.		

20. *APPLICANT'S CERTIFICATION*

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

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

APPLICANT/REPRESENTATIVE NAME	DATE
Dana Feingold, Environmental Studies Corp.	November 22, 2017

SIGNATURE

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

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

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

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

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

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

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

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

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

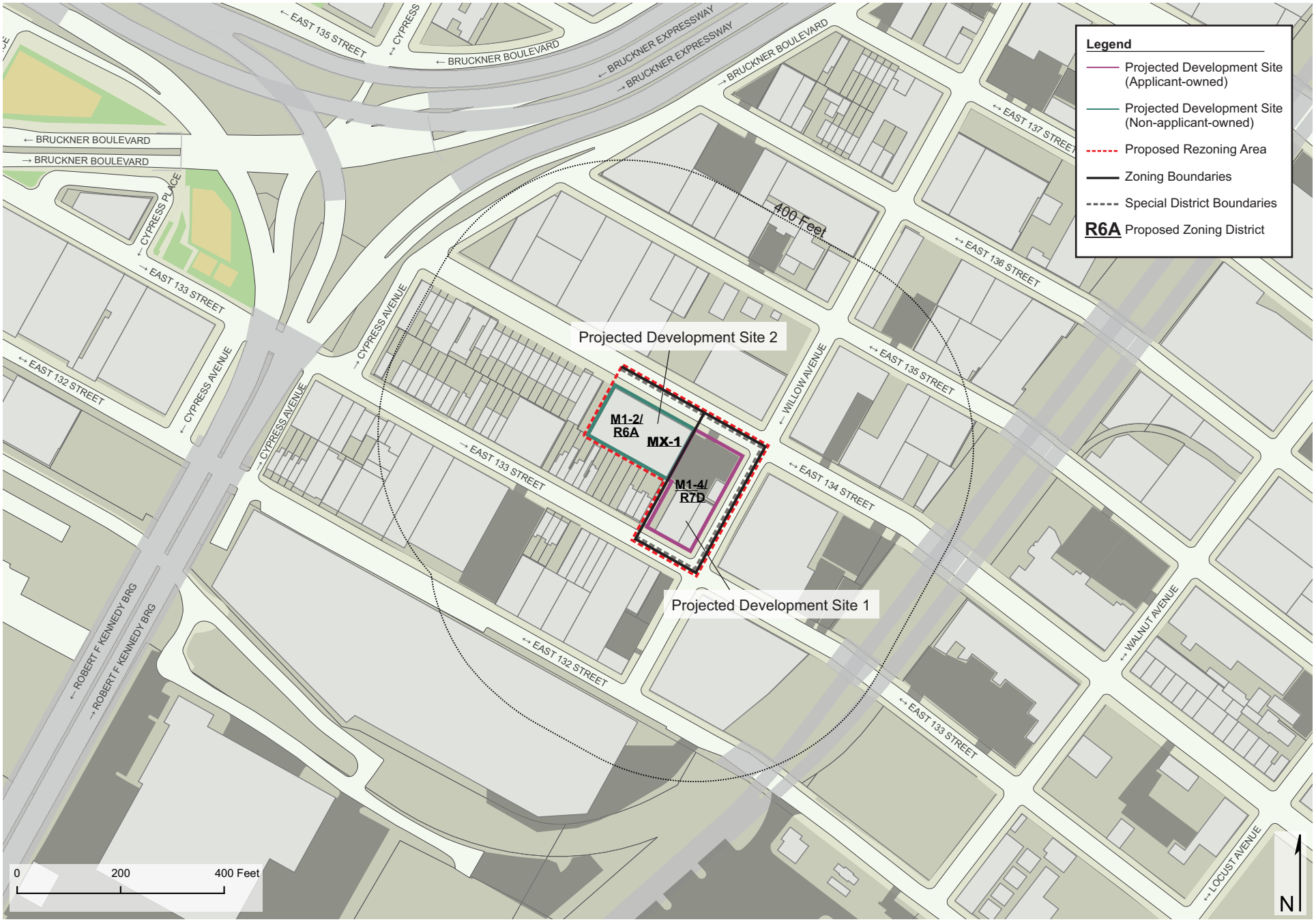
☐ **Conditional Negative Declaration:** A *Conditional Negative Declaration* (CND) may be appropriate if there is a private applicant for an Unlisted action AND when conditions imposed by the lead agency will modify the proposed project so that no significant adverse environmental impacts would result.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

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

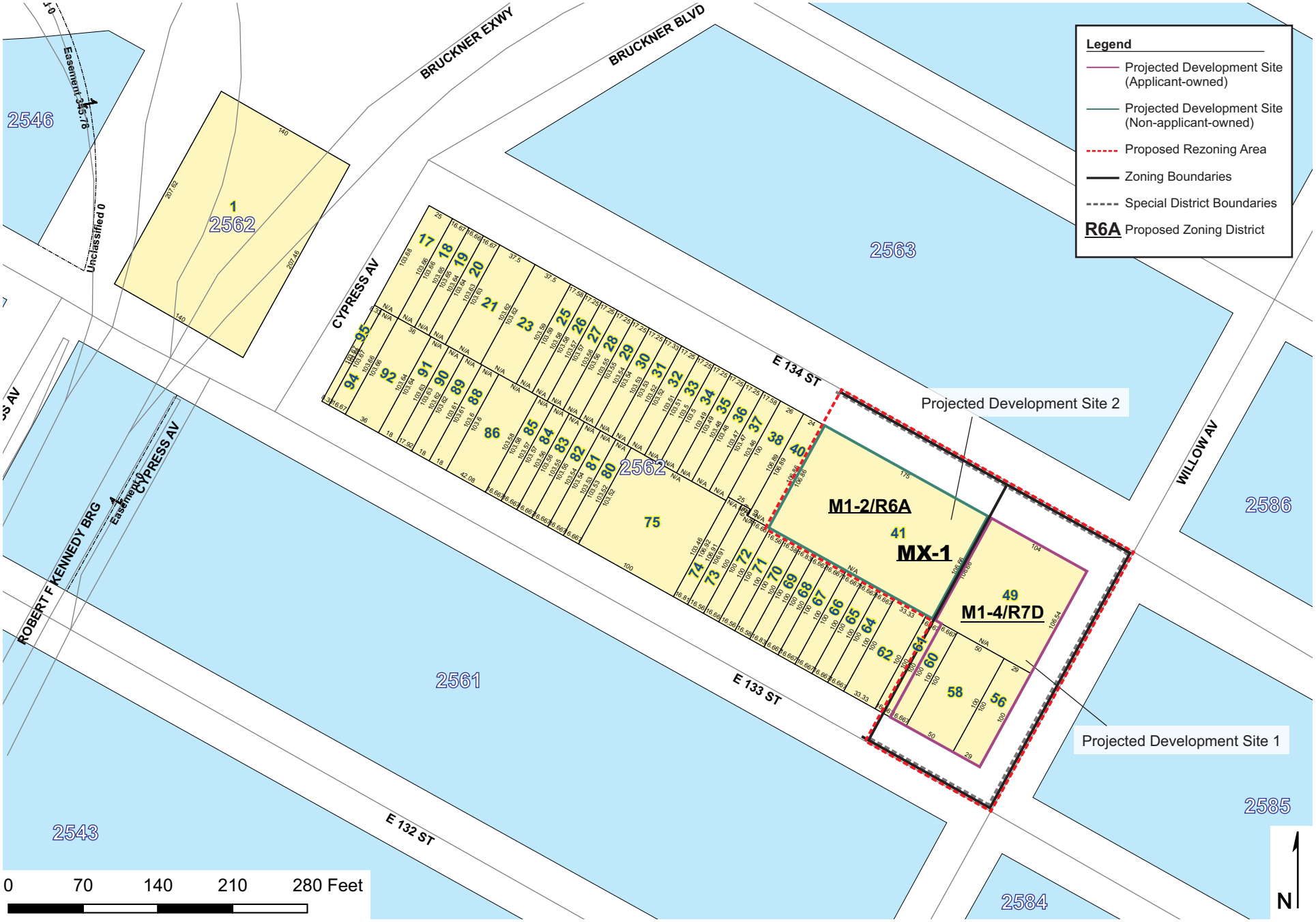
4. ***LEAD AGENCY'S CERTIFICATION***

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	New York City Department of City Planning
NAME	DATE
Robert Dobruskin, AICP	November 22, 2017

SIGNATURE Robert Dobruskin



Data Source: MapPLUTO 2016v1, NYC DOF Digital Tax Map 03-16 downloaded from https://nycopendata.socrata.com



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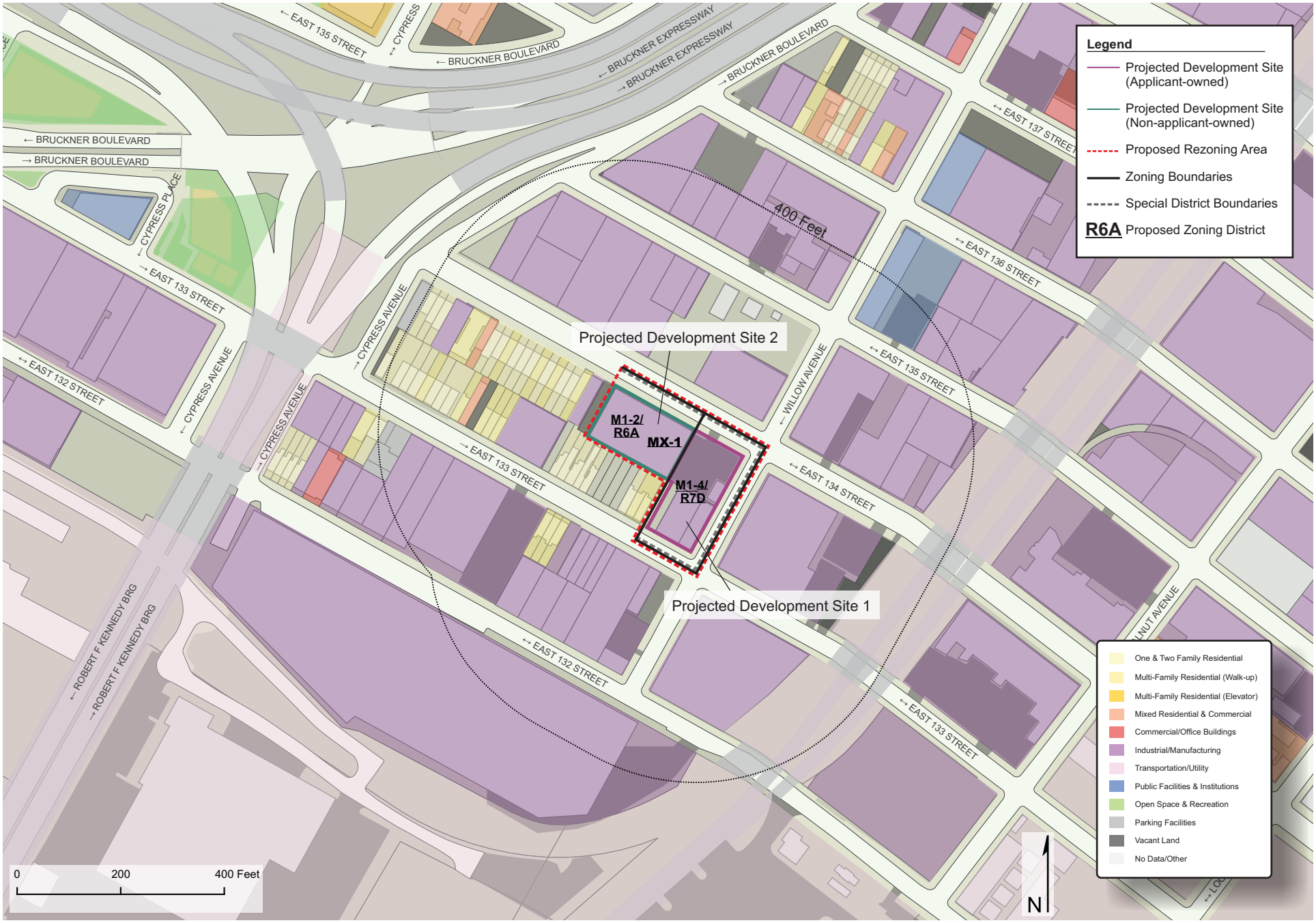
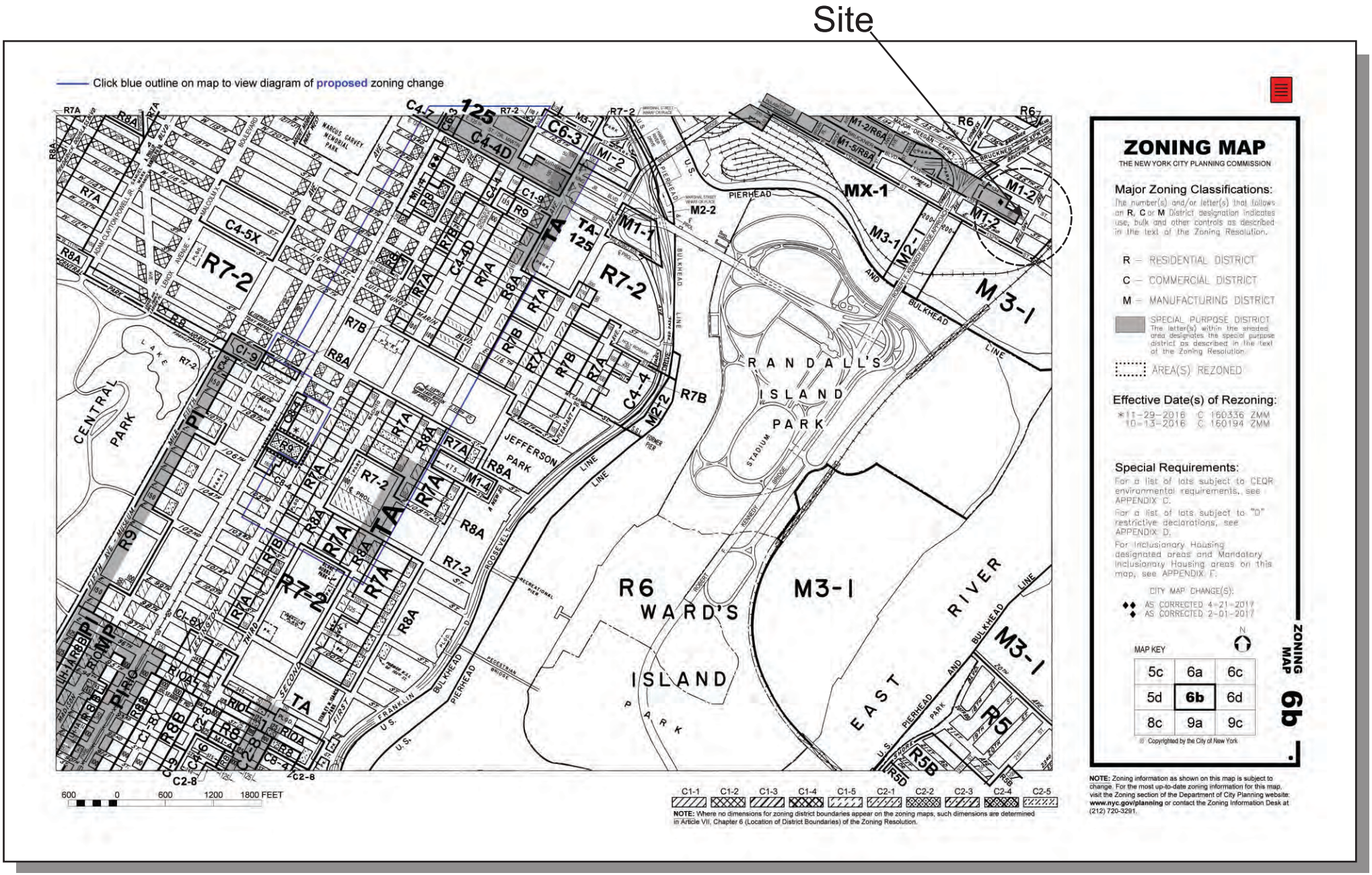


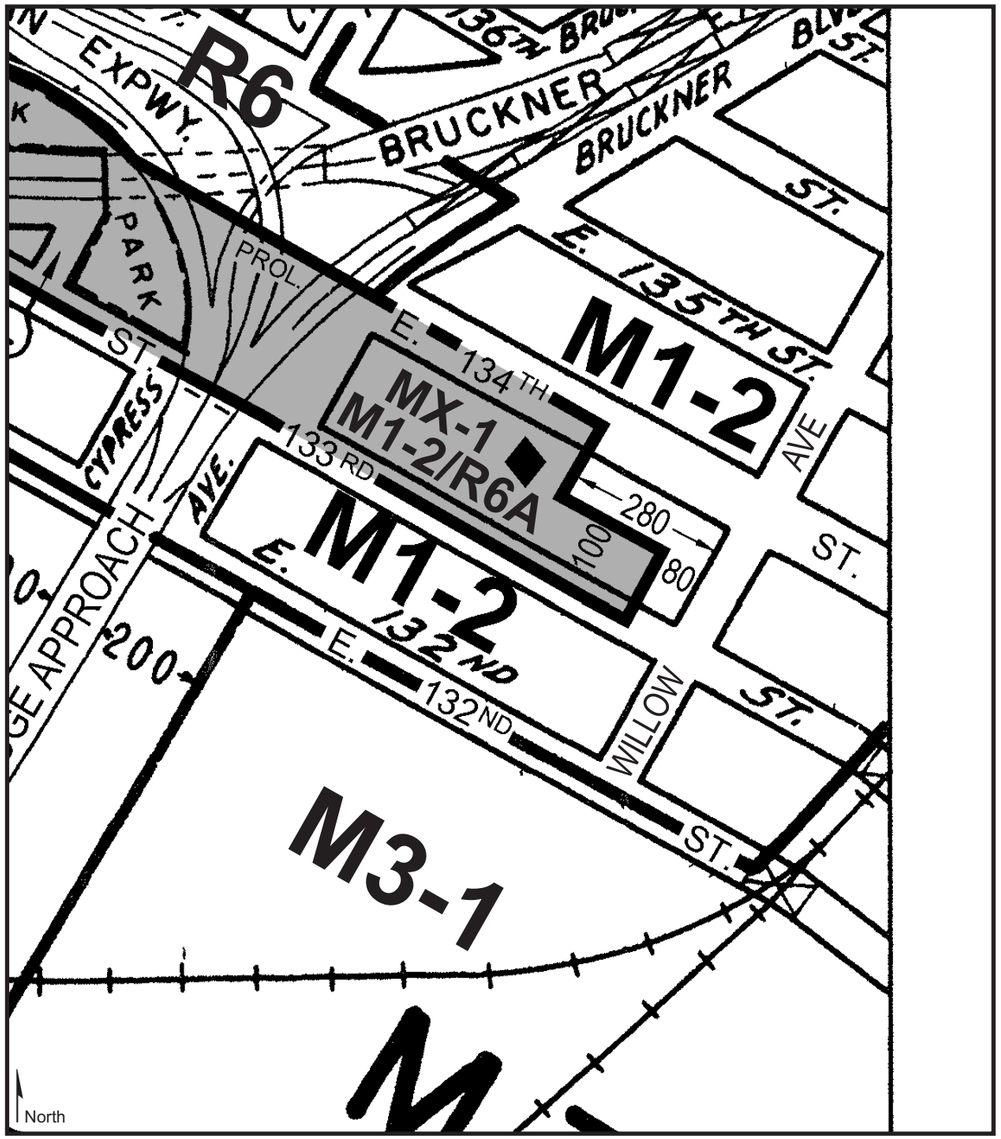
Data Source: MapPLUTO 2016v1, NYC DOF Digital Tax Map 03-16 downloaded from https://nycopendata.socrata.com


Site
Click blue outline on map to view diagram of proposed zoning change
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:
*11-29-2016 C 160336 ZMM
10-13-2016 C 160194 ZMM
Special Requirements:
For a list of lots subject to CEQR environmental requirements, see APPENDIX C.
For a list of lots subject to "D" restrictive declarations, see APPENDIX D.
For Inclusionary Housing designated areas and Mandatory Inclusionary Housing areas on this map, see APPENDIX F.
CITY MAP CHANGE(S):
AS CORRECTED 4-21-2017
AS CORRECTED 2-01-2017
MAP KEY
5c 6a 6c
5d 6b 6d
8c 9a 9c
ZONING MAP 6b
© Copyrighted by the City of New York
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.
600 0 600 1200 1800 FEET
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.
CENTRAL PARK
JEFFERSON PARK
RANDALL'S ISLAND PARK
WARD'S ISLAND PARK
EAST RIVER
R6
M3-1
MX-1
R7-2
R7A
R8A
R9
R5
R5B
C4-4D
C4-5X
C6-3
M1-2
M2-2
M3-1
M2-1
M1-1
M1-4
C1-9
C2-8
C8-4
PARK
BULKHEAD
PIERHEAD
ROOSEVELT
FIRST
SECOND
THIRD
FRANKLIN
KENNEDY
STADIUM
BRIDGE
LINE

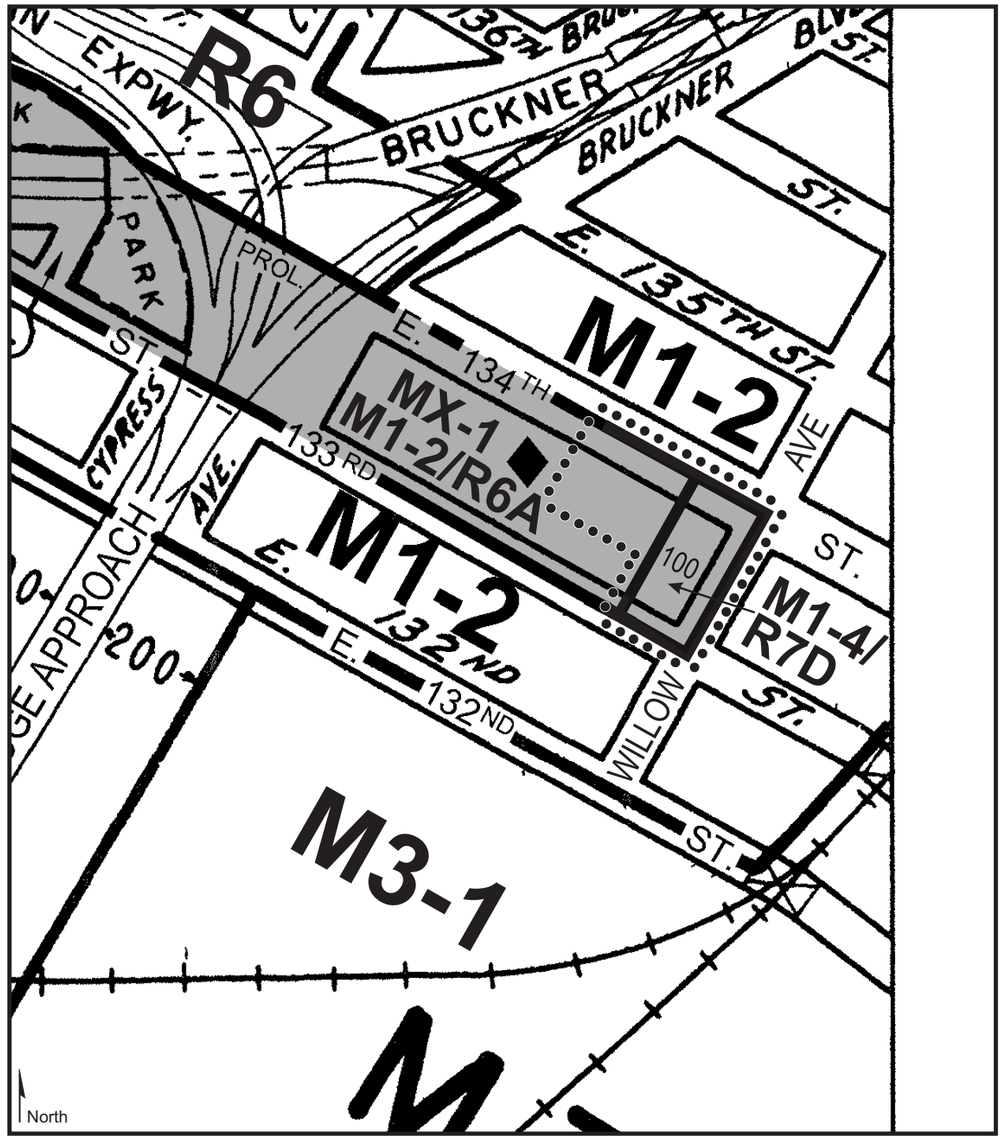


Data Source: MapPLUTO 2016v1, NYC DOF Digital Tax Map 03-16 downloaded from https://nycopendata.socrata.com

Zoning Change Map



Current Zoning Map (6b)



Proposed Zoning Map (6b) - Project Area is outlined with dotted lines

Rezoning from M1-2/R6A (MX-1) to M1-4/R7D (MX-1)
Rezoning from M1-2 to M1-2/R6A (MX-1)
Rezoning from M1-2 to M1-4/R7D (MX-1)

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



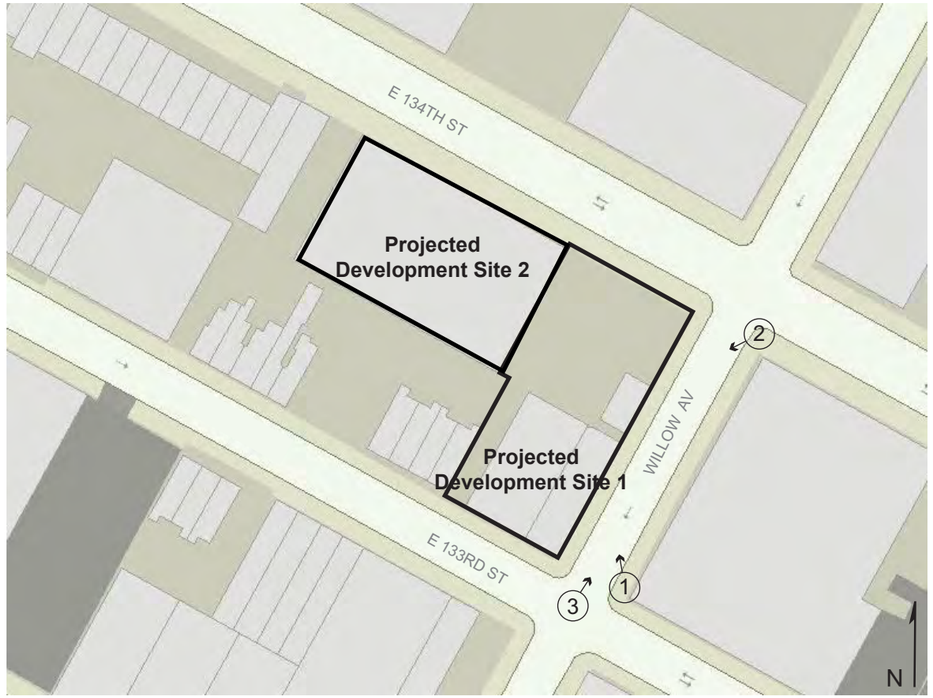
1. View of the Site facing north from the intersection of Willow Avenue and East 133rd Street.



2. View of the Site facing southwest from the intersection of Willow Avenue and East 134th Street.



3. View of Willow Avenue facing northeast from East 133rd Street (Site at left).





4. View of East 133rd Street facing northwest from Willow Avenue (Site at right).



5. View of the Site facing east from East 133rd Street.



6. View of the side of East 133rd Street facing south from the Site.





7. View of the north side of East 133rd Street between Cypress Avenue and Willow Avenue facing northwest.



8. View of the north side of East 133rd Street between Cypress Avenue and Willow Avenue facing northeast.



9. View of the north side of East 133rd Street between Cypress Avenue and Willow Avenue facing east.





10. View of East 133rd Street between Cypress Avenue and Willow Avenue facing southeast.



11. View of the south side of East 133rd Street between Cypress Avenue and Willow Avenue facing southwest.



12. View of the intersection of East 133rd Street and Willow Avenue facing east.





13. View of Willow Avenue facing southwest from East 133rd Street.



14. View of the intersection of East 133rd Street and Willow Avenue facing south from the Site.



15. View of East 134th Street facing southeast from Willow Avenue.





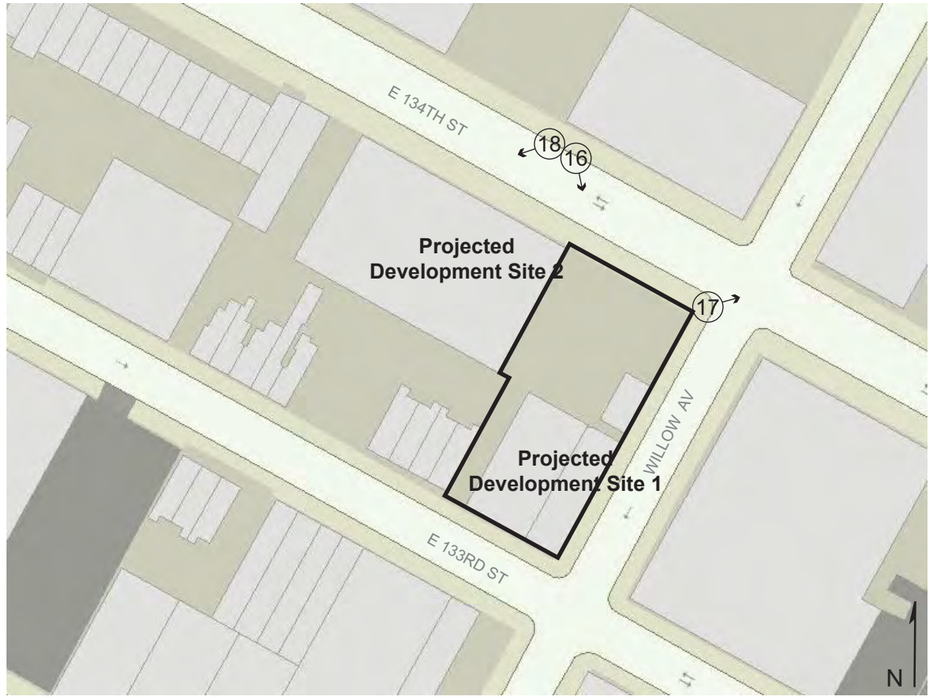
16. View of the Site facing south from East 134th Street.



17. View of the intersection of Willow Avenue and East 134th Street facing east from the Site.



18. View of the south side of East 134th Street between Cypress Avenue and Willow Avenue facing southwest.





19. View of the south side of East 134th Street between Cypress Avenue and Willow Avenue facing west.



PROJECT DESCRIPTION

Proposed Actions

Markland 745 LLC ("the Applicant") seeks a zoning map amendment and two zoning text amendments ("the Proposed Actions"). The Proposed Actions would affect the eastern portion of a single block (Block 2562, Lots 41, 49, 56, 58, 60, and part of Lot 61; collectively "the Project Area") along Willow Avenue between 133rd and 134th Streets, to modify and extend an existing MX district (MX-1) in the Port Morris section of Bronx Community District 1.

The Proposed Actions include a zoning map amendment from M1-2 and M1-2/R6A (MX-1) to both M1-2/R6A and M1-4/R7D districts, resulting in the entirety of the subject block under Special Mixed-Use District regulations (MX-1). This would also include a zoning text amendment to Section 123-90 of the Zoning Resolution (ZR) to designate the Project Area as a Special Mixed Use District (MX-1); as well as an additional zoning text amendment pursuant to Appendix F of the ZR to make the Project Area applicable as a Mandatory Inclusionary Housing (MIH) Area and would be mapped as Option 1, pursuant to ZR Section 123-154(d). The zoning text amendment will establish an MIH Area coterminous with the Project Area. In addition, the applicant intends to apply to HPD for construction financing for the building proposed on the applicant owned site.

The Proposed Actions would facilitate a proposal by the Applicant to construct a mixed-use building on Block 2562, Lots 49, 56, 58, and 60 ("the Development Site" or "Projected Development Site 1"). The proposed building would contain 145,702 gross square feet (gsf) of floor area (115,602 zoning square feet (zsf) with a floor area ratio (FAR) of 5.60). The building would rise to a height of 85 feet and contain 100,477 zsf of residential space (126 dwelling units) and 15,125 zsf of commercial retail space. The building would also contain 34 non-accessory residential parking spaces.

For conservative analysis purposes, a reasonable worst case development scenario (RWCDS) has been established that differs slightly from the proposed development, as detailed below under Reasonable Worst Case Development Scenario. The RWCDS, as analyzed in this document, considers two projected development sites: Projected Development Site 1, the Applicant-controlled site (Block 2562, Lots 49, 56, 58, and 60), and Projected Development Site 2, a soft site (Block 2562, Lot 41).

Based on an estimated 12-month approval process and 24-month buildout period, the Build Year is assumed to be 2020.

Description of Surrounding Area

The surrounding area is located in the Port Morris section of Bronx Community District 1, which is located in the South Bronx with Mott Haven to the west, Bay of Brothers to the east, Randall's Island to the south and the Longwood/Hunt's Point neighborhoods to the north.

The Port Morris neighborhood contains a varied mix of land uses, including a high concentration of light manufacturing/industrial uses, large clusters of one and two-family houses, some community facility uses and vacant lots. Light manufacturing/industrial and commercial uses primarily consist of large warehouses, many of which are underutilized and in the process of being converted to new uses. One and two-family residential uses were primarily constructed in the 1920s, prior to the 1961 Zoning Resolution and typically don't exceed two- or three-stories. These residential uses (along with some smaller apartment buildings) are concentrated along the side streets of East 132nd, East

133rd, East 134th, East 136th, East 137th, and East 138th Street within the first block east of Willow Avenue with businesses primarily located along Willow Avenue. Notable community facilities in the surrounding area consist of homeless shelters at 781 East 135th Street as well as 190 Willow Avenue. Further south and east along the waterfront is a concentration of heavier industrial and utility-based uses isolated from more sensitive residential uses.

The principal street of the surrounding area is Bruckner Boulevard, which travels north-south underneath the Bruckner Expressway (I-87). The Amtrak elevated right-of-way runs north-south along Walnut Avenue to the east of Willow Avenue.

The Randall's Island Connector, completed in 2016 and located approximately two blocks from the Project Area, provides an integral pedestrian and bicycle connection to the South Bronx Greenway. The multi-phase greenway project, currently underway, will link existing and new parks with over a mile of waterfront greenway space, almost nine-miles of inland green streets, and approximately 12-acres of new waterfront open space throughout Hunts Point and Port Morris.

The surrounding area is well served by public transportation with the New York City Transit (NYCT) 6 Train station at Cypress Avenue five blocks to the north of the Project Area. This station, the second stop in the Bronx, connects the surrounding area with Manhattan. In terms of NYCT bus service, the Bx33 circulates within the Port Morris neighborhood, connecting it with Mott Haven and transit connections to the west along East 138th Street. The Bx17 runs along Bruckner Boulevard one block west of the Development Site, connecting Port Morris with several neighborhoods and commercial districts to the north towards Fordham Road.

(**See Figure 1 - Site Location, Figure 2 – Tax Map, Figure 3 – Land Use Map, Figure 4 – Zoning Map; Figure 5 – Aerial Photograph; Figure 6 – Site Photographs; and Figure 7 – Zoning Change Map**).

Description of Project Area

The Project Area is located in the Port Morris section of Bronx Community District 1. It includes an L-shaped area on the eastern end of Block 2562 and affects all or part of 6 tax lots: Lots 41, 49, 56, 58, 60, and 61. Because only 26% of Lot 61 would be affected by the rezoning, the lot will continue to be governed by the underlying M1-2/R6A (MX-1 district. It is therefore not considered in this analysis. The Project Area includes both M1-2 and M1-2/R6A (MX-1) districts, as specified below.

These 5 parcels contain a total lot area of approximately 39,348 square feet with frontage along three streets: 279 feet along the south side of East 134th Street, approximately 206 feet along the west side of Willow Avenue, and approximately 96 feet along the north side of East 133rd Street.

The four properties controlled by the Applicant are:

- Block 2562, Lot 49 (750 East 134th Street) is a corner lot that contains 11,081 square feet of lot area with approximately 104 feet of frontage along East 134th Street and approximately 106 feet along Willow Avenue. The lot is improved with a 900 square foot single-story structure (0.08 FAR) containing a light industrial/manufacturing use. The lot also contains approximately 50 surface parking spaces. The parcel is located in an M1-2 district that permits commercial and light manufacturing/industrial uses at 2.0 FAR.
- Block 2562, Lot 56 (767 East 133rd Street) is a corner lot that contains 2,900 square feet of lot area with approximately 29 feet of frontage along East 133rd Street and approximately 100

feet along Willow Avenue. The lot is improved with a three-story 11,600 square foot commercial office building (4.0 FAR). The parcel is located in an M1-2 district that permits commercial and light manufacturing/industrial uses at 2.0 FAR. The building was constructed in approximately 1908 (prior to the 1961 Zoning Resolution) making the building legally noncompliant.

