701 West 135th Street Rezoning

Environmental Assessment Statement

PREPARED FOR

Crosscap Holdings, LLC
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PREPARED BY

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CEQR #23DCP140M

MARCH 29, 2024

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* West 135th Street Rezoning

3. *Reference Numbers*

CEQR REFERENCE NUMBER (to be assigned by lead agency) 23DCP140M	BSA REFERENCE NUMBER (if applicable)
ULURP REFERENCE NUMBER (if applicable) 230206ZMM, N230207ZRM, 230209ZSM, 230208ZSM	OTHER REFERENCE NUMBER(S) (if applicable) (*e.g.*, legislative intro, CAPA)

4a. *Lead Agency Information*			**4b. *Applicant Information***		
NAME OF LEAD AGENCY NYC Department of City Planning			NAME OF APPLICANT Crosscap Holdings LLC		
NAME OF LEAD AGENCY CONTACT PERSON Stephanie Shellooe, AICP, Director			NAME OF APPLICANT'S REPRESENTATIVE OR CONTACT PERSON Rick Serrapica		
ADDRESS 120 Broadway, 31st Floor			ADDRESS 1841 Broadway, Suite 811		
CITY New York	STATE NY	ZIP 10271	CITY New York	STATE NY	ZIP 10023
TELEPHONE (212) 720-3328	EMAIL sshellooe@planning.nyc.gov		TELEPHONE (646) 545-6700	EMAIL rserrapica@libertyplacepm.com	

5. *Project Description*

The Applicant, Crosscap Holdings LLC, is seeking discretionary actions that would apply to the Project Area (Manhattan Block 2101, Lot 58, a portion of Lot 55, and a portion of Lot 60). The Proposed Actions include a zoning map amendment to rezone the Project Area from M1-1 to R7-2 within a C2-4 commercial overlay; a zoning text amendment, and two zoning special permits. The Applicant is requesting a zoning text amendment to designate the Project Area as a Mandatory Inclusionary Housing (MIH) Area, a zoning text amendment to NYC Zoning Resolution (ZR) Article X, Chapter 4, Appendix A to add the Project Area as "Other Area" within the Special Manhattanville Mixed-Use District, and a zoning text amendment to the Special Manhattanville Mixed-Use District regulations to create a new special permit (ZR 104-60) to allow the modification of bulk regulations, except for floor area regulations, for developments within or over a railroad or transit right-of-way or yard. The requested special permits are a special permit under ZR 74-681 "Development within or over a railroad or transit right-of-way or yard"; and a special permit under the newly created ZR 104-60 to allow for the construction of the Proposed Project.

The Proposed Actions would facilitate a mixed-used development of 53,548 gross square foot (gsf) at the Applicant-owned lot at 701 West 135th Street (Projected Development Site 1) in the Manhattanville neighborhood of Manhattan Community District 9 (Manhattan Block 2101, Lot 58). In the future with the Proposed Actions, development would only occur on Projected Development Site 1, and no development would occur on the portion of Block 2101, Lot 60 in the Project Area. The Proposed Project would include approximately 45,444 gsf of residential space (or 60 dwelling units), 7,415 gsf of ground floor commercial retail space, and 689 gsf of community facility space. The Proposed Project would have a maximum height of 71.5 feet (excluding the bulkhead). Projected Development Site 1 would include 60 dwelling units, 25-30% (15 to 18 units) of which would be affordable pursuant to MIH at an average of 60-80% AMI depending on the Option selected.

Project Location

BOROUGH Manhattan	COMMUNITY DISTRICT(S) 9	STREET ADDRESS 701 West 135th Street
TAX BLOCK(S) AND LOT(S) Block 2101, Lot 58 (entirely), Lot 55 (partially), and Lot 60 (partially)		ZIP CODE 10031
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS The Project Area is bounded by Twelfth Avenue to the east, West		

135th Street to the south, and portions of Lot 60 to the north and west.

EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY M1-1 | ZONING SECTIONAL MAP NUMBER 5C

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

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

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

☒ SPECIAL PERMIT (if appropriate, specify type: ☒ modification; ☐ renewal; ☐ other); EXPIRATION DATE:

SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION ZR 74-681; ZR 104-00; ZR 104-60

***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 ☐ Cogeneration Facility ☐ Title V Permit

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

- ☐ LEGISLATION
- ☐ RULEMAKING
- ☐ CONSTRUCTION OF PUBLIC FACILITIES
- ☐ 384(b)(4) APPROVAL
- ☐ OTHER, explain:
- ☐ FUNDING OF CONSTRUCTION, specify:
- ☐ POLICY OR PLAN, specify:
- ☐ FUNDING OF PROGRAMS, specify:
- ☐ PERMITS, specify:

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

- ☐ PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)
- ☐ LANDMARKS PRESERVATION COMMISSION APPROVAL
- ☐ OTHER, explain:

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

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

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

- ☒ SITE LOCATION MAP
- ☒ ZONING MAP
- ☒ SANBORN OR OTHER LAND USE MAP
- ☒ TAX MAP
- ☐ FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)
- ☒ PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP

Physical Setting (both developed and undeveloped areas)

Total directly affected area (sq. ft.): 11,997 | Waterbody area (sq. ft) and type: 0

Roads, buildings, and other paved surfaces (sq. ft.): 11,997 | Other, describe (sq. ft.): 0

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): 53,548

NUMBER OF BUILDINGS: 1 | GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): 53,548

HEIGHT OF EACH BUILDING (ft.): 71.5 | NUMBER OF STORIES OF EACH BUILDING: 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: 11,997

The total square feet not owned or controlled by the applicant: 0

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

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

AREA OF TEMPORARY DISTURBANCE: 11,997 sq. ft. (width x length) | VOLUME OF DISTURBANCE: 31,432 cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: 11,997 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.)	45,444	7,415	689	0
Type (*e.g.,* retail, office, school)	60 units	4 retail spaces	1 community facility space	

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

If "yes," please specify: NUMBER OF ADDITIONAL RESIDENTS: 158 NUMBER OF ADDITIONAL WORKERS: 24

Provide a brief explanation of how these numbers were determined: The number of additional residents assumed the average of 2.63 persons per dwelling unit in Manhattan Community District 9 (2015-2019 American Community Survey). The number of additonal workers assumes 3 workers per 1,000 gsf of retail space and 3 workers per 1,000 gsf of community facility space.

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): 2025

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: 12

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: Assuming completion of ULURP in Q4 of 2024, followed by up to 12 months for demolition and construction, the analysis (build) year is 2025, when full building occupancy is expected.

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

☒ RESIDENTIAL ☒ MANUFACTURING ☐ COMMERCIAL ☒ PARK/FOREST/OPEN SPACE ☒ OTHER, specify: Transportation/utility

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?	☐	☒
○ 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?	☒	☐
○ If "yes," complete the Consistency Assessment Form. See attached.		
2. *SOCIOECONOMIC CONDITIONS*: CEQR Technical Manual Chapter 5		
(a) Would the proposed project:		
○ Generate a net increase of 200 or more residential units?	☐	☒
○ Generate a net increase of 200,000 or more square feet of commercial space?	☐	☒
○ Directly displace more than 500 residents?	☐	☒
○ Directly displace more than 100 employees?	☐	☒
○ Affect conditions in a specific industry?	☐	☒
3. *COMMUNITY FACILITIES*: CEQR Technical Manual Chapter 6		
(a) Direct Effects		
○ 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		
○ **Early Childhood Programs:** 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)	☐	☒
○ **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)	☐	☒
○ **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)	☐	☒
○ **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 project change or eliminate existing open space?	☐	☒
(b) Would the project generate more than 200 additional residents or 500 additional employees?	☐	☒
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		

	YES	NO
(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?	☐	☒
○ 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?	☐	☒
○ If "yes," complete the Jamaica Bay Watershed Protection Plan Project Tracking 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) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	☐	☒
(c) 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?	☐	☒
(d) 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 the Hazardous Materials Appendix (including nonconforming uses)?	☒	☐
(e) 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?	☒	☐
(f) 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)?	☒	☐
(g) 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?	☐	☒
(h) 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?	☒	☐
(i) Has a Phase I Environmental Site Assessment been performed for the site?	☒	☐
○ If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify:	☐	☒
(j) Based on the Phase I Assessment, is a Phase II Investigation needed?	☐	☐
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?	☐	☐
(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?	☐	☒

	YES	NO
(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): 4,426		
○ 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): 6,784,532 Mbtu		
(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:		
○ 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.*	☐	☐
○ Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry 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), 200 subway/rail trips per station or line, or 25 or more Citywide Ferry Service ferry trips on a single route (in one direction), or 50 or more passengers at a Citywide Ferry Service landing?	☐	☐
○ 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, or Citywide Ferry Service landing?	☐	☐
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?	☒	☐
○ If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in Chapter 17? (Attach graph as needed)	☐	☒
(c) Does the proposed project involve multiple buildings on the project site?	☐	☒
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	☐	☒
(e) Does the proposed project site have existing institutional controls (*e.g.*, (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	☐	☒
15. *GREENHOUSE GAS EMISSIONS*: CEQR Technical Manual Chapter 18		
(a) Is the proposed project a city capital project or a power generation plant?	☐	☒
(b) Would the proposed project fundamentally change the City's solid waste management system?	☐	☒
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in Chapter 18?	☐	☒
16. *NOISE*: CEQR Technical Manual Chapter 19		
(a) Would the proposed project generate or reroute vehicular traffic?	☒	☐
(b) Would the proposed project introduce new or additional receptors (see Section 114 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; Hazardous Materials; Noise?	☐	☒

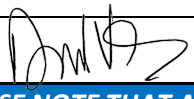
	YES	NO
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in Chapter 20, "Public Health." Attach a preliminary analysis, if necessary.		
18. *NEIGHBORHOOD CHARACTER*: CEQR Technical Manual Chapter 21		
(a) Based upon the analyses conducted, do any of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

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
David Velez, AICP	March 28, 2024

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:

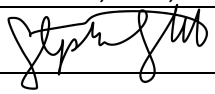
☐ **Positive Declaration**: If the lead agency has determined that the project may have a significant impact on the environment, and if a Conditional Negative Declaration is not appropriate, then the lead agency issues a *Positive Declaration* and prepares a draft Scope of Work for the Environmental 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	Department of City Planning on behalf of the City Planning Commission
NAME	DATE
Stephanie Shellooe, AICP, Director	March 29, 2024

SIGNATURE 

NEGATIVE DECLARATION

Statement of No Significant Effect

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

Reasons Supporting this Determination

The above determination is based on information contained in this EAS, which finds the proposed actions sought before the City Planning Commission would not have a significant adverse impact on the environment. Reasons supporting this determination are noted below.

Land Use, Zoning, and Public Policy

A detailed analysis of land use, zoning, and public policy is included in the EAS. The applicant, Crosscap Holdings LLC, seeks a zoning map amendment to rezone Manhattan Block 2101, Lots 58 and portions of Lots 55 and 60 (the "Project Area") from a M1-1 district to a R7-2/C2-4 district; a zoning text amendment to Appendix F of the Zoning Resolution (ZR) to designate the Project Area a Mandatory Inclusionary Housing (MIH) area; a zoning text amendment to Article X, Chapter 4, Appendix A of the ZR to add the Project Area to the Special Manhattanville Mixed-Use District as "Other Area"; a zoning text amendment to ZR 104-60 to allow a special permit to modify the applicable bulk regulations, except floor area regulations, for developments within or over a railroad right-of-way; a special permit pursuant to ZR 74-681 to allow for development within and over a railroad right-of-way; and a special permit pursuant to ZR 104-60 to allow for the construction of the Proposed Development which does not comply with rear yard and lot coverage requirements (the "Proposed Actions"). The Proposed Actions would facilitate the development of a new 71.5-foot-tall, 53,548 gross square foot (gsf) mixed-use building consisting of 60 residential dwelling units, including approximately 15 income-restricted dwelling units pursuant to MIH, 7,419 gsf of ground floor commercial space, and 689 gsf of ground floor community facility space (the "Proposed Project").

The Proposed Actions would not result in significant adverse impacts to Land Use, Zoning, and Public Policy. The Proposed Actions would establish a medium-density residential zoning district with a commercial overlay to the west of where similar medium-density districts are mapped throughout West Harlem and the Upper West Side of Manhattan. The Proposed Actions would facilitate the development of a mixed-use residential, commercial, and community facility building and would not generate land uses that would be incompatible with existing residential, commercial, and light manufacturing uses located within the surrounding area. The Project Area is within the Coastal Zone Boundary, and the Proposed Actions would be consistent with the policies of the NYC Waterfront Revitalization Program (WRP #21-199). Therefore, the Proposed Actions would not result in significant adverse impacts to Land Use, Zoning, and Public Policy and no further analysis is required.

Shadows

A detailed Shadows analysis is included in this EAS. The detailed shadows analysis indicates that of six sunlight-sensitive resources identified within the shadows study area, development facilitated by the Proposed Actions would cast incremental shadows on three sunlight-sensitive resources during at least one of the analysis days pursuant to the CEQR Technical Manual guidance. The three sunlight-sensitive resources that would receive incremental shadows are Riverside Park, the 12th Avenue Green Street, and the Hudson River.

Incremental shadows resulting from the Proposed Actions would reach portions of Riverside Park on the March 21st/September 21st analysis days for one hour and 28 minutes, two hours and 29 minutes on the May 6th/August 6th analysis days, and for three hours and one minute on the June 21st analysis day. On each of the analysis days, incremental shadows facilitated by the Proposed Actions would reach a portion of Riverside Park that is elevated above 12th Avenue and supported by a retaining wall to the east of the Project Area. The portion of Riverside Park that would receive incremental shadow from the Proposed Project has trees, underbrush, and a walking path but does not have benches or other passive or active recreational features. Vegetative areas that include trees and underbrush within this portion of Riverside Park would still receive ample sunlight including during the growing season. The incremental shadows resulting from the Proposed Actions would not significantly reduce sunlight exposure on this resource on any analysis day and would not affect the public's usability or enjoyment of Riverside Park.