- Block 2562, Lot 58 (763 East 133rd Street) is an interior lot that contains 5,000 square feet of lot area with 50 feet of frontage along East 133rd Street and a depth of approximately 100 feet. The lot is improved with a 5,000 square foot single-story warehouse building (1.0 FAR) containing a light industrial/manufacturing use. The parcel is located in an M1-2 district that permits commercial and light manufacturing/industrial uses at 2.0 FAR.
- Block 2562, Lot 60 (761 East 133rd Street) is a narrow interior that contains 1,667 square feet of lot area with approximately 16 feet of frontage along East 133rd Street and a depth of approximately 100 feet. The lot is currently vacant. The parcel is located in a split district between the M1-2 and M1-2/R6A (MX-1) districts. However, a majority of the parcel is within the MX-1 district.

The property not under the control of the Applicant is:

- Block 2562, Lot 41 (740 East 134th Street) is an interior lot that contains 18,700 square feet of lot area with 175 feet of frontage along East 134th Street and a depth of approximately 106 feet. The lot is improved with an 18,700 square foot single-story warehouse building (1.0 FAR) containing a light industrial/manufacturing use. The parcel is located in an M1-2 district that permits commercial and light manufacturing/industrial uses at 2.0 FAR.

Background

A number of discretionary land use actions have been approved within the surrounding area since 2002. A majority of the subject block was rezoned in March of 2005 as part of the Department's Port Morris/Bruckner Boulevard Rezoning (050120 ZMX), which aimed to expand the city's first mixed-use district (MX-1) based on the success of the initial rezoning in 1997. The extension in 2005 included 11 additional blocks, designed to promote additional investment in the area with the creation of new residential dwelling units and other newly permitted uses. The rezoning also recognized the predominant mixed-use character of the area by legalizing existing nonconforming uses, as well as enhancing waterfront access to improve the overall vibrancy of the Port Morris area from a formerly industrial area to an increasingly mixed-use area. The 2005 rezoning included the creation of the M1-2/R6A district currently mapped on the subject block and portions of the Project Area. An area of 360 feet in depth from Willow Avenue (along the northerly side of the block) was excluded from the MX-1 district and currently remains as an M1-2 district along with an area of 80 ft. in depth from Willow Avenue (along the southerly side of the block).

In December of 2008 the City Planning Commission (CPC) approved a site selection and acquisition (C 80533 PCY) approximately three blocks to the south of the Project Area to permit the construction of a pedestrian and bike path between 132nd Street and the Bronx Kill (Block 2543, p/o Lot 1 and Block 2583, p/o Lot 2). The actions facilitated the Randall's Island Connector (RIC), a pedestrian/bicycle path that will form the southern anchor of the South Bronx Greenway and created a much-needed access point from the Bronx to Randall's Island and its recreational resources. Prior to this approval, no pedestrian access from Port Morris or the South Bronx was available to reach Randall's Island.

Description of Proposed Development

The Proposed Actions would facilitate the applicant's proposal for a new nine-story mixed-use building on Block 2562, Lots 49, 56, 58 and 60, to contain 148,702 gsf of floor area (115,602 zoning square feet, 5.60 FAR). The building would rise to a height of approximately 85 feet and contain 115,602 gross square feet of residential space (126 dwelling units) and 15,673 square feet of commercial retail space. The building would also contain 34 non-accessory parking spaces. The building would cover an area of 15,269 square feet or less than 80% of the lot area. Pursuant to the proposed MIH district mapping, the project would include up to 40 affordable housing units.

The first floor would contain 15,673 square feet of commercial retail space, as well as a residential lobby area. Floors two through nine would contain the 120 dwelling units, with the second floor containing a community room. The dwelling units would consist of 13 studio apartments (10.83%), 57 one-bedroom apartments (47.5%) and 50 two-bedroom apartments (41.67%) for a total of 120 units. The cellar level would contain residential non-accessory parking, which would be accessible via a driveway on East 134th Street. The Proposed Development would contain a single curb cut in this location. (See **Attachment A – Illustrative Plans**.)

For purposes of conservative analysis, a reasonable worst case development scenario (RWCDS) has been established for the Project Area, as discussed below under **Reasonable Worst Case Development Scenario**. The RWCDS, as analyzed in this document, considers two projected development sites: Projected Development Site 1, the Applicant-controlled site (Block 2562, Lots 49, 56, 58, and 60), and Projected Development Site 2, a soft site (Block 2562, Lot 41).

Purpose and Need

In order to facilitate the proposed development, the applicant seeks a zoning map amendment from M1-2 and M1-2/R6A (MX-1) to both M1-2/R6A and M1-4/R7D districts and a zoning text amendment to make the Project Area applicable to the Mandatory Inclusionary Housing (MIH) Program (Option 1). The Proposed Actions would build on the two previous rezonings in Port Morris by increasing the existing MX-1 district and adding a new higher density M1-4/R7D district.

Enlarging the MX-1 district would more accurately reflect the emerging character of Port Morris and provide opportunities for the creation of new housing, including market rate and affordable dwelling units, as well as new commercial retail space to that would increase investment in the surrounding area and improve the overall vibrancy of the neighborhood.

The Proposed Actions are necessary to allow the proposed residential use. Currently, the Project Area is predominantly zoned M1-2, which do not permit residential use. The purpose of the enlarged MX-1 district is to allow the development of new residential and commercial space while also permitting manufacturing uses, as consistent with warehouse uses on surrounding properties. Though the subject block predominantly contains office and warehouses uses, the proposed mixed-use zoning better reflects the mixed-use character of the surrounding area that contains an increasing amount of residential space to the west of the Project Area.

Required Approvals

The proposed development requires a zoning map amendment to rezone the Project Area. The granting of the zoning map amendment is a discretionary action that is subject to both the Uniform

Land Use Review Procedure (ULURP) as well as the City Environmental Quality Review (CEQR). ULURP is a process that allows public review of the Proposed Action at four levels: the Community Board; the Borough President; the City Planning Commission; and, if applicable, the City Council. CEQR is a process by which agencies review discretionary actions for the purpose of identifying the effects those actions may have on the environment. In addition, under the with-action condition, the applicant intends to apply to HPD for construction financing for the building proposed on the applicant owned site.

REASONABLE WORST CASE DEVELOPMENT SCENARIO

All five lots located wholly within the Project Area are considered development sites for the purposes of the RWCDS. As shown below in Table 1, the applicant-owned sites constitute Projected Development Site 1 and the non-applicant owned site constitutes Projected Development Site 2.

For the purposes of conservative analysis, the environmental assessment will consider any building resulting from the Proposed Action to be built to its full FAR and height allowable under the proposed zoning, and a standard 850 gsf dwelling unit (DU) size will be used.

Table 1:
Development Site Identification

Site ID	Block	Lot	Address(es)
Development Site (Projected Development Site 1)	2562	49, 56, 58, 60	750 East 134th Street 761-767 East 133rd Street
Projected Development Site 2	2562	41	740 East 134th Street

Future No-Action Scenario
Absent the Proposed Action, the properties within the Project Area would remain in their current condition, as described below.

The four properties under the control of the Applicant:

- Block 2562, Lot 49 (750 East 134th Street) is a corner lot that contains 11,081 square feet of lot area with approximately 104 feet of frontage along East 134th Street and approximately 106 feet along Willow Avenue. The lot is improved with a 900 square foot single-story structure (0.08 FAR) containing a light industrial/manufacturing use. The lot also contains approximately 50 surface parking spaces.
- Block 2562, Lot 56 (767 East 133rd Street) is a corner lot that contains 2,900 square feet of lot area with approximately 29 feet of frontage along East 133rd Street and approximately 100 feet along Willow Avenue. The lot is improved with a three-story 11,600 square foot commercial office building (4.0 FAR). The building was constructed in approximately 1908 (prior to the 1961 Zoning Resolution) making the building legally noncompliant.
- Block 2562, Lot 58 (763 East 133rd Street) is an interior lot that contains 5,000 square feet of lot area with 50 feet of frontage along East 133rd Street and a depth of approximately 100 feet. The lot is improved with a 5,000 square foot single-story warehouse building (1.0 FAR) containing a light industrial/manufacturing use.
- Block 2562, Lot 60 (761 East 133rd Street) is a narrow interior that contains 1,667 square feet of lot area with approximately 16 feet of frontage along East 133rd Street and a depth of approximately 100 feet. The lot is currently vacant and is not anticipated for redevelopment in the future without the Proposed Actions.

The property not under the control of the Applicant:

- Block 2562, Lot 41 (740 East 134th Street) is an interior lot that contains 18,700 square feet of lot area with 175 feet of frontage along East 134th Street and a depth of approximately 106

feet. The lot is improved with an 18,700 square foot single-story warehouse building (1.0 FAR) containing a light industrial/manufacturing use.

Future With-Action Scenario

Development Rationale

The RWCDS in the future with the proposed actions considers a full buildout on both Development Sites within the Project Area. Each site is projected to be developed with ground-floor commercial retail space with residential units above.

The RWCDS for the Affected Area includes the projected development of two mixed-use buildings on the two projected development sites. Each building is projected to contain ground-floor retail space with residential use on the upper floors. Under the proposed rezoning, a supermarket of up to 30,000 gsf would be permitted on Projected Development Site 1, which would be zoned M1-4/R6A (MX-1). (See ZR Section 42-12.) As described below, this scenario would not be viable.

Projected Development Site 1 has an area of approximately 20,000 sf. After deducting for residential lobby and parking entrance the square footage of the ground floor retail space is approximately 15,000 sf. The cellar level is not available for commercial space, as it would be used for parking, storage, and utilities. Further, the floorplan of the ground floor is not conducive for supermarket use, due to the irregular floorplate that is left after space is carved out for the residential entrance, building lobby, emergency egress points, and parking garage ramp. This makes the space undesirable for use as a big-box space such as a supermarket.

The Applicant consulted with a supermarket operator, who stated that Projected Development Site 1 could not support a supermarket, particularly not a large on. According to the supermarket operator, given the mixed-use character and low residential density of the neighborhood, the Development Site could not support a grocery store any larger than approximately 6,000 sf. Bronx Census Tract 19, where the Project Area is located, contains 550 households under existing conditions and would contain 759 households in the future-with action condition. Given the zoning of the areas surrounding the Project Area, which consists mostly of manufacturing districts and portions of the Port Morris Industrial Business Zone (IBZ), it is unlikely that the residential population will increase significantly over the coming years. As noted below under Land Use, Zoning, and Public Policy, no significant land use changes are anticipated in the area in the near future.

Residents of the proposed and projected buildings are likely to patronize the Compare Foods market located at East 138th Street and Cypress Avenue, which is an approximately 10-minute walk from the Project Area, directly adjacent to the Cypress Avenue subway stop.

Thus, Projected Development Site 1 is ill-suited for use as a supermarket, due to both site constraints and the mixed-use nature of the neighborhood. It is not reasonable to assume such a use for the Site, and therefore, the RWCDS assumes general retail use on the ground floor.

Development Scenario

The four properties under the control of the Applicant:

Lots 49, 56, 58, and 60 (the **Development Site** or **Projected Development Site 1**, proposed zoning M1-4/R7D (MX-1) with MIH) are proposed for redevelopment with a nine-story (with cellar) residential building with ground-floor commercial space, as described above. For purposes of conservative analysis, a reasonable-worst case scenario has been established, as outlined below.

The RWCDS building would contain 148,260 gsf of floor area (115,622 zsf, FAR 5.60). The building cellar (20,647 gsf) would contain up to 34 non-accessory parking spaces for the residential units, bicycle parking, and storage/utility space for the building. The ground floor would contain 14,860 gsf (14,860 zsf, FAR 0.72) of commercial space. The remaining 112,753 gsf (100,762 zsf, FAR 4.88) of above-ground floor area would contain residential units. Assuming a RWCDS DU size of 850 gsf, the building would contain 132 DUs.

The RWCDS assumes that 100% of the DUs on the Development Site will be affordable at 80% of Area Median Income (AMI).

For properties such as the Development Site that are zoned M1-4/R7D within a Transit Zone and a MIH area, accessory parking is waived for DUs considered affordable under MIH. (See ZR Section 25-251.) A Transit Zone, as established by the City, is a multifamily district that is accessible to transit, retail, and services, and has low car ownership rates. In these areas, parking is option for affordable housing. Zoning for commercial space is not required under the proposed zoning (ZR Section 44-21). Therefore, no accessory parking is required. However, because the applicant intends to provide parking on the Development Site, the RWCDS will consider 34 non-accessory parking spaces.

For conservative analysis, the RWCDS will consider a building height of 115 feet, the maximum height permitted under the proposed zoning.

The property not under the control of the Applicant:

Block 2562, Lot 41 (740 East 134th Street**, Projected Development Site 2**) is an interior lot that contains 18,700 square feet of lot area with 175 feet of frontage along East 134th Street and a depth of approximately 106 feet. In the RWCDS under the proposed M1-2/R6A (MX-1) zoning (with MIH), the lot is anticipated to be redeveloped with a seven-story plus cellar mixed-use building containing 85,500 gsf (67,208 zsf, FAR 3.60) of floor area: 10,500 gsf of cellar space to be used for parking/storage, 9,024 gsf (9,024 zsf, FAR 0.48) of ground-floor commercial space, and 65,976 gsf (58,184 zsf, FAR 3.11) of above-ground residential space (77 DUs, assuming 850 gsf per unit).

The RWCDS assumes that 20% of the DUs (15 DUs) on Projected Development Site 2 will be affordable at 80% of AMI.

In accordance with the underlying zoning, accessory parking would be waived for the 15 affordable units (ZR Section 25-251). Sixteen (16) parking spaces are required (and would be provided) for 25% of the remaining 62 DUs. Additionally, 9 accessory parking spaces would be provided for the commercial space, for a total of 25 accessory parking spaces.

For conservative analysis, the RWCDS will consider a building height of 85 feet, the maximum height permitted under the proposed zoning.

A summary of the project development appears in **Table 2: Development Summary.** The difference between the No-Action and With-Action development scenarios is available in **Table 3: Description of Existing and Proposed Conditions (RWCDS)** on the following page.

Table 2:
Development Summary (RWCDS With-Action Scenario)

Site ID	Residential Area (gsf)	Commercial Area (gsf)	Building Area (gsf)
Proposed Development Site (Projected Development Site 1)	112,753	14,860	148,260
Projected Development Site 2	65,976	9,024	85,500
Total Projected Development	**178,729**	**23,884**	**233,760**

TABLE 3:
DESCRIPTION OF EXISTING AND PROPOSED CONDITIONS (RWCDS)

	EXISTING CONDITION	NO-ACTION CONDITION	WITH-ACTION CONDITION	INCREMENT
LAND USE				
Residential	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type of residential structures			2 multi-family buildings	+ 2 buildings
No. of dwelling units			209	+209 DUs
No. of low- to moderate-income units			147	+147 DUs
Gross floor area (sq. ft.)			178,729	+178,729 gsf
Commercial	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
Describe type (retail, office, other)			Commercial	
Gross floor area (sq. ft.)	11,600	11,600	23.884	+ 12,883 gsf
Manufacturing/Industrial	☒ YES ☐ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type of use	Light industrial / warehouse	Light industrial / warehouse		
Gross floor area (sq. ft.)	34,781	34,781		-34,781
Open storage area (sq. ft.)				
If any unenclosed activities, specify:				
Community Facility	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
Type				
Gross floor area (sq. ft.)				
Vacant Land	☐ YES ☒ NO	☒ YES ☐ NO	☐ YES ☒ NO	
If "yes," describe:				
Other Land Uses	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," describe:				
Garages	☐ YES ☒ NO	☐ YES ☒ NO	☒ YES ☐ NO	
If "yes," specify the following:				
No. of public spaces			+34 private spaces for residents	+34
No. of accessory spaces			+16 residential + 9 commercial	+25
Lots	☐ YES ☒ NO	☐ YES ☒ NO	☐ YES ☒ NO	
If "yes," specify the following:				
No. of public spaces				
No. of accessory spaces				
ZONING				
Zoning classification	M1-2 M1-2/R6A	M1-2 M1-2/R6A	MX-1: M1-2/R6A M1-4/R7D (All subject to MIH)	+ M1-4/R7D + MIH
Maximum amount of floor area that can be developed	Res: 0 Comm: 78,696 Ind: 78,696 CFac: 188,870	Res: 0 Comm: 78,696 Ind: 78,696 CFac: 188,870	Res: 171,729 Comm: 78,696 Ind: 78,696 CFac: 188,870	Res: +171,729 Comm: No change Ind: No change CFac: No change
Predominant land use and zoning classifications within land use study area(s) or a 400 ft. radius of proposed project	Residential, Commercial, Industrial	Residential, Commercial, Industrial	Residential, Commercial, Industrial	Residential, Commercial, Industrial

ANALYSIS FRAMEWORK

For the purpose of the analysis framework, the Future With-Action Scenario would consist would consist of two development sites. The increment between the No-Action and the Future With-Action would therefore include a net increase of 12,883 gsf of commercial floor area, a net decrease of 34,781 gsf of industrial floor area, a net increase of 34 non-accessory parking spaces (Projected Development Site 1) and 25 accessory parking spaces (Projected Development Site 2), and a net increase of 178,729 gsf in residential floor area (209 dwelling units, of which 147 would be considered affordable under MIH).

Based on an estimated 12-month approval process and 24-month buildout period, the Build Year is assumed to be 2020.

WILLOW AVENUE REZONING

ENVIRONMENTAL ASSESSMENT STATEMENT (EAS)

INTRODUCTION

Based on the analysis and the screens contained in the Environmental Assessment Statement Short Form, the analysis areas that require further explanation include land use, zoning, and public policy; socioeconomic conditions; community facilities; open space; shadows; historic and cultural resources; urban design and visual resources; hazardous materials; transportation; air quality; noise; and neighborhood character. Subject headers correspond with the relevant chapter of the 2014 *CEQR Technical Manual.*

4. LAND USE, ZONING AND PUBLIC POLICY

I. Introduction

The analysis of land use, zoning and public policy characterizes the existing conditions of the Development Site and the surrounding study area; anticipates and evaluates those changes in land use, zoning and public policy that are expected to occur independently of the proposed project; and identifies and addresses any potential impacts related to land use, zoning and public policy resulting from the project. Various sources have been used to prepare a comprehensive analysis of land use, zoning and public policy characteristics of the area, including field surveys, studies of the neighborhood, census data, and land use and zoning maps.

The Proposed Actions include a zoning map amendment from M1-2 and M1-2/R6A (MX-1) to both M1-2/R6A and M1-4/R7D districts, resulting in the entirety of the subject block under Special Mixed-Use District regulations (MX-1). This would also include a zoning text amendment to Section 123-90 of the Zoning Resolution (ZR) to designate the Project Area as a Special Mixed Use District (MX-1); as well as an additional zoning text amendment pursuant to Appendix F of the ZR to make the Project Area applicable as a Mandatory Inclusionary Housing (MIH) Area and would be mapped as Option 1, pursuant to ZR Section 123-154(d). The zoning text amendment will establish an MIH Area coterminous with the Project Area.

The Proposed Actions would facilitate the development of a mixed use (retail/residential) building on Projected Development Site 1. Currently, the Project Area is predominantly zoned M1-2, which do not permit residential use.

Land Use Study Area

In order to assess the potential for project related impacts, the land use study area has been defined as the area located within a 400-foot radius of the site, which is an area within which the proposed project has the potential to affect land use or land use trends. The 400-foot radius study area is bounded by East 135th Street to the north, the Amtrak right-of-way to the east, East 132nd Street to the south, and Cypress Avenue/Bruckner Boulevard to the west.

II. Existing Conditions

Land Use

The Project Area is located in located in the Port Morris section of Bronx Community District 1. This neighborhood is characterized by its manufacturing heritage, with interspersed small-scale residential buildings throughout. There are many large loft industrial buildings. The Bruckner Expressway is nearby and acts as a barrier between Port Morris and Mott Haven, as well as between the neighborhood and the nearest subway station on the 6 line. There is an elevated railway bisecting the neighborhood. The Randall's Island Connector was recently opened, providing the first pedestrian link between the South Bronx and the recreational amenities on Randall's Island.

The area within 400 feet of the Project Area is primarily industrial, but also contains residential use (particularly on the subject block) and community uses. The Project Area includes four of seven industrial uses on the subject block.

The study area contains a varied mix of land uses, including a high concentration of light manufacturing/industrial uses, large clusters of one and two-family houses, some community facility uses and vacant lots. Light manufacturing/industrial and commercial uses primarily consist of large warehouses, many of which are underutilized and in the process of being converted to new uses. One and two-family residential uses were primarily constructed in the 1920s, prior to the 1961 Zoning Resolution and typically don't exceed two- or three-stories. These residential uses (along with some smaller apartment buildings) are concentrated along the side streets of East 132nd, East 133rd, East 134th, and East 136th Streets within the first block east of Willow Avenue with businesses primarily located along Willow Avenue. Notable community facilities in the surrounding area consist of homeless shelters at 781 East 135th Street as well as 190 Willow Avenue. Further south and east towards the waterfront is a concentration of heavier industrial and utility-based uses isolated from more sensitive residential uses.

The principal street of the surrounding area is Bruckner Boulevard, which travels north-south underneath the Bruckner Expressway (I-87). The Amtrak elevated right-of-way runs north-south along Walnut Avenue to the east of Willow Avenue.

The Development Site, or **Projected Development Site 1** (Block 2562, Lots 49, 56, 58, and 60), contains 20,648 sf of lot area with 100 feet of frontage along East 133rd Street, 206.5 feet of frontage along Willow Avenue, and 104 feet of frontage along East 134th Street.

- Block 2562, Lot 49 (750 East 134th Street) is a corner lot that contains 11,081 square feet of lot area with approximately 104 feet of frontage along East 134th Street and approximately 106 feet along Willow Avenue. The lot is improved with a 900 square foot single-story structure (0.08 FAR) containing a light industrial/manufacturing use. The lot also contains approximately 50 surface parking spaces. The parcel is located in an M1-2 district that permits commercial and light manufacturing/industrial uses at 2.0 FAR.

- Block 2562, Lot 56 (767 East 133rd Street) is a corner lot that contains 2,900 square feet of lot area with approximately 29 feet of frontage along East 133rd Street and approximately 100 feet along Willow Avenue. The lot is improved with a three-story 11,600 square foot commercial office building (4.0 FAR). The parcel is located in an M1-2 district that permits commercial and light manufacturing/industrial uses at 2.0 FAR. The building was constructed in approximately 1908 (prior to the 1961 Zoning Resolution) making the building legally noncompliant.

- Block 2562, Lot 58 (763 East 133rd Street) is an interior lot that contains 5,000 square feet of lot area with 50 feet of frontage along East 133rd Street and a depth of approximately 100 feet. The lot is improved with a 5,000 square foot single-story warehouse building (1.0 FAR) containing a light industrial/manufacturing use. The parcel is located in an M1-2 district that permits commercial and light manufacturing/industrial uses at 2.0 FAR.

- Block 2562, Lot 60 (761 East 133rd Street) is a narrow interior that contains 1,667 square feet of lot area with approximately 16 feet of frontage along East 133rd Street and a depth of approximately 100 feet. The lot is currently vacant. The parcel is located in a split district between the M1-2 and M1-2/R6A (MX-1) districts. However, a majority of the parcel is within the MX-1 district.

In addition to the Development Site, the Proposed Actions would rezone Block 2562, Lot 41 (**Projected Development Site 2**). Block 2562, Lot 41 (740 East 134th Street) is an interior lot that contains 18,700 square feet of lot area with 175 feet of frontage along East 134th Street and a depth of approximately 106 feet. The lot is improved with an 18,700 square foot single-story warehouse building (1.0 FAR) containing a light industrial/manufacturing use. The parcel is located in an M1-2 district that permits commercial and light manufacturing/industrial uses at 2.0 FAR.

Zoning

The Project Area is currently zoned M1-2 and M1-2/R6A (MX-1). The 400-foot study area also includes areas zoned R6 and M3-1.

The M1 zoning district is often mapped as a buffer zone between M2 and M3 districts and residential areas. Land uses in M1 zoning districts typically include woodworking shops, auto repair shops, and wholesale/storage facilities. These uses are usually located in one- and two-story warehouse buildings. M1-2 zoning districts allow a maximum floor area ratio (FAR) of 2.0 for light manufacturing and industrial uses and allows an FAR of 4.8 for community facility uses. Permitted use groups are Use Groups 4 through 14 and 16 through 17.

The M1-2/R6A (MX-1) district is a special mixed-use district that allows a wide range of uses to co-exist, including residential and community facility (Use Groups 1-4), as well as light manufacturing, industrial, and commercial (Use Groups 4-14, 16-17). The maximum residential FAR in this district is 3.60 (with Inclusionary Housing bonus). Commercial and industrial uses are permitted at an FAR of 2.0, and community facility uses at an FAR of 4.8.

R6 districts permit residential development on wide streets up to a maximum floor area ratio (FAR) of 2.43 (or 3.0 under the Quality Housing program) and community facility use to an FAR of 4.8. On a narrow street (beyond 100 feet of a wide street), the maximum FAR is 2.2. R6 buildings generally range in height from 7–13 stories. When developed under the Quality Housing Program, the resulting buildings are generally 4–6 stories tall with larger floor plates. Front and side yards must match existing yards. The maximum base height before setback is 60 feet with a maximum building height of 70 feet.

M3 districts are designated for areas with heavy industries that generate noise, traffic, or pollutants. Typical uses include power plants, solid waste transfer facilities, and fuel supply depots. M3 districts are usually located near the waterfront and buffered from residential districts. M3 districts permit a maximum FAR of 2.0 with a maximum base height of 60 feet before the building must set back to comply with a sky exposure plane. M3-1 districts differ from M3-2 districts only in that M3-1 districts require parking and M3-2 districts do not.

The Project Area and 400-foot radius are also within the boundaries of the Food Retail Expansion to Support Health (FRESH) program, which provides discretionary tax incentives for the development of grocery stores. The City established the FRESH program in response to issues raised in neighborhoods that are underserved by grocery stores. FRESH provides zoning and financial incentives to promote the establishment and retention of neighborhood grocery stores in underserved communities throughout the five boroughs. The proposed development does not include a FRESH use and does not qualify for the program.

Public Policy

The Project Area is located within the Port Morris section of Bronx Community District 1. It is located within New York City's Coastal Zone Boundary, and is therefore subject to the provisions of the NYC Waterfront Revitalization Program (WRP). The New York City WRP

establishes the City's policies for waterfront planning, preservation and development projects to ensure consistency over the long term. The goal of the program is to maximize the benefits derived from economic development, environmental conservation and public use of the waterfront, while minimizing any potential conflicts among these objectives.

Mayor Bill De Blasio has announced a public policy goal of building or preserving 200,000 units of affordable housing in New York City within ten years of the start of his mayoralty, which began in 2014. This goal is being implemented through the Housing New York Plan. A key initiative of Mayor de Blasio's housing plan, Housing New York is the Department of City Planning's Mandatory Inclusionary Housing program, which requires through zoning actions a share of new housing to be permanently affordable.

The Project Area is not covered by any 197-a Community Development Plans, which authorize community board and borough boards, along with the Mayor, the City Planning Commission, the Department of City Planning, and any Borough President, to sponsor plans for the development, growth, and improvement of the City and its communities. The Project Area is not within any designated New York City Industrial Business Zone (IBZ), which are established to protect existing manufacturing district and encourage industrial growth. It is not located within a critical environmental area, a significant coastal fish and wildlife habitat, a wildlife refuge, or a special natural waterfront area. The Proposed Action does not involve the siting or displacement of any public facilities.

III. Future No-Action Scenario

Land Use

Absent the Proposed Actions, **Projected Development Site 1** (Block 2562, Lots 49, 56, 58, and 60) and **Projected Development Site 2** (Block 2642, Lot 41) would remain in their current condition, as described above under Existing Conditions.

The surrounding land uses within the immediate study area are expected to remain largely unchanged by the Build Year of 2020. No new development is anticipated to occur within the 400-foot study area by 2020.

Zoning

In the future without the Proposed Action, the provisions of the existing M1-2 and M1-2/R6A (MX-1) zoning districts would continue to apply to the Project Area.

The surrounding zoning districts within the immediate study area are expected to remain largely unchanged by the Build Year of 2020.

Public Policy

In the future without the Proposed Action, any new development within the Project Area would continue to be governed by the provisions of the underlying M1-2 and M1-2/R6A (MX-1) zoning district and the WRP. No other public policy initiatives would pertain to the Project Area or to the 400-foot study area around the property by the project build year of

2020. In addition, no changes are anticipated to the zoning districts and zoning regulations or to any public policy documents related to the Project Area or the surrounding study area by the project build year.

IV. Future With-Action Scenario

Land Use

In the future with the Proposed Actions, **Projected Development Site 1** (Block 2562, Lots 49, 56, 58, and 60) would be developed with a nine-story (with cellar) residential building with ground-floor commercial space.

The Reasonable Worst Case Development Scenario (RWCDS) consists of a 115-foot-tall building containing 148,260 gsf of floor area (115,622 zsf, FAR 5.60). The building cellar (20,647 gsf) would contain up to 34 non-accessory parking spaces for the residential units, bicycle parking, and storage/utility space for the building. The ground floor would contains 14,860 gsf (14,860 zsf, FAR 0.72) of commercial space. The remaining 112,753 gsf (100,762 zsf, FAR 4.88) of above-ground floor area would contain residential units. Assuming a RWCDS dwelling unit (DU) size of 850 gsf, the building would contain 132 DUs.

The RWCDS assumes that 100% of the DUs on the Development Site will be affordable at 80% of Area Median Income (AMI).

Accessory parking is not required under ZR Section 25-251, but the building would contain 34 non-accessory parking spaces for building residents.

Projected Development Site 2 (Block 2562, Lot 41) is anticipated to be redeveloped with a seven-story plus cellar mixed-use building containing 85,500 gsf (67,208 zsf, FAR 3.60) of floor area: 10,500 gsf of cellar space to be used for parking/storage, 9,024 gsf (9,024 zsf, FAR 0.48) of ground-floor commercial space, and 65,976 gsf (58,184 zsf, FAR 3.11) of above-ground residential space (77 DUs, assuming 850 gsf per unit).

For analysis purposes, it is assumed that 20% of the DUs (15 DUs) on Projected Development Site 2 will be affordable at 80% of AMI in accordance with the provisions of the MIH program.

In accordance with the underlying zoning, accessory parking would be waived for the 15 affordable units (ZR Section 25-251). Sixteen (16) parking spaces are required (and would be provided) for 25% of the remaining 62 DUs. Additionally, 9 accessory parking spaces would be provided for the commercial space, for a total of 25 accessory parking spaces.

A summary of the project development appears in **Table 4-1: Development Summary.**

Table 4-1:
Development Summary (RWCDS With-Action Scenario)

Site ID	Residential Area (gsf)	Commercial Area (gsf)	Building Area (gsf)
Projected Development Site 1	112,753	14,860	148,260
Projected Development Site 2	65,976	9,024	85,500
Total Projected Development	**178,729**	**23,884**	**233,760**

Zoning

In the future with the Proposed Actions, a series of zoning map and text amendments are proposed:

- A zoning map amendment to map an M1-4/R7D (MX-1) district along the west side of Willow Avenue between 133rd and 134th Street at a depth of 100 feet to include Lots 49, 56, 58, 60 (together, **Projected Development Site 1**), and a portion (26%) of Lot 61. The remaining unaffected portion of Lot 61 would continue to be zoned M1-2/R6A within the MX-1 district.[1] (See **Figure 7 – Zoning Change Map**.)

- A zoning map amendment to extend the existing M1-2/R6A district on the subject block at a length of 175 feet along the south side of East 134th Street at a depth of approximately 106 feet to include Lot 41, **Projected Development Site 2**. (See **Figure 7 – Zoning Change Map**.)

- A zoning text amendment to Zoning Resolution (ZR) Section 123-90 to designate the Project Area as a Special Mixed Use District (MX-1). The zoning map amendments would result in the entirety of the subject block being located within the MX-1 district. (See **Attachment B – Proposed Zoning Text Amendment**.)

- A zoning text amendment to amend Appendix F of the ZR to make the Project Area applicable as a Mandatory Inclusionary Housing (MIH) Area, Option 1.

A regulatory agreement with the NYC Department of Housing Preservation and Development (HPD) would control the income restrictions for all dwelling units located on the applicant-controlled Development Site 1 (to be zoned M1-4/R7D (MX-1) with MIH).

The Proposed Actions would facilitate the proposed development on the applicant-controlled **Projected Development Site 1**. As noted above, the future with-action conditions on Projected Development Site 1 consist of a mixed-use building with an FAR of 5.60. The ground floor would contain 14,860 gsf (14,860 zsf, FAR 0.72) of commercial space. The building cellar (20,647 gsf) would contain 34 non-accessory parking spaces for the

[1] Because only 26% of Lot 61 would be affected by the rezoning, the lot will continue to be governed by the underlying M1-2/R6A (MX-1) district and is therefore not considered in this EAS.

residential units, bicycle parking, and storage/utility space for the building. The remaining 112,753 gsf (100,762 zsf, FAR 4.88) of above-ground floor area would contain 132 residential units. Under the proposed MIH and the regulatory agreement with HPD, 100% of the DUs on Projected Development Site 1 would be affordable at 80% AMI.

For properties such as the Development Site that are zoned M1-4/R7D within a Transit Zone and a MIH area, accessory parking is waived for DUs considered affordable under MIH. (See ZR Section 25-251.) Zoning for commercial space is not required under the proposed zoning (ZR Section 44-21). Therefore, the parking provided is non-accessory.

The Proposed Actions would also result in the redevelopment of **Projected Development Site 2**. As noted above, the future with-action conditions on Projected Development Site 2 consist of a seven-story plus cellar mixed-use building containing 85,500 gsf (67,208 zsf, FAR 3.60) of floor area: 10,500 gsf of cellar space to be used for parking/storage, 9,024 gsf (9,024 zsf, FAR 0.48) of ground-floor commercial space, and 65,976 gsf (58,184 zsf, FAR 3.11) of above-ground residential space (77 DUs, assuming 850 gsf per unit). Under the proposed MIH, 20% of the DUs (15 DUs) on Projected Development Site 2 would be affordable at 80% AMI.

In accordance with the underlying zoning, accessory parking would be waived for the 15 affordable units (ZR Section 25-251). Sixteen (16) parking spaces are required (and would be provided) for 25% of the remaining 62 DUs. Additionally, 9 accessory parking spaces would be provided for the commercial space, for a total of 25 accessory parking spaces.

The Proposed Actions would build on the two previous rezonings in Port Morris by increasing the existing MX-1 district and adding a new higher density M1-4/R7D district.

Enlarging the MX-1 district would more accurately reflect the emerging character of Port Morris and provide opportunities for the creation of new housing, including market rate and affordable dwelling units, as well as new commercial retail space to that would increase investment in the surrounding area and improve the overall vibrancy of the neighborhood.

The Proposed Actions are necessary to allow the proposed residential use. Currently, the Project Area is predominantly zoned M1-2, which does not permit residential use. The purpose of the enlarged MX-1 district is to allow the development of new residential and commercial space while also permitting manufacturing uses, as consistent with warehouse uses on surrounding properties. Though the subject block predominantly contains office and warehouses uses, the proposed mixed-use zoning better reflects the mixed-use character of the surrounding area.

Table 4-2 provides a comparison of the uses and bulk regulations permitted under the existing and proposed zoning districts.

Table 1-1: Comparison of Zoning Regulations

	Existing M1-2	Existing & Proposed* M1-2/R6A (MX-1)	Proposed* M1-4/R7D(MX-1)
Use Groups	4 – 14, 16-17	1-14, 16-17	
Maximum FAR	Res. n/a Manuf. 2.0 Comm. 2.0 C. Fac. 4.8	Res. 3.6 Manuf. 2.0 Comm. 2.0 C. Fac. 4.8	Res. 4.2 Manuf. 2.0 Comm. 2.0 C. Fac. 4.8
Maximum Height	Sky exposure plane	85 ft.	100 ft.
Residential Parking Requirements	n/a	50% of DU's *(waived if 5 or fewer spots required; waived for MIH units in Transit Zone)*	50% of DU's (*30% if zoning lot is 10,000 sf of less; waived if 15 or fewer spots required; waived for MIH units in Transit Zone)*

* Proposed zoning includes MIH

The development proposed by the Applicant would not result in any non-conforming uses or non-complying developments, as the proposed development would comply with the proposed M1-4/R7D (MX-1) zoning district.