Incremental shadows resulting from the Proposed Actions would reach portions of the 12th Avenue Green Street on the March 21st/September 21st analysis days for one hour and 13 minutes, for one hour and 47 minutes on the May 6th/August 6th analysis days, and one hour and 57 minutes on the June 21st analysis day. The 12th Avenue Green Street is a small, planted median directly adjacent to the east of the Project Area. The Green Street contains planted bushes and trees and does not have active or passive recreational assets. Portions of the northern Green Street would receive incremental shadows facilitated by the Proposed Actions, however, plantings within this portion of the Green Street would continue to receive ample sunlight, including during the growing season. Incremental shadows resulting from the Proposed Actions would not significantly reduce sunlight exposure on the 12th Avenue Green Street.

Incremental shadows resulting from the Proposed Actions would reach small portions of the Hudson River on all analysis days. Incremental shadows would be cast on the Hudson River for one hour on the December 21st analysis day, for 39 minutes on the March 21st/September 21st analysis days, for 12 minutes on the May 6th/August 6th analysis days, and for 10 minutes during the June 21st analysis day. Shadows facilitated by the Proposed Actions would be brief in duration and would cover small portions of the eastern edge of the Hudson River. The small area and brief duration of shadows resulting from the Proposed Project would not significantly reduce sunlight exposure on this sunlight-sensitive resource.

Incremental shadows resulting from the Proposed Actions would not significantly reduce the amount of direct sunlight available to any sunlight-sensitive resource including specific features that define any resource's character, use, or survival of the resource's vegetation. Incremental shadows resulting from the Proposed Actions would not significantly affect the public's enjoyment of any sunlight-sensitive resources. Therefore, no significant adverse impacts related to shadows would occur as a result of the Proposed Actions and no further analysis is required.

Project Name: 135th Street Rezoning
CEQR # 23DCP140M
SEQRA Classification: Unlisted

Hazardous Materials, Air Quality, and Noise
An (E) designation (E-761) related to hazardous materials, air quality, and noise would be established as part of the approval of the proposed actions. Refer to "Determination of Significance Appendix: (E) designation" for the applicable (E) designation requirements. The hazardous materials, air quality, and noise analyses conclude that with the (E) designation in place, the proposed actions would not result in a significant adverse impact related to hazardous materials, air quality, or noise.

No other significant effects upon the environment that would require the preparation of a Draft Environmental Impact Statement are foreseeable. This Negative Declaration has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law (SEQRA). Should you have any questions pertaining to this Negative Declaration, you may contact Sean O'Rourke at sorourke@planning.nyc.gov.

TITLE	LEAD AGENCY
Director, Environmental Assessment and Review Division	Department of City Planning on behalf of the City Planning Commission 120 Broadway, 31st Fl. New York, NY 10271 | 212.720.3328
NAME Stephanie Shellooe, AICP	DATE 3/29/2024
SIGNATURE	
TITLE Chair, City Planning Commission	
NAME Daniel R. Garodnick	DATE 4/1/2024
SIGNATURE	

Project Name: 135th Street Rezoning
CEQR # 23DCP140M
SEQRA Classification: Unlisted

Determination of Significance Appendix

The Proposed Action(s) were determined to have the potential to result in changes to development on the following site(s):

Development Site	Borough	Block and Lot
Projected Development Site 1	Manhattan	Block 2101, Lot 58

(E) Designation Requirements

To ensure that the proposed actions would not result in significant adverse impacts related to hazardous materials, air quality, and noise an (E) designation (**E-761**) would be established as part of approval of the proposed actions on **Projected Development Site 1** as described below:

Development Site	Hazardous Materials	Air Quality	Noise
Projected Development Site 1	X	X	X

Hazardous Materials

The (E) designation requirements applicable to **Projected Development Site 1** for hazardous materials would apply 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.

Project Name: 135th Street Rezoning
CEQR # 23DCP140M
SEQRA Classification: Unlisted

Air Quality

The (E) designation requirements for air quality would apply as follows:

> ***Projected Development Site 1:*** *Any new residential, commercial and/or community facility development must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning system and hot water equipment, and ensure the HVAC system and hot water equipment stack is located at the highest tier and at least 75 feet above grade to avoid any potential significant air quality impacts.*

Noise

The (E) designation requirements for noise would apply as follows:

> ***Projected Development Site 1:*** *In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 35 dBA window/wall attenuation on the western facades facing Henry Hudson Parkway, the southern facades facing West 135th Street, and the northern facades facing West 138th Street and 33 dBA of attenuation on the facades facing Twelfth Avenue for floors at or above Riverside Drive and 31 dBA of attenuation on the facades facing Twelfth Avenue for floors below Riverside Drive to maintain an interior noise level not greater than 45 dBA for residential and community facility uses. To maintain a closed-window condition, an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, well-sealed air conditioners, package-terminal air conditioners, or central air conditioning.*

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Figure 1 Site Location Map

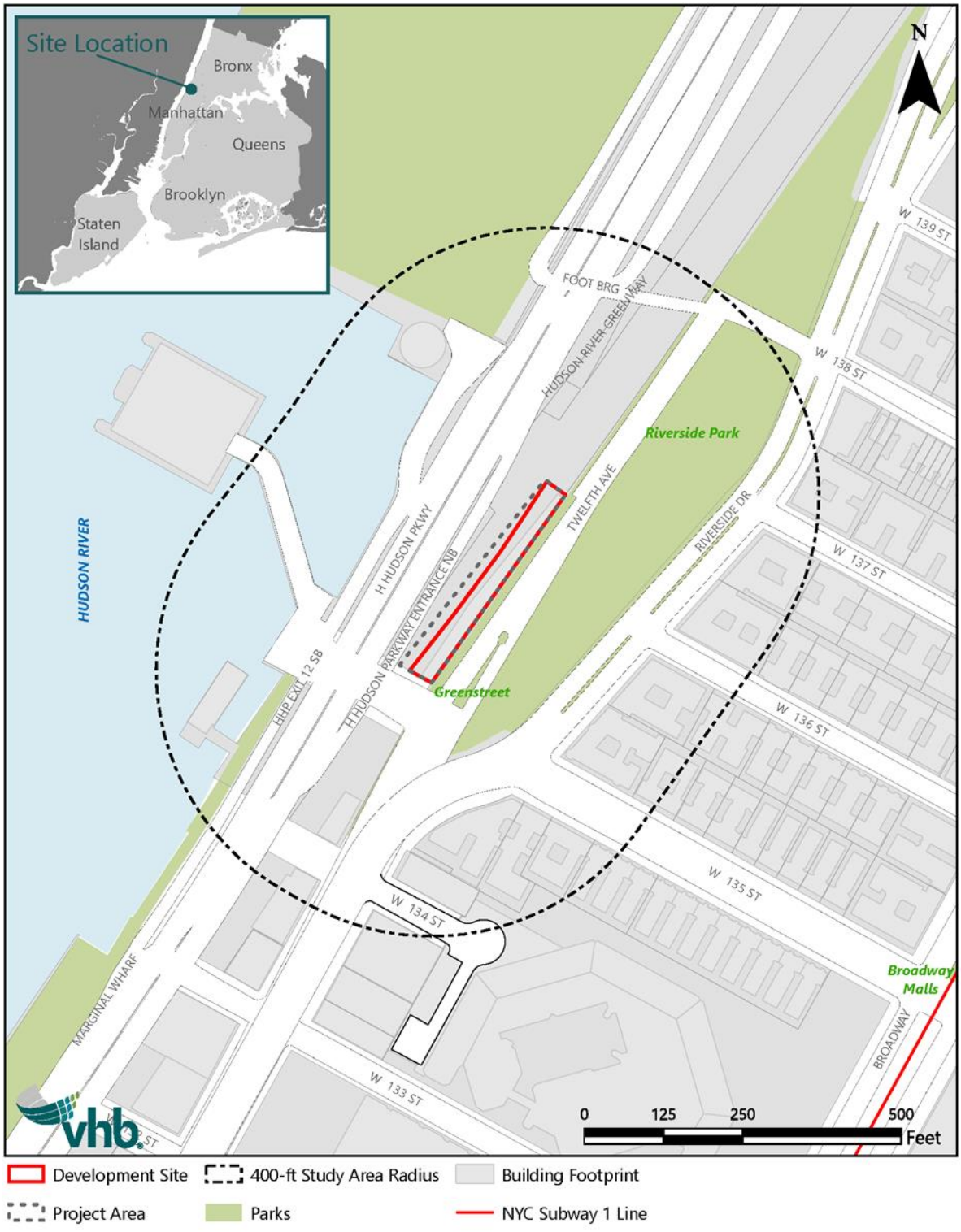


Figure 2 Tax Map

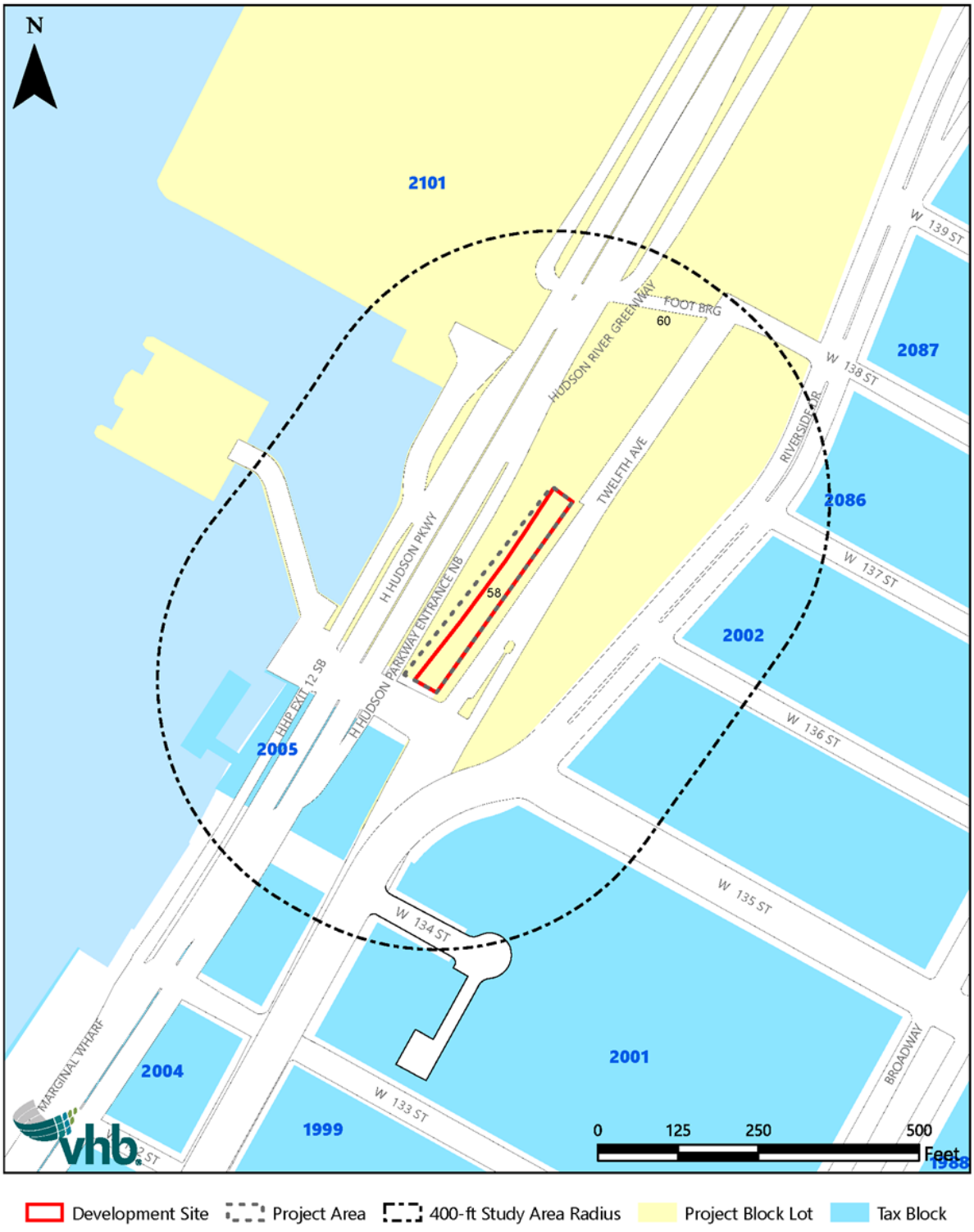


Figure 3 Existing Zoning Map

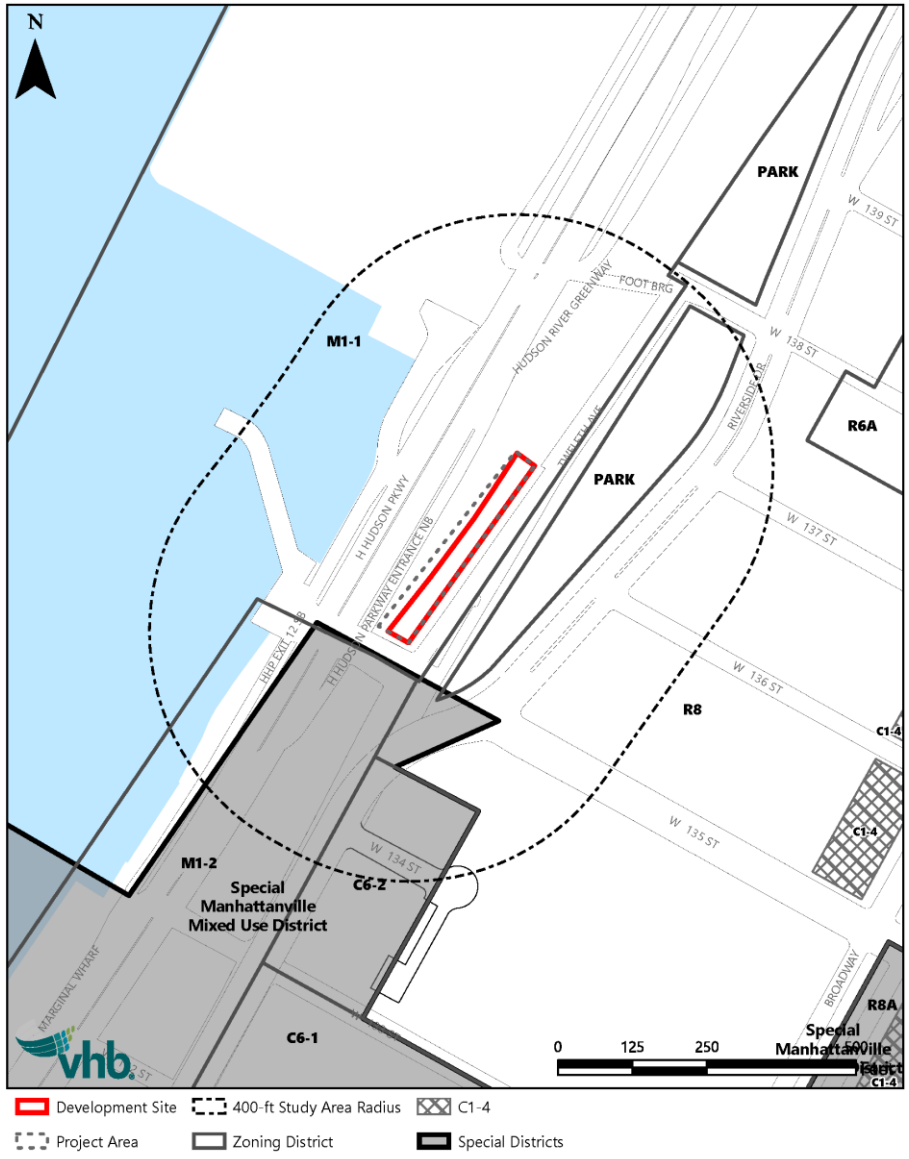
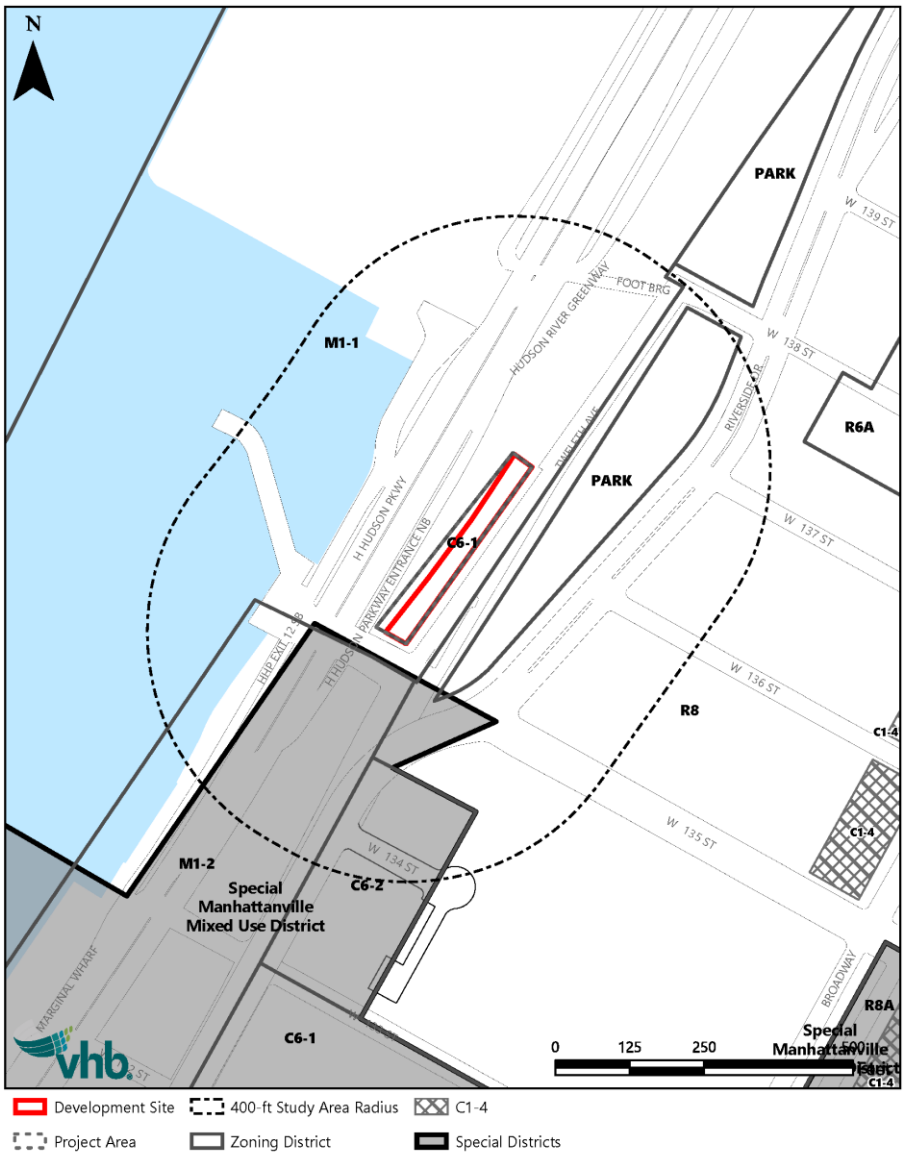


Figure 4 Proposed Zoning Map



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Part I: Project Description

Introduction

The Applicant, Crosscap Holdings, LLC, is requesting several actions (the "Proposed Actions") to facilitate development of a mixed-use building with a total of approximately 53,548 gross square foot (gsf) ("the Proposed Project") at 701 West 135th Street in the Manhattanville neighborhood of Manhattan Community District 9.

Development Site

The Development Site, on which the Proposed Project would be constructed, is located on Manhattan Block 2101, Lot 58. Lot 58 is an irregularly shaped 11,997-square foot corner lot bounded by Twelfth Avenue to the east, West 135th Street to the south, and Lot 60 to the north and west. It has approximately 362 feet of frontage on Twelfth Avenue and 36 feet of frontage on West 135th Street. It has a maximum depth of approximately 36 feet.

The Development Site is improved with a two-story brick building that is approximately 42 feet in height and contains 19,186 gross square foot (gsf) of floor area. The building is legally non-complying, per the original Certificate of Occupancy issued in 1928 and per the current Certificate of Occupancy issued in 2015. There have been no enlargements since the original construction. The building is currently vacant. Historically, it had been occupied by warehouse uses. It was most recently occupied with commercial uses (an eating and drinking establishment). A sign structure is present at the roof level; it does not currently contain advertisements.