Therefore, the proposed rezoning action and the resulting proposed development are not expected to result in any significant adverse impacts.

Public Policy

No impact to public policies would occur as a result of the Proposed Action. The proposed mixed-use development on the Development Site would be in accordance with the proposed zoning district. The inclusion of the MIH program will help bringaffortable housing to the Bronx. The proposed zoning district would be consistent with zoning and bulk regulations in the study area and would be appropriate given the location of the Project Area. The proposed actions would contribute to Mayor Bill De Blasio's goal of building or preserving 200,000 units of affordable housing in New York City. As detailed in the RWCDS, the proposed actions would facilitate the development of an estimated 147 units of housing affordable at 80% AMI.

The WRP Consistency Assessment Form and narrative discussion appear as **Attachment C**. The Proposed Action is consistent with applicable policies of the WRP.

There would be no significant adverse impacts on public policy.

V. Conclusion

Land Use

The study area already contains a mix of residential, commercial, and light industrial uses. No significant adverse impacts related to land-use would occur as a result of the proposed rezoning.

No potentially significant adverse impacts related to land use are expected to occur as a result of the Proposed Action. Therefore, further analysis of land use is not warranted.

Zoning

The proposed enlargement of the MX-1 district would allow the development of new residential and commercial space while also permitting manufacturing uses, as consistent with warehouse uses on surrounding properties. Though the subject block predominantly contains office and warehouses uses, the proposed mixed-use zoning better reflects the mixed-use character of the surrounding area that contains an increasing amount of residential space to the west of the Project Area.

The M1-4/R7D component is proposed to allow for the introduction of higher density residential use to an area that is increasingly characterized by a mix of uses, including commercial, retail, and community facility uses, as opposed to the historical manufacturing use of its buildings. The bulk regulations of the M1-4/R7D district will ensure that the Proposed Development would reflect the context and form of the existing larger buildings on Willow Avenue.

The M1-2/R6A district would serve as a transition between the greater bulk and wider range of permitted uses in the proposed adjacent M1-4/R7D district and would more appropriately make the MX-1 district reflect the entirety of the subject block, which contains pre-existing nonconforming residential properties.

A zoning text amendment to designate the Project Area a MIH area will allow an increased FAR on the Development Sites and will ensure the provision of affordable dwelling units within the Project Area. Through MIH, any developer of the properties within the Project Area will be required to provide a percentage of permanently affordable housing units.

No significant adverse impacts related to zoning are expected to occur as a result of the Proposed Action, and a further assessment of zoning is not warranted.

Public Policy

In accordance with the stated public policies within the study area, the Proposed Action would be suitable for the Project Area and the study area as a whole. No potential significant adverse impacts related to public policy are anticipated to occur as a result of

the Proposed Action and further assessment of public policy is not warranted.

5. SOCIOECONOMIC CONDITIONS

This chapter examines the Proposed Action's potential effects on the area's socioeconomic conditions. Socioeconomic conditions consist of demographics, housing characteristics, economic activity and employment, and real estate market conditions. According to the CEQR Technical Manual, the purpose of the socioeconomic assessment is to determine whether the action would be reasonably likely to cause significant adverse impacts on socioeconomic conditions by (1) direct displacement of residential population, (2) indirect displacement of residential population, (3) direct displacement of existing businesses, (4) indirect displacement of businesses, or (5) adverse effects on one or more of the city's economic sectors.

Under the reasonable worst case development scenario (RWCDS), the Proposed Actions are anticipated to result in 209 new dwelling units, and 23,883 gsf of commercial retail space. As discussed under Project Description, the Projected Development Sites would be under the provisions of the MIH program. The RWCDS assumes that 100% of dwelling units (DUs) on Projected Development Site 1, or 132 DUs, would be affordable at 80% of Area Median Income (AMI); and 20% of DUs on Projected Development Site 2, or 15 DUs, would be affordable at 80% AMI.

The Proposed Actions and resulting development would not result in the direct loss of 500 residents, but would add approximately 623 residents (assuming full occupancy with an average household size of 2.98, which is the average household size for Bronx Community District 1, where the Project Area is located). The With-Action RWCDS would also result in approximately 23,884 gsf of commercial retail space. This is less than the *CEQR Technical Manual* threshold of 200,000 sf for consideration of indirect business development. Furthermore, the Proposed Actions are not anticipated to directly displace 100 employees, as the buildings anticipated for redevelopment consist of 18,645 gsf of light industrial space. Even under a conservative estimate, well under 100 employees would be displaced. Therefore, no further analysis is required for direct residential, direct business or indirect business displacement.

As indicated on Part II of the EAS Form, the Proposed Action could potentially generate a net increase of 209 residential units as compared to the No Build condition. This would exceed the 200-unit threshold established for further assessment of potential indirect residential displacement. Therefore, the following provides a preliminary assessment of the potential for the Proposed Action to result in any significant adverse impacts related to indirect residential displacement.

Indirect Residential Displacement

As indicated in the *CEQR Technical Manual,* "the objective of the indirect residential displacement analysis is to determine whether the proposed project may either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the

neighborhood would change." The risk of indirect residential displacement is typically associated with rising rents caused by new higher -income housing that may contribute to increased area housing costs to an extent that could potentially force lower-income residents out of the neighborhood. The potential for impact is generally limited to households in unprotected, private rental units.

The With-Action RWCDS includes the development of 209 dwelling units of housing. No new residential development is anticipated to occur under the No-Action RWCDS. Therefore, the Proposed Action would result in the development of a net increase of 209 dwelling units. Based on census data, the average household size is 3.04 persons per dwelling unit in the Census Tracts located within immediate 1/4-mile radius of the Rezoning Area[2]. The development of 209 dwelling units would therefore be expected to generate approximately 635 new residents in the Project Area.

Table 5-1: ½ Mile Study Area Population

Census Tract	**Total Population**
19	2,591
25	5,355
27.01	3,016
27.02	4,778
33	3,912
Study Area Total (2015)*	19,652
2015-2020 Increase (0.5%/year)	496
No-Action Population (2020)	**20,148**
With-Action Population (2020)	**20,783**

*US Census, ACS Demographic and Housing Estimates 2011-2015

Currently, the five census tracts with at least 50% of their falling within a ½ mile radius surrounding the Project Area contain 19,652 residents (See Table 5-1), according to 2015 Census data estimates. In order to account for background growth to the 2020 project analysis year, a conservative annual growth rate of 0.5% per year was applied to the 2015 population of the ½-mile study area. This growth factor would result in the addition of 496 additional residents. Therefore, as projected to 2020, the base population is projected to be 20,148 residents. No new residential development would occur in the Rezoning Area under the future No-Action scenario. Therefore, the socioeconomic conditions study area would have a No-Action population of 20,148 persons in 2020 and a With-Action population of 20,783 or an increase of 3.15%.

Section 322.1 of Chapter 5 of the *CEQR Technical Manual* indicates that if the Proposed Action is expected to result in a study area population increase of less than 5%, further analysis is not warranted to assess the potential for indirect residential displacement and the proposed increase in population is not expected to affect real estate market conditions.

[2] US Census, ACS Demographic and Housing Estimates 2011-2015 (2017)

Additionally, it should be noted that 147 of the proposed 209 new DUs are assumed to be permanently affordable to incomes below 80% AMI and would not be expected to affect real estate conditions. Therefore, the Proposed Actions would not result in indirect residential displacement.

Direct Commercial Displacement

In terms of potential effects on commercial space in the study area (commercial displacement), the proposed action and the development assumed in the RWCDS would account for a net loss of 34,781 gsf of industrial space and a net increase of 12,883 gsf of commercial space. The net decrease is less than the *CEQR Technical Manual* threshold of 200,00 sf of new commercial space for consideration of indirect business displacement. Furthermore, the proposed action would not directly displace 100 employees with a loss of only 34,781 sf of industrial/manufacturing space, assuming one employee per 1,000 square feet (or 35 employees). Therefore, a detailed analysis is not required for direct or indirect business displacement. However, this section provides a discussion of the existing businesses in the project area.

Table 5-2: Existing Development on Projected Development Sites

Proj. Dev. Site. No.	Block / Lot	Address	Name of Business	Description of Use	No. of Employees
1	2562 / 49	750 East 134th St.	WG Communications	Open storage (industrial)	2
1	2562 /56	767 East 133rd St.	The Piano Loft	Event space (commercial)	11
1	2562 / 58	763 East 133rd St.	C & Iassoi Cate	General contractor (industrial)	5
1	2562 / 60	761 East 133rd St.	Vacant	Open storage	0
2	2562 / 41	740 East 134th St.	Empire Safe Co.	Manufacture of safes and vaults (industrial)	19

As shown in Table 5-2, the businesses that would be displaced by the proposed actions include a communications company (using its property for open storage), an event space, a general contractor, and a manufacturing company. Although each of these businesses provide valuable services to the New York City community, the products and services of these businesses are not uniquely dependent on their location, nor do they serve a population uniquely dependent on the companies' services in their present locations. Therefore, significant impacts relating to direct commercial displacement are not anticipated.

The Proposed Actions would not be expected to significantly impact the neighborhood's socioeconomic fabric and no further analysis is warranted.

Figure 5-1: Socioeconomic Analysis Map



6. COMMUNITY FACILITIES AND SERVICES

INTRODUCTION

This section examines potential impacts on community facilities and services as a result of the proposed actions. As described in the *CEQR Technical Manual*, community facilities are public or publicly funded schools, libraries, child care centers, health care facilities, and fire and police protection. The analysis looks at an action's potential effect on the provision of services provided by those facilities by considering whether the action would either physically displace or alter a community facility (a direct impact), or cause a change in population that could affect the service delivery of a community facility (an indirect impact).

The proposed actions include a zoning map amendment to rezone portions of a single block from M1-2 to MX-1(M1-2/R6A), from M1-2 to M1-4/R7D, and from MX-1(M1-2/R6A) to M1-4/R7D and a zoning text amendment to designate the rezoning area as a Mandatory Inclusionary Housing area. The actions would affect an area at the eastern end of Block 2562 (bounded by Willow Avenue, East 133rd Street, Cypress Avenue, and East 134th Street) in the Port Morris neighborhood of Bronx Community District 1. The Project Area currently supports light industrial, warehouse, and commercial office uses, so the proposed actions would not have a direct impact on any community facility. The Project Area includes two projected development sites, and the reasonable worst-case development scenario (RWCDS) for this EAS projects that redevelopment of the sites would create a combined total of 209 new dwelling units. This section focuses on whether the resulting population increase would be large enough to cause a significant adverse indirect impact on any community facilities or services.

SCHOOLS

Introduction

For CEQR purposes, a schools assessment addresses public schools at the elementary, intermediate, and high school levels. The purpose of a schools assessment is to determine whether a proposed action would have a direct significant adverse impact by reducing available school seats or an indirect significant adverse impact by adding a sufficient number of students to overburden the available facilities at any of the three school levels.

The study area for an elementary and intermediate schools assessment is the community school district (CSD) sub-district in which the proposed project would be located, since that is the area for which the New York City School Construction Authority (SCA) does its planning. The Project Area is located in Sub-district 2 (the Mott Haven Sub-District) of CSD 7, which is one of the three sub-districts into which CSD 7 is divided. The study area for a high schools assessment is the borough.

The proposed actions would not have a direct impact on public schools. For analysis of the potential for an indirect impact, the *CEQR Technical Manual* provides thresholds for determining whether an assessment is appropriate: the addition of at least 50 public elementary and intermediate school students or 150 high school students. The *Manual* provides multipliers for each borough for calculating the number of public school students that a residential project would generate. For the Bronx the multipliers are 0.39 elementary school students, 0.16 intermediate school students, and 0.19 high school students per household. The projected developments resulting from the proposed actions would include 209 apartments. Based on the multipliers in the *CEQR Technical Manual*, the development would add 82 public elementary school students, 33

public intermediate school students, and 29 public high school students. These numbers exceed the threshold for elementary and intermediate school students but not that for high school students.

This section provides an assessment of the potential for the proposed actions to have a significant adverse impact on the public elementary and intermediate school enrollment, capacity, and utilization figures for Sub-district 2 of CSD 7.

Existing Conditions

Elementary Schools

Table 6-1 lists all elementary schools within Sub-district 2 of CSD 7, and Figure 6-1 shows their locations. Per guidance in the *CEQR Technical Manual*, charter schools are excluded from the analysis even if they occupy space within a public school building. For each school the table shows the enrollment during the 2015-2016 school year, the school's target capacity, the excess capacity or shortfall in number of classroom seats (based on the comparison of enrollment with target capacity), and the utilization rate (calculated by dividing the school's enrollment by its capacity). The information is derived from the New York City Department of Education's (DOE's) *Utilization Profiles: Enrollment – Capacity – Utilization* (informally known as the "*Blue Book*") for the 2015-2016 year. As Table 6-1 shows, Sub-district 2 contains six elementary schools at five locations. Collectively, the schools accommodated 2,589 elementary school students in 2015-2016 and had space for another 155 students, and the sub-district's elementary school utilization rate was 94 percent.

Table 6-1
2015-2016 Elementary School Enrollment School Enrollment, Capacity, and Utilization
CSD 7 Sub-district 2 (Mott Haven)

Map #	School	Location	Enrollment	Target Capacity	Available Seats	Utilization Rate
1	PS 30 (Wilton School)	510 East 141st Street	584	520	-64	112%
2	PS 43 (Jonas Bronck School)	165 Brown Place	499	522	23	96%
3	PS 65 (Mother Hale Academy)	677 East 141st Street	436	402	-34	108%
4	PS 179	468 East 140th Street	373	408	35	91%
4	Young Leaders Elementary School	468 East 140th Street	253	283	30	89%
5	PS 277	519 St. Ann's Avenue	444	609	165	73%
		Total	**2,589**	**2,744**	**155**	**94%**

CSD 7 is a choice district with no zoned school. The closest school to the Project Area is PS 43 at 165 Brown Place.

Intermediate Schools

Table 6-2 lists the intermediate schools in Sub-district 2 of CSD 7, and Figure 6-1 shows their locations. The sub-district has only one intermediate school, JHS 222 at 345 Brook Avenue, although a few intermediate school students attend Samuel Gompers Vocational High School. The schools accommodated 678 intermediate school students in 2015-2016 and had space for another 260 students, and the sub-district's intermediate school utilization rate was 72 percent.

Table 6-2
2015-2016 Intermediate School Enrollment, Capacity, and Utilization
CSD 7 Sub-district 2 (Mott Haven)

Map #	School	Location	Enrollment	Target Capacity	Available Seats	Utilization Rate
6	JHS 222	345 Brook Avenue	671	927	256	72%
7	Samuel Gompers Vocational HS	455 Southern Boulevard	7	11	4	64%
		Total	**678**	**938**	**260**	**72%**

Future Conditions without the Proposed Actions

Future Enrollment

The starting point for the projected public elementary and intermediate school enrollments in 2020-2021 consists of the DOE's ten-year enrollment projections for CSD 7, contained in the *DOE Enrollment Projections (Actual 2014, Projected 2015 to 2024)*. According to those projections, the school district would have enrollments of 8,527 elementary school level students and 3,838 intermediate school students in the 2020-2021 school year. The projected enrollments for Sub-district 2 (2,669 elementary school students and 676 intermediate school students) were calculated using the SCA-approved percentages for the sub-district's share of the total district enrollment: 31.30 percent in the case of elementary school students and 17.61 percent in the case of intermediate school students.

The SCA then uses its inventory of known future residential development projects to add additional students to these projections. According to the SCA, future developments in Sub-district 2 would add 226 elementary school students and 93 intermediate school students. These numbers raise the enrollment projections for 2020-2021 to 2,895 elementary school students and 1,769 intermediate school students.

Future Capacity

The DOE February 2017 Five-Year Capital Plan does not include capital projects to create new school capacity in Sub-district 2 of CSD 7, and no approved Significant Change to School Utilization would affect schools in the sub-district. Capacity would remain the same as under existing conditions.

Elementary Schools

Table 6-3 shows the future no-action elementary school enrollment, capacity, and utilization projections for 2020-2021. Enrollment is projected to increase to 2,895 students (an increase of 306 from 2015-2016), and capacity is projected to remain at 2,744 seats. There would be a shortfall of 151 seats, and the utilization rate would be 106 percent.

Table 6-3
2020-2021 No-Action Conditions
Elementary School Enrollment School Enrollment, Capacity, and Utilization

SCA Enrollment Projection	Students Generated by Anticipated New Development	Total Future Enrollment	Target Capacity	Available Seats	Utilization Rate
2,669	226	2,895	2,744	-151	106%

Intermediate Schools

Table 6-4 shows the future no-action intermediate school enrollment, capacity, and utilization projections for 2020-2021. Enrollment is projected to rise to 769 students (an increase of 91 from 2015-2016), and capacity is projected to drop to remain at 938 seats. There would be 169 available seats, and the utilization rate would be 82 percent.

Table 6-4
2020-2021 No-Action Conditions
Intermediate School Enrollment School Enrollment, Capacity, and Utilization

SCA Enrollment Projection	Students Generated by Anticipated New Development	Total Future Enrollment	Target Capacity	Available Seats	Utilization Rate
676	93	769	938	169	82%

Future Conditions with the Proposed Actions

Elementary Schools

The 209 dwelling units in the anticipated developments would generate an estimated 82 elementary school students. As Table 6-5 shows, the addition would increase the shortfall of seats in Sub-district 2 of CSD 7 from 151 elementary school seats under no-action conditions to 233 seats and would increase the elementary school utilization rate from 106 percent under no-action conditions to 108 percent with the proposed actions.

Table 6-5
2020-2021 With-Action Conditions
Elementary School Enrollment School Enrollment, Capacity, and Utilization

Future No-Action Enrollment	Students Generated by the Proposed Project	Total Future Enrollment	Target Capacity	Available Seats	Utilization Rate
2,895	82	2,977	2,744	-233	108%

According to the *CEQR Technical Manual*, a significant adverse impact may result if a proposed action would result in:

- A collective utilization rate within the sub-district of at least 100 percent; and
- An increase of 5 percent or more in the collective utilization rate between the future no-action and with-action conditions.

The elementary school facilities in Sub-district 2 would be above capacity with or without the proposed actions, but the actions would increase the schools' collective utilization rate by only 2 percent, which is less than the 5 percent threshold. The proposed actions would therefore not have a significant adverse impact on elementary school enrollment, capacity, and utilization in Sub-district 2.

Intermediate Schools

The 209 dwelling units in the anticipated developments would generate an estimated 33 intermediate school students. As Table 6-6 shows, the addition would reduce the number of available intermediate school seats in Sub-district 2 of CSD 7 from 169 under no-action conditions

to 136 with the proposed actions, and the intermediate school utilization rate would rise to 86 percent.

Table 6-6
2020-2021 With-Action Conditions
Intermediate School Enrollment School Enrollment, Capacity, and Utilization

Future No-Action Enrollment	Students Generated by the Projected Developments	Total Future Enrollment	Target Capacity	Available Seats	Utilization Rate
769	33	802	938	136	86%

Because the sub-district's intermediate school facilities would still be below capacity, the proposed actions would not have a significant adverse impact on intermediate school enrollment, capacity, and utilization in Sub-district 2.

LIBRARIES

According to the *CEQR Technical Manual*, a detailed assessment of a proposed action's potential impact on library services would normally be undertaken only if an action would have a direct effect on one or more such facilities or if it would introduce at least 682 new housing units. The projected developments resulting from the proposed actions would include 209 apartments, which is below the threshold. The proposed actions would not have a significant adverse impact on libraries, and no further analysis is required.

CHILD CARE CENTERS

Introduction

A child care assessment is required if the action would generate more than 20 income-eligible children under the age of six. Based on multipliers in Table 6-1b of the *CEQR Technical Manual*, the threshold for the Bronx is 141 low- and moderate-income housing units, and a residential development in the Bronx is projected to generate 0.139 eligible children per eligible housing unit. The two projected developments would total 209 dwelling units, including 147 units reserved for low- and moderate-income households. The number exceeds the threshold and would be expected to generate 20 income-eligible children under the age of six.

Existing Conditions

Within 1.5 miles of the Project Area, there are 21 publicly funded group day care programs. These facilities have a total capacity of 1,342 slots. (See Figure 6-2 and Table 6-7.) According to data provided by ACS, total enrollment as of June 2017 was 1,190 (89 percent of capacity). Collectively, the facilities had 152 available slots.

Future Conditions without the Proposed Actions

According to the *CEQR Technical Manual*, the analysis should use the existing enrollment and utilization for future no-action conditions. It is therefore assumed that, absent the proposed actions, the 21 facilities within the study area would have 152 available slots in 2020.

Future Conditions with the Proposed Actions

Using the *CEQR Technical Manual* multiplier of 0.139 eligible children per eligible housing unit in the Bronx, the two projected developments would be expected to generate 20 income-eligible

children under the age of six. As Table 6-8 shows, the addition would reduce the number of available child care slots from 152 under no-action conditions to 132 with the proposed actions, and the facilities' collective utilization rate would rise to 90 percent.

Table 6-8
2020 With-Action Conditions
Publicly Funded Day Care Capacity, Enrollment, and Utilization

Future No-Action Enrollment	Children Generated by the Projected Developments	Total Future Enrollment	Total Capacity	Available Slots	Utilization Rate
1,190	20	1,210	1,342	132	90%

According to the *CEQR Technical Manual*, a significant adverse impact may result if a proposed action would result in:

- A collective utilization rate within the study area of more than 100 percent; and
- An increase of 5 percent or more in the collective utilization rate between the future no-action and with-action conditions.

The publicly funded child care facilities in the study area would remain below capacity. The proposed actions would therefore not have a significant adverse impact on publicly funded child care centers.

HEALTH CARE FACILITIES

According to the *CEQR Technical Manual*, a detailed assessment of a proposed action's potential impact on health care facilities would normally be undertaken only if the action would have a direct effect on one or more such facilities or if it would introduce a "sizeable new neighborhood." The proposed actions would not have a direct impact on any health care facility, and two buildings with a combined total of 209 housing units would not constitute a sizeable new neighborhood. The proposed actions would not have a significant adverse impact on health care facilities.

POLICE AND FIRE PROTECTION SERVICES

According to the *CEQR Technical Manual*, a detailed assessment of a proposed action's potential impact on police and fire protection services would normally be undertaken only if the action would have a direct effect on one or more facilities providing such services or if it would introduce a "sizeable new neighborhood." The proposed actions would not have a direct impact on any police facility or fire house, and two buildings with a combined total of 209 housing units would not constitute a sizeable new neighborhood. The proposed actions would not have a significant adverse impact on police and fire protection services.

CONCLUSION

The proposed actions would not result in a significant adverse impact on community facilities and services.

Figure 6-1: Public Elementary and Intermediate Schools Within CSD 7, Sub-district 2

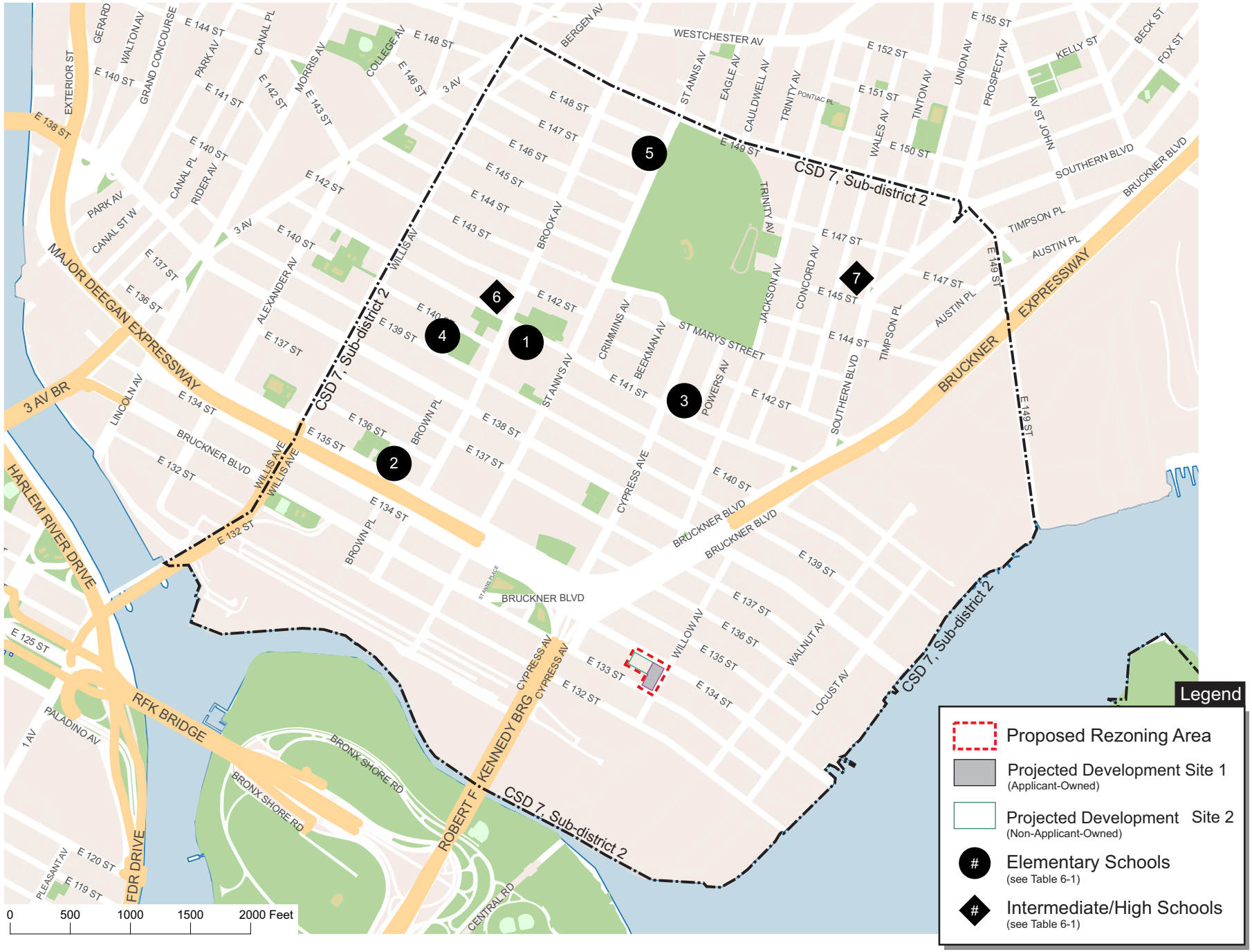
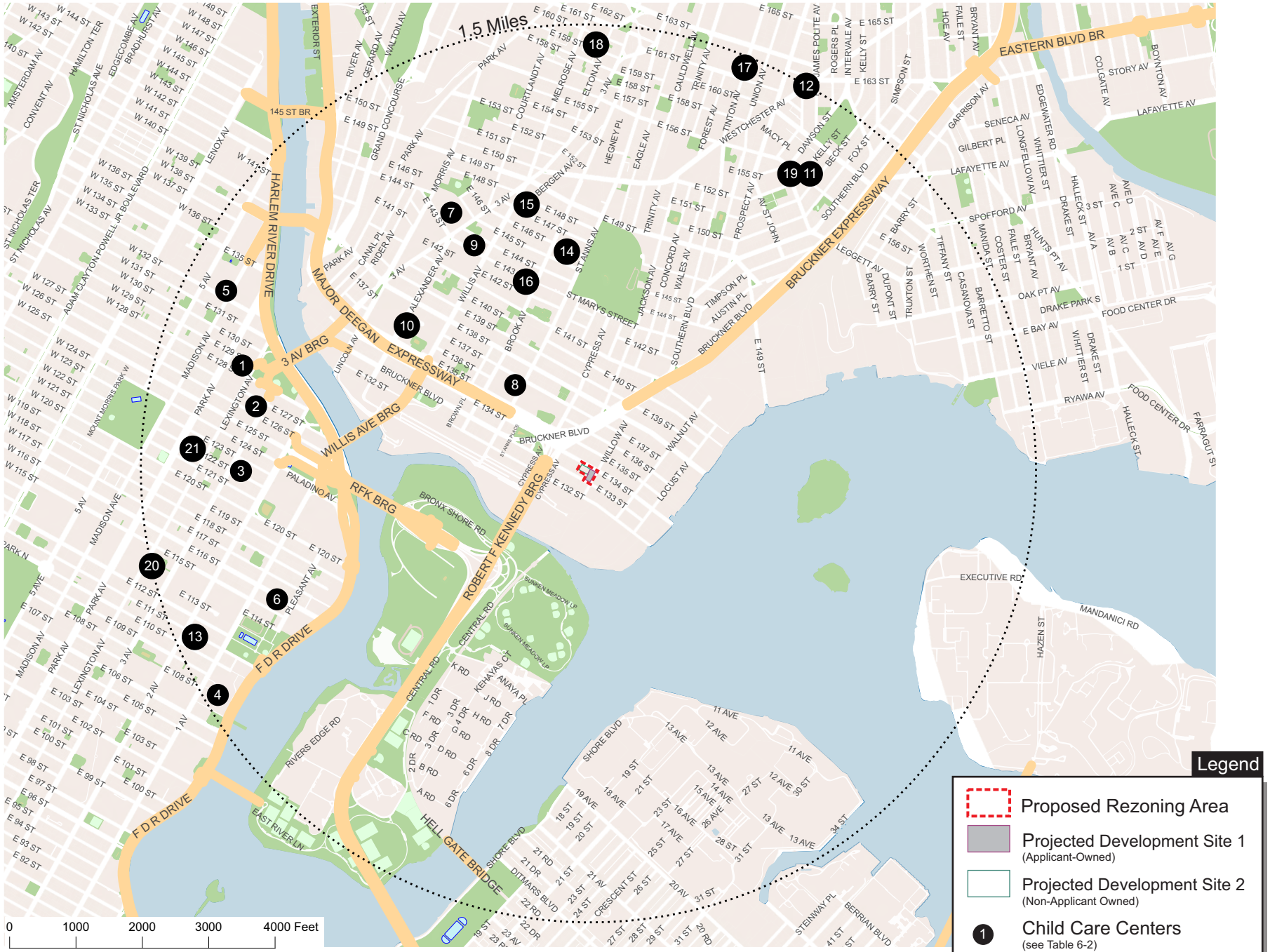


Figure 6-2, Publicly Funded Day Care Facilities Within 1.5 Miles



7. OPEN SPACE

Under CEQR, an open space analysis is conducted to determine whether or not a Proposed Action would have either a direct impact resulting from the elimination or alteration of open space or an indirect impact resulting from overtaxing the use of open space. The analyses focus only on officially designated existing or planned public open space. For the purposes of CEQR, open space is defined as publicly or privately-owned land that is publicly accessible and has been designated for leisure, play, or sport; or land that is set aside for the protection and/or enhancement of the natural environment. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation with benches, walkways, and picnicking areas. Certain spaces such as lawns can be used for both active and passive recreation.

An open space analysis may be necessary when an action would potentially have a direct or indirect effect on open space. A direct impact would physically change, diminish or eliminate an open space or reduce its utilization or aesthetic value. An indirect impact could result from an action introducing a substantial new user population that would create or exacerbate an overutilization of open space resources.

Direct Effects

There are no open space resources on or directly adjacent to the Project Area. In the future with the Proposed Actions, **Projected Development Site 1** (Block 2562, Lots 49, 56, 58, and 60) would be developed with a nine-story (with cellar) residential building with ground-floor commercial space. **Projected Development Site 2** (Block 2562, Lot 41) is anticipated to be redeveloped with a seven-story (with cellar) residential building with ground-floor commercial space. As discussed in Section 8, Shadows, the projected development would not generate shadows that would have significant adverse effects on any nearby open space resource. Therefore, no direct shadows impacts would be anticipated.

INDIRECT EFFECTS

Introduction

According to the *CEQR Technical Manual*, and indirect open space impact could occur if a Proposed Action would generate more than 200 residents or 500 workers. However, in an under-served area, even 50 additional residents or 125 additional employees could result in indirect open space impacts. The proposed project is not located in an under-served area and would introduce approximately 635 new residents to the study area. Therefore, a preliminary analysis has been conducted to determine whether significant indirect open space effects could be expected to occur.

Absent the Proposed Action, no change is anticipated on the Development Sites.

The with-action scenario includes the development of 209 units of housing in the Project Area. The net increase of 209 dwelling units is expected to generate approximately 635 residents, based on the average household size of the Census Tracts with 50% of their area within a ½-mile radius of the Project Area.

Preliminary Assessment

A full, detailed open space analysis is necessary if the project would displace a highly utilized open space (direct effect) or introduce a large population in an area underserved by open space (indirect effect). The Project Area is not located in an area that is mapped in the CEQR Technical Manual as well served or underserved by public open spaces.. According to the 2014 *CEQR Technical Manual,* the threshold for an open space analysis for such an area is the addition of 200 new residents. Depending on the outcome of the preliminary analysis, a more detailed analysis may also be required.

Based on the calculation of the ratio of publicly accessible open space acres to the study area population, adequacy per capita ratio of open space resources in the study area was quantified. The resultant computation for the study area was then compared with the median ratio for New York City, which is 1.5 acres per 1,000 residents, and with the City's planning goal as expressed in the *CEQR Technical Manual* of 2.5 acres per 1,000 population.

The *CEQR Technical Manual* considers an action to result in significant impacts to open space resources if it would decrease the open space ratio substantially, thereby reducing the availability of open spaces for an area's population. A decrease in the open space ratio of 5 percent or more is generally considered to be a significant adverse impact on open space resources. The open space study area exhibits an open space ratio of 0.3211 acres per 1,000 residents, (based on 6.31 acres of existing open space divided by the 2015 American Community Survey study area population estimate of 19,652 persons).

The net increase of 209 dwelling units is expected to generate approximately 635 residents, based on the average household size of the Census Tracts with 50% of their area within a ½-mile radius of the Project Area. Adding these 635 residents to the Future No-Action population of 19,652 residents would result in a total population of 20,287. No new publicly-accessible open space or recreational resources are planned to be added to the study area by the project's build year of 2020. Therefore, in the Future With the Proposed Action, the project study area would contain approximately 6.31 acres of open space resources, the same as under Existing Conditions.

The projected open space ratio in the future with the Proposed Action would be 0.3110 acres per 1,000 residents (based on 6.31 acres of open space and a study area population of 20,287 persons) compared with the projected ratio of 0.3211 acres in the study area under Existing Conditions. This represents a decrease of approximately 0.010 acres per 1,000 persons or a 3.13 percent reduction in the open space ratio. Therefore, the community would continue to not meet DCP's open space planning goals. **Table 7-3**

shows the calculation of open space ratios for the Existing and Future With-Action conditions.

The proposed development would result in a decrease of 3.13 percent in the open space ratio in the project study area. According to the *CEQR Technical Manual*, a detailed analysis is generally not necessary if the open space ratio decreases by less than five percent. Therefore, based on *CEQR Technical Manual* criteria, the proposed project would not result in a significant adverse impact on open space resources.

Due to the absence of direct impacts on any open space resource and the small decrease in the future with the action open space ratio, it is anticipated that the project would not have any potentially significant adverse open space impacts and further assessment is not warranted. No significant adverse impacts associated with open space would occur as a result of the Proposed Action.

EXISTING CONDITIONS

Study Area Population

The study area population was estimated using data from the 2015 U. S. Census ACS Data (2011-2015)[3] for the census tracts located fully or at least 50 percent within the one-half mile study area. As shown in Table 7-1, in 2015 the study area contained a total of 19,652 residents within the 5 study area census tracts.

Table 7-1: **½ Mile Study Area Population**

Census Tract	**Total Population**
19	2,591
25	5,355
27.01	3,016
27.02	4,778
33	3,912
Study Area Total	19,652

Source: US Census, ACS Demographic and Housing Estimates 2011-2015

Within the open space study area, there are four publicly accessible facilities. There are also two community gardens (Community Garden 1, 0.14 acres; St. Luke's Park/United We Stand Garden, 0.75 acres).) The community gardens are included for qualitative reasons, but left out of the quantitative inventory as they may not be open and accessible to the general public on a constant and regular basis. **(See Figure 6,** Open Space Facilities and Census Tracts and **Table 7-2,** Inventory of Open Space Resources). The four publicly owned and accessible facilities

[3]US Census, ACS Demographic and Housing Estimates 2011-2015

provide a total of 5.42 acres of open space resources, all of which are located within the half-mile open space study area.

Table 7-2: Inventory of Open Space Resources

Map Key	Name	Block	Lot/s	Area (acres)
1	Playground One Thirty Four CXXXIV	2546	33, 101	1.95
2	Millbrook Playground	2548	100	1.05
3	Community Garden 1	2564	10	--
4	St Luke's Park / United We Stand Garden	2550	31, 32, 33, 35, 37, 49, 51, 53, 55	--
5	Ranaqua Park	2280	32	0.97
6	Pulaski Park	2277	70	1.45
Total				**5.42**

Note: Community Garden 1 (No. 3) and St. Luke's Park / United We Stand Garden (no. 4) are included for qualitative reasons, but left out of the quantitative inventory as they may not be open and accessible to the general public on a constant and regular basis.

Table 7-3 shows the calculation of open space ratios for the Existing and Future With-Action conditions.

Table 7-3: Existing and Future With-Action Open Space Ratios

	Existing Conditions	Future With-Action
Publicly Accessible Open Space (Acreage)	5.42	5.42
Study Area Population	19,652	20,287
Open Space Ratio (Acres/1,000 Residents)	0.2758	0.2672 / 3.13% decrease

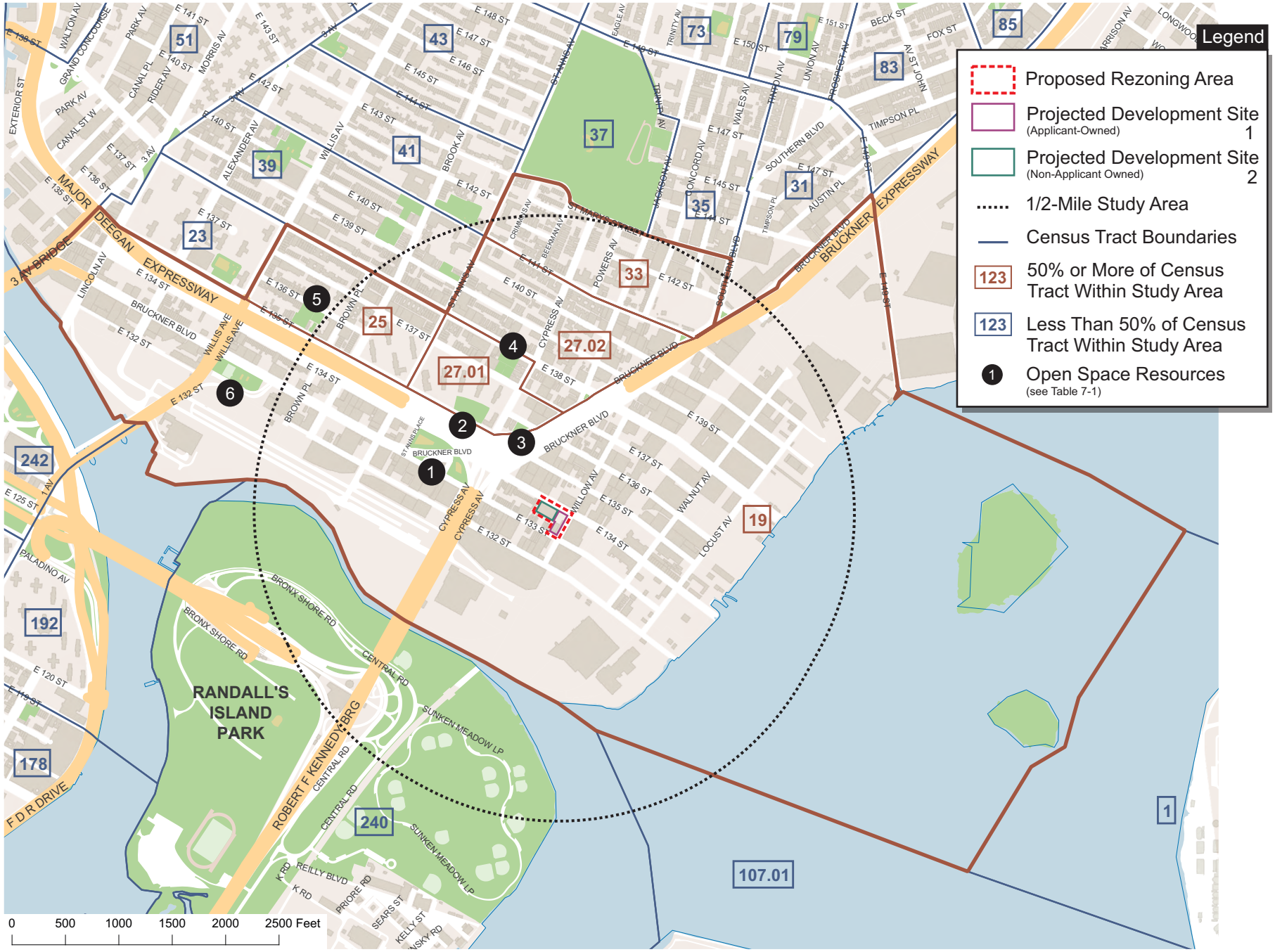
Conclusion

A detailed open space assessment is not required as it has been determined that the project would not decrease the open space ratio by more than 5 percent. Although the study area exhibits a lot open space ratio, open spaces in the study area are supplemented by community gardens (Community Garden 1, 0.14 acres; St. Luke's Park/United We Stand Garden, 0.75 acres) and by the 14,369 square foot indoor private recreation room proposed within Development Site 1. Additionally, the area to be rezoned is 0.4 miles on foot from Randall's Island Park, a 256-acre public space that is accessible via the Randall's Island Connector just south of the projected development sites. As stated in the *CEQR Technical Manual*, 0.5 miles is the reasonable walking distance that residential users would travel to reach open space and recreation areas. (Randall's Island was not included in the

study area because less than half of its census tract is located within 0.5 miles of the project area.)

Due to the absence of direct impacts on any open space resource, the small decrease in the future with-action open space ratio, and other open space resources accessible to residents of the projected development sites, it is anticipated that the project would not have any potentially significant adverse open space impacts and further assessment is not warranted. No significant adverse impacts associated with open space would occur as a result of the Proposed Action.

Figure 7-1: Open Space Facilities and Census Tracts



8. SHADOWS

Introduction

As the city develops and redevelops, the extent and duration of the shadows cast are altered. As this process continues, direct sunlight exposure becomes an increasingly scarce resource for people and nature. This section focuses on the interaction between projected developments and the shadows they may cast on open space, historic and cultural resources, and natural areas. The purpose of this chapter is to assess whether development resulting from the proposed actions may cast shadows on sunlight-sensitive resources to assess the significance of the impacts.

An adverse shadow impact is considered to occur when the shadow from a proposed project falls upon a publicly accessible open space, a historic landscape, or other historic resource if the features that make the resource significant depend on sunlight, or if the shadow falls on an important natural feature and adversely affects its uses or threatens the survival of important vegetation. An adverse impact would occur only if the shadow would fall on a location that would otherwise be in sunlight; the assessment therefore distinguishes between existing shadows and new shadows resulting from a proposed project. Finally, the determination of whether the impact of new shadows on an open space or a natural or historic resource would be significant is dependent on their extent and duration. In general, shadows on City streets and sidewalks or on other buildings are not considered significant under CEQR. In addition, shadows occurring within an hour and a half of sunrise or sunset generally are not considered significant under CEQR.

According to the 2014 *CEQR Technical Manual*, a shadows assessment is not required unless the project would include a structure at least 50 feet tall or if it would contain shorter structures that might cast substantial new shadows on an adjacent park, historic resource, or an important natural resource. A shadows analysis is required for this project since the With-Action scenario includes buildings that exceed 50 feet in height.

The Proposed Actions would result in the development of a 115-foot building on Projected Development Site 1 and a 70-foot building on Projected Development Site 2. Based on *CEQR Technical Manual* guidelines, the longest shadow that any building would cast during the year (except within an hour and a half of sunrise or sunset which is not deemed to be of concern) is 4.3 times its height. Applying the 4.3 factor to the proposed maximum building height of 115 feet would result in a maximum shadow distance of approximately 495 feet.

Preliminary Screening Assessment

Tier 1 Screening Assessment

As shown in the attached Figure 8-1, there are no sunlight-sensitive open space or historic resources that are located within the maximum 495-foot shadow distance from the

Development Site. Therefore, the proposed development would not result in significant adverse shadows impacts on any open space resources, historic resources, or significant areas.


Development Sites 1 2
Height above Top Floor 115' 75'
Height above Bulkheads 135' 95'
Bruckner Expressway
Bruckner Boulevard
East 137th Street
East 136th Street
East 135th Street
East 134th Street
East 133rd Street
East 132nd Street
Cypress Avenue
Willow Avenue
Walnut Avenue
408.5'
radius = 4.3 x max. building height
580.5'
radius = 4.3 x max. building height
North
Legend
Project Site
Projected Building Footprint
Roof above Top Floor
Roof above Bulkheads
Longest Shadow Study Area Boundary

9. HISTORIC AND CULTURAL RESOURCES

The 2014 *City Environmental Quality Review* (CEQR) *Technical Manual* identifies historic resources as districts, buildings, structures, sites, and objects of historical, aesthetic, cultural, and archaeological importance. This includes designated New York City Landmarks (NYCL); properties calendared for consideration as landmarks by the New York City Landmarks Preservation Commission (LPC); properties listed in the State/National Registers of Historic Places (S/NR) or contained within a district listed in or formally determined eligible for S/NR listing; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHL); and properties not identified by one of the programs listed above, but that meet their eligibility requirements. An assessment of historic/archaeological resources is usually needed for projects that are located adjacent to historic or landmark structures or within historic districts, or projects that require in-ground disturbance, unless such disturbance occurs in an area that has already been excavated.

Archaeological

The proposed project would involve construction potentially resulting in ground disturbance of a site that has not previously experienced extensive excavation. In a letter dated September 25, 2017, and appended to this document, the New York City Landmarks Preservation Commission (LPC) stated that the Proposed Actions would not have significant adverse impacts on archeological resources listed in or eligible for the New York State and National Registers of Historic Places.

Architectural

The structures in the Project Area that would be demolished as a result of the Proposed Actions are utilitarian industrial buildings that do not have historic or cultural significance. In a letter dated September 25, 2017, and appended to this document, the LPC stated that the Proposed Actions would not have significant adverse impacts to architectural resources.

10. URBAN DESIGN AND VISUAL RESOURCES

Introduction

According to the *CEQR Technical Manual*, an assessment of urban design is needed when a project may have effects on any of the elements that contribute to the pedestrian experience of public space. A preliminary assessment is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. An assessment would be appropriate for projects that permit the modification of yard, height, and setback requirements; and projects that result in an increase in built floor area beyond what would be allowed 'as-of-right'.

The Proposed Actions would expand an existing M1/2-R6A (MX-1) district and map a new M1-4/R7D (MX-1) district over areas currently zoned M1-2. The RWCDS consists of one 115 foot building containing 148,260 gsf of floor area (115,622 zsf, FAR 5.60) on Projected Development Site 1 (the applicant-controlled site) and one 70 foot building containing 85,500 gsf (67,208 zsf, FAR 3.60) on Projected Development Site 2. Both buildings would have ground floor retails space and residential units on the upper floors.

Existing Conditions

The Proposed Actions affect an L-shaped area on the eastern end of Block 2562 and affects six tax lots (Lots 41, 49, 56, 58, 60 & 61) in the Port Morris section of Bronx Community District 1.[4] The Project Area is in both M1-2 and M1-2/R6A (MX-1) districts and is generally bound by Willow Avenue to the east, East 134th Street to the north, Cypress Avenue to the west and East 133th Street to the south. Willow Avenue and 133rd Street are 60 feet wide, classifying both streets as narrow streets, while 134th Street is a 80 feet in width, classifying the street as a wide street. (See image below, and attached photos of the Project Area in **Figure 6**.)

Lots 49, 56, 58, and 60 constitute **Projected Development Site 1**, which is controlled by the Applicant. Combined, the lot area accounts for approximately 20,646 square feet and contains 206 feet of frontage along Willow Avenue and approximately 104 feet along both 133rd and 134th Streets.

As detailed below, Projected Development Site 1 is currently developed with a three-story 11,600 square foot commercial office building and single-story warehouse (approximately 5,000 square feet). Additionally, an open area constrains a 900-foot structure and surface parking area with approximately 50 spaces. This current development accounts for approximately 14,436 square feet of floor area (0.69 FAR) where 2.0 FAR is currently permitted. The Development Site is located within both the M1-2 and M1-2/R6A (MX-1) zoning district.

[4] Because only 26% of Lot 61 would be affected by the rezoning, the lot will continue to be governed by the underlying M1-2/R6A (MX-1) district. It is therefore not considered in this analysis.

- Lot 49 (750 East 134th Street) is a corner lot that contains 11,081 square feet of lot area with approximately 104 feet of frontage along East 134th Street and approximately 106 feet along Willow Avenue. The lot is improved with a 900 square foot single-story structure (0.08 FAR) containing a light industrial/manufacturing use. The lot also contains approximately 50 surface parking spaces.

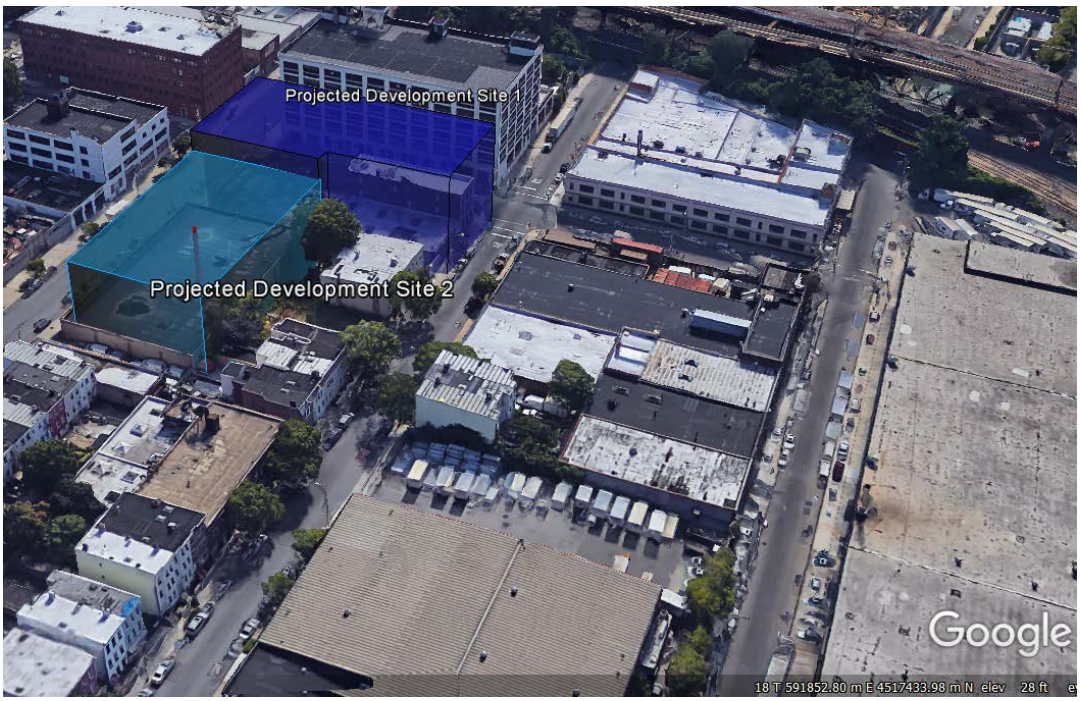
- Lot 56 (767 East 133rd Street) is a corner lot that contains 2,900 square feet of lot area with approximately 29 feet of frontage along East 133rd Street and approximately 100 feet along Willow Avenue. The lot is improved with a three-story 11,600 square foot commercial office building (4.0 FAR).

- Lot 58 (763 East 133rd Street) is an interior lot that contains 5,000 square feet of lot area with 50 feet of frontage along East 133rd Street and a depth of approximately 100 feet. The lot is improved with a 5,000 square foot single-story warehouse building (1.0 FAR) containing a light industrial/manufacturing use.

- Block 2562, Lot 60 (761 East 133rd Street) is a narrow interior that contains 1,667 square feet of lot area with approximately 16 feet of frontage along East 133rd Street and a depth of approximately 100 feet. The lot is currently vacant and unimproved.

Lot 41 constitutes **Projected Development Site 2**. Lot 41 is an interior lot that contains 18,700 square feet of lot area with 175 feet of frontage along East 134th Street and a depth of approximately 106 feet. The lot is improved with an 18,700 square foot single-story warehouse building (1.0 FAR) containing a light industrial/manufacturing use.

Project Area



The Port Morris neighborhood contains a varied mix of land uses, including a high concentration of light manufacturing/industrial uses, large clusters of one and two-family houses, some community facility uses and vacant lots. Light manufacturing/industrial and commercial uses primarily consist of large warehouses, many of which are underutilized and in the process of being converted to new uses. One and two-family residential uses were primarily constructed in the 1920s, prior to the 1961 Zoning Resolution and typically don't exceed two- or three-stories. These residential uses (along with some smaller apartment buildings) are concentrated along the side streets of East 132nd, East 133rd, East 134th, East 136th, East 137th, and East 138th Streets within the first block east of Willow Avenue, with businesses primarily located along Willow Avenue. Notable community facilities in the surrounding area consist of homeless shelters at 781 East 135th Street as well as 190 Willow Avenue. Further south and east along the waterfront is a concentration of heavier industrial and utility-based uses isolated from more sensitive residential uses.

The principal street of the surrounding area is Bruckner Boulevard, which travels north-south underneath the Bruckner Expressway (I-87). The Amtrak elevated right-of-way runs north-south along Walnut Avenue to the east of Willow Avenue.

Future No-Action Condition

In the future without the Proposed Actions, no significant changes are anticipated to occur within the Project Area or surrounding neighborhood.

Future With-Action Condition

In the future with the Proposed Actions, **Projected Development Site 1** (Block 2562, Lots 49, 56, 58, and 60) would be developed with a nine-story (with cellar) residential building with ground-floor commercial space.

The Reasonable Worst Case Development Scenario (RWCDS) consists of a 115-foot-tall building containing 148,260 gsf of floor area (115,622 zsf, FAR 5.60). The building cellar (20,647 gsf) would contain up to 34 non-accessory parking spaces for the residential units, bicycle parking, and storage/utility space for the building. The ground floor would contains 14,860 gsf (14,860 zsf, FAR 0.72) of commercial space. The remaining 112,753 gsf (100,762 zsf, FAR 4.88) of above-ground floor area would contain residential units. Assuming a RWCDS dwelling unit (DU) size of 850 gsf, the building would contain 132 DUs. Accessory parking is not required under ZR Section 25-251, but the building would contain 34 non-accessory parking spaces for building residents.

Projected Development Site 2 (Block 2562, Lot 41) is anticipated to be redeveloped with a seven-story plus cellar mixed-use building containing 85,500 gsf (67,208 zsf, FAR 3.60) of floor area: 10,500 gsf of cellar space to be used for parking/storage, 9,024 gsf (9,024 zsf, FAR 0.48) of ground-floor commercial space, and 65,976 gsf (58,184 zsf, FAR 3.11) of above-ground residential space (77 DUs, assuming 850 gsf per unit). The building would have a maximum height of 85 feet. In accordance with the underlying zoning, accessory parking would be waived for the 15 affordable units (ZR Section 25-251). Sixteen (16) parking spaces are required (and would be provided) for 25% of the remaining 62 DUs.

Additionally, 9 accessory parking spaces would be provided for the commercial space, for a total of 25 accessory parking spaces.

Assessment

The proposed and projected development would comply with all provisions of the proposed M1-2/R6A (MX-1) and M1-4/R7D (MX-1) zoning.

The M1-4/R7D component is proposed to allow for the introduction of higher density residential use to an area that is increasingly characterized by a mix of uses, including commercial, retail, and community facility uses, as opposed to the historical manufacturing use of its buildings. The bulk regulations of the M1-4/R7D district will ensure that the Proposed Development would reflect the context and form of the existing larger buildings on Willow Avenue, with a six-story warehouse building directly across the street and a five-story building on the immediate block to the northeast (Block 2586). (See attached streetscape rendering.)

The M1-2/R6A district would serve as a transition between the greater bulk and wider range of permitted uses in the proposed adjacent M1-4/R7D district and would more appropriately make the MX-1 district reflect the entirety of the subject block, which contains pre-existing nonconforming residential properties

The proposed zoning districts and the resulting buildings would be consistent in scale and use with the surrounding area. There are no visual resources, open spaces, or natural features in the project area that could be affected by the Proposed Actions. There will be no significant adverse effects relating to urban design or visual character.

Willow Avenue facing north (Site at left)



No-Action Scenario

Willow Avenue facing north (Site at left)



With-Action Scenario
Block 2562 Lots 49, 56, 58 & 60
1 Projected Development Site (numbered)

East 134th Street facing east (Site at right)



No-Action Scenario

East 134th Street facing east (Site at right)



With-Action Scenario Block 2562 Lot 41

2 Projected Development Site (numbered)



Data Source: MapPLUTO 2016v1, NYC DOF Digital Tax Map 03-16 downloaded from https://nycopendata.socrata.com



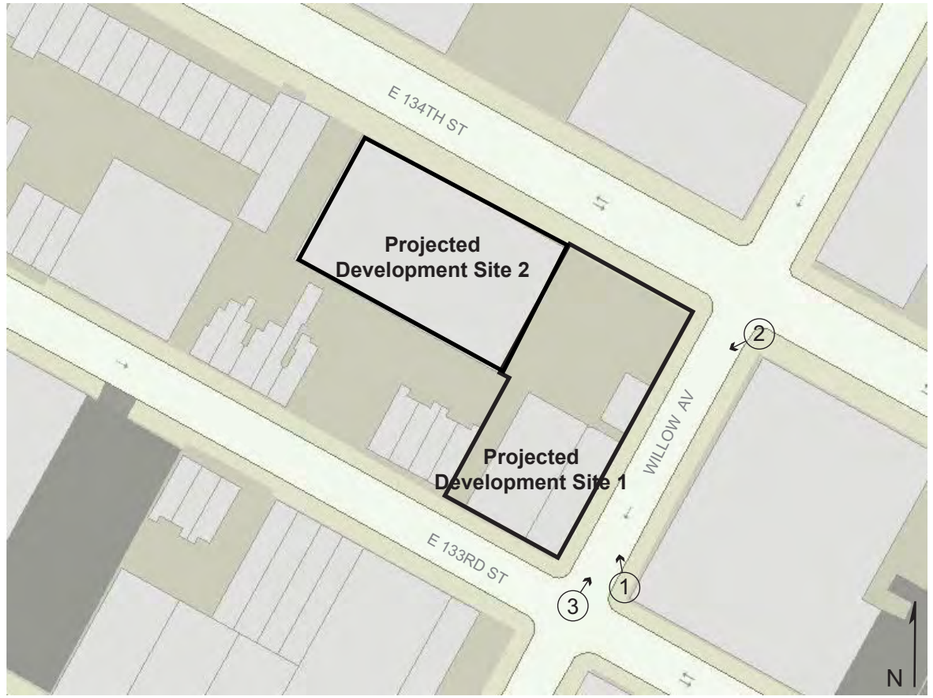
1. View of the Site facing north from the intersection of Willow Avenue and East 133rd Street.



2. View of the Site facing southwest from the intersection of Willow Avenue and East 134th Street.



3. View of Willow Avenue facing northeast from East 133rd Street (Site at left).





4. View of East 133rd Street facing northwest from Willow Avenue (Site at right).



5. View of the Site facing east from East 133rd Street.



6. View of the side of East 133rd Street facing south from the Site.





7. View of the north side of East 133rd Street between Cypress Avenue and Willow Avenue facing northwest.



8. View of the north side of East 133rd Street between Cypress Avenue and Willow Avenue facing northeast.



9. View of the north side of East 133rd Street between Cypress Avenue and Willow Avenue facing east.





10. View of East 133rd Street between Cypress Avenue and Willow Avenue facing southeast.



11. View of the south side of East 133rd Street between Cypress Avenue and Willow Avenue facing southwest.



12. View of the intersection of East 133rd Street and Willow Avenue facing east.





13. View of Willow Avenue facing southwest from East 133rd Street.



14. View of the intersection of East 133rd Street and Willow Avenue facing south from the Site.



15. View of East 134th Street facing southeast from Willow Avenue.





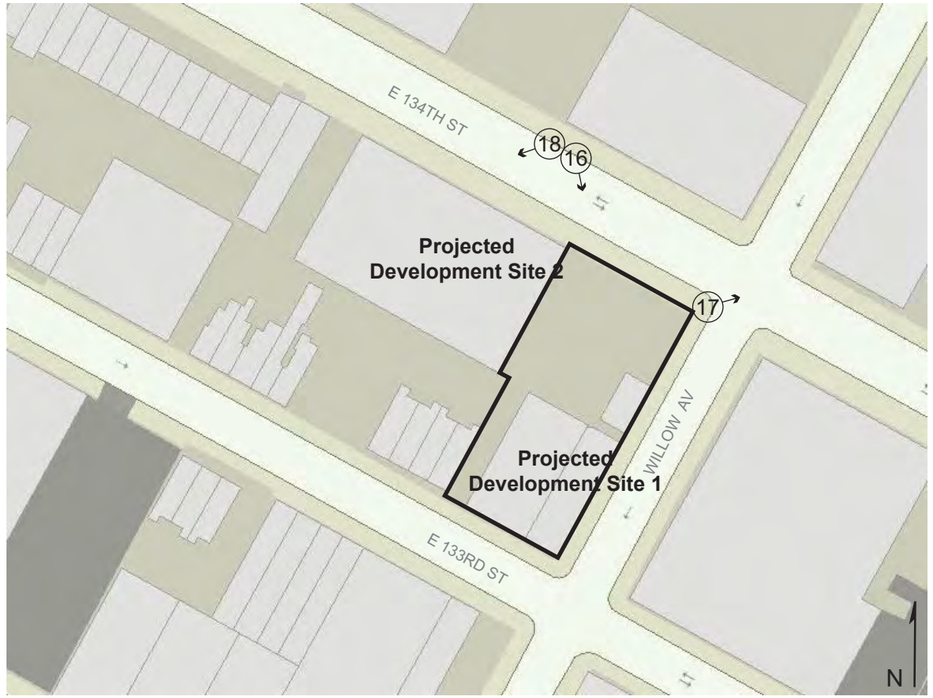
16. View of the Site facing south from East 134th Street.



17. View of the intersection of Willow Avenue and East 134th Street facing east from the Site.



18. View of the south side of East 134th Street between Cypress Avenue and Willow Avenue facing southwest.





19. View of the south side of East 134th Street between Cypress Avenue and Willow Avenue facing west.



12. HAZARDOUS MATERIALS

Introduction

A hazardous materials assessment is conducted to determine whether the proposed project may increase the exposure of people or the environment to hazardous materials and, if so, whether this increased exposure would result in potential significant public health or environmental impacts. This section examines the Proposed Action's potential to cause a significant adverse hazardous materials impact by leading to redevelopment or other activities that could expose people to hazardous materials, either by introducing land uses that would involve the use or storage of such materials or by increasing pathways to exposure to existing hazardous materials that contaminate portions of the proposed rezoning area as a result of current or past activities. A hazardous material is any substance that poses a threat to human health or the environment; such substances typically include heavy metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, dioxins, and other toxic, corrosive, or flammable waste products of industrial or other processes. Manufacturing operations, automotive repair shops, gasoline service stations, dry cleaners, exterminators, chemical laboratories, junk yards, solid waste transfer stations, welding shops, and printers are among those land uses that may be associated with subsequent hazardous materials contamination of soil or groundwater, as well as any land use with underground fuel storage tanks.

Middleton Environmental Inc. performed a Phase I Environmental Site Assessment (ESA) for **Projected Development Site 1** (763-766 and 767 East 133rd Street and 750 East 134th Street) in November 2016. The ESA was performed in accordance with ASTM E 1527-13 Scope of Work.

The main objective of this ESA was to identify Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs), or Historical Recognized Environmental Conditions (HRECs) in connection with the Development Site, defined in ASTM Practice E 1527-13 as the presence or likely presence of any hazardous substances or petroleum products that indicate an existing release, a past release, or a material threat of a release. This ESA also includes a preliminary evaluation of certain potential environmental conditions that are outside the scope of ASTM Practice E 1527-13. This assessment has identified no evidence of RECs, HRECs or CRECs pertaining to the Development Site.

The following summarizes the findings, conclusions, and recommendations of the Phase I ESA.

Site Description

Development SiteThe Development Site consists of four (4) adjacent parcels. According to the Automated City Register Information System (ACRIS) operated by the New York City Department of Finance, the Development Site is identified as Block 2562 Lot 49 (750 East 134th Street), Lot 56 (767 East 133rd Street), Lot 58 (763 East 133rd Street), and Lot 60 (761 East 133rd Street). The Development Site is owned by Markland 745 LLC. The Development Site is located at 763-765 & 767 East 133rd Street, and 750 East 134th Street in Bronx, NY. The site inspection identified the vacant Lot 60 at 761 East 133rd Street is also part of the Development Site. MEI did not identify any prior owners or occupants of potential environmental concern in the property records obtained from the NYC Department of Finance.

The Development SiteDevelopment Site consists of four (4) rectangular-shaped parcels with an approximate combined area of 0.475 acres. The 763 East 133rd Street parcel contains a one (1) story commercial building while the 767 East 133rd Street parcel contains a three (3) story commercial building and the 750 East 134th Street parcel contains a single story shed. The 761 East 133rd Street parcel is a vacant lot used for storage. The buildings have an estimated combined gross floor area of 17,500 square feet and only the 767 East 133rd Street building has a basement. A review of the New York City Building Department property profile overview estimated the year of construction of the building 767 East 133rd Street building in 1908 and the 763 East 133rd Street and 750 East 134th Street building in 1931. The buildings occupy the majority of the parcels with minimal areas of exposed grounds or landscaped areas bordered by municipal walkways and right-of-ways.

Site History

Historical fire insurance maps depicting the Development Site were reviewed and are summarized in the following table.

Year	Issues Noted	Observations
1891	No	Development Site: The 1891 Sanborn Map shows the Development Site as vacant land. Surrounding Area: The 1891 Sanborn Map shows the surrounding areas as undeveloped land.
1908	No	Development Site: The 1908 Sanborn Map shows the north side of the Development Site as developed with residential, commercial, and mixed-use buildings. The south side of the Development Site remains undeveloped. Surrounding Area: The 1908 Sanborn Map shows the surrounding area as undeveloped land, residential buildings, commercial buildings, and industrial manufacturing buildings.
1935 - 1947	No	Development Site: The 1935 Sanborn Map shows the Development Site as developed with the current buildings. In addition, a few small buildings are shown on the north portion of the Development Site. The occupants of the Development Site are shown as a marble company and a piano string factory.

Year	Issues Noted	Observations
		Surrounding Area: The 1935 Sanborn Map shows the surrounding area as developed with commercial/light industrial buildings, and residential buildings. Three (3) 550-gallon gasoline USTs are shown on the south adjacent property.
1951	No	Development Site: Conditions of the Development Site are similar to those shown on the 1947 Sanborn Map.
		Surrounding Area: Conditions of the surrounding properties are similar to those shown on the 1947 Sanborn Map. The south adjacent tanks are no longer shown.
1968 - 1978	No	Development Site: Conditions of the Development Site are similar to those shown on the 1951 Sanborn Map.
		Surrounding Area: Conditions of the surrounding properties are similar to those shown on the 1951 Sanborn Map.
1980 - 1989	No	Development Site: Conditions of the Development Site are similar to those shown on the 1978 Sanborn Map. However, the 761 East 133rd Street portion of the Subject Property is now shown as a vacant lot.
		Surrounding Area: Conditions of the surrounding properties are similar to those shown on the 1978 Sanborn Map.
1991 - 1998	No	Development Site: Conditions of the Development Site are similar to those depicted on the 1989 Sanborn Map. The 1998 Sanborn Map shows the north portion of the Development Site as occupied by the current building.
		Surrounding Area: Conditions of the surrounding properties are similar to those depicted on the 1989 Sanborn Map.
2001 - 2007	No	Development Site: Conditions of the Development Site are similar to those depicted on the 1998 Sanborn Map.
		Surrounding Area: Conditions of the surrounding properties are similar to those depicted on the 1998 Sanborn Map.

Historical aerial photographs may be used to evaluate changes in land use and to identify visible areas of potential environmental concern. A search for historical aerial photographs depicting the Development Site and vicinity was conducted by researching available historical aerial photographs from www.historicaerials.com and other available resources. Aerial photographs from 1954 to 2013 indicate no changes on the site during that period.

Site Inspection

A site inspection was conducted by MEI on October 19, 2016.

MEI did not observe any fill ports or vent pipes for any underground storage tanks on the Development Site. The database review did not indicate the presence of any buried tanks on the Development Site.

MEI did not observe any aboveground storage tanks at the Development Site. A review of the NYCFD storage tanks files indicated that there is no "active" tank account for

Development Site. The database review did not indicate the presence of an aboveground tank on the Development Site.

MEI did not observe any hazardous substances or petroleum products at the Development Site.

MEI did not observe any non-hazardous substances and petroleum products in accessible areas of the Development Site.

MEI observed floor drains in the basement of the 767 East 133rd Street building at the Development Site. There was no apparent staining in the vicinity of the drains during the site inspection. MEI did not observe any storm water drywells in accessible areas of the Development Site.

MEI did not observe any PCB-containing equipment at the Development Site.

MEI did not observe any stains; corrosion; strong, pungent, or noxious odors; pools of liquid; stressed vegetation; stained soil or pavement; irrigation wells or groundwater monitoring wells; sumps, pits, ponds, or lagoons; or improper disposal of waste water at the Development Site.

All solid wastes generated on-site are carted away by a licensed waste hauler to an approved solid waste facility and are not disposed at on-site.

MEI observed that the painted surfaces inside the accessible areas of the building were in good condition, with no obvious chipping, flaking or peeling. A review of the New York City Department of Housing Preservation and Development's (NYCHPD), Code Enforcement Database indicated that are no outstanding lead based paint violation associated with the Development Site.

MEI did not observe any signs of asbestos-containing materials on the overhead pipes inside accessible areas of the Development Site. MEI did not observe any spray-on fireproofing in accessible areas of the Development Site. There was no boiler at the Development Site.

Regulatory Agency Database Findings

The project site does not appear in any of the federal or state databases that were reviewed, including the federal Environmental Protection Agency's (EPA's) National Priorities List, CERCLIS, the RCRA hazardous waste generator and hazardous materials treatment/storage/disposal facilities list; or the New York State Department of Environmental Conservation's (DEC's) Solid Waste Disposal Facilities database, chemical and petroleum bulk storage database, or leaking storage tank database.

Off-Site Findings

The review of regulatory agency databases did not identify and potential off-site sources of contamination that are considered likely to have impacted the environmental quality of the project site.

Several sites in the area are listed in one of more of the databases searched, including several sites that are listed as participating in the bulk storage programs, and several spills of fuel products were reported within the search radius. Regarding the fuel oil spills, the Phase I ESA concluded that the quantities, distance from the subject site, and nature of the product pose minimal risk of migration to the project site.

Conclusions

The site reconnaissance, interviews and review of records did not find the presence or possible presence of hazardous substances or petroleum related products in, on, or at the Development Site (**Projected Development Site 1**) due to any release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

NYC Department of Environmental Protection Review

The NYC Department of Environmental Protection (DEP) has reviewed the Phase I report to determine if any further analysis or remediation is required. In a letter from DEP to DCP dated August 1, 2017, DEP requested a Phase II workplan due to the potential for site contamination from past fuel oil spills and/or leaks.

In lieu of a Phase II workplan, an "E" designation for hazardous materials will be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the Development Site. The "E" designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance on the property. The Applicant will be directed to coordinate further hazardous materials assessments through the Mayor's Office of Environmental Remediation.

Therefore, in order to avoid any potential im¬pacts associ¬ated with hazardous materials, an (E) designation will be assigned for hazardous materials on the following properties:

Block 2562, Lots 49, 56, 58, and 60

The text for the (E) designations related to hazardous materials is as follows:

Task 1-Sampling Protocol

The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and

criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

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

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

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

With this (E) designation in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted. Therefore, there is no potential for the Proposed Actions to result in significant adverse impacts related to hazardous materials on Projected Development Site 1.

Projected Development Site 2

Projected Development Site 2 is not under the control or ownership of the Applicant and is not included in the proposed development plans for this project. An (E) designation for hazardous materials will be placed on the zoning map pursuant to Section 11-15 of the New York City Zoning Resolution for the Development Site. The (E) designation will ensure that testing and mitigation will be provided as necessary before any future development and/or soil disturbance on these properties. These applicant(s) should be directed to coordinate further hazardous materials assessments through the Mayor's Office of Environmental Remediation.