Project Area

The Project Area consists of the Development Site, a portion of Manhattan Block 2101, Lot 55, and a portion of Manhattan Block 2101, Lot 60. Lot 60 is an irregularly shaped 142,467-square foot lot that runs along the elevated West Side Line railroad tracks from West 135th Street to West 145th Street. The portion of Lot 60 that is included within the Project Area stretches from the western boundary of Lot 58 to the western edge of the West Side Line railroad tracks.

The ground floor of the Proposed Project will extend beneath the West Side Line railroad tracks, which are elevated to a height of approximately 21 feet, 8 inches.

Proposed Actions

The applicant is requesting several actions, including:

- A zoning map amendment to Zoning Map 5c to rezone the Project Area from M1-1 to R7-2 within a C2-4 commercial overlay.
- A zoning text amendment to Appendix F to apply Mandatory Inclusionary Housing (MIH) to the Project Area, which will require that any new residential development on the

Project Area provide at least 20 percent of the residential floor area for affordable housing.

- A special permit under ZR 74-681 "Development within or over a railroad or transit right-of-way or yard," as a portion of the Proposed Project will be located over a railroad right-of-way.
- A zoning text amendment to map the project within the Special Manhattanville Mixed-Use District, adding the Project Area as "Other Area."
- A zoning text amendment to the Special Manhattanville Mixed-Use District regulations, creating a new special permit (ZR 104-60) to allow the modification of applicable bulk regulations, except floor area ratio regulations, for developments within or over a railroad or transit right-of-way or yard.
- A special permit under the newly created ZR 104-60 to allow for the construction of the Proposed Project, which does not comply with the rear yard and lot coverage requirements of the Zoning Resolution.

Proposed Project and With-Action Condition

The Proposed Actions would facilitate redevelopment of the Development Site with the Proposed Project. The Applicant proposes to demolish the existing two-story, 19,186-gsf building (and rooftop billboards) and construct a seven-story, approximately 53,548 gsf mixed-use development with 7,415 gsf of commercial space with four ground floor retail spaces, 689 gsf of community facility space with one ground floor space, and 45,444 gsf of residential space or 60 residential dwelling units on floors two through seven, approximately 12 of which would be affordable, in accordance with the requirements of the MIH program. The Proposed Project would have a maximum height of approximately 71.5 feet. All pedestrian access would occur from Twelfth Avenue.

Project Purpose and Need

The existing building on the Development Site has a history of an inability to retain tenants for conforming use. Given the Project Area's location adjacent to Riverside Park and the Hudson River Greenway, as well as its proximity to the Special Manhattanville Mixed Use District, it is the Applicant's belief that there is a land use justification to modify the underlying zoning district to permit residential use. With the Proposed Actions, the Applicant can redevelop the site to accommodate demand for new housing with affordable units.

In order to construct a building that is acceptable to the surrounding community, the Applicant proposes to amend the Zoning Resolution to map the Project Area within the Special Manhattanville Mixed-Use District, within a newly created "Other Area" to Appendix A - Special Manhattanville Mixed Use District Plan, so that it is eligible for the proposed new special permit discussed below.

In order to permit residences above the railroad-right-of-way space, the Applicant will be seeking a special permit under ZR 74-681 "Development within or over a railroad or transit right-of-way or yard."

Additionally, the Applicant is seeking the creation of a new special permit under ZR 104-00 "Special Manhattanville Mixed-Use District" that permits bulk modification in conjunction with 74-681 special permits.

Prior to 2009, the tax lot underlying the Development Site was part of Lot 60. When the Development Site was re-apportioned in 2009, it became a new separate zoning lot. Since the Development Site was not owned separately and individually from all other adjoining tracts of land on December 15, 1961, it is not subject to the Special Provisions for Shallow Interior Lots of ZR 23-52. Therefore, under existing zoning, a 30-foot rear yard would be required, which would result in an unviable shallow building. The new special permit would allow for waiver of the rear yard requirement. Furthermore, to limit the maximum height of the proposed building at, or below Riverside Drive, as requested by the Manhattan Community Board 9, the special permit will allow the construction of the Proposed Project, which will not comply with the lot coverage regulations of the Zoning Resolution.

Finally, the Applicant is proposing a zoning special permit under ZR 104-00 "Special Manhattanville Mixed Use District" to allow for the bulk modifications described above.

Analysis Framework and Reasonable Worst-Case Development Scenario

The *2021 CEQR Technical Manual* will serve as guidance on the methodologies and impact criteria for evaluating the potential environmental effects of the Proposed Project.

For the purpose of the environmental analyses, the "No-Action condition" represents the future absent the Proposed Action(s) and serves as the baseline by which the Proposed Project (or "With-Action" condition) is compared to determine the potential for significant environmental impacts. The difference between the No-Action and With-Action conditions represents the increment to be analyzed in the CEQR process. Collectively, the Existing Conditions, Future No-Action, and Future With-Action Conditions are referred to as the Reasonable Worst Case Development Scenario (RWCDS).

Future No-Action Condition

Absent the Proposed Actions, the existing conditions would continue as a two-story brick building that contains 19,186 gsf of floor area intended for commercial uses. For purposes of environmental review, the extant building will be assumed to be vacant, in order to ensure a more conservative analysis.

Future With-Action Condition

In the With-Action condition, the Applicant would demolish the existing two-story, 19,186-gsf building (and rooftop billboards) and construct the Proposed Project, a seven-story, appropriately 53,548 gsf mixed-use development with 7,415 gsf of commercial space with four ground floor retail spaces, 689 gsf of community facility space with one ground floor space, and 45,444 gsf of residential space or 60 residential dwelling units on floors two through seven, 12 of which would be affordable under the MIH program. The Proposed Project would have a maximum height of approximately 71.5 feet. All pedestrian access would occur from Twelfth Avenue.

Increment for Analysis

The increment for analysis is shown in **Table I-1**.

Table I-1 Increment for Analysis

Use	No-Action Condition	With-Action Condition	Increment
Residential (gsf)	0	45,444	+45,444
Dwelling Units	0	60	+60
Commercial (gsf)	0	7,415	+7,415
Community Facility (gsf)	0	689	+689
Total (gsf)	**0**	**53,548**	**+53,548**
Residents	0	158	+158
Workers	0	24	+24

Analysis (Build) Year

Assuming completion of ULURP in Q4 of 2024, followed by up to 12 months for demolition and construction, the analysis (build) year is 2025, when full building occupancy is expected.

Part II: Supplemental Analysis

Additional Technical Information for EAS Short Form

Introduction

An analysis framework has been established to assess the potential for the Proposed Actions to result in significant adverse environmental impacts. Assessment of the impacts of the Proposed Actions is based on when the full effects of the Proposed Actions are expected to have occurred. It is anticipated that the Proposed Project will be constructed and operational by 2025.

Based on existing conditions, observed trends, and known and expected changes, a development scenario was prepared for the future without the Proposed Action (the No-Action condition) in the 2025 analysis (build) year. The No-Action condition was used as a baseline to identify the potential impacts of the Proposed Actions. From the possible development scenarios that were considered both reasonable and likely to occur as a result of the Proposed Actions, the one with the worst environmental effects is analyzed in the future with the Proposed Actions (the With-Action condition) as the Reasonable Worst Case Development Scenario (RWCDS).