Therefore, in order to avoid any potential impacts associated with hazardous materials, an (E) designation (E-454) will be assigned for hazardous materials on the following properties:

Block 2562, Lot 41

The text for the (E) designations related to hazardous materials is as follows:

Task 1-Sampling Protocol

The applicant submits to OER, for review and approval, a Phase I of the site along with a soil, groundwater and soil vapor testing protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented. If site sampling is necessary, no sampling should begin until written approval of a protocol is received from OER. The number and location of samples should be selected to adequately characterize the site, specific sources of suspected contamination (i.e., petroleum based contamination and non-petroleum based contamination), and the remainder of the site's condition. The characterization should be complete enough to determine what remediation strategy (if any) is necessary after review of sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2-Remediation Determination and Protocol

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

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

A construction-related health and safety plan should be submitted to OER and would be implemented during excavation and construction activities to protect workers and the community from potentially significant adverse impacts associated with contaminated soil, groundwater and/or soil vapor. This plan would be submitted to OER prior to implementation.

With this (E) designation in place, no significant adverse impacts related to hazardous materials are expected, and no further analysis is warranted. Therefore, there is no potential for the Proposed Actions to result in significant adverse impacts related to hazardous materials on Projected Development Site 2.

16. TRANSPORTATION

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

- 50 peak hour vehicle trips;
- 200 peak hour subway/rail or bus transit riders (or 50 bus trips in a single direction on a single route during a peak hour); or
- 200 peak hour pedestrian trips.

The *CEQR Technical Manual* also states that if the threshold for traffic is not surpassed, it is likely that further parking assessment is also not needed.

To determine the potential for the Proposed Action to result in significant adverse impacts to traffic and parking, screening analyses were performed pursuant to the methodologies identified in the *2014 CEQR Technical Manual*. A total net increase of 209 dwelling units, 23,884 gross square feet of local retail space, a net decrease of 18,645 gross square feet of warehousing space and a net increase of 59 parking spaces (34 non-accessory spaces on Projected Development Site 1, and 16 residential accessory spaces and 9 commercial accessory spaces on Projected Development Site 2), was projected as part of the Proposed Action in the Port Morris neighborhood of Bronx Community District 1. It was determined that the Proposed Action would not result in significant adverse impacts as described below.

Methodology

To assess the potential effects of the Proposed Action on traffic and parking conditions, the appropriate screening analyses have been performed pursuant to the methodologies identified in the *2014 CEQR Technical Manual*.

Level One Screening

The Proposed Action generates a total of 209 dwelling units and 23,884 gross square feet of local retail space, exceeding the 200 DU and 15,000 gross square feet of local retail space threshold in Table 16-1. Further, as the proposed project involves a mix of land uses, it is appropriate to conduct a preliminary trip generation assessment for each land use.

Therefore, a Level One screening trip generation analysis has been performed, as described below.

Trip Generation Characteristics
The following assumptions were utilized in estimating likely future trips from each of the land uses resulting from the Proposed Action as summarized in **Tables 1 through 3**.

Residential
The rates of 8.075 and 9.6 (Weekday and Saturday) daily person trips per dwelling unit combined with the temporal distribution from the *2014 CEQR Technical Manual*, Table 16-2 was assumed for the project's residential component. The mode of transportation (modal split) was estimated based on Journey-To- Work (JTW) data from the 2011-2015 American Community Survey for the census tracts, 19, 23, 25, 27.01, 27.02, 31 and 33 in Bronx, directly affected by the Proposed Action. The modal splits and auto vehicle occupancy rates used for the residential development are summarized in **Table 1 and Exhibits 1 and 2.**

Local Retail
The rates of 205 and 240 (Weekday and Saturday) daily person trips per 1,000 gross square feet combined with the temporal distribution from the *2014 CEQR Technical Manual*, Table 16-2 was assumed for the project's local retail component. It was assumed that 25% of the project's generation of person trips produced by the local retail development would be considered linked trips. Person linked trips are trips that have multiple destinations, either within the proposed development site or between the development site and existing adjacent sites. The mode of transportation (modal split) and vehicle occupancy rates were based on the *Lower Concourse Rezoning and Related Actions FEIS (CEQR # 08DCP071X, dated May 8, 2009_Table 3.15-8)* as summarized in **Table 1** for local retail development.

Warehousing Space
The Warehousing trip generation rates and peak hour temporal distribution information were all based on the *Lower Concourse Rezoning and Related Actions FEIS (CEQR # 08DCP071X, dated May 8, 2009_Table 3.15-8)*. The mode of transportation (modal split) and vehicle occupancy rates were estimated based on Reverse-Journey-To- Work (RJTW) data from the 2006-2010 American Community Survey for the census tracts, 19, 23, 25, 27.01, 27.02, 31 and 33 in Bronx, directly affected by the Proposed Action. The modal splits and auto vehicle occupancy rates used for Warehousing space are summarized in **Table 1 and Exhibits 3 and 4.**

Delivery Vehicles
The rates of 0.06 and 0.02 (Weekday and Saturday) per dwelling unit, 0.35 and 0.04 (Weekday and Saturday) per 1,000 gross square feet for retail, and 0.67 and 0.03 per 1,000 gross square feet for Warehousing space, as reported in the *2014 CEQR Technical Manual,* and the *Lower Concourse Rezoning and Related Actions FEIS (CEQR # 08DCP071X, dated May 8, 2009_Table 3.15-8)* were used to estimate daily delivery vehicles for the Proposed Action as summarized in **Table 1.**

The Proposed Action would generate fewer than 50 vehicle trip ends in any peak hour, and based upon the *2014 CEQR Technical Manual Guidelines*, no further traffic or parking analysis is required as summarized in **Tables 1 through 3**.

Transit and Pedestrians

To determine the potential for the Proposed Action to result in significant adverse impacts to transit and pedestrians, screening analyses were performed pursuant to the methodologies identified in the *2014 CEQR Technical Manual*. Based on the trip generation estimates, summarized in **Table 1**, and the results of person trip analysis for each development components, shown in **Tables 2 and 3**, it was determined that the Proposed Action would not result in significant adverse impacts as described below.

Transit Trips

Subway
Based on trip generation analysis, the Proposed Action would generate 107, 86, 130, and 118 subway trips in the AM, Midday, PM, and Saturday Midday peak hours, respectively. The Proposed Action would generate fewer than 200 subway trips in any peak hour, and based upon the *2014 CEQR Technical Manual Guidelines*, no further subway analysis is required as summarized in **Table 2**.

Bus
Based on trip generation analysis, the Proposed Action would generate 28, 78, 55, and 59 bus trips in the AM, Midday, PM, and Saturday Midday peak hours, respectively. Within a quarter mile of the Project Area, there are a total of two (2) buses that make local stops in the vicinity of the development sites including the Bx17 and Bx33. The Proposed Action would generate fewer than 200 total bus trips and fewer than 50 bus trips in any one direction for any one-bus line in any peak hour, and based upon the 2014 CEQR Technical Manual Guidelines, no further bus analysis is required as summarized in **Table 2.**

Pedestrian Trips
Based on trip generation analysis, the Proposed Action would generate 240, 728, 501, and 545 pedestrian (subway, bus, walk, and other) trips in the AM, Midday, PM, and Saturday Midday peak hours, respectively. The Proposed Action would generate more than 200 pedestrian trips in the AM, Midday, PM, and Saturday Midday peak hours, as summarized in **Table 2**. The proposed development sites would include several pedestrian ingress/egress points and no pedestrian element would experience more than 200 pedestrian trips. Therefore, based upon the *2014 CEQR Technical Manual* guidelines, no further pedestrian analysis is required**.**

Conclusion

The results of the transportation analysis indicate that the proposed project would generate fewer than 50 net vehicle trip ends at any intersection during the Weekday AM, Midday, PM, and Saturday peak hour periods. No significant adverse impacts related to traffic and parking conditions are anticipated to occur. Similarly, the project would not result in 200 or more transit trips or 200 or more pedestrian trips at any pedestrian elements in the study area during any peak hour. Therefore, no significant adverse impacts related to transit and pedestrians would be expected.

No significant adverse impacts related to transportation would occur as a result of the proposed action, and no further assessment is warranted.

Exhibit 1: Modal Split

761-767 East 133rd Street, Bronx New York

2011-2015 ACS 5-Year, Journey-to-Work:

Census Tract	Total Workers	Car or Van Drive-Alone	Car Pool	Bus	Street Car	Subway	R.R.	Ferry	Taxi	Motor cycle	Bi cycle	Walk	Other Means	Worked @ Home	Total
19	**1027**	**197**	**54**	**81**	**2**	**542**	**31**	**0**	**4**	**0**	**16**	**31**	**5**	**64**	1,027
23	**1159**	**68**	**0**	**111**	**0**	**744**	**9**	**0**	**0**	**0**	**8**	**162**	**9**	**48**	1,159
25	**1657**	**209**	**46**	**197**	**0**	**839**	**0**	**0**	**0**	**0**	**29**	**293**	**0**	**44**	1,657
27.01	**1058**	**148**	**18**	**73**	**0**	**612**	**0**	**0**	**0**	**0**	**0**	**190**	**0**	**17**	1,058
27.02	**1483**	**76**	**45**	**81**	**23**	**1128**	**8**	**0**	**10**	**0**	**0**	**105**	**0**	**7**	1,483
31	**687**	**113**	**0**	**104**	**0**	**328**	**18**	**0**	**24**	**0**	**0**	**100**	**0**	**0**	687
33	**1063**	**117**	**49**	**129**	**0**	**565**	**33**	**0**	**0**	**8**	**0**	**143**	**0**	**19**	1,063
Total	8,134	928	212	776	25	4,758	99	0	38	8	53	1,024	14	199	8,134
		0.114	***0.026***	***0.095***	***0.00***	***0.585***	***0.012***	***0.00***	***0.00***	***0.00***	***0.01***	***0.126***	***0.00***	***0.024***	***1.00***

Source: 2011-2015 ACS 5-YEAR Journey-to-Work (JTW) for tract numbers 19, 23, 25, 27.01, 27.02, 31 and 33 in the Bronx. 2011-2015 ACS 5-Year, Journey-to-Work.

Modal Split summary	
Auto	**0.14**
Taxi	**0.00**
Bus	**0.10**
Subway	**0.60**
Walk	**0.13**
Other	**0.03**
Total	**1.00**

Exhibit 2: Vehicle Occupancy

2011-2015 ACS-5 Year, Vehicle Occupancy Rate:

Census Tract	Total	Drove alone	Total	2 Person Carpool	3 Person Carpool	4 Person Carpool	5-6 Person Carpool	7 or more Person Carpool	Total
19	251	197	54	28	21	5	0	0	54
23	68	68	0	0	0	0	0	0	0
25	255	209	46	46	0	0	0	0	46
27.01	166	148	18	18	0	0	0	0	18
27.02	121	76	45	0	45	0	0	0	45
31	113	113	0	0	0	0	0	0	0
33	166	117	49	49	0	0	0	0	49
Total	1,140	928	212	141	66	5	0	0	212
		928		71	22	1	0	0	1,022
Vehicle Occupancy =				**1.12**					

Sources: 2011-2015 ACS 5-YEAR Journey-to-Work (JTW) for tract numbers 19, 23, 25, 27.01, 27.02, 31 and 33 in the Bronx.

Exhibit 3: Modal Split Information

761-767 East 133rd Street, Bronx New York

2006-2010 ACS 5-Year, Reverse Journey-to-Work:

Census Tract	Total Workers	Car or Van Drive-Alone	Car Pool	Bus	Street Car	Subway	R.R.	Ferry	Taxi	Motor cycle	Bi-cycle	Walk	Other Means	Worked @ Home	Total
19	**6515**	**2635**	**645**	**820**	**0**	**1585**	**140**	**0**	**125**	**0**	**50**	**375**	**75**	**65**	6,515
23	**440**	**120**	**40**	**135**	**0**	**115**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**20**	440
25	**615**	**150**	**15**	**90**	**0**	**130**	**20**	**0**	**0**	**0**	**0**	**165**	**0**	**45**	615
27.01	**370**	**140**	**40**	**115**	**0**	**40**	**0**	**0**	**0**	**0**	**0**	**35**	**0**	**0**	370
27.02	**849**	**295**	**115**	**140**	**20**	**125**	**0**	**0**	**15**	**0**	**15**	**105**	**15**	**4**	849
31	**1110**	**250**	**155**	**300**	**0**	**210**	**10**	**0**	**55**	**0**	**0**	**50**	**0**	**80**	1,110
33	**992**	**325**	**35**	**160**	**0**	**225**	**4**	**0**	**0**	**8**	**0**	**135**	**0**	**100**	992
Total	10,891	3,915	1,045	1,760	20	2,430	174	0	195	8	65	875	90	314	10,891
		0.359	***0.096***	***0.162***	***0.00***	***0.223***	***0.016***	***0.00***	***0.02***	***0.00***	***0.01***	***0.080***	***0.01***	***0.029***	***1.00***

Source: 2006-2010 ACS 5-YEAR Reverse-Journey-to-Work (RJTW) for tract numbers 19, 23, 25, 27.01, 27.02, 31 and 33 in the Bronx.

Modal Split summary	
Auto	**0.46**
Taxi	**0.02**
Bus	**0.16**
Subway	**0.24**
Walk	**0.08**
Other	**0.04**
Total	**1.00**

Exhibit 4: Vehicle Occupancy Information

2006-2010 ACS-5 Year, Vehicle Occupancy Rate:

Census Tract	Total	Drove alone	Total	2 Person Carpool	3 Person Carpool	4 Person Carpool	5-6 Person Carpool	7 or more Person Carpool	Total
19	3280	2635	645	515	100	30	0	0	645
23	160	120	40	0	40	0	0	0	40
25	165	150	15	15	0	0	0	0	15
27.01	180	140	40	30	10	0	0	0	40
27.02	410	295	115	45	20	0	0	50	115
31	405	250	155	140	0	0	0	15	155
33	360	325	35	35	0	0	0	0	35
	4,960	3,915	1,045	780	170	30	0	65	1,045
		3,915		390	57	8	0	9	4,378
Vehicle Occupancy =			**1.13**						

Source: 2006-2010 ACS 5-YEAR Reverse-Journey-to-Work (RJTW) for tract numbers 19, 23, 25, 27.01, 27.02, 31 and 33 in the Bronx

Table 1 : Transportation Planning Factors
761-767 East 133rd Street, Bronx NY

Land Use:	Residential	Local Retail	Warehousing
	d.u.	Space-sq.ft.	Space-sq.ft.
Size/Units:	209	23,884	-18,645
	(1)	**(1)**	**(4)**
Trip Generation:			
Weekday	8.075	205	5.8
Saturday	9.6	240	1.4
	per d.u.	per 1,000 sq.ft.	per 1,000 sq.ft.
Linked-Trip:	0%	25%	0%
Temporal Distribution:	**(1)**	**(1)**	**(4)**
AM Peak Hour	10%	3%	17%
MD Peak Hour	5%	19%	14%
PM Peak Hour	11%	10%	13%
Saturday Midday Peak Hour	8%	10%	11.4%
	(2)	**(4)**	**(2A)**
Modal Split :	AM/MD/PM/Sat.Mid.	AM/MD/PM/Sat.Mid.	AM/MD/PM/Sat.Mid.
Auto	14%	3%	46%
Taxi	0%	2%	2%
Subway	60%	5%	24%
Bus	10%	10%	16%
Walk	13%	80%	8%
Other	3%	0%	4%
Total	100%	100%	100%
	(3)	(3)	(4)
In/Out Splits:	In/Out	In/Out	In/Out
AM Peak Hour	15/85	50/50	83/17
MD Peak Hour	50/50	50/50	50/50
PM Peak Hour	70/30	50/50	25/75
Saturday Midday Peak Hour	50/50	55/45	50/50
Vehicle Occupancy:	**(2)**	(4)	**(2A)**
Auto	1.12	1.6	1.13
Taxi	1.40	1.2	2
Truck Trip Generation:	**(1)**	**(1)**	**(4)**
Weekday	0.06	0.35	0.67
Saturday	0.02	0.04	0.03
	per d.u.	per 1,000 s.f.	per 1,000 s.f.
	(1)	**(1)**	**(4)**
AM Peak Hour	12%	8%	14%
MD Peak Hour	9%	11%	9%
PM Peak Hour	2%	2%	1%
Saturday Midday Peak Hour	9%	11%	9%
AM/MD/PM/Saturday Midday	50/50	50/50	50/50

Sources:

(1)-2014 CEQR Technical Manual, Table 16-2.
(2)-2011-2015 American Community Survey (ACS)-Journey to Work (JTW) Census Tract #'s 19, 23, 25, 27.01, 27.02, 31 and 33, Bronx.
(2A)-2006-2010 American Community Survey (ACS)-Reverse-Journey to Work (RJTW) Bronx Census Tract #'s 19, 23, 25, 27.01, 27.02, 31 and 33
(3)_P & Z
(4)-Lower Concourse Rezoning and Related Actions FEIs, CEQR # 08DCP071X.

Table 2 : Estimated Person Trips

761-767 East 133rd Street, Bronx NY

Land Use:	Residential d.u.	Local Retail sq.ft.	Warehousing sq.ft.	Total Demand		
Size/Units:	209	23,884	-18,645			
Peak hour Trips						
AM Peak Hour	169	110	-18	261		
Midday Peak Hour	84	698	-15	767		
PM Peak Hour	186	367	-14	539		
Saturday Midday Peak Hour	161	430	-3	587		
Person Trips:						
AM Peak Hour						
Auto	24	3	-8	18		
Taxi	0	2	0	2		
Subway	101	6	-4	102	107	Subway
Bus	17	11	-3	25	28	Bus
Walk	22	88	-1	109		
Other	5	0	-1	4		
Total Pedestrian	145	105	-10	240	240	Pedestrian
Midday Peak Hour						
Auto	12	21	-7	26		
Taxi	0	14	0	14		
Subway	51	35	-4	82	86	Subway
Bus	8	70	-2	76	78	Bus
Walk	11	558	-1	568		
Other	3	0	-1	2		
Total Pedestrian	73	663	-8	728	728	Pedestrian
PM Peak Hour						
Auto	26	11	-6	31		
Taxi	0	7	0	7		
Subway	111	18	-3	126	130	Subway
Bus	19	37	-2	53	55	Bus
Walk	24	294	-1	317		
Other	6	0	-1	5		
Total Pedestrian	160	349	-7	501	501	Pedestrian
Saturday Midday Peak Hour						
Auto	22	13	-1	34		
Taxi	0	9	0	9		
Subway	96	21	-1	117	118	Subway
Bus	16	43	0	59	59	Bus
Walk	21	344	0	365		
Other	5	0	0	5		
Total Pedestrian	138	408	-2	545	545	Pedestrian

Table 3 : Estimated Vehicular Trips

761-767 East 133rd Street, Bronx NY

Vehicular Trips	Residential	Local Retail	Local Retail	Total
AM Peak Hour				
Auto (Total)	21	2	-7	16
Taxi	0	2	0	2
Taxi (Balanced)	0	4	0	4
Truck	2	0	-2	0
Truck(Balanced)	2	0	-2	0
Total	23	6	-9	20
Midday Peak Hour				
Auto (Total)	11	13	-6	17
Taxi	0	12	0	11
Taxi (Balanced)	0	24	0	24
Truck	1	1	-1	1
Truck(Balanced)	2	2	-2	2
Total	13	39	-8	44
PM Peak Hour				
Auto (Total)	23	7	-6	24
Taxi	0	6	0	6
Taxi (Balanced)	0	12	0	12
Truck	0	0	0	0
Truck(Balanced)	0	0	0	0
Total	23	19	-6	36
Saturday Midday Peak Hour				
Auto (Total)	20	8	-1	27
Taxi	0	7	0	7
Taxi (Balanced)	0	14	0	14
Truck	0	0	0	0
Truck(Balanced)	0	0	0	0
Total	20	22	-1	**41**

17. AIR QUALITY

I. 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 frame work, as mandated by the State Environmental Review Act, follows the *New York City Environmental Quality Review 2014 Technical Manual (CEQR TM)*. The potential air quality impacts of the following emissions are estimated following the procedures and methodologies prescribed in the *CEQR TM*:

- 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 an atypical (*e.g.*, not at-grade) source of vehicular pollutants to significantly impact the proposed development.
- 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.
- 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.
- 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.
- The potential for facilities' malodorous emissions to unreasonably interfere with the proposed project's occupant's comfortable enjoyment of life or their property.

The Affected Area

The Affected Area is located in the Mott haven-Port Morris neighborhood of The Bronx, Community District #1. Six lots are affected by the proposed action: The Projected Development Site 1, the Applicant owned property, at 761, 763, and 767 East 133rd Street and 750 East 134th Street (Block 2562, Lots: 60, 58, 56, and 49 respectively), the Projected Development Site 2 at 740 East 134th Street (Block 2562, Lot 41), and 26% of the property at 759 east 133rd Street (Block 2562, Lot 61).

Lot 61 is developed with a two-story residential building and as mentioned only 26% of the lot would be affected by the rezoning. Therefore, this property is anticipated to remain in the future with the proposed actions, and thus will not be included in this EAS for analysis purposes.

The Projected Development Site 1 (Block 2562, Lots: 49, 56, 58, 60)

Projected Development Site 1 would facilitate a mixed-use, predominantly residential, nine-story building. The building would rise to a height of 85 feet with 148,801 gross square feet (gsf) of floor area, of which 130,128 gsf are residential space and 15,673 gsf are commercial retail space. The building would contain 34 accessory parking spaces. Projected Development Site 1 Reasonable-Worst Case Development Scenario (RWCDS) would facilitate a 115 feet high building.

The Projected Development Site 2 (Block 2562, Lot 41)

Projected Development Site 2 RWCDS would facilitate a mixed-use, predominantly residential, seven-story, 85 feet high building. The building would contain 85,500 gsf of floor area of which 65,976 gsf are residential space. The building would contain 16 accessory parking spaces.

Principal Conclusion

A screening analyses for carbon monoxide and particulate matter associated with project-generated traffic showed that a detailed analysis is not warranted. The project-generated traffic would be below the CEQR threshold.

The Projected Development Sites impacts associated with the boiler stack emissions (HVAC) on existing land uses screened out. The Proposed Actions impacts associated with the boiler stack emissions (HVAC), Projected Development Site 2 on projected Development Site 1, required a detailed analysis. A detailed analysis using AERMOD modeling was conducted using a Tier 3 - Plume Volume Molar Ratio Method (PVMRM) – module. The HVAC analysis concluded that fuel type would need to be restricted to the exclusive use of natural gas in the HVAC system of the Project Development Site 2 building and the minimum stack heights of both buildings would need to be specified. In

addition, the Project Development Site 2 would require specifying a stack setback distance from the taller building.

A field survey and online searches identified 44 sites that could potentially require New York City Department of Environmental Protection (NYCDEP) operational permits. Six operational permits were acquired through the NYCDEP Clean Air Tracking System database; Two for a dry-cleaning facility, five for three woodworking facilities, and one for a paint manufacturing facility. The dry-cleaning facility is non-vented and one of the woodworking facility is more than 400 feet from the Affected Area, and therefore, not analyzed under CEQR. The other operations were analyzed as a cumulative impact using AERMOD.

The New York Power Authority peaking hour power plant, Harlem River Yards Plant, Title V certificate was obtained from the NYSDEC. The 79 megawatts facility operates two gas fired turbines, two small gas-fired external combustion boilers, and emergency equipment. Emission rates were obtained from the Title V certificate, the *EPA AP-42*, and the EPA Air Markets Program Data. The parameters of the 107 feet stacks were obtained from the New York Power Authority Title V permit. A detailed analysis using AERMOD modeling was conducted.

The state facility permit of the New York Post printing facility was obtained from the NYSDEC. The facility equipment includes four Goss nonheatset offset lithographic printing presses and two 2,000 kW generators. The dispersion analysis combined the NY Post sources with the Harlem River Yards sources. No significant air quality impacts were predicted at these sources.

The land survey and assessment did not identified odor producing facilities within 1,000 feet of the Affected Area. The facility at 720 East 132nd Street (Block 2543, lot 60), owned by the Department of Sanitation of New York was identified as a garage, and a review of the *Port Morris/Bruckner Boulevard Rezoning 05DCP005X EAS,* a major study of adjacent property, showed that no odor was detected at the Affected Area.

II. AIR POLLUTANTS AND APPLICABLE STANDARDS/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 (NO_2) is a main concern related to the burning of natural gas. Emitted NOx from the burning of fossil fuel gradually convert to NO_2 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 NO_2 impact.
- Ozone (O_3) 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 (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$), where the subscript number refers to the diameter of the particulate matter in micrometers.
- Sulfur Dioxide (SO_2) 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 current 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
PM_{10}	Maximum 24-Hour Concentration	150 µg/m^3
Lead	Rolling 3-month Average	0.15 µg/m^3
Ozone	8-Hour Maximum	0.075 ppm
CO	Maximum 8-Hour	9 ppm
	Maximum 1-Hour	35 ppm
SO_2	Maximum 1-Hour Concentration	0.070 ppm (196 µg/m^3)
	Maximum 3-Hour Concentration	0.050 ppm (1,300 µg/m^3)
	Maximum 24-Hour Concentration	0.14 ppm (365 µg/m^3)
	Annual Arithmetic Means	0.03 ppm (80 µg/m^3)

NO_2 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 NO_2, 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 NO_2 NAAQS standard of 100 ppb (188 ug/m^3) 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 NO_2 concentrations that is comprised of 3 tiers: Tier 1, the most conservative approach, assumes a full (100%) conversion of NO_x to NO_2; Tier 2 applies a conservative ambient NOx/NO_2 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 NO_2 within the source plume using hourly ozone background concentrations. When Tier 3 is utilized, AERMOD generates 8th highest daily maximum 1-hour NO_2 concentrations or total 1-hour NO_2 concentrations if hourly NO_2 background concentrations are added within the model.

Per the *CEQR TM*, a Tier 1 approach is initially applied, followed by a Tier 2 application of NOx/NO_2 ratio of 80% to the NOx 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 NO_2 NAAQS were estimated.

The annual NO_2 standard is 0.053 ppm (100 ug/m^3). In order to conservatively estimate annual NO_2 impacts, a NO_2 to NOx ratio of 0.75 percent, which is recommended by the NYCDEP for an annual NO_2 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 TM* requires that projects subject to CEQR apply a $PM_{2.5}$ and CO 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 TM,* CO significant impacts are evaluated as follow:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average CO con-centration at a location where the predicted No-Action 8-hour concentration is equal to 8 ppm or between 8 ppm and 9 ppm; or
- An increase of more than half the difference between baseline (*i.e.*, No-Action) concentrations and the 8-hour standard, when No-Action concentrations are below 8 ppm.

Per the *CEQR TM*, stationary sources significant adverse $PM_{2.5}$ concentration is determined by:

- 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 $\mu g/m^3$ 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 2016 at the IS 52 and the Botanical Garden monitoring stations.

Table 17-2. Background Concentration at the IS 52 and the Botanical Garden Monitoring Stations (NYSDEC 2016 Report)

Pollutant	Averaging Period	Background Concentration	Monitoring Station
NO_2	Maximum 1-Hour Concentration	120.9 µg/m^3	IS 52
	Annual Arithmetic Average	39 µg/m^3	
$PM_{2.5}$	24-Hour Concentration	21.9 µg/m^3	
	Average of 3 Consecutive Annual Means	8.5 µg/m^3	
PM_{10}	Maximum 24-Hour Concentration	37 µg/m^3	
Ozone	8-Hour Maximum	0.068 ppm	
CO	Maximum 8-Hour	1.1 ppm	Botanical Garden
	Maximum 1-Hour	1.86 ppm	
Lead	Three Month Rolling Average	0.0061 µg/m^3	IS 52
SO_2	Maximum 1-Hour Concentration	28 µg/m^3	
	Annual Arithmetic Means	4.9 µg/m^3	

The *de minimis* criteria for CO and $PM_{2.5}$ were evaluated as described in the NYC Interim Guidelines and are presented below:

- 8-hour CO 3.7 ppm
- 24-hour $PM_{2.5}$ 6.55 µg/m^3
- Annual $PM_{2.5}$ 0.3 µg/m^3

III. MOBILE SOURCE ANALYSIS

Projects may result in significant mobile source impacts when they create mobile sources of pollutants, change traffic pattern, 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 (screen out) are not expected to have a mobile source impact. Projects that require a detailed analysis, model the ambient air CO and PM_{10}/$PM_{2.5}$ concentrations—the mobile source pollutants of concern—and compare the modeled concentrations with the applicable air quality standard.

Mobile Source Screen

Project-Generated Traffic

Per the *CEQR TM*, localized increases in CO and $PM_{2.5}$ levels may result from increased vehicular traffic volumes and changed traffic patterns in the study area as a consequence of the proposed development. As such, screening analyses for CO and $PM_{2.5}$ were carried

out to determine whether the project-generated traffic have the potential to cause significant adverse impact. The project-generated traffic is the vehicular trips in any given hour, determined as the difference between the Future With No-Action and the Future With Action.

For this area of the City, the threshold volume for a detailed analysis of CO concentration, using MOVES2014 and CAL3QHC, is an increment of 170 vehicles. $PM_{2.5}$ threshold criterion is an increment of applies heavy-duty diesel vehicles (HDDVs) screen.

As outlined in the Transportation section, the maximum trip generation increment between the Future With No-Action and the Future With Action does not exceeds the threshold of 170 vehicular trip generation.

According to CEQR TM, $PM_{2.5}$ detailed analysis is required if a threshold criterion, determined by project-generate peak hour HDDVs traffic or its 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 HDDV for paved roads with 5,000 vehicles;
- 19 or more HDDV for collector roads;
- 23 or more HDDV for principal and minor arterials; or
- 23 or more HDDV for expressways and limited access roads.

As outlined in the Transportation section, the maximum HDDVs trip generation increment between the Future With No-Action and the Future With Action does not exceeds the threshold criterion for paved roads with 5,000 vehicles—the most stringent road type criterion. 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.

Parking Garage

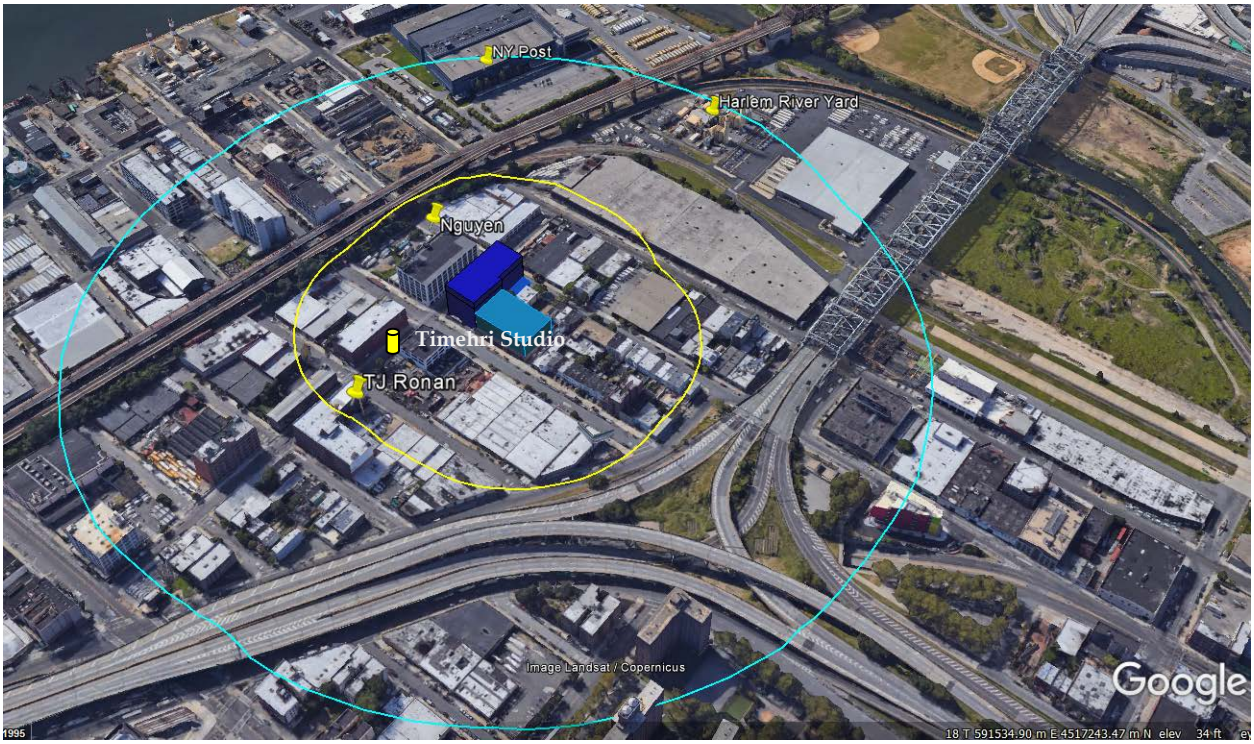
Based on CEQR recommendations, the maximum capacities of parking garages are evaluated with a threshold criterion to predict whether the potential impacts associated with mobile source emissions are significant. The threshold criteria level, per CEQR guidelines, is 85 off-street parking spaces. If the threshold is met or exceeded, a detailed analysis is warranted.

The Project Development Site 1 would contain a 34 spaces parking garage and the Projected Development Site 2 would contain a 16 spaces parking garage. These parking facilities capacities do not exceed the 85 parking spaces threshold criterion. Therefore, no detailed air quality analysis is required, and no significant mobile source air quality impacts are expected as a result of these actions.

IV. STATIONARY SOURCE ANALYSIS

As outlined in the *CEQR TM*, stationary sources, which are analyzed below, are defined as HVAC systems, industrial sources, odor producing facilities, and major/large sources. The analysis considered the potential impact of the projected developments' HVAC systems and the potential impact of existing industrial sources within 400 feet of the Affected Area, and odor producing facilities and major/large sources within 1,000 feet of the Affected Area. Figure 17-1 displays the Affected Area with 400-foot and 1,000-foot buffer zones, and the major/large and industrial sources within these buffer zones that have the potential to impact the ambient air quality of the Affected Area.

Figure 17-1. The Affected Area with a 400 and a 1,000 foot buffer zones and the two major sources and two industrial sources



Three scenarios were considered for the stationary source analysis: (A) the Proposed Actions HVAC systems potential impact on each other (project-on-project impact) and on existing land uses (project-on-existing impact); (B) the combined existing industrial sources potential impact on the Affected Area; and (C) Major sources including odor producing facilities potential impact on the Affected Area.

A. HVAC SYSTEM ANALYSIS

Screening Analysis

Based on CEQR guidelines, a preliminary screening analysis is to be conducted as a first step to predict whether the potential impacts of the heat and hot water systems 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 Project Development Site 1 and the Projected Development Site 2 abuts. Therefore, the screening analysis is not applicable, and a detailed dispersion analysis was conducted to estimate the impact of the Project Development Site 2—the lower building—on the Projected Development Site 1.

For the purpose of the project-on-existing analysis, the Projected Development Site 1 was considered to facilitate a 93 feet high building. A search of existing land uses showed that no other building is of similar or greater height within 400 feet. Therefore, the emissions from the Projected Development Site 1 would not significantly impact the other site or existing land uses. An E-Designation specifying the Projected Development Site 1 stack height was written.

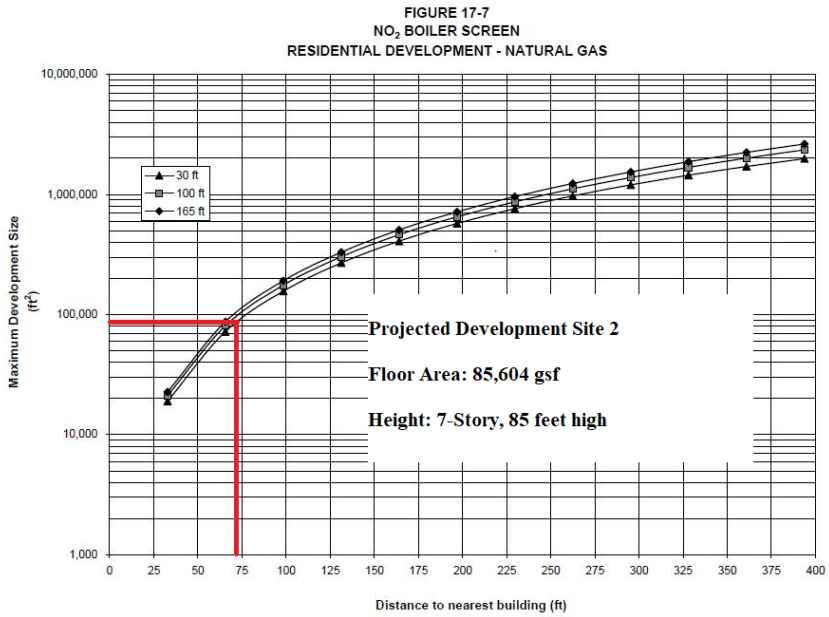
The Project Development Site 2 is expected to use natural gas for its heat and hot water system, therefore a screening analysis was performed for natural gas use and environmental designations added to specify use of natural gas only.

Per the *CEQR TM*, the total square footage of Projected Development Site 2 was used in the analysis and the CEQR natural gas nomograph depicted on Figure 17-7 of the *CEQR TM* Appendix for a 30-foot stack height was applied (as the 30 feet curve height is closest to but not higher than the proposed stack height, as the CEQR screening procedure requires). This nomograph depicts the size of the development versus distance below which the potential impact can occur, and provides a conservative estimate of the threshold distance.

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.

Figure 17-2 depict the screening analysis of the Projected Development Site 2 on existing land uses, where the square footage of the Projected Development Site 2 is 85,604 gsf.

Figure 17-2. The Projected Development Site 2 Minimum Distance – HVAC Screen Nomograph for Natural Gas Use



The screening analysis nomograph shows that a detailed analysis would be required for any existing land uses that is 85 feet or higher and within 72 feet of the Project Development Site 2.

A review of existing land uses within 400 feet of the Affected Area via the New York City Zoning and Land Use application (ZoLa), and Google imaging map showed that there is no existing building similar to or greater in height within a radius of 72 feet of the Project Development Site 2. Therefore, the emissions from the Projected Development Site 2 would not significantly impact any of the existing land uses.

HVAC Detailed Analysis

A dispersion modeling analyses were conducted to estimate impacts from the stack emissions of the Project Development Site 2 on the Projected Development Site 1 using the latest version of EPA's AERMOD dispersion model 16216r. In accordance with CEQR guidance, these analyses were conducted assuming stack tip downwash, urban dispersion surface roughness length of 1.0 meter, elimination of calms, and with and without downwash effect on plume dispersion. AERMOD's Plume Volume Molar Ratio Method (PVMRM) module was utilized for the 1-hour NO_2 analysis to account for NOx to NO_2 conversion.

HVAC Emissions

As mentioned, Projected Development Site 2 would be heated by natural gas, therefore the pollutants of concern are NO_2 and $PM_{2.5}$. These emission rates were estimated as follows:

- Emission rates of NOx and $PM_{2.5}$ were calculated based on annual natural gas usages corresponding to the residential and non-residential gross floor areas, EPA AP-42 emission factors for natural gas combustion in small boilers, and gross heating values of natural gas (1,020 Btu per million cubic feet).
- $PM_{2.5}$ emissions from natural gas combustion accounted for both filterable and condensable particulate matter.
- The natural gas fuel usage factor (59.1 cubic foot per square foot per year) was used to estimate the annual natural gas usage for the residential portion of the development, and was calculated by dividing the energy consumption rate of 60.3 thousand Btu/ft^2 by the natural gas heating value of 1020 Btu/ft^3.
- The natural gas fuel usage factor (45.2 cubic foot per square foot per year) was used to estimate the annual natural gas usage for the non-residential portion of the development per the *CEQR TM Appendix* Table C25.
- The annuals natural gas usage of both the residential and non-residential usages were combined to estimate the total annual natural gas usage of the Projected Development Site 2.

Table 17-3 provides the NO_2 and $PM_{2.5}$ emission rates, both short-term and annual, for the Project Development Site 2. The diameter of the stack and the exhaust's exit velocity was estimated based on values obtained from the NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million Btu per hour). Boiler sizes were estimated based on the assumption that all fuel was consumed during the 100 day (or 2,400 hour) heating season. The stack exit temperature was assumed to be 300°F (423°K), which is appropriate for boilers.

Table 17-3. Estimated Short-term and Annual Emission Rates of The Project Development Site 2

Projected Development Site 2	**Floor Area**	**NO_2 Emission factor (2) g/sec**		**$PM_{2.5}$ Emission factor (1) g/sec**	
Building usage	**ft^2**	**1-hour**	**Annual**	**24-hour**	**Annual**
Residential	65,976	2.51E-02	6.88E-03	1.91E-03	5.23E-04
Non-residential	19,524				

HVAC Meteorological Data

All analyses were conducted using the latest five consecutive years of meteorological data (2012-2016). Surface data was obtained from La Guardia Airport and upper air data was obtained from Brookhaven station, New York. Data was processed by Lakes Environmental Software, Inc. using the current EPA AERMET version (16216) and EPA procedures. These meteorological data provide hour-by-hour wind speeds and directions, stability states, and temperature inversion elevations over the 5-year period.

Meteorological data were combined to develop a 5-year set of meteorological conditions, which was used for the AERMOD modeling runs and Anemometer height of 9.4 meters was specified per Lakes Environmental Software Inc.

Per Lakes Environmental Inc., $PM_{2.5}$ special procedure which is incorporated into AERMOD calculates concentrations at each receptor for each year modeled, averages those concentrations across the number of years of data, and then selects the highest values across all receptors of the 5-year averaged highest values.

HVAC Background Concentrations

For the purpose of conducting the 1-hour NO_2 Tier 3 analysis, hourly NO_2 and hourly ozone background concentrations were obtained from the NYC Department of City Planning. This data was developed from available monitoring data collected by the New York State Department of Environmental Conservation (NYSDEC) at the Queens College monitoring station for the 5 consecutive years (2012-2016), and compiled into AERMOD's required hourly emission (NO_2) and concentration (ozone) data format.

The NO_2 hourly background concentration was added as a source in AERMOD. This produces the combined impact of both the building stack's emission and the background concentration at corresponding hours.

HVAC AERMOD Setting

AERMOD calculates concentrations according to the dispersion option, pollutant and averaging time, and output specified in the model, where the model is capable of handling multiple sources in a single run. As such, each pollutant was modeled separately and two stacks, one for the short-term and the other for annual averaging times, were created. Each stack was placed in a different source group and AERMOD outputs concentration for each group is read from the output file as follows:

> $PM_{2.5}$: The Summary of Maximum 1st-Highest 24-Hr Results Averaged Over 5 years; Group ID 24Hour.

NO_2: The Summary of Maximum 8th-Highest Max Daily 1-Hr Results Averaged Over 5 years; Group ID 1_Hour.

In addition, all dispersion analyses used the calculated emission factors, Building Profile Input Program (BPIP) was run with the downwash effect enabled, and all models specified elevated terrain and the default urban roughness coefficient of 1.0 meter with a population of 2,000,000. The other parameters of each pollutant corresponding to the scenario modeled were:

1-hour NO_2: NAAQS option enabled, Tier 3 conversion method and 8th highest value output. The stack's equilibrium ratio and in-stack ratio were set to 0.3 and 0.75 respectively.

Annual NO_2: NO_2 pollutant selected and Report Maximum Annual Average for Each Met Year enabled.

24-hour $PM_{2.5}$ NAAQS: Based on a multi-year average of ranked maximum daily values enabled and 1st highest value output.

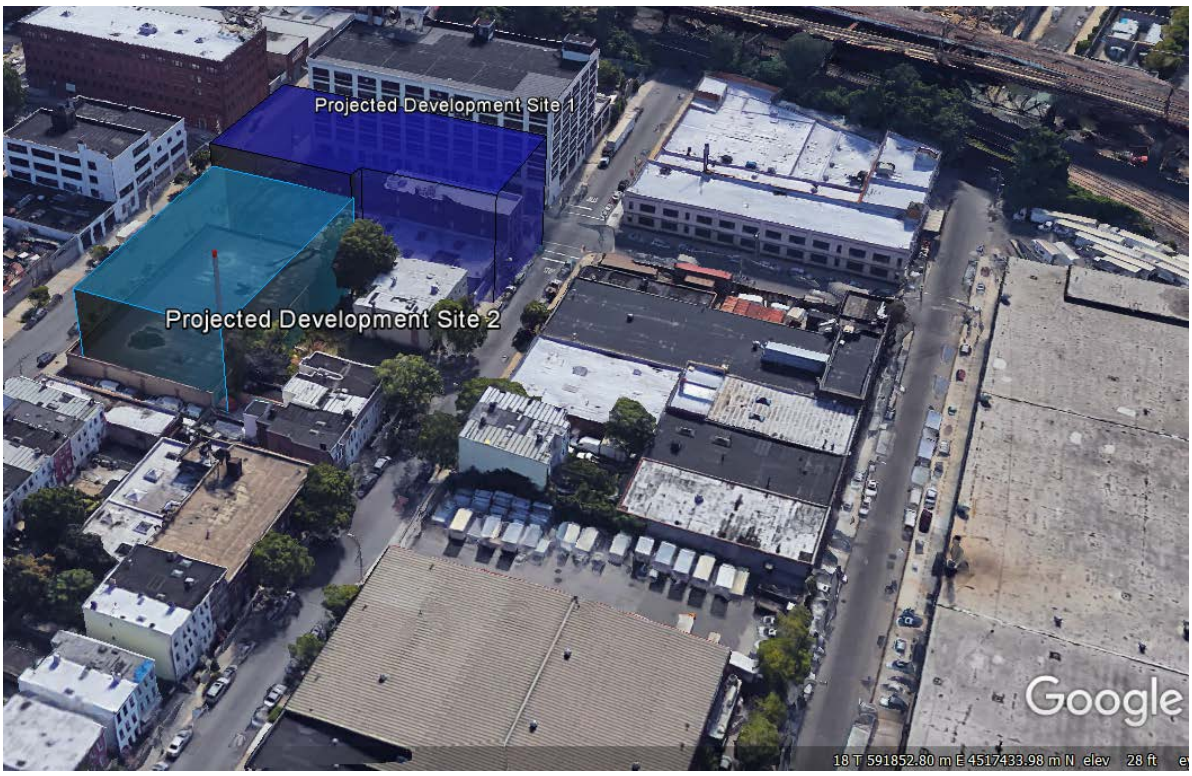
Annual $PM_{2.5}$: $PM_{2.5}$ pollutant selected and Report Maximum Annual Average for Each Met Year enabled.

HVAC Stack and Receptor Locations

The New York City Building Code (Building Code) requires that a rooftop stack should be at least 10 feet away from the edge of the roof and at least 3 feet higher than the roofline. As such, the HVAC stacks on the Project Development Site 2 was located 10 feet from the edge of the roof, and as close as possible to the Projected Development Site 1 building. If exceedances of the $PM_{2.5}$ or NO_2 significant impact criteria were predicted at this stack location, set-back distances were increased until the threshold distance at which the projected building would pass the analysis was found.

Figure 17-2 displays AERMOD's buildings configuration plotted in Google Earth to illustrate the stack's location of the project-on-project model, where the Projected Development Site 1 is shaded in blue and the Projected Development Site 2 is shaded in light blue. As seen, the stack was located at a distance of 90 feet from the lot line facing Willow Avenue and 3 feet above the roof. An E-designations specify this location and height.

Figure 17-3. AERMOD's Projected Development Sites plotted in Google earth.



Receptors on the receiving building were placed at 10-foot increments on all floor levels, and conservatively at 5 feet below the roof line.

HVAC Results of Dispersion Analyses

The dispersion analyses results were achieved using a stack setback distance of 90 feet. Result of the project-on-project HVAC NO_2 and $PM_{2.5}$ analyses are shown in Table 17-4.

Table 17-4. Detailed HVAC Analyses Results

Project Site ID	Projected Development Receptor Sites	24-hr $PM_{2.5}$ Impacts	Annual $PM_{2.5}$ Impacts	1-hr NO_2 Impacts (1)	Annual NO_2 Impacts (2)
		µg/m³	µg/m³	µg/m³	µg/m³
Site 2	Site 1	5.82	0.20	139.9	41.8
Threshold Criteria µg/m³		**6.55**	**0.3**	**188**	**100**

Notes:

1. Tier 3 approach background concentration added as a source (AERMOD output included background concentration).
2. Total annual concentration of NO_2 include background concentrations value of 39.2 µg/m³.

The results are compared with the 24-hour/annual $PM_{2.5}$ significant impact criteria, and the 1-hour/annual NO_2 NAAQS.

The $PM_{2.5}$ impacts are less than the significant impact criteria for $PM_{2.5}$ of 6.55 µg/m^3 and 0.3 µg/m^3, respectively. The NO_2 1-hour averaging time required a Tier 3 approach for the without building wake effect scenario. As seen in Table 17-4, both the 1-hour and annual NO_2 concentrations estimated are less than the 1-hour and annual NO_2 NAAQS of 188 µg/$m^3$and 100 µg/m^3, respectively.

Therefore, with (E) Designations in place, the emissions from the Projected Development Site 2 would not significantly impact the Projected Development Site 1.

(E) Designation

The HVAC analysis concluded that fuel would need to be restricted to the exclusive use of natural gas in the HVAC system. In addition, the minimum stack height and location would need to be specified.

The (E) Designation language is as follows:

Block 2562, Lot 49, 56, 58, 60 (Project Development Site 1): Any new residential or commercial development on the above-referenced property must ensure that the heating, ventilating, air conditioning (HVAC) and hot water systems stack be located at the highest tier, or at a minimum of 93 feet above grade to avoid any potential significant adverse air quality impact.

Block 2562, Lot 41 (Project Development Site 2): Any new residential or commercial development on the above-referenced property must exclusively use natural gas as the type of fuel for heating, ventilating, air conditioning (HVAC) and hot water systems to avoid any potential significant adverse air quality impacts. Stack shall be located at the highest tier, or at a minimum of 88 feet above grade, and at least 90 feet from the lot line facing Willow Avenue to avoid any potential significant adverse air quality impact.

B. INDUSTRIAL SOURCES

As outlined in the *CEQR TM*, projects that would introduce new uses near industrial sources may result in potentially significant adverse air quality impacts. Industrial sources are identified as commercial, industrial, or processing facilities that are likely to have NYC operational permits. The study area considers industrial sources within 400 feet of the Affected Area. Emission points located at distance greater than 400 feet from the Affected Area are not considered to pose a potential significant adverse impact.

Land Survey Methodology

Information regarding potential emissions of toxic air pollutants from existing industrial sources within 400 feet of the Affected Area were developed using the following procedure:

> A study area was developed that includes all industrial facilities with potential air toxic emissions located within 400 feet of the Project Area using ZoLa;

New York City's Open Accessible Space Information System Cooperative (OASIS), 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; and

A formal request with blocks and lot numbers necessary to identify industrial source permits within 400 feet of the Affected Area was submitted to NYCDEP.

The result of the study identified 44 commercial, industrial, or processing facilities that are likely to have NYC operational permits and a list of these facilities is presented in the Table 17-5a and 17-5b.

Table 17-5a. Industrial Sites Identified in the Study.

Block	Lot(s)	Address	Use	Permits
2543	60	720 East 132nd Street	Department of Sanitation of New York Garage	NO RECORD FOUND
2561	15	690 East 133rd Street	Warehouse	NO RECORD FOUND
2561	19	700 East 133rd Street	Heating Corporation	**CANCELLED** – Application CA303591
2561	21	704 East 133rd Street	AcouSta Corp.	NO RECORD FOUND
2561	25	708 East 133rd Street	Electrical Supply	NO RECORD FOUND
2561	39	746 East 133rd Street	Plumbing & Heating	NO RECORD FOUND
2561	42 50, 58	767 East 132nd Street	Window Company	NO RECORD FOUND
2561	46	766 East 133rd Street	Office/Warehouse	NO RECORD FOUND
2561	47	768 East 133rd Street	Storage Yard	NO RECORD FOUND
2561	56	759 East 132nd Street	Leader Sheet Metal	**CANCELLED** – Application PA044499
2561	60	747 East 132nd Street	Electrical Contractor	NO RECORD FOUND
2561	78	697 East 132nd Street	Glass & Mirror	NO RECORD FOUND
2562	21	696 East 134th Street	Water Services	NO RECORD FOUND
2562	38	728 East 134th Street	Warehouse	NO RECORD FOUND
2562	41	740 East 134th Street	Development Site 2	**EXPIRED** – Application PA057983
2562	49	750 East 134th Street	Development Site 1	NO RECORD FOUND
2562	56	767 East 133rd Street	Development Site 1	NO RECORD FOUND
2562	58	763 East 133rd Street	Development Site 1	NO RECORD FOUND
2562	75	721 East 133rd Street	Electrical Contractor	**CANCELLED** – Applications CA054693, PA012888, PA012988, PA006490, CA398484, PA006390, **EXPIRED** – PA065084
2563	12, 15	701 East 134th Street	Waterproofing	**EXPIRED** – Application CA315188

Table 17-5b. Industrial Sites Identified in the Study.

Block	Lot(s)	Address	Use	Permits
2563	17	688 East 135th Street	Warehouse	NO RECORD FOUND
2563	21	696 East 135th Street	Flooring Wholesale	NO RECORD FOUND
2563	26	704 East 135th Street	Auctioneer	**CURRENT** – Application CR673514, **CANCELLED** – Application CA377690, **EXPIRED** – Application CB018309
2563	28	708 East 135th Street	Audio Visual Services	NO RECORD FOUND
2563	29	710 East 135th Street	Warehouse	NO RECORD FOUND
2563	31	157 Willow Avenue	Storage Yard	NO RECORD FOUND
2563	40	755 East 134th Street	Timehri Studio (Woodworking)	**EXPIRED** – Applications PB047308, PB047408, CA091298, CA091898, CA091998, CA092098, PA007899 **CANCELLED** – Applications PA065985, PA066085, CA268187, PA037284, PA037384, PA037484, PA087384, PA144173, CA312484, PA025394, PA037184, PA043698, CA155597, CA675486, CA675586, PA009198, PA009298, PA009398, PA036198, CA166683
2563	56	703 East 134th Street	Shredding Warehouse/Recycling	NO RECORD FOUND
2564	38	711 East 135th Street	Commissary Kitchen	**CANCELLED** – Applications PA014083, PA014183, PA014283,
2564	40	NO RECORD	Parking	NO RECORD FOUND
2564	45	726 East 136th Street	Four Winds (Digital Signage)	NO RECORD FOUND
2564	47	728 East 136th Street	Vitanza Furniture (Woodworking)	**CURRENT** – Application PA039199 **EXPIRED** – Application CA179590
2564	51	749 East 135th Street	T J Ronan (Paint Manufacture)	**CURRENT** – Applications CA380392, PA026896 **CANCELLED** – Application CA085383 **EXPIRED** – Applications PA026996, PA027096
2564	58	725 East 135th Street	Restoration Corporation	NO RECORD FOUND
2564	61	717 East 135th Street	Flooring & HVAC	NO RECORD FOUND
2564	63	715 East 135th Street	Plumbing & Heating	NO RECORD FOUND
2584	1	780 East 133rd Street	Tavern/Distillery	NO RECORD FOUND
2585	1	781 East 133rd Street	Nguyen Custom Woodworking	**CURRENT** – Applications PB012009, PB022309, PB017512, PB017612 **SUBMITTED** – Applications CB036705, CB036805, CB036905, **CANCELLED** – Applications PA013083, PB046303, PB046403, PA030199, CB219103, PA030099, PB009200, PA046197, PA046297, PA046397, CA001184, PA032971, CA008697 **EXPIRED** – Applications CB037905, CB038005, CB038105, CB037005
2586	1	780 East 135th Street	Residential Loft (Under Conversion)	**CANCELLED** – Applications PA150873, PA151073 **EXPIRED** – Applications CA123393
2586	12	801 East 134th Street	Towing Company	NO RECORD FOUND
2586	14	806 East 135th Street	Lumber Company	**CANCELLED** – Applications PA030491, PA030591
2586	19	811 East 134th Street	Warehouse	NO RECORD FOUND
2586	65	805 East 134th Street	Warehouse	NO RECORD FOUND
2587	69	801 East 135th Street	Lumber Company	NO RECORD FOUND

The permits listed in Table 17-5a,b show operational permits and boiler permits, where processing permits start with a "P" and combustion permits with a "C".

As previously mentioned, the industrial source analysis commercial, industrial, or processing facilities that are likely to have NYC operational permits. These include facilities that operate with active or expired operational permits. As presented in Table 17-5, 44 facilities were identified in the study. 4 of these facilities have current operational permits from the NYCDEP, and 1 facility operates with an expired NYCDEP permit. Another facility, Artistic Office Products (Block 2562, Lot 75), with the expired permit PA065084, has moved to Hauppauge, NY. An electrical contractor occupies the facility at 721 East 133rd Street now. As such, emission associated with permit PA065084 were not included in the analysis. Empire Safe Co at 740 East 134th Street (Block 2562, Lot 41) has an expired application PA057983. The facility is located at Projected Development Site 2, therefore not included in the industrial source analysis. As seen in Table 17-5, no other likely air emitter is located in the 400-foot area of assessment.

A review of the EPA Envirofacts database identified Empire Safe Co at 740 East 134th Street and 132nd Street Associates Building as possible emitters. Empire Safe Co. facility is Projected Development Site 2. The 132nd Street Associates Building was identified as the garage of the waste transfer station at 720 East 132nd Street (Block 2543, Lot 60), located 321 feet from the proposed project. This facility is discussed in the Odor Producing Facilities section. The air quality analysis addressed this facility under the odor producing facilities section.

The 5 facilities with NYCDEP operational permits are:

- Formular 1 Cleaners at 780 133rd Street – Permits: PB017512 and PB17612
- Vitanza Furniture Finishing Co. at 728 east 136th Street – Permit: PA039199
- T.J. Ronan Paint, Co. at 749 East 135th Street – Permit: PA026896
- Nguyen Custom Woodworking at 781 East 133rd Street – Permits: PB012009 and PB022309
- Timehri Studios 753 East 134th Street – Permits: PB047308 and PB047408

Formular 1 Cleaners

Formular 1 Cleaners (Block 2586, Lot 1), a dry-cleaning facility, has two active operational permits for two 4th generation, totally enclosed, machines. The emission associated with these machines are non-vented, hence pollutants are not being emitted into the outside air. Per NYCDEP, dry cleaning facilities are not analyzed under CEQR.

Vitanza Furniture Finishing Co.

Vitanza Furniture Finishing Co. (Block 2564, Lot 47) has a paint spray booth operation. Operational permit PA039199 shows the facility and its stack location. The facility is

situated 440 feet from the Affected Area. Therefore, no significant toxic air quality impacts are expected as a result of this operation to the proposed development.

T.J. Ronan Paint, Co.

T.J. Ronan Paint, Co. (Block 2564, Lot 51) has an operational permit for paint manufacturing including raw material mixing and color mixing. The operational permit identified the 3rd floor's window mounted exhaust fan as the production area emission point (EP 01). The emission point, 384 feet from the Affected Area, is located at the building's west wall, 53 feet from the lot line facing 135th street, and at a height of 30 feet above grade.

As outlined in the certificate, the operation is active 8 hours per day, 260 days per year, and the stack's parameters are 5,000 CFM at 60 degree Fahrenheit. The 16 contaminants listed with their Chemical Abstracts Service (CAS) number, their short-term and annual emission rate, and their NYSDEC guideline criteria, SGC and AGC, are displayed in Table 17-6, where the contaminants names were obtained from the NYS DEC DAR-1 table. The certificate has the chemical identified by the CAS number 11-76-2 with the DAR-1 name Butoxyethanol, 2 lists twice. As such, the two emission rates entries were added.

Table 17-6. T J Ronan Emission Rates and the SGC and AGC Threshold Criteria

CAS Number	Pollutant Name	1-hour EF lb/hr	1-hour g/s	Annual lb/yr	Annual g/s	SGC ug/m3	AGC ug/m3
NY075-00-0	Particulates	1.10E-01	1.39E-02	229	3.29E-03	PM2.5	
67-63-0	Isopropyl Alcohol	2.00E-02	2.52E-03	225.8	3.25E-03	98000.0	7000.0
67-64-1	Acetone	1.00E-03	1.26E-04	2	2.88E-05	180000.0	30000.0
67-56-1	Methanol	1.30E-01	1.64E-02	2	2.88E-05	33000.0	4000.0
71-63-3	Butyl Alcohol, N-	1.30E-01	1.64E-02	2	2.88E-05	0	1500.0
111-76-2	Butoxyethanol, 2	1.35E-01	1.70E-02	43.6	6.27E-04	14000.0	1600.0
1330-20-7	Xylene M. O&P MIXT	3.90E-02	4.91E-03	52	7.84E-03	22000.0	100.0
100-41-4	Ethyl Benzene	6.90E-03	8.69E-04	82	1.18E-03	0	1000.0
108-10-1	Methyl Isobutyl Ketone	9.60E-03	1.21E-03	14.5	2.09E-04	31000.0	3000.0
763-69-9	Ethyl Ethoxy Propionate	5.70E-03	7.18E-04	12	1.73E-04	140.0	64.0
123-42-2	Diacetone Alcohol	3.70E-03	4.66E-04	8	1.15E-04	0	570.0
2807-30-9	Ethylene Glycol Mono Propyl Ether	1.80E-03	2.57E-04	4	5.75E-05	370.0	200.0
64742-94-5	Naphtha Heavy Aromatic	5.40E-03	6.80E-04	11	1.58E-04	0	100.0
64742-89-8	Naphtha Light Aliphatic	1.40E-02	1.76E-03	29	4.17E-04	0	3200.0
64742-95-6	Naphtha Light Aromatic	1.10E-01	1.39E-02	229	3.29E-03	0	100.0
108-88-3	Toluene	1.00E-02	1.26E-03	21	3.02E-04	37000.0	5000.0

As a conservative measure, particulate emission (NY075-00-0) were assumed to be both $PM_{2.5}$ and PM_{10} as the particle size distribution of paint manufacturing is not known.

Nguyen Custom Woodworking

Nguyen Custom Woodworking (Block 2585, Lot 1) has two operational permits: PB012009H for a paint spray booth, and PB022309R for woodworking equipment. The facility is situated on the 5th floor of the building located at the east side of Willow Avenue and directly across the street from the Affected Area. The emissions' parameters associated with the facility are:

Woodworking Emission (PB022309R)

The woodworking equipment are connected to 8 dust collectors with a 99.9% control efficiency. The pollutant associated with the activity is NY075-00-0 CAS number which is $PM_{2.5}$ and PM_{10} combined. The equipment operates 8 hours per day and 250 days per year. Per the certificate, the equipment emits indoor. However, a review of Google Street Map shows three window vents at different walls. As such, emission from the woodworking activity was assumed to distribute evenly among the 3 window vents. The vents exit velocities of 3,583 cubic feet per minute (C.F.M), 5-inch diameters, and 75 degree Fahrenheit were procured from the certificate.

The source emission rate, as specified in the operational permit, is 0.003 pounds per hour (lb/hr) and 2.0 pounds per year (lb/yr). The particle size distribution of 32.1 percent and 14.3 percent of $PM_{10}/PM_{2.5}$ respectively were obtained from the EPA AP-42, Appendix B1, Page B-1.48, Particle Size Distribution Data and Sized Emission Factors for Selected Sources, Table Woodworking Waste Collection Operations: Belt Sander Hood Exhaust Cyclone. Table 17-7 shows the woodworking equipment emission rates.

Table 17-7. $PM_{10}/PM_{2.5}$ Estimated Emission rate from Woodworking

Contaminant	Permitted Emission Rate		Fraction of Particle Size	Emission rate			
				Short-term		Annual	
	lb/hr	lb/yr	Percent	lb/hr	g/s	lb/yr	g/s
PM_{10}	0.003	2	32.1	9.63E-04	1.21E-04	6.42E-01	9.23E-06
$PM_{2.5}$			14.3	4.29E-04	5.41E-05	2.86E-01	4.11E-06

Spray Booth Emission (PB12009H)

The emission associated with PB12009H operational permit is from an industrial spray booth operation with an activity rate of 8 hours per day and 250 day per year. The operation consumes 1.0 gallon per hour and 8.0 gallons in a maximum of 8 hour day. The coating is applied by an Air Atomizing Handgun and emission of solids are reduced by a custom filter with an 85 percent control efficiency. The 34 inch diameter through the wall

stack exhausts at a rate of 12,000 CFM and at 75 degree Fahrenheit. The NYCDEP permit situate the stack 54 feet above grade and at the south-east corner of the building.

The contaminants listed in the certificate are solids (NY identification number NY075-00-0), miscellaneous VOCs (NY identification number NY990-00-0), and acetone and Naphtha Medium Aliphatic, which are solvent (VOCs) too. In addition, the certificate includes the Material Safety Data Sheets (MSDS) of the coating material.

Conventional coatings—paints, varnishes, lacquers, sealers, stains, and water thinned paints—are composed of 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. These two groups, VOC and solids, are discussed here:

In accordance with NYCDEP, emissions of solids are analyzed as PM_{10} 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 Track Surface Coating Operations, Automobile Spray Booths. This particle size distribution, accepted by the NYCDEP for the *129 Taaffe Place EAS 16BSA016K*, was used as no other data is available. The emission rates are displayed in Table 17-8.

Table 17-8. $PM_{10}/PM_{2.5}$ Estimated Emission rate from Spray Booth

Contaminant	**Permitted Emission Rate**		**Fraction of Particle Size**	**Emission rate**			
				Short-term		**Annual**	
	lb/hr	lb/yr	Percent	lb/hr	g/s	lb/yr	g/s
PM_{10}	0.033	66	46.7	1.54E-02	1.94E-03	30.8	4.43E-04
$PM_{2.5}$			28.6	9.44E-03	1.19E-03	18.8	2.71E-04

The mixture, identified collectively as VOC, comprises of different compounds with varying toxicities. The mixture, have no guideline values in the NYSDEC DAR-1 database. As such, the composition of the coating substance by percent weight was obtained from the MSDS included in the NYCDEP operational certificate. The coating substance weight of 7.97 pound per gallon was obtained from the paint manufacturer MSDS. The contaminants, their short-term and annual emission rate, and their NYSDEC guideline criteria, SGC and AGC, are displayed in Table 17-9.

Table 17-9. NGUYEN VOCs Spray Booth Emission Rates and the SGC and AGC Threshold Criteria

CAS Number	Pollutant Name	1-hour EF lb/hr	1-hour g/s	Annual lb/yr	Annual g/s	SGC ug/m3	AGC ug/m3
64742-88-7	Naphtha Medium Aliphatic	3.93E+00	4.95E-01	7860	1.13E-01	0	3200.0
00067-64-1	Acetone	6.89E-01	8.68E-02	1378	1.98E-02	180000.0	30000.0
NY990-00-0	Miscellanies VOC	2.27E+00	2.86E-01	4540	6.53E-02	0	900.0
64742-47-8	Mineral Spirits	2.39E-01	3.01E-02	478.2	6.87E-03	14000.0	1600.0
111-76-2	2-Butoxyethanol	7.17E-01	9.03E-02	1434.6	2.06E-02	0	45000.0
64-17-5	Ethanol	3.99E-01	5.02E-02	797	1.15E-02	22000.0	100.0
1330-20-7	Xylene	3.19E-01	4.01E-02	637.6	9.16E-03		1000
100-41-4	Ethylbenzene	5.58E-02	7.02E-03	111.58	1.60E-03	0	900.0

Timehri Studios

Timehri Studios (Block 2563, Lot 40) has two operational permits: PB047408 for a paint spray booth, and PB047308 for woodworking equipment. The facility is situated on the 3rd floor of the building located at the north side of 134th Street and directly across the street from the Affected Area. The emissions' parameters associated with the facility are:

Woodworking Emission (PB047308)

The woodworking equipment are connected to a dust collector with a 99.9% control efficiency. The pollutant associated with the activity is NY075-00-0 CAS number which is $PM_{2.5}$ and PM_{10} combined. The equipment operates 8 hours per day and 250 days per year. Per the certificate, the equipment emits indoor. The emission point exit velocity of 3,800 C.F.M, 4-inch diameter, and 75 degree Fahrenheit were procured from the certificate.

The source emission rate, as specified in the operational permit, is 0.001 lb/hr and 2.0 lb/yr. The particle size distribution of 32.1 percent and 14.3 percent of $PM_{10}/PM_{2.5}$ respectively were obtained from the EPA AP-42, Appendix B1, Page B-1.48, Particle Size Distribution Data and Sized Emission Factors for Selected Sources, Table Woodworking Waste Collection Operations: Belt Sander Hood Exhaust Cyclone. Table 17-10 shows the woodworking equipment emission rates. The NYCDEP permit situate the stack 30 feet above grade.

Table 17-10. $PM_{10}/PM_{2.5}$ Estimated Emission rate from Woodworking

Contaminant	Permitted Emission Rate		Fraction of Particle Size	Emission rate			
				Short-term		Annual	
	lb/hr	lb/yr	Percent	lb/hr	g/s	lb/yr	g/s
PM_{10}	0.001	2	32.1	3.21E-04	4.04E-05	6.42E-01	9.23E-06
$PM_{2.5}$			14.3	1.43E-04	1.80E-05	2.86E-01	4.11E-06

Spray Booth Emission (PB047408)

The emission associated with PB047408 operational permit is from an industrial spray booth operation with an activity rate of 8 hours per day and 250 day per year. The operation consumes 1.0 gallon per hour and 8.0 gallons in a maximum of 8 hour day. The coating is applied by an Air Atomizing Handgun and emission of solids are reduced by a custom filter with an 85 percent control efficiency. The 30 inch diameter through the wall stack exhausts at a rate of 8,750 C.F.M and at 75 degree Fahrenheit. The NYCDEP permit situate the stack 30 feet above grade and at the south wall of the building.

The contaminants listed in the certificate are solids (NY identification number NY075-00-0), miscellaneous VOCs (NY identification number NY990-00-0), and acetone and Naphtha Medium Aliphatic, which are solvent (VOCs) too. In addition, the certificate includes the MSDS of the coating material.

The emission of solids was analyzed as PM_{10} and $PM_{2.5}$ combined, where the particle size distribution followed the Nguyen Custom Woodworking methodology. The compounds, identified collectively as VOC, were obtained from the MSDS included in the operational permit PB047408. This methodology followed the Nguyen Custom Woodworking methodology described above.

The solids emission rates are displayed in Table 17-11.

Table 17-11. $PM_{10}/PM_{2.5}$ Estimated Emission rate from Spray Booth

Contaminant	Permitted Emission Rate		Fraction of Particle Size	Emission rate			
				Short-term		Annual	
	lb/hr	lb/yr	Percent	lb/hr	g/s	lb/yr	g/s
PM_{10}	0.033	66	46.7	1.54E-02	1.94E-03	30.8	4.43E-04
$PM_{2.5}$			28.6	9.44E-03	1.19E-03	18.9	2.72E-04

The mixture, identified collectively as VOC, comprises of different compounds with varying toxicities. The mixture, have no guideline values in the NYSDEC DAR-1 database. As such, the composition of the coating substance by percent weight was obtained from the MSDS included in the NYCDEP operational certificate. The coating substance weight of 7.97 pound per gallon was obtained from the paint manufacturer MSDS. The contaminants, their short-term and annual emission rate, and their NYSDEC guideline criteria, SGC and AGC, are displayed in Table 17-12.

Table 17-12. NGUYEN VOCs Spray Booth Emission Rates and the SGC and AGC Threshold Criteria

CAS Number	Pollutant Name	1-hour EF lb/hr	1-hour g/s	Annual lb/yr	Annual g/s	SGC ug/m3	AGC ug/m3
64742-88-7	Naphtha Medium Aliphtic	3.93E+00	4.95E-01	7860	1.13E-01	0	3200.0
00067-64-1	Acetone	6.89E-01	8.68E-02	1378	1.98E-02	180000.0	30000.0
NY990-00-0	Miscellanies VOC	2.27E+00	2.86E-01	4540	6.53E-02	0	900.0
64742-47-8	Mineral Spirits	2.39E-01	3.01E-02	478.2	6.87E-03	14000.0	1600.0
111-76-2	2-Butoxyethanol	7.17E-01	9.03E-02	1434.6	2.06E-02	0	45000.0
64-17-5	Ethanol	3.99E-01	5.02E-02	797	1.15E-02	22000.0	100.0
1330-20-7	Xylene	3.19E-01	4.01E-02	637.6	9.16E-03		1000
100-41-4	Ethylbenzene	5.58E-02	7.02E-03	111.58	1.60E-03	0	900.0

Air Dispersion Analysis

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 impact from multiple sources, the impact concentrations from each source are added. This procedure uses pre-tabulated pollutant concentration values based on a generic emission rate of 1 gram per second from *CEQR TM* Table 17-3, "Industrial Source Screen," for the applicable averaging time periods. This approach, which can be used to estimate maximum short-terms 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.

As outlined in the *CEQR TM 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, else a detailed analysis using AERSCREEN or AERMOD dispersion models are performed. As such, the predicted concentration of PM_{10} was compared with the NAAQS, the $PM_{2.5}$ concentration with the 24-hour and annual *de minimis*, and all other contaminants compared with the DAR-1 SGC and AGC threshold criteria.