The potential impacts of the Proposed Actions on the environment are determined based on a comparison of the No-Action condition to the With-Action condition. A summary of the comparison, or analysis framework, is provided in **Table II-1**.

Table II-1 Comparison of Uses in the No-Action and With-Action Conditions/RWCDS

Use	No-Action Condition	With-Action Condition	Increment
Residential (gsf)	0	45,444	+45,444
Dwelling Units	0	60	+60
Commercial (gsf)	0	7,415	+7,415
Community Facility (gsf)	0	689	+689
Total (gsf)	**0**	**53,548**	**+53,548**

The overall increment between the No-Action condition and the With-Action condition resulting from the Proposed Actions is an increase of approximately 53,548 gross square feet (gsf), of which 45,444 gsf would be residential space, 7,415 gsf would be commercial space, and 689 gsf would be community facility space.

Provided below are preliminary screening analyses, based on the guidelines presented in the *2021 CEQR Technical Manual*, to determine whether further analysis of a given technical area is necessary to identify the potential for significant adverse impacts to the environment in

that area. For those areas where further analysis is warranted, an assessment is provided in a separate section.

Land Use, Zoning, and Public Policy

According to the *2021 CEQR Technical Manual,* a land use analysis is warranted for projects that would affect land use or change zoning on a site. Because the Proposed Actions would result in a change in land use and zoning, and because the Project Area is located within the City's coastal zone, an analysis of land use, zoning, and public policy is warranted. See **Section 2, Land Use, Zoning, and Public Policy**.

Socioeconomic Conditions

The socioeconomic character of an area includes its population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly changes any of these elements. Although socioeconomic changes may not result in impacts under CEQR, they are disclosed if they would affect land use patterns, low-income populations, the availability of goods and services, or economic investment in a way that changes the socioeconomic character of the area.

According to the *2021 CEQR Technical Manual,* the principal issues of concern with respect to socioeconomic conditions are whether a proposed project would result in significant adverse impacts due to: (1) direct residential displacement; (2) direct business displacement; (3) indirect residential displacement; (4) indirect business displacement due to increase rents; (5) indirect business displacement due to retail market saturation; and (6) adverse effects on a specific industry. The *CEQR Technical Manual* identifies the following thresholds for an analysis of socioeconomic conditions: whether a project would directly displace more than 500 residents or 100 employees; introduce more than 200 residential units or more than 200,000 sf of commercial space; or affect a specific industry.

The Proposed Actions would not result in direct residential or business displacement, nor would they introduce more than 200 residential units or 200,000 sf of commercial space as compared to the No-Action condition. Therefore, an assessment of socioeconomic conditions is not warranted.

Community Facilities and Services

The *2021 CEQR Technical Manual* states that a community facilities assessment is appropriate if a project would have a direct effect on a community facility (e.g., schools, child care facilities, libraries, health care facilities, police and fire protection services) or if it would have an indirect effect by introducing new populations that would overburden existing facilities. The manual further states that for public schools, libraries, and childcare centers, potential impacts depend on the size, income characteristics, and age distribution of the new population.

The Proposed Actions would not physically alter or displace any community facilities, nor would they result in a residential population with the potential for indirect effects on services delivery at nearby public schools, childcare facilities, libraries, healthcare facilities, and

police/fire services.[1] Therefore, an assessment of community facilities and services is not warranted.

Open Space

The *2021 CEQR Technical Manual* recommends performing an open space assessment if a project would result in either a direct or indirect effect on open space.

A proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or results in increased noise or air pollutant emissions, odor, or shadows that would affect the usefulness of a public open space, whether on a permanent or temporary basis. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public.

Indirect effects may occur when the population generated by the proposed project overtaxes the capacity of existing open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. Per the *CEQR Technical Manual*, the threshold for an analysis of potential indirect effects is whether the project would introduce more than 200 additional residents or 500 additional employees.

Direct Effects

The Proposed Actions may result in direct effects on open space due to shadows. A discussion is provided in **Section 3, Open Space**.

Indirect Effects

The Proposed Actions would not result in the introduction of more than 200 additional residents or 500 additional employees. Therefore, an assessment of open space is not warranted.

Shadows

The *2021 CEQR Technical Manual* requires a shadows assessment for projects that would either result in new structures (or additions to existing structures) greater than 50 feet in height or result in any increase in structure height adjacent to, or across the street from, a sunlight-sensitive resource. Such resources include publicly accessible open spaces, sunlight-sensitive natural features, or historic resources with sun-sensitive features.

The Proposed Actions would facilitate development of an approximately 71.5-foot-tall building (excluding the bulkhead). Therefore, an assessment of shadows is warranted. See **Section 4, Shadows**.

[1] Per the *2021 CEQR Technical Manual*, the threshold for triggering a detailed analyses of public schools is the introduction of 50 or more elementary and middle school students or 150 or more high school students and the threshold for early childhood programs is 20 or more eligible children under the age of 5.