The emission points distances to the Affected Area were obtained from the certificates and ZoLa. The CEQR pre-tabulated concentrations corresponding to distances less than or equal to the measure distances were utilized. The pre-tabulated concentrations are displayed in Table 17-13.

Table 17-13. CEQR TM Table 17-13 Industrial Source Screen for 65 and 330 feet from the Source

Facility Name	Distance from Source (ft) Actual/CEQR	1-Hour (µg/m^3)	24-Hour (µg/m^3)	Annual (µg/m^3)
T J Ronan	384/ 365	1,528	434	62
Nguyen Spray Booth	155/ 130	7,345	2,511	367
Nguyen Woodworking (1,2,3)	(65, 65, 170)/ (65, 65, 165)	27,787, 27,787, 4,702	8,841, 8,841, 1,643	1,368, 1,368, 236
Timehri Studios Spray Booth	183/ 165	4,702	1,643	236
Timehri Studios Woodworking	115/ 100	12,051	4,011	598

The impact of pollutants emitted from multiple sources were cumulatively added to predict the combined concentration at the Affected Area. If a contaminant concentration exceeded the threshold standard, detailed analysis using AERMOD dispersion model was utilized. The AERMOD dispersion models followed the methodology outlined in the HVAC SYSTEM ANALYSIS section.

Air Dispersion Results

The *CEQR TM* 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 added and the cumulative results compared with the respective threshold criteria. The results of the criteria pollutants are displayed in Table 17-14.

Table 17-14. Criteria Pollutants Dispersion Analysis Results.

Criteria Pollutant (Dispersion Model)	Threshold Standard	Predicted Concentration (µg/m^3)	Background Concentration (µg/m^3)	Total Concentration (µg/m^3)	Threshold Criteria (µg/m^3)
PM_{10} (24-Hour) (CEQR)	NAAQS	8	44	**52**	**150**
$PM_{2.5}$ (24-Hour) (CEQR)	*de minimis*	11.38	N.A.	**11.38**	**6.55**
$PM_{2.5}$ (24-Hour) (AERMOD)	*de minimis*	3.56	N.A.	**3.56**	**6.55**
$PM_{2.5}$ (Annual) (CEQR)	*de minimis*	0.374	N.A.	**0.374**	**0.3**
$PM_{2.5}$ (Annual) (AERMOD)	*de minimis*	0.11	N.A.	**0.11**	**0.3**

As displayed in Table 17-14, the PM_{10} predicted concentration was compared with the NAAQS, and the $PM_{2.5}$ compared with 24-hour and annual averaging time interim guidelines. The $PM_{2.5}$ 24-hour and annual averaging times required detailed analyses. An examination of the impacts attributed to each facility show that the $PM_{2.5}$ highest impacts of 6.02 and 0.204 µg/m^3 24-hour and annual impact respectively were from the T J Ronan

paint mixing facility. However, these results are conservative estimates as the solids emitted were considered to be 100 percent $PM_{2.5}$. Regardless, the criteria pollutant analysis shows that all the criteria pollutants are within the NAAQS and NYSDEC Interim Guidelines.

For the non-criteria pollutants, the 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 compared with the NYSDEC SGC/AGC guidelines where applicable (some contaminants do not have short-term guideline). The results of the non-criteria pollutants analysis are displayed in Table 17-15.

Table 17-15. Non-Criteria Pollutants Dispersion Analysis Results.

Contaminant name	CAS No.	1-Hour	SGC	Annual	AGC
		µg/m³	µg/m³	µg/m³	µg/m³
Naphtha Medium Aliphatic	64742-88-7	5965	N.A.	68.2	3200.0
Acetone	67-64-1	1046	180000.00	12.0	30000.0
Ethanol	64-17-5	605	N.A.	6.9	45000.0
Xylene, M, O & P Mixture	1330-20-7	491	22000.00	5.6	100.0
Ethylbenzene	100-41-4	86	N.A.	1.0	1000.0
Distillate Hydrotreated Light	64742-47-8	363	N.A.	4.1	900.0
Butoxyethanol, 2	111-76-2	1115	14000.00	12.5	1600.0
Naphtha Light Aromatic	64742-95-6	21	N.A.	0.20	100.00
Isopropyl Alcohol	67-63-0	3.85	98000.00	0.20	7000.00
Methyl Isobutyl Ketone	108-10-1	1.85	31000.00	0.01	3000.00
Ethyl Ethoxy Propion	763-69-9	1.10	140.00	0.01	64.00
Diacetone Alcohol	123-42-2	0.71	N.A.	0.01	570.00
Ethylene Glycol Mono Propyl Ether	2807-30-9	0.35	370.00	0.004	200.00
Naphtha Heavy Aromatic	64742-94-5	1.04	N.A.	0.01	100.00
Naphtha Light Aliphatic	64742-89-8	2.70	N.A.	0.03	3200.00
Toluene	108-88-3	1.93	37000.00	0.02	5000.00
Butyl Alcohol, N-	71-36-3	25.03	N.A.	0.002	1500.00
Methanol	67-56-1	25.03	33000.00	0.002	4000.00

As displayed in Table 17-15, the predicted concentrations of the contaminants emitted from the industrial sources are below the NYSDEC SGC/AGC guidelines. Therefore, no significant toxic air quality impacts are expected as a result of the industrial sources emissions to the proposed development.

C. MAJOR AND LARGE SOURCES

A review of the EPA Envirofacts and the NYSDEC Issued Permits databases identified two facilities within 1,000 feet of the Affected Area. The registered facilities are the New York Post printing facility at 900 East 132nd Street (Block 2583, Lot 30), which has an Issued State Facility

Permit, and the Harlem River Yards Plant peaking power plant at 2 Saint Anns Avenue (Block 2543, Lot 1), which has an Issued Title V Permit.

New York Post (Permit ID: 2-6007-00792/00001)

The printing operations of The New York Post facility consist of four Goss nonheatset offset lithographic printing presses and two 2,000 KW Detroit Diesel Generators. The regulated pollutants under the certificate are NOx and VOC. The facility's annual activity rate is 7,920 hours per year. The contaminants and their short-term and annual emission rate are as follows:

- OXIDE OF NITROGEN 24.9 tons per year
- VOC 24.9 tons per year

A FOIL request with the NYSDEC provided the products used in the printing operation and each product VOC quantity emitted each month during 2016. The document, provided with the Backup files, shows that in 2016 2,112 lbs of VOC were emitted. These products MSDSs were obtained to determine which chemicals are emitted. In addition, the EPA's Enforcement and Compliance History Online (ECHO) database shows that the VOC compound emitted by the New York Post is Ethylene Glycol (CAS number 107-21-1). As a conservative measure, the analysis assumed that the 24.9 ton are emitted by the NY Post during 7,920 hour per year of operation, as specified in the certificate.

The emission points cited in the certificate are the six 57x72 inch exhaust fans, which remove the pollutants from the press floor with the help of six air filters, and the two 16 inch in diameter generators stacks. The location of the emission points is given in UTM coordinates with a km resolution. The nearest UTM coordinate within the 1 km resolution to the Affected Area is 1,527 feet distance. However, as a conservative measure the NY Post emission were included in the analysis at a building located 1,000 feet from the Affected Area.

Per CEQR guidelines, the criteria pollutants emitted by the 2,000 kW generators were analyzed. The short-term averaging time analysis assumed that both generators are operating; the annual averaging time assumed 7,920 hours per year of operation as stipulated in the certificate. The actual annual NO_2 emission was also provided in the NYSDEC FOIL request document. The document, provided with the Backup files, show that in 2016 3,376 lbs of NO_2 were emitted. This is less than the calculated annual NO2 emission. However, as a conservative measure the calculated NO_2 emission were used.

The generators (SCC 1-02-005-020), identified as Emission Units 2, Emission Point 7 and 8 in the certificate, were identified as external combustion units in the EPA AP42 manual. Per the certificate, the generators operate on fuel oil #2 with a 0.2 percent sulfur content by weight. The generators emission rates were obtained from the AP42. The stacks height of 55 feet and 16 inch in diameter were obtained from the certificate. The stacks exit velocities of 7.8 meter per second was estimated based on values obtained from the NYCDEP "CA Permit" database for the corresponding boiler sizes (i.e., rated heat input or million Btu per hour). The stack exit temperature was assumed to be 300°F (423°K), which is appropriate for boilers.

Where no other data was available, the following assumptions, as outlined in the *CEQR TM*, were specified as conservative estimates: all emissions were assumed to exhaust through a single vent located 10 feet from the roofline facing the Affected Area, stack exit velocity was specified at 0.001 meter per second, and 287 Kelvin specified for the stack's exhaust temperature. These parameters are the most conservative assumptions, and therefore the air quality impact with a load of 75 percent capacity would not be expected to result in higher concentrations. Therefore, an analysis with a 75 percent capacity was not warranted. The criteria pollutants of concern, NO_2, SO_2, and $PM_{2.5}$, their short-term and annual emission rate, and their guideline criteria are displayed in Table 17-16.

Table 17-16. The New York Post Criteria Pollutants Emission factors.

SO_2 Emission factor g/sec		**NO_2 Emission factor g/sec**		**$PM_{2.5}$ Emission factor g/sec**	
1-hour	**Annual**	**1-hour**	**Annual**	**24-hour**	**Annual**
1.74E-01	1.58E-01	2.51E-02	6.88E-03	1.91E-03	5.23E-04

Table 17-17. The New York Post VOC Emission factors and the SGC and AGC Threshold Criteria.

CAS Number	Pollutant Name	1-hour EF lb/hr	1-hour g/s	Annual lb/yr	Annual g/s	SGC ug/m3	AGC ug/m3
00107-21-1	Ethylene Glycol	6.29E+00	7.92E-01	49800	7.16E-01	10,000.0	400.0
111-76-2	2 Butoxyethanol	6.29E+00	7.92E-01	49800	7.16E-01	14,000.0	1,600.0
6834-92-0	Sodium metasilicate - pentahydrate	6.29E+00	7.92E-01	49800	7.16E-01	N.A.	N.A.
29911-28-2	2-Propanol,1-(2-Butoxy-1-Methylethoxy)	6.29E+00	7.92E-01	49800	7.16E-01	N.A.	N.A.
34590-94-8	Dipropglycolmethethr	6.29E+00	7.92E-01	49800	7.16E-01	91,000.0	1,400.0
64742-47-8	Hydrotreated light distillate	6.29E+00	7.92E-01	49800	7.16E-01	N.A.	900.0
68439-46-3	Linear Alcohol Ethoxylate	6.29E+00	7.92E-01	49800	7.16E-01	N.A.	N.A.

Harlem River Yards Plant (Permit ID: 2-6007-00726/00003 and Permit Review Report)

The Harlem River Yards Plant (HRY), operated by the New York Power Authority, is a peaking hour plant (i.e. the plant operates during high demand), with a maximum electric generating potential of 79 megawatts. The analysis followed the *125 Edgewater EAS CEQR No. 17DCP069R* methodology. The report presents the criteria pollutants of concern, NO_2, $PM_{2.5}$, and SO_2 results. However, the backup files present all the criteria pollutants, HAPs, and VOCs results.

The plant consists of two gas-fired turbines (GE LM6000), each with a 420 MMBtu/hr design capacity, two gas-fired 7.4 MMBtu/hr Heatec boilers, a 60 bhp diesel fire pump, a 746 bhp diesel back-up generator, and a 1,474 HP Black Start emergency diesel generator which will supply power to start the turbine generator in the event of a blackout. The fire

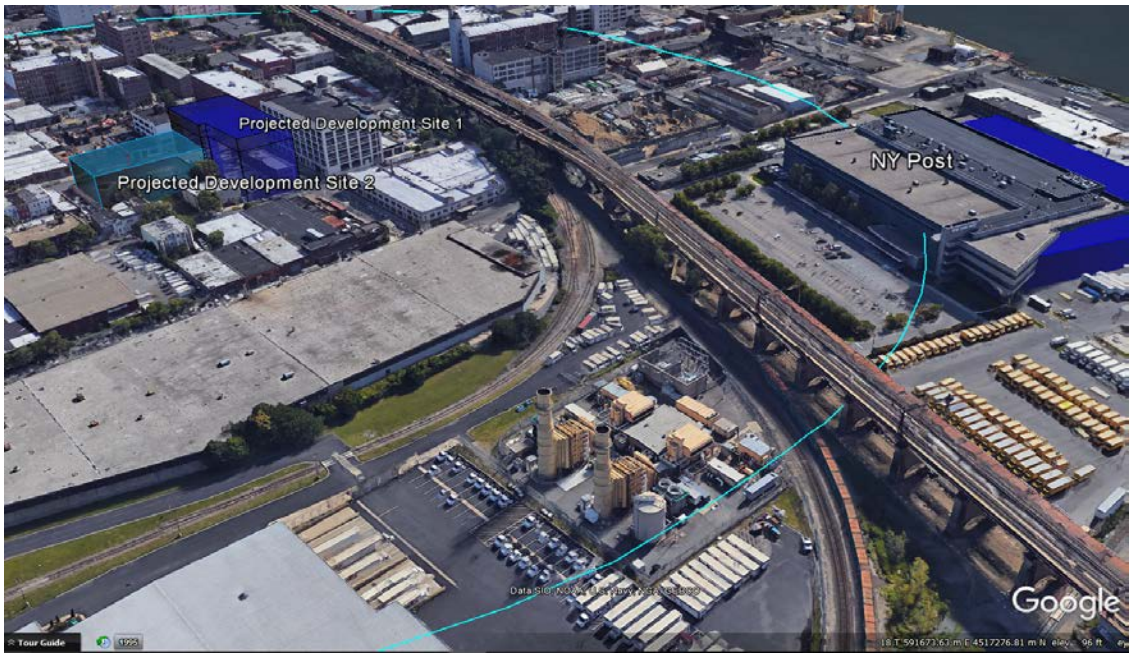
pump and Black Start generator are each limited to 500 hours per year of operation. In accordance with 6 NYCRR 201-3.2(c) these are considered exempt from permitting. Per NYC DEP recommendation, the back-up generator was considered an emergency generator as well. Since emergency equipment operate for short period of time, the potential air quality impact would not be significant.

The facility-wide emissions for the specified pollutants, in terms of tons per year (tpy) or pound per year (lbs/yr), as specified in the certificate are presented below, where the Total HAP and VOC emissions refer to the aggregated emissions of all Hazardous Air Pollutants and VOCs.

Ammonia >= 10 tpy but < 25 tpy	CO 52,000 lbs/yr	VOC >= 2.5 tpy but < 10 tpy
Formaldehyde > 0 but < 10 tpy	Lead > 0 but < 10 tpy	Toluene > 0 but < 10 tpy
Oxide of Nitrogen 45,000 lbs/yr	Particulates >= 10 tpy but < 25 tpy	Total HAP > 0 but < 2.5 tpy
PM_{10} >= 10 tpy but < 25 tpy	Sulfur Dioxide > 0 but < 2.5 tpy	

The HRY is located 840 feet south of the Affected Area. Figure 17-4 shows the Harlem River Yards Plant with the Affected Area and the NY Post facility in the background.

Figure 17-4. AERMOD input of The Harlem River Yards Plant with the Affected Area and the NY Post



The turbines and boilers emission points are discussed here:

Turbines Emission Rates and Stack Parameters

The facility implements combustion emission controls for all the emission points. In addition, Selective Catalytic Reduction (SCR) and Catalytic Oxidation controls are implemented to reduce the turbines emission. As outlined in the EPA AP-42, SCR reduces NOx emission by injecting ammonia (NH_3) into the exhaust gas stream. The ammonia and oxide of nitrogen reacts, producing nitrogen and water vapor. Per the EPA AP-42, SCR has 65 to 90 percent removal efficiency. Catalytic Oxidation is used to achieve control of CO emission, and it has a removal efficiency of 90 percent. The Catalytic Oxidation also has an 85 to 90 percent removal efficiency of HAPs.

Data obtained from the EPA Air Market Program Data[5] provided the 2012-2016 turbines hourly operation data. This data also included the SO_2 and NOx hourly and annual emissions. Per NYC DEP, the turbines are capable of 115 percent heat capacity, translating to 483 MMBtu heat capacities. This heat capacity was used to calculate the turbines emission rates where applicable. The turbines stack parameters were obtained from the New York Power Authority (NYPA). Table 17-18 shows the turbines annual heat capacities and hours of operations.

Table 17-18. The HRY Turbines Data.

Year	Turbine	Hour Per Year	Heat Capacity (%)	SO2 Emission (lb)	NOx Emission (lb)Annual g/s
2012	HR01	588.83	104	146	2460
	HR02	699.43		166	2924
2013	HR01	592.44	102	144	2826
	HR02	535.88		126	2508
2014	HR01	803.36	101	194	3472
	HR02	636.41		152	3174
2015	HR01	638.42	102	156	2666
	HR02	531.92		130	2540
2016	HR01	610	112	148	2378
	HR02	618.3		152	2734

As seen in Table 17-18, the maximum annual hour of operation occurred in 2014. These hours of operations were used to develop the annual emission rates. The 2014 SO_2 and NO_2 annual emissions were the maximum too. These quantities were used for the NO_2 and SO_2 annual emission rates for each year of the 5-year modeling.

The turbines operate at either steady state or start-up/shutdown modes, where the start-up mode is limited to 30 minutes and the shutdown mode to 20 minutes. The duration of the start-up/shutdown modes are regulated as SCR operate most effectively at high load.

[5] https://ampd.epa.gov/ampd

Per the EPA *May 2011 Memorandum,* the start-up or shutdown emissions do not apply to NOx analysis. However, the CO and NH_3 short-term emissions assumed two start-up and shutdown in an hour, however unlikely that is. These emission rates are as follows:

- NOx 5.0 lbs/hr/turbine steady state
- CO 8.0 pounds start-up and shutdown
- NH_3 7.4 pounds start-up and shutdown

The criteria pollutants short-term emission rates were determined from the *EPA AP-42 Stationary Internal Combustion Sources, Table 3.1-2a,* where applicable. Lead emission rate were obtained from the *EPA AP-42 Stationary Internal Combustion Sources, Table 3.1-2b.* Table 17-19 shows the turbines criteria pollutants of concern emission rates at 100 and 75 percent capacities, where the $PM_{2.5}$ emission rates were calculated based on the EPA AP42.

Table 17-19. The Harlem River Yards Plant Criteria Pollutants Emission Factors

Pollutant Name	Turbine	Short-term g/s		Annual g/s	
		100%	75%	100%	75%
NOx	HR01	1.26E+00	9.45E-01	4.99E-02	3.74E-02
	HR02	1.26E+00	9.45E-01	4.56E-02	3.42E-02
$PM_{2.5}$	HR01	4.02E-01	3.01E-01	3.68E-02	2.76E-02
	HR02	4.02E-01	3.01E-01	2.92E-02	2.19E-02
SO_2	HR01	2.07E-01	1.55E-01	2.79E-03	2.09E-03
	HR02	2.07E-01	1.55E-01	2.18E-03	1.64E-03

The short-term emission rates of HAPs and VOCs were calculated based on the *EPA AP-42 Table 3.1-3 Emission Factors For Hazardous Air Pollutants From Natural Gas-Fired Stationary Gas Turbines* for uncontrolled sources and heat input of 483 MMBtu/hr per turbine. The annual emission factors were calculated based on the 2014 hours per year of operation. As previously mentioned, additional contaminants, as well as contaminants listed in the EAP AP-42, emissions listed in the EPA National Emission Inventory (NEI[6]) database were also analyzed. The EPA NEI database contained the 2014 total emission by contaminant. These were used to evaluate the contaminants emission rates.

The Title V certificate provided the turbines stacks locations and dimensions. Other parameters were obtained from the NYPA. These stacks' parameters are as follows:

Height (ft.): 107; Diameter (in.): 144; Exit velocity 500k ACFM; Gas exit temperature: 750 F; HR01 Location: NYTMN (km.): 4517.048 NYTME (km.): 591.453 HR02 Location: NYTMN (km.): 4517.026 NYTME (km.): 591.440

Heatec Boilers Emission

[6] https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data

The certificate indicates that the Heatec boilers are used to heat the gas turbine combustion inlet air when ambient temperature and humidity could cause icing at the turbine inlet. Per *125 Edgewater EAS*, this occurs at ambient temperature below 40 degree Fahrenheit. However, the boilers annual number of hours operated was obtained from the NYPA. Table 17-20 shows the boilers 2012-2016 number of hours operated.

Table 17-20. The HRY Heatec Boilers Data.

Year	Boiler	Hour Per Year
2012	Unit 1	27
	Unit 2	72
2013	Unit 1	80
	Unit 2	30
2014	Unit 1	86
	Unit 2	25
2015	Unit 1	142
	Unit 2	81
2016	Unit 1	191
	Unit 2	70

Per the Title V Certificate Item 61.2, the NOx short-term emission rate per boiler is 30 parts per million (ppm) corrected to 3% O_2. The 30 ppm NOx corrected to 3% O_2 is equal to 0.27 lb/hr. This is consistent with the *125 Edgewater EAS*. The annual emission rates were calculated using the maximum annul boiler operations of 191 and 81 for Unit 1 and 2 respectively. Table 17-21 shows the pollutants of concern emission rates.

Table 17-21. The HRY Boilers Emission Factor.

Pollutant Name	**Sort-term**	**Unit 1 Annual**	**Unit 2 Annual**
	g/s	**g/s**	**g/s**
NOx	3.40E-02	7.40E-04	3.10E-04
$PM_{2.5}$	6.95E-03	1.51E-04	6.42E-04
SO_2	5.48E-04	1.20E-05	5.07E-06

The other criteria pollutants, HAPs, and VOCs short-term emission rates were obtained from the *EPA AP-42 External Combustion Sources Chapter 1.4*. The annual emission rates were calculated based on the short-term emission rates and the hours of operation per year.

The boilers stacks location, heights, and diameters were obtained from the Title V certificate. The stacks volumetric flow rates of 3,300 ACFM and 250 degree Fahrenheit were provided by the NYPA.

Methodology

AERMOD models were run with and without building wake effect for short-term and annual maximums. The models were run for 5 years of meteorological data and background concentrations were obtained from the nearest NYSDEC monitoring stations. This methodology is outlined in the HVAC analysis. Receptors were placed 5 feet above all floor levels and in 10 feet intervals.

Dispersion analyses of criteria pollutants were models as cumulative impact, using the calculated emission rates. Dispersion analyses models of all other pollutants were run with a generic 1 gram per second emission factor, and the results from each source multiplied by the calculated emission factors. The modeled concentrations of pollutants emitted from multiple sources were added to predict the cumulative impact.

Results of Dispersion Analyses

The results of the dispersion analysis for the criteria pollutants were compared with the NAAQS and *de minimis* threshold criteria. Table 17-22 displays the results.

Table 17-22. Criteria Pollutants Dispersion Analysis results - Major Sources.

Pollutant	Averaging Time	Modeled Concentration	Background Concentration	Evaluated Concentration	Threshold Criteria
$PM_{2.5}$	24-hour	0.95	N.A.	**0.95**	**6.55**
	Annual	0.08		**0.03**	**0.3**
NO_2	1 hour	27.9	120.9	**149**	**188**
	Annual	2.4	39	**41.4**	**100**
SO_2	1 hour	42.1	28.0	**70.1**	**196**
	Annual	0.9	4.9	**5.8**	**80**

As seen in Table 17-22, the $PM_{2.5}$ averaging times modeled concentrations are below the significant impact criteria. The NO_2 1-hour averaging time, modeled with a Tier 1 approach, is below the NAAQS threshold. The NO_2 annual averaging time and SO_2 1-hour and annual averaging time concentrations are below the NAAQS.

The NY Post Ethylene Glycol impact concentrations and the Ammonia impact concentrations emitted from the HRY are presented in Table 17-23.

Table 17-23. Ammonia and Ethylene Glycol Dispersion Analysis results - Major Sources.

Pollutant	Cas No.	1-Hour	Annual	SGC	AGC
Ammonia	7664-41-7	5.57E+00	2.25E-02	2400	100.00
Ethylene Glycol	107-21-1	3.50E+02	1.76E+00	10000	400.0
2 Butoxyethanol	111-76-2	3.50E+02	1.76E+00	14,000.0	1,600.0
Sodium metasilicate - pentahydrate	6834-92-0	3.50E+02	1.76E+00	N.A.	N.A.
2-Propanol,1-(2-Butoxy-1-Methylethoxy)	29911-28-2	3.50E+02	1.76E+00	N.A.	N.A.
Dipropglycolmethethr	34590-94-8	3.50E+02	1.76E+00	91,000.0	1,400.0
Hydrotreated light distillate	64742-47-8	3.50E+02	1.76E+00	N.A.	900.0
Linear Alcohol Ethoxylate	68439-46-3	3.50E+02	1.76E+00	N.A.	N.A.

The dispersion analysis results displayed in Table 17-23 indicate that the pollutants are within the NYSDEC guidelines.

In addition, the other criteria pollutants, VOCs, and HAPs concentrations are below the threshold criterions as shown in the Appendix. Therefore, no significant toxic air quality impacts are expected as a result of the industrial sources, Harlem River Yards Plant, and the New York Post emissions to the proposed development.

Odor Producing Facilities

As outlined in the *CEQR TM*, projects that would result in new uses near an odor--producing facility, have the potential to cause discomfort, and in such cases, the air quality analysis should extend to at least a 1,000-foot radius. Examples of odor producing facilities are: solid waste management facilities, water pollution control plants (*i.e.*, sewage treatment plants), and incinerators.

As outlined in Table 17-5: Industrial Sites Identified in the Study, the property at 720 East 132nd Street (Block 2543, lot 60) is owned by the Department of Sanitation of New York. This site also been identified in the EPA Envirofacts database as having a State-Wide Permit Requirement.

The land survey study identified this site as a garage and no odor producing activity was detected at the facility. The nearest waste transfer facility is the Waste Management Service facility at 98 Lincoln Avenue, a 3,200 feet distance from the Affected Area.

In addition, the *Port Morris/Bruckner Boulevard Rezoning 05DCP005X EAS*, a study which included property adjacent to the Affected Area, only identified unpleasant odors along Locust Avenue—1,175 feet distance from the Affected Area—and no unpleasant odors were detected at the rezoning site.

Therefore, no significant air quality impacts associated with unpleasant odors are expected at the proposed development.

V. 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;
- Emission from the parking garages 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 the emissions of the Harlem River Yards Plant and the New York Post;
- No significant air quality impacts to the proposed project are anticipated from air toxics;
- No significant air quality impacts to the proposed project are anticipated from odor producing facilities; 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 with (E) - Designations in place.

Air Quality Appendix

Air Quality Major Sources VOCs and HAPs Modeled Concentrations and SGC/AGC.

Pollutant	Cas No.	1-Hour	Annual	SGC	AGC
Ammonia	07664-41-7	5.57E+00	2.25E-02	2400	100.00
FORMALDEHYDE	00050-00-0	2.93E-01	4.59E-04	30	0.06
TOLUENE	00108-88-3	4.88E-02	8.22E-05	37000	5000.00
B A P	00050-32-8	5.64E-07	2.18E-10	N.A.	0.00
DIBENZ(a,h)ANTHRACENENE	00053-70-3	5.64E-07	2.18E-10	N.A.	0.02
3-METHYLCHOLANTHRENE 7,12-Dimethylbenz(a)anthraceneb	00056-49-5	8.46E-07	3.28E-10	Not DAR1 compound	
BENZO(A)ANTHRACENE	00056-55-3	8.46E-07	3.28E-10	N.A.	0.02
BENZENE	00071-43-2	5.35E-03	7.91E-06	1300	0.13
ACENAPHTHENE	00083-32-9	8.46E-07	3.28E-10	Not DAR1 compound	
PHENANTHRENE	00085-01-8	7.99E-06	3.09E-09	N.A.	0.02
FLUORENE	00086-73-7	1.32E-06	5.10E-10	Not DAR1 compound	
NAPHTHALENE	00091-20-3	7.59E-04	9.27E-07	7900	3.00
METHYLNAPHTHALENE, 2	00091-57-6	1.13E-05	4.37E-09	N.A.	7.10
HEXANE	00110-54-3	8.46E-01	3.28E-04	N.A.	700.00
ANTHRACENE	00120-12-7	1.23E-06	6.17E-10	N.A.	0.02
PYRENE	00129-00-0	2.66E-06	1.45E-09	N.A.	0.02
BENZO[G,H,I]PERYLENE	00191-24-2	6.16E-07	3.09E-10	Not DAR1 compound	
INDENO(1,2,3-CD-PYRENE	00193-39-5	8.66E-07	3.28E-10	Not DAR1 compound	
ACENAPHTHYLENE	203-96-8	8.46E-07	3.28E-10	Not DAR1 compound	
BENZO(b)ANTHRACENE	205-99-2	8.46E-07	3.28E-10	Not DAR1 compound	
BENZO[K]FLUORANTHENE	207-08-9	8.46E-07	3.28E-10	Not DAR1 compound	
CHRYSENE	218-01-9	8.46E-07	3.28E-10	N.A.	0.02
FLUORANTHENE	206-44-0	1.88E-06	1.36E-09	Not DAR1 compound	
DINITROTOLUENE	25321-22-6	5.64E-04	2.18E-07	Not DAR1 compound	
7, 12 - Dimethylbenz(a)anthraceneb,c	00057-97-6	7.52E-06	2.91E-09	Not DAR1 compound	
Butane	106-97-8	9.86E-01	3.82E-04	238000	N.A.
Ethane	74-84-0	1.46E+00	5.64E-04	N.A.	2900.00
Pentane	109-66-0	1.22E+00	4.73E-04	N.A.	42000.00
Propane	74-98-6	7.52E-01	2.91E-04	N.A.	43000.00
Acetaldehyde	00075-07-0	1.45E-02	2.51E-05	470	0.45
PAH	130498-29-2	7.99E-04	1.38E-06	N.A.	0.02
Propylene Oxide	00075-56-9	1.05E-02	1.82E-05	3100	0.27
Ethyl Benzene	00100-41-4	1.16E-02	2.01E-05	N.A.	1000.00
1,3-Butadiene	00106-99-0	1.56E-04	2.70E-07	N.A.	0.03
Acrolein	00107-02-8	2.32E-03	4.02E-06	2.5	0.35
Xylenes (Mixed Isomers)	01330-20-7	2.32E-02	4.02E-05	22000	100.00

Other Criteria Pollutants Dispersion Analysis results - Major Sources.

Pollutant	Averaging Time	Modeled Concentration	Background Concentration	Evaluated Concentration	Threshold Criteria
PM_{10}	24-hour	1.3	37	**38.3**	**150**
Lead	Annual	0.00019	0.0061	**0.0063**	**0.15**
CO	1-hour	0.035	1.86	**1.89**	**35**
	8-hour	0.02	N.A.	**0.02**	**3.95**

19. NOISE

Introduction

Two types of potential noise impacts are considered under CEQR. These are potential mobile source and stationary source noise impacts. Mobile source impacts are those which could result from a proposed project adding a substantial amount of traffic to an area. Potential stationary source noise impacts are considered when a proposed development would cause a stationary noise source to be operating within 1,500 feet of a receptor, with a direct line of sight to that receptor, if the project would include unenclosed mechanical equipment for building ventilation purposes, or if the project would introduce receptors into an area with high ambient noise levels.

Noise Study

Noise Monitoring was conducted by Equity personnel to support a rezoning application affecting multiple sites ("The Project Area"). Projected Development Site 1 consists of 750 East 134th Street and 761-767 East 133rd Street (Block 2562, Lots 49, 56, 58, and 60) in the Bronx, NY. The Proposed Action would allow for new residential development in an area generally south of East 134th Street and north of 133rd Street along the west side of Willow Avenue within the Port Morris neighborhood of Bronx Community District 1. Willow Avenue is a one-way, single lane street that runs in a south-north direction and has intersections controlled by stop signs. East 133rd Street is one-way, west bound, single lane street with its intersections controlled by stop signs. East 134th Street runs parallel to 133rd Street and is a two-way west bound street with its intersections controlled by stop signs. An elevated train line operates approximately 400 feet to the east of the Project Area. The surrounding land uses consist primarily of industrial and 2-family/multi-family residential.

Vehicular traffic, specifically commercial vans and heavy trucks, and AMTRAK train movements are the predominant source of noise in this area. Therefore, the proposed development warrants an assessment of the potential for adverse effects on project occupants from ambient noise. The proposed development would not create a significant stationary noise generator. Additionally, project-generated traffic would not double vehicular traffic on nearby roadways, and therefore would not result in a perceptible increase in vehicular noise. This noise assessment is limited to an assessment of ambient noise that could adversely affect occupants of the development.

Framework of Noise Analysis

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 below lists some noise levels for typical daily activities:

Table 19-1: Noise Levels of Common Sources

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
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.	
Source: 2014 CEQR Technical Manual	

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-dBA change is the threshold of change detectable by the human ear;
- 5-dBA change is readily noticeable; and
- 10-dBA 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.

- Leq 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 Leq than low noise levels. Leq has an advantage over other descriptors because Leq values from various noise sources can be added and subtracted to determine cumulative noise levels.

- Leq(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 (LX). Examples include L10, L50, and L90. L10 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 dBA 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.

Measurement Location and Equipment

Because the predominant noise sources in the area of the proposed project consist of vehicular and rail movements, noise monitoring was conducted during peak vehicular travel periods (AM, Midday, and PM). Pursuant to CEQR Technical Manual Methodology measurement periods of one hour during each peak hour were conducted at Locations one (1) and two (2), due to the potential impact of ambient noise from the rail line to the east. Location three (3) is located farther from the rail line on the south side of East 134th Street and approximately 200 feet west of Willow Avenue. Therefore, twenty-minute monitoring sessions were conducted at this location during three peak periods of vehicular traffic.

Noise monitoring was conducted using a Type 2 Larson-Davis LxT2 sound meter, with wind screen and a Type 1 Casella CEL-63X sound meter with wind screen. The monitors were placed on a tripod at a height of approximately three feet above the ground, away from any other 19- reflective surfaces. The monitors were calibrated prior to and following each monitoring session. Periods of peak vehicular and train traffic around the subject site constitute a worst-case condition for noise at the project site.

Photo 1



Location 1: *Northwest corner of Willow Avenue and East 133rd Street*

Photo 2



Location 2: *Southwest of Willow Avenue and East 134th Street*

Photo 3



Location 3: *Approx. 200 feet west of Willow Avenue and East 134th Street*

Measurement Conditions
Monitoring was conducted during typical midweek conditions, on Wednesday, May 10, 2017 and Thursday May 18, 2017. The weather was dry and wind speeds were mild during all monitoring periods. Locations One (1) and Two (2) are adjacent to a Dry-Cleaning warehouse facility located at 781 East 134th Street and experienced elevated noise levels due to loading and unloading of materials, heavy truck engine revving, and back-up alarms. Location Three (3) was within close proximity to "Custom Metals and Glass" located at 753 East 134th Street and experienced elevated noise levels due to heavy truck engine revving, fork lift loading and unloading, and back-up alarms. Traffic volumes and vehicle classification were documented during the noise monitoring. The sound meters were calibrated before and after each monitoring session. (See **Appendix E – Noise Backup**.)

Existing Conditions
Based on the noise measurements taken around the Project Area, the predominant source of noise is vehicular traffic from heavy trucks and commercial vehicles. High ambient noise levels resulted from heavy-truck engine revving and back-up alarms due to loading and unloading activity. AMTRAK train movements were audible, but were not a source of high ambient noise readings. The volume of traffic, and its corresponding level of noise is mild at Location Three (3), and moderate-high at Locations One (1) and Two (2).

Table 19-2 below contains the results for the measurements taken at the Project Area:
Note: **Bold** denotes L10 noise level exceedances, according to Table 19-2 of the CEQR Technical Manual

Table 19-2 (1 of 3): Noise Levels (dB)
Location 1: *Noise Levels at intersection of Willow Avenue and East 133rd Street*

Wednesday, May 10, 2017			
Time	07:31 am – 08:31 am	12:00 pm – 13:00 pm	16:30 pm – 17:30 pm
L_{max}	96.3	99.5	97.6
L_{10}	**71.0**	69.0	**72.5**
L_{eq}	72.8	68.1	70.3
L_{50}	61.5	59.0	64.5
L_{90}	57.5	55.0	61.5
L_{min}	54.7	50.4	57.4

Table 19-2 (2 of 3): Noise Levels (dB)
Location 2: *Noise Levels at Intersection of Willow Avenue and East 134th Street*

Wednesday, May 10, 2017 (midday and pm) and Thursday, May 18, 2017 (am)			
Time	07:30 am – 08:30 am	11:58 pm – 12:59 pm	16:29 pm – 17:29 pm
L_{max}	86.9	92.3	83.6
L_{10}	69.5	**70.7**	69.5
L_{eq}	66.9	68.9	67.1
L_{50}	64.0	63.2	64.2
L_{90}	60.5	59.1	61.3
L_{min}	58.7	56.4	59.2

Table 19-2 (3 of 3): Noise Levels (dB)
Location 3: *approximately 150 feet west of Willow Avenue and East 134th Street intersection*

Wednesday, May 10, 2017			
Time	08:29am– 08:50 am	13:00 pm – 13:21 pm	17:32 pm – 17:52 pm
L_{max}	86.9	81.5	96.8
L_{10}	70.0	65.9	65.6
L_{eq}	69.3	63.9	63.7
L_{50}	62.4	59.2	58.2
L_{90}	57.5	55.9	53.9
L_{min}	53.4	53.3	51.9

Table 19-3 below contains the traffic volumes (vehicle counts) and vehicle classifications for the morning, noon, and evening monitor sessions:

Table 19-3 (1 of 3):
Morning Traffic Volumes and Vehicle Classifications

	Location 1	Location 2	Location 3
Car/ Taxi	38	36	6
Van/Light Truck/SUV	129	124	6
Motorcycle	1	1	0
Heavy Truck	29	25	2
Bus	7	5	0
Train	2	2	1

Table 19-3 (2 of 3):
Noon Traffic Volumes and Vehicle Classifications

	Location 1	Location 2	Location 3
Car/ Taxi	40	45	2
Van/ Light Truck/SUV	98	73	12
Motorcycle	2	2	0
Heavy Truck	31	31	6
Bus	4	4	0
Train	3	3	1

Table 19-3 (3 of 3):
Evening Traffic Volumes and Vehicle Classifications

	Location 1	Location 2	Location 3
Car/ Taxi	156	76	15
Van/ Light Truck/SUV	215	125	22
Motorcycle	2	2	0
Heavy Truck	143	16	2
Bus	21	7	2
Train	1	1	1

Conclusions
The 2014 *CEQR Technical Manual* Table 19-2 contains noise exposure guidelines. For a residential use such as would occur under the Proposed Action, an L10 of between 65 and 70 dB(A) is identified as marginally acceptable general external exposure. The highest recorded L10 at Location One (1) of the Development Site was 72.5 dB during the evening monitoring period. The highest recorded L10 at Location Two (2) of the

Development Site was 70.7 dB during the afternoon period. The highest recorded L10 at Location Three (3) of the Development Site was 70.0 dB during the morning period.

Twenty-eight (28) dBA of window wall attenuation would be required to maintain an interior noise level of 45 dBA. However, as stated in Zoning Resolution Section 123-32, all new dwelling units constructed in MX (Special Mixed Use) districts, such as is proposed for the project area, must provide a minimum of 35 dBA of window wall attenuation to maintain an interior noise level of 45dB(A) or less, with windows closed, and shall provide an alternate means of ventilation. Any development resulting from the proposed actions would comply with this zoning provision, and therefore, no significant adverse noise impacts are anticipated.

21. NEIGHBORHOOD CHARACTER

The *CEQR Technical Manual* states that a neighborhood character assessment is generally required when the Proposed Action would significantly impact land use, urban design, visual resources, historic resources, socioeconomic conditions, open space, shadows, transportation or noise within the neighborhood; or if it would have moderate effects on several of the elements that contribute to neighborhood character.

While a combination of moderate changes in several of these technical areas may potentially have a significant effect on neighborhood character, the Proposed Action would be compatible with the mixed-use character of the neighborhood and, as discussed in the relevant sections of this EAS, is not anticipated to result in any significant adverse impacts on land use, zoning and public policy; open space; shadows; historic and cultural resources; urban design and visual resources; transportation or noise within the neighborhood.

The Proposed Actions will not alter the character of the neighborhood, impair the appropriate use or development of adjacent property, nor be detrimental to the public welfare. The Proposed Actions would not negatively affect the pedestrian experience along Willow Avenue, East 133rd Street, or East 134th Street, and would have no adverse effects on the vitality, walkability, or visual character of the area. The neighborhood is a mix of manufacturing, commercial, and residential uses, and the proposed uses (residential, commercial) would not be inconsistent with the surrounding area.

Therefore, no significant adverse impacts on neighborhood character are anticipated as a result of the Proposed Action.

ATTACHMENT A:
ILLUSTRATIVE PLANS
PROJECTED DEVELOPMENT SITE 1



111 WILLOW AVE.

BRONX, NY

NEWMAN DESIGN



111 WILLOW AVE.

BRONX, NY

NEWMAN DESIGN

111 WILLOW AVENUE

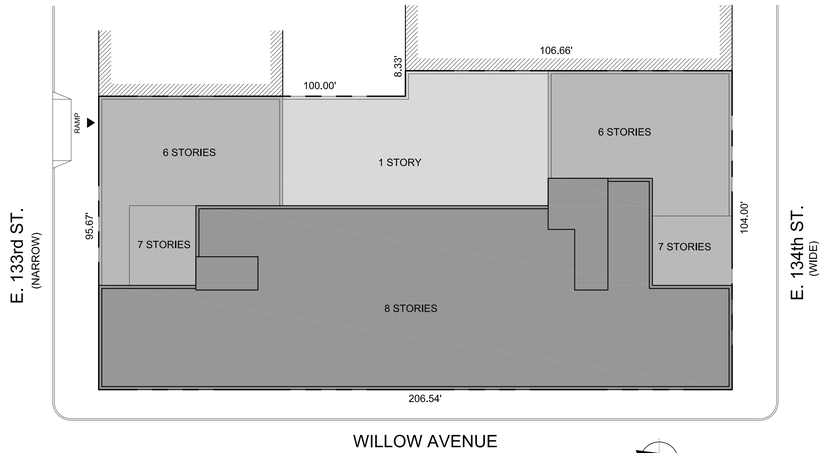
BRONX, NY

DATE: 11-01-17
JOB #: 17-61

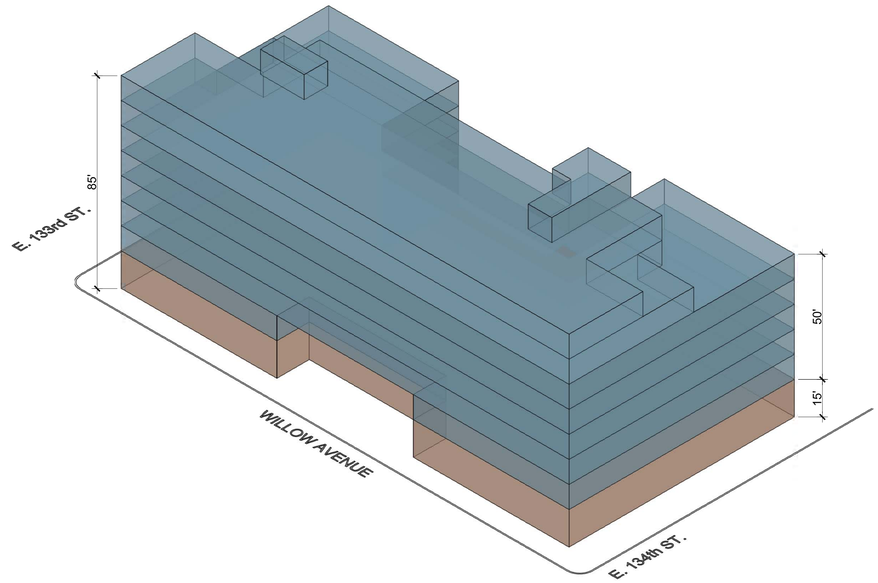
Images are for graphical purposes, and dimensions are subject to normal construction deviation, not to scale.

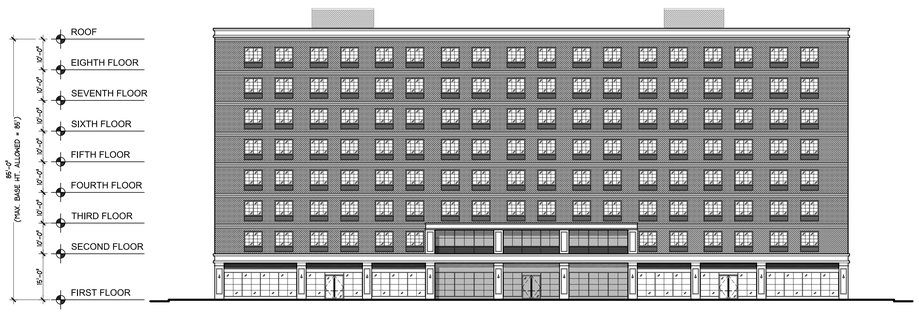
ZONING FLOOR AREA SUMMARY R7D / M1-4

FLOOR	GROSS	RESIDENTIAL GROSS AREA		QUALITY HOUSING DEDUCTIONS	MECHANICAL DEDUCTIONS	RESIDENTIAL F.A.	COMMERCIAL	TOTAL F.A. (SF)	NO. OF DWELLING UNITS	S	1B	2B	3B
		NOT IN F.A.	IN F.A.										
CELLAR	20,647	20,647											
FIRST	19,700	2,375	2,200	1,100		1,100	15,125	16,225					
SECOND	16,288		16,288	4,700	42	11,546		11,546	14	1	10	1	2
THIRD	17,173		17,173	699	64	16,410		16,410	21	4	10	3	4
FOURTH	17,173		17,173	699	64	16,410		16,410	21	4	10	3	4
FIFTH	17,173		17,173	699	64	16,410		16,410	21	4	10	3	4
SIXTH	17,173		17,173	699	64	16,410		16,410	21	4	10	3	4
SEVENTH	12,300		12,300	558	45	11,697		11,697	15	2	8	4	1
EIGHTH	11,075		11,075	542	39	10,494		10,494	13	0	8	5	0
TOTAL	148,702		110,555	9,696	382	100,477	15,125	**115,602**	**126**	19	66	22	19
									UNIT MIX	15.1%	52.4%	17.5%	15.1%



SITE PLAN





WILLOW AVENUE



E. 134th ST.

0 10' 20' 40'
SCALE: 1" = 20'-0"

COMMERCIAL
RESIDENTIAL

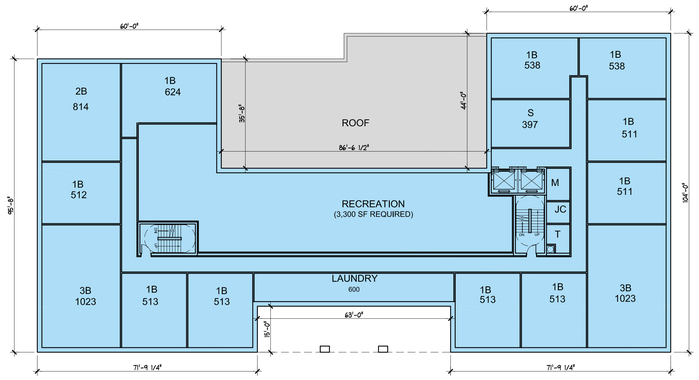
NEWMAN DESIGN
ARCHITECTURE • URBAN PLANNING
210 West Rogues Path • Cold Spring Hills, NY 11743

111 WILLOW AVENUE

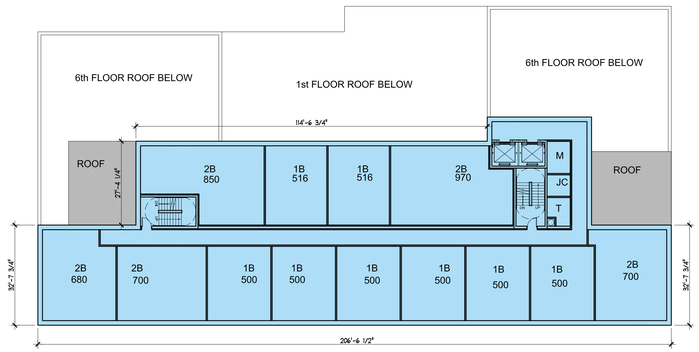
BRONX, NY

DATE: 11-01-17
JOB #: 17-61

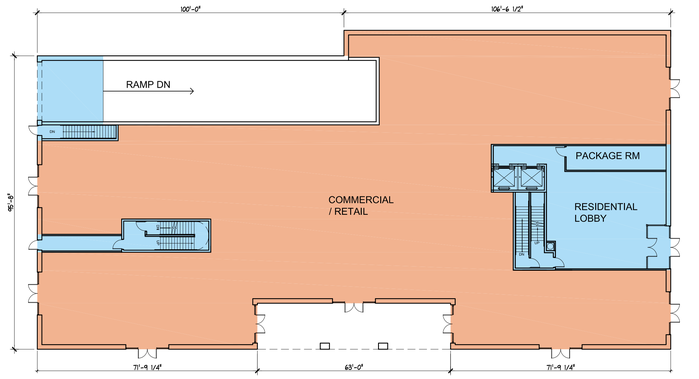
Images are for graphical purposes, and dimensions are subject to normal construction deviation, not to scale.



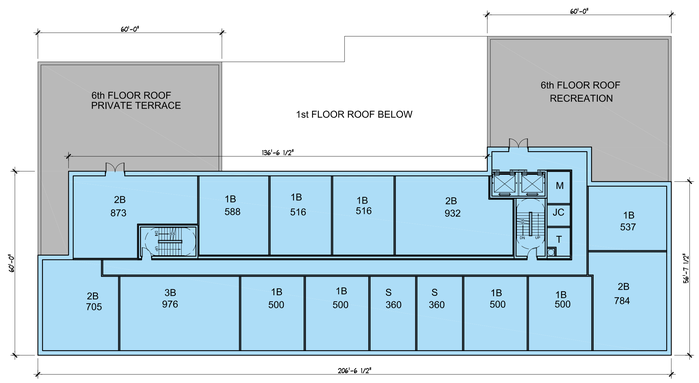
SECOND FLOOR
16,228 SF



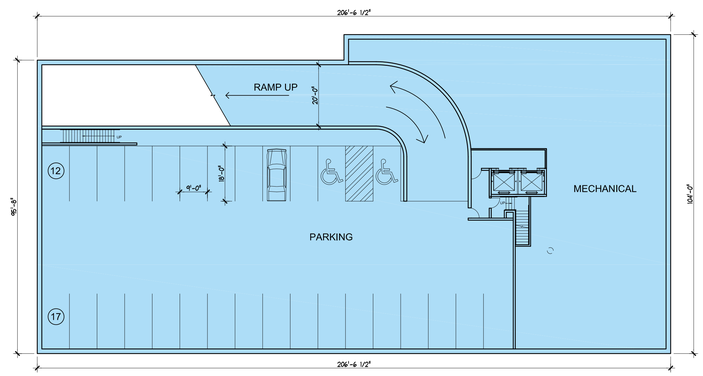
EIGHTH FLOOR
11,075 SF



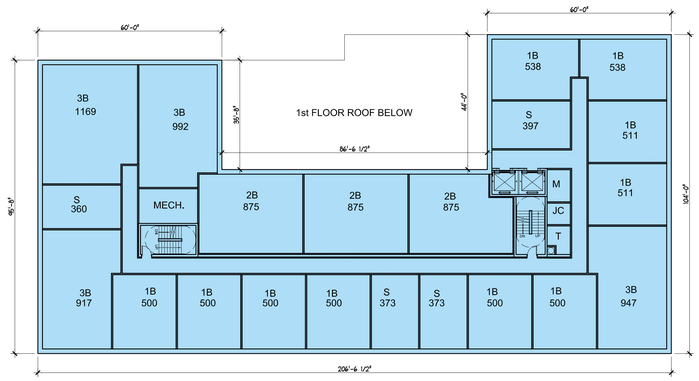
FIRST FLOOR
19,700 SF



SEVENTH FLOOR
12,300 SF



CELLAR FLOOR
20,647 SF



FLOORS 3-6
17,173 SF

0 10' 20' 40'
SCALE: 1" = 20'-0"

COMMERCIAL
RESIDENTIAL

FLOOR PLANS

NEWMAN DESIGN
ARCHITECTURE • URBAN PLANNING
210 West Rogues Path • Cold Spring Hills, NY 11743

ATTACHMENT B:
PROPOSED ZONING TEXT

Willow Avenue

Community District 1, The Bronx

9/26/16

* * *

APPENDIX F

Inclusionary Housing Designated Areas and Mandatory Inclusionary Housing Areas

* * *

The Bronx

* * *

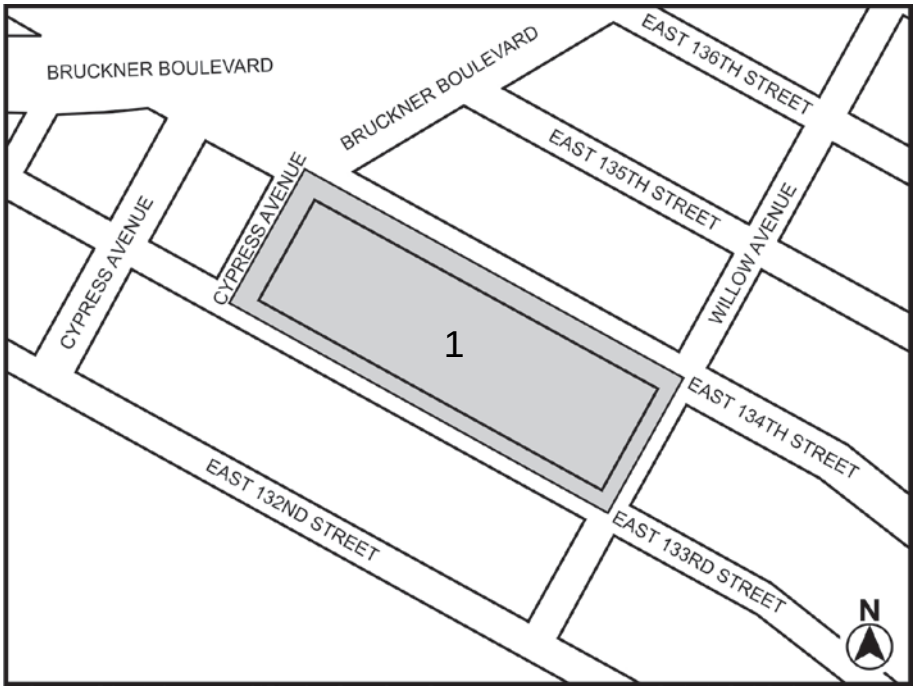
The Bronx Community District 1

In the #Special Harlem River Waterfront District# (see Section 87-20) and in the R6A, R7A, R7X and R8A Districts within the areas shown on the following Maps 1 and 2:

* * *

Map 2 - [date of adoption]

[PROPOSED MAP]



Mandatory Inclusionary Housing Area (MIHA)- see Section 23-154(d)(3)

1 Area 1 – [date of adoption] – MIH Program Option 1 and Option 2

Portion of Community District 1, The Bronx

* * *

ATTACHMENT C:
WATERFRONT REVITATLIZATION PLAN
CONSISTENCY ASSESSMENT

FOR INTERNAL USE ONLY	WRP No. _____
Date Received: _____	DOS No. _____

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

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

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

A. APPLICANT INFORMATION

Name of Applicant: Markland 745 LLC

Name of Applicant Representative: Hiram A Rothkrug, EPDSCO, Inc.

Address: 55 Water Mill Road, Great Neck, NY 11021

Telephone: 718-343-0026 Email: hrothkrug@epdsco.com

Project site owner (if different than above): _____

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The applicant seeks a zoning map amendment from M1-2 and M1-2/R6A (MX-1) to M1-2/R6A (MX-1) and M1-2/R7D (MX-1). The proposed actions include a zoning text amendment to Section 123-90 of the Zoning Resolution (ZR) to designate the Project Area as a Special Mixed Use District (MX-1); as well as an additional zoning text amendment pursuant to Appendix F of the ZR to make the Project Area applicable as a Mandatory Inclusionary Housing (MIH) Area and would be mapped as Options 1 or 2, pursuant to ZR Section 123-154(d). The zoning text amendment will establish an MIH Area coterminous with the Project Area.

2. Purpose of activity

The Proposed Actions would facilitate a proposal by the applicant to construct a mixed-use building on Block 2562, Lots 49, 56, 58, and 60. The Proposed Actions are necessary to allow the proposed residential use. Currently, the Project Area is predominantly zoned M1-2, which do not permit residential use. The purpose of the enlarged MX-1 district is to allow the development of new residential and commercial space while also permitting manufacturing uses, as consistent with warehouse uses on surrounding properties.

C. PROJECT LOCATION

Borough: Bronx Tax Block/Lot(s): Block 2562, Lots 41, 49, 56, 58, 60, and part of Lot 61

Street Address: 750 East 134th St., 761-767 East 133rd St., 740 East 134th St

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

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

☐ City Map Amendment	☐ Zoning Certification	☐ Concession
☑ Zoning Map Amendment	☐ Zoning Authorizations	☐ UDAAP
☑ Zoning Text Amendment	☐ Acquisition – Real Property	☐ Revocable Consent
☐ Site Selection – Public Facility	☐ Disposition – Real Property	☐ Franchise
☐ Housing Plan & Project	☐ Other, explain: _____	
☐ Special Permit		

(if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Board of Standards and Appeals ☐ Yes ☑ No

☐ Variance (use)
☐ Variance (bulk)
☐ Special Permit

(if appropriate, specify type: ☐ Modification ☐ Renewal ☐ other) Expiration Date: _____

Other City Approvals

☐ Legislation	☐ Funding for Construction, specify: _____
☐ Rulemaking	☐ Policy or Plan, specify: _____
☐ Construction of Public Facilities	☐ Funding of Program, specify: _____
☐ 384 (b) (4) Approval	☐ Permits, specify: _____
☐ 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

Portions of the affected area are located within the 0.2% and 1% chance flood areas

6. Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).* ☐ Yes ☑ No

- ☐ Significant Maritime and Industrial Area (SMIA) (*2.1*)
- ☐ Special Natural Waterfront Area (SNWA) (*4.1*)
- ☐ Priority Martine Activity Zone (PMAZ) (*3.5*)
- ☐ Recognized Ecological Complex (REC) (*4.4*)
- ☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (*2.2, 4.2*)

F. WRP POLICY ASSESSMENT

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

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

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

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

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

		Promote	Hinder	N/A
8.5	Preserve the public interest in and use of lands and waters held in public trust by the State and City.	☐	☐	☑
8.6	Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.	☐	☐	☑
9	**Protect scenic resources that contribute to the visual quality of the New York City coastal area.**	☐	☐	☑
9.1	Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.	☐	☐	☑
9.2	Protect and enhance scenic values associated with natural resources.	☐	☐	☑
10	**Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.**	☐	☐	☑
10.1	Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.	☐	☐	☑
10.2	Protect and preserve archaeological resources and artifacts.	☐	☐	☑

G. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Dana Feingold, Environment Studies Corp.

Address: 55 Water Mill Road, Great Neck, NY 11021

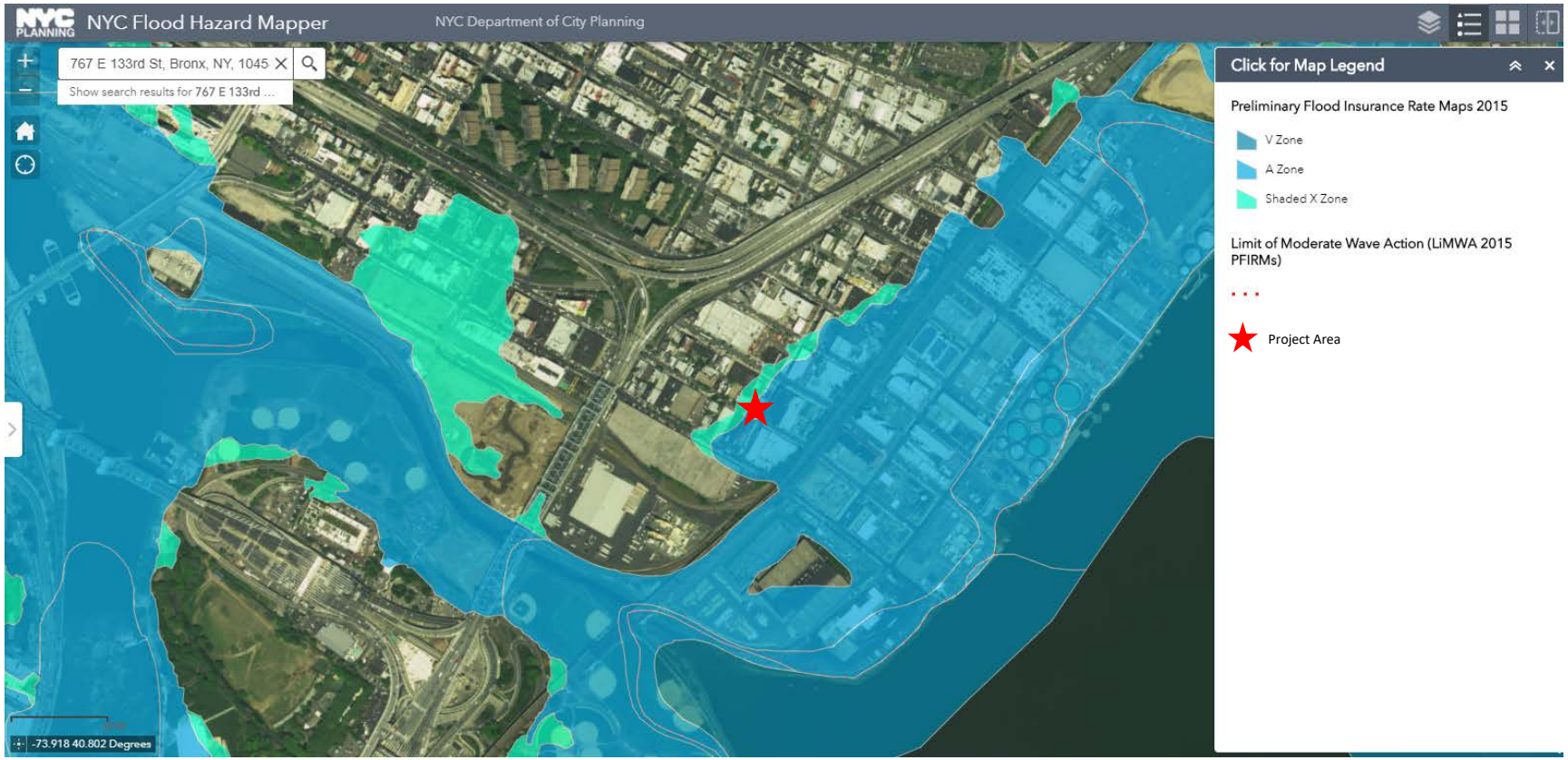
Telephone: 718-343-0026 Email: dfeingold@environmentalstudiescorp.com

Applicant/Agent's Signature: 

Date: 11/21/17

Preliminary Flood Insurance Rate Map, 2015

Willow Avenue Rezoning



WATERFRONT REVITALIZATION PROGRAM (WRP)

CONISTENCY ASSESSMENT FORM NARRATIVE

WILLOW AVENUE REZONING, BRONX

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

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

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

The Applicant seeks a Zoning Map Amendment from M1-2 and M1-2/R6A (MX-1) to M1-2/R7D (MX-1) and a zoning text amendment to make the Project Area applicable to the Mandatory Inclusionary Housing (MIH) Program (Option 1 or 2). The Proposed Actions would build on the two previous rezonings in Port Morris by enlarging the existing MX-1 district and adding a new higher density M1-2/R7D district. Two Projected Development Sites, one controlled by the applicant and one soft site, have been identified under the Reasonable Worst Case Development Scenario:

- Projected Development Site 1 (Block 2562, Lots 49, 56, 58, and 60)
- Projected Development Site 2 (Block 2562, Lot 41).

The Projected Development Sites are paved or developed lots that are not located on the waterfront or within any Special Natural Waterfront Areas or Significant Maritime and Industrial Areas. The Projected Development Sites are located upland (over 1,600 feet from the waterfront) within a heavily-developed area and is not suited for other purposes pursuant to the policy above. Any development facilitated by the proposed actions would comply with all applicable zoning, air quality, and other applicable standards, as analyzed within the environmental assessment statement (EAS).

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

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.

Projected Development Site 1 is partially within the 1% annual chance floodplain (FEMA-designated Zone AE) and partially within the 0.2% annual chance floodplain (Zone X).

Projected Development Site 2 is partially within the 0.2% annual chance floodplain (Zone X). Within Zone AE, FEMA requires that all new construction have the lowest floor elevated to or above the base flood elevation (BFE). Within Zone X, FEMA does not provide building requirements, because these buildings are outside of the Special Flood Hazard Area (SFHA). Any new construction on Projected Development Site 1 will comply with all FEMA provisions for new buildings located within Zone AE. Any new construction on Projected Development Sites 1 or 2 will comply with any applicable City, State, or Federal flood proofing requirements. In doing so, any potential losses caused by flooding will be minimized.

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 affected area is located inland from the shore at an elevation of approximately 12.8 feet above NAVD88. The ground floor of the proposed building on Projected Development Site 1 will be elevated one foot to an elevation of 14.2 feet, 1.2 feet above the base flood elevation (BFE) of 13 feet. The building cellar, to contain parking, storage, and some building mechanicals, will be at an elevation of -1.8 feet, and dry floodproofed to 14.2 feet. Residential units will be located on the second floor and above, at a minimum elevation of 29.2 feet. The building's boilers are proposed on the rooftop at an elevation of 99.2 feet.

The lowest elevation of the proposed building on Projected Development Site 1 would be the cellar level, the floor of which would be at -1.8 feet (NAVD88). The cellar is proposed to contain 34 non-accessory parking spaces, building storage, and building mechanical equipment (not including boilers). Cellar spaces would be dry floodproofed to an elevation of 14.2 feet. The cellar would be below the current 1% annual chance floodplain height of 13 feet and would be below the 1% flood elevation between now and the year 2100, the project's lifespan, under all sea level rise projections. Potential consequences from flooding would include temporary loss of building services, minor damage to parking/storage areas, and possible damage to the cellar-level utility equipment. No critical building mechanicals would be utilized in this area as they would be located on higher levels of the building.

The next lowest point in the proposed development would consist of the ground floor at an elevation of 14.2 feet. The ground floor is proposed to contain a residential lobby and commercial retail space. This level would be above the current 1% annual chance floodplain height of 13 feet. By the 2020s, it would be below the floodplain height under the high sea level rise projections. In the 2050s and beyond, the ground floor would be below the floodplain height under the high-mid sea level rise projections. Potential consequences from flooding would include minor damage to the residential lobby and

commercial space. This could result in minor damage to property, and temporary displacement of residents and the business occupying the commercial space.

The second through ninth floors would contain residential units. The lowest occupied residential level, the second floor, would be at an elevation of 29.2 feet. This level would be above the 1% annual chance floodplain height of 13 feet under current conditions and under all future projections of sea level rise. No flood damage would be anticipated.

Building boilers proposed on the rooftop at an elevation of 99.2 feet. This level would be above the 1% annual chance floodplain height of 13 feet under current conditions and under all future projections of sea level rise. No flood damage would be anticipated to these critical systems.

Coastal storms could bring high winds in addition to the flood hazards described above. The site is not within a Coastal A or V zone.

In summary, the proposed project is currently within the official FEMA 1% annual chance floodplain and is required to meet NYC Building Code requirements for flood resistant construction which are further discussed below. The buildings have been designed to only locate parking, building lobbies, and commercial space below the level of the floodplain which, if exposed to flood waters, would result in minimal damage to the buildings and their operations. No dwelling units or critical building mechanicals are proposed on the ground floor or cellar level of the building. In addition, the residential entrances would be dry flood-proofed with flood-proof barriers. The cellar would be dry-floodproofed to an elevation of 14.2 feet.

The project would not make flooding on adjacent sites worse, nor would it conflict with other plans for flood protection on adjacent sites.

Adaptive measures to protect the development site from future flooding could include the elevation of the site or the building, or the construction of a floodwall to protect against high water levels.

The proposed project is consistent with Policy 6.2. The proposed building is not anticipated to experience flooding under present conditions, and potential losses resulting from higher high water levels in the future can feasibly be managed by adaptive measures such as floodwalls and dry floodproofing.

ATTACHMENT D:
NOISE BACKUP

Results Summary

C:\Lakes\AERMOD View\WillowAve\WillowAve.isc
WillowAve_Site2 on Site1 1 hour NO2 No Downwash 100ft from Site1

NO2 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	8TH	120.31287	ug/m^3	591619.41	4517294.82	0.00	26.18	0.00	

NO2 - Concentration - Source Group: SRCGP1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	8TH	43.06645	ug/m^3	591619.41	4517294.82	0.00	26.18	0.00	

NO2 - Concentration - Source Group: SRCGP2

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	8TH	117.16488	ug/m^3	591652.47	4517301.66	0.00	7.90	0.00	

Results Summary

C:\Lakes\AERMOD View\WillowAve\WillowAve.isc
WillowAve_Site2 on Site1 1 hour NO2 With Downwash 100ft from Site1

NO2 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	8TH	117.61078	ug/m^3	591604.77	4517258.87	0.00	4.85	0.00	

NO2 - Concentration - Source Group: SRCGP1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	8TH	8.39690	ug/m^3	591622.12	4517299.76	0.00	26.18	0.00	

NO2 - Concentration - Source Group: SRCGP2

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	8TH	117.16488	ug/m^3	591656.03	4517296.21	0.00	1.80	0.00	

Results Summary

C:\Lakes\AERMOD View\WillowAve\WillowAve.isc
WillowAve_Site2 on Site1 24 hour PM25 No Downwash 100 ft from Site1

PM-2.5 NAAQS - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
24-HR	1ST	4.33401	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	

PM-2.5 NAAQS - Concentration - Source Group: SRCGP1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
24-HR	1ST	4.33401	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	

Results Summary

C:\Lakes\AERMOD View\WillowAve\WillowAve.isc
WillowAve_Site2 on Site1 24 hour PM25 With Downwash 100ft from Site1

PM-2.5 NAAQS - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
24-HR	1ST	0.32580	ug/m^3	591622.12	4517299.76	0.00	26.18	0.00	

PM-2.5 NAAQS - Concentration - Source Group: SRCGP1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
24-HR	1ST	0.32580	ug/m^3	591622.12	4517299.76	0.00	26.18	0.00	

Results Summary

C:\Lakes\AERMOD View\WillowAve\WillowAve.isc
WillowAve_Site2 on Site1 Annual 1G/S No Downwash 100ft from Site1

1GPERSEC - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		245.11271	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y1		218.35561	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y2		275.06364	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y3		264.63335	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y4		236.45878	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y5		231.05217	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	

1GPERSEC - Concentration - Source Group: SRCGP1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		245.11271	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y1		218.35561	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y2		275.06364	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y3		264.63335	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y4		236.45878	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	
ANNUAL Y5		231.05217	ug/m^3	591618.06	4517292.34	0.00	23.14	0.00	

Results Summary

C:\Lakes\AERMOD View\WillowAve\WillowAve.isc
WillowAve_Site2 on Site1 1 hour NO2 With Downwash 100ft from Site1

1GPERSEC - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		36.22073	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	
ANNUAL Y1		36.80833	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	
ANNUAL Y2		36.13169	ug/m^3	591632.70	4517313.17	0.00	1.80	0.00	
ANNUAL Y3		35.96490	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	
ANNUAL Y4		36.15631	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	
ANNUAL Y5		37.67616	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	

1GPERSEC - Concentration - Source Group: SRCGP1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		36.22073	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	
ANNUAL Y1		36.80833	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	
ANNUAL Y2		36.13169	ug/m^3	591632.70	4517313.17	0.00	1.80	0.00	
ANNUAL Y3		35.96490	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	
ANNUAL Y4		36.15631	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	
ANNUAL Y5		37.67616	ug/m^3	591615.39	4517284.07	0.00	1.80	0.00	

ATTACHMENT E:
HISTORIC AND CULTURAL RESOURCES

NYC Landmarks Preservation Commission

1 Centre Street
9th Floor North
New York, NY 10007

Voice (212)-669-7700
Fax (212)-669-7960
http://nyc.gov/landmarks

ENVIRONMENTAL REVIEW

Project number: DEPARTMENT OF CITY PLANNING / LA-CEQR-X
Project: WILLOW AVENUE REZONING
Date received: 9/25/2017

Properties with no Architectural or Archaeological significance:

1) ADDRESS: 740 EAST 134 STREET, BBL: 2025620041
2) ADDRESS: 750 EAST 134 STREET, BBL: 2025620049
3) ADDRESS: 767 EAST 133 STREET, BBL: 2025620056
4) ADDRESS: 763 EAST 133 STREET, BBL: 2025620058
5) ADDRESS: 761 EAST 133 STREET, BBL: 2025620060
6) ADDRESS: 759 EAST 133 STREET, BBL: 2025620061

Gina Santucci 10/2/17

SIGNATURE DATE
Gina Santucci, Environmental Review Coordinator

File Name: 32816_FSO_DNP_09282017.doc