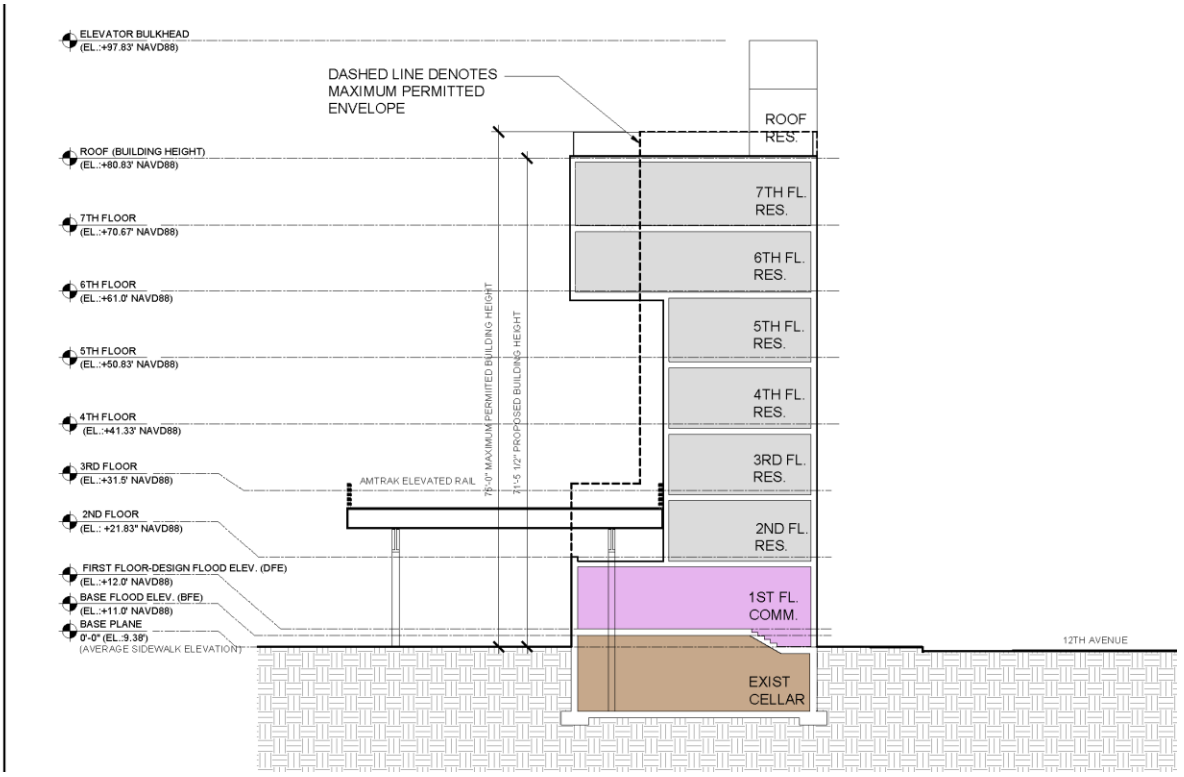
Historic and Cultural Resources

According to the *2021 CEQR Technical Manual,* a historic and cultural resources assessment is warranted if there is the potential to affect either archaeological or architectural resources; the manual further recommends that a historic resources assessment be prepared if a project would result in any of the following actions: in-ground disturbance; new construction, demolition, or significant physical alteration of any building, structure, or object; the change in scale, visual prominence, or visual context of any building, structure, or object or landscape feature; or the screening or elimination of publicly accessible views, even if no known historic resources are located nearby.

Archaeological Resources

Archaeological resources are physical remains, usually subsurface, of the prehistoric, Native American, and historic periods—such as burials, foundations, artifacts, wells, and privies. Archaeological resources are considered only in those areas where new in-ground disturbance is likely to occur. The Applicant team anticipates that existing building foundations would be maintained and project additions such as the construction of columns would occur over the foundation wall or directly against the interior side of the foundation wall. Soil disturbance would be within the confines of the existing building footprint and foundation. This disturbance would be minimal and approximately 10 feet in depth in certain areas as needed. The existing building and foundations would remain and there is no additional cellar area being proposed (see **Figure II-1**). Because the Proposed Project would not involve construction resulting in-ground disturbance to an area not previously excavated, an assessment of archaeological resources is not warranted.

Figure II-1 Proposed Building Elevation



Architectural Resources

Architectural resources generally include historically important buildings, structures, objects, sites, and districts. Historic and cultural resources include designated New York City Landmarks (NYCLs) and Historic Districts; properties calendared for consideration as NYCLs by the New York City Landmarks Preservation Commission (LPC) or determined eligible for NYCL designation (NYCL-eligible); properties listed on the State and National Register of Historic Places (S/NR) or formally determined eligible for S/NR listing (S/NR-eligible), or properties contained within a S/NR listed or eligible district; properties recommended by the New York State Board for listing on the S/NR; National Historic Landmarks (NHLs); and potential historic resources (i.e., properties not identified by one of the programs listed above, but that appear to meet their eligibility requirements).

Development of the Proposed Project would not result in direct impacts to a historic resource, as the existing building was determined to be not eligible for S/NR listing. While there are several architectural resources located within a 400-foot radius of the Proposed Project, the area contains greatly varied topography, and development of the Proposed Project would not result in changes to the context or visual prominence of the identified resources. For example, a portion of the West Harlem Historic District, which is S/NR eligible, is located to the north of West 135th Street and east of Riverside Drive. Because the Proposed Project is located at eight feet of elevation, while the intersection of West 135th Street and Riverside Drive is located at approximately 78 feet of elevation, the Proposed Project does not have the potential for indirect impacts. Similarly, the former Lee Brothers Storage Building, located at 571 Riverside Drive and S/NR eligible, is 14 stories tall. The upper portion of the building, which is visible above the Riverside Drive viaduct, is an elegant neoclassical design, whereas the lower portion, beneath the viaduct, is a functional concrete façade devoid of ornamentation. The former NY Central Railroad Substation No. 11, located at 700 West 134th Street and S/NR eligible, is located partially within the study area and at a comparable elevation to the Proposed Project. However, an intervening structure and surface lot limits the potential for indirect impacts. Therefore, an assessment of historic resources is not warranted.

Urban Design and Visual Resources

According to the methodologies of the *2021 CEQR Technical Manual,* if a project would result in physical changes to a project site beyond those allowable by existing zoning and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources should be prepared. The Proposed Actions would result in such changes. Therefore, an assessment of urban design and visual resources is warranted. **Section 5, Urban Design and Visual Resources**.

Natural Resources

As stated in the *2021 CEQR Technical Manual,* a natural resource is defined as a plant or animal species and any area capable of providing habitat for plant and animal species or capable of functioning to support environmental systems and maintain the City's environmental balance (e.g., surface and groundwater, wetlands, landscaped areas, gardens, and built structures used by wildlife). An assessment of natural resources is appropriate if a

natural resource exists on or near a project site, or if there is a potential for impacts related to stormwater and shadows. The section of Riverside Park that is closest to the Proposed Project is located on the west side of Twelfth Avenue and at an elevation of approximately 78 feet. The Hudson River is located approximately 200 feet west of the Development Site. These natural resources are located at a distance from the Development Site with intervening buildings and structures. As such, construction of the Proposed Project would not have a direct impact on these resources.

Hazardous Materials

According to the *2021 CEQR Technical Manual,* a hazardous materials assessment is conducted when elevated levels of hazardous materials exist on a site, when an action would increase pathways to their exposure, either human or environmental, or when an action would introduce new activities or processes using hazardous materials, thereby increasing the risk of human or environmental exposure. Because the Proposed Actions would allow residential uses in an area currently zoned for manufacturing uses, an assessment of hazardous materials is warranted. See **Section 6, Hazardous Materials**.

Water and Sewer Infrastructure

According to the *2021 CEQR Technical Manual,* a water and sewer infrastructure assessment analyzes whether a proposed action may adversely affect New York City's water distribution or sewer system and, if so, assesses the effects of the action to determine whether the impact is significant.

Water Supply

According to the *2021 CEQR Technical Manual*, a preliminary water supply infrastructure analysis is necessary if the project would result in an exceptionally large demand for water (i.e., over 1 million gallons per day [gpd]), or is located in an area that experiences low water pressure (i.e., areas at the end of the water supply distribution system such as the Rockaway Peninsula and Coney Island). Because the Proposed Project would not generate exceptionally large demand, nor is it located in an area that experiences low water pressure, an assessment of water supply is not warranted.

Wastewater and Stormwater

With regard to wastewater and stormwater conveyance, the *2021 CEQR Technical Manual* states that a preliminary infrastructure analysis would be needed if a project is located in a combined sewer area within Manhattan would result in incremental development over the No-Action scenario of more than 1,000 residential units or 250,000 sf of commercial space, public facility, and institution and/or community facility space. Because the Proposed Project would not meet these thresholds, an assessment of wastewater and stormwater is not warranted.

Solid Waste and Sanitation Services

The *2021 CEQR Technical Manual* states that an assessment of solid waste and sanitation services is warranted if a project has the potential to result in a substantial increase in solid waste production that could overburden available waste management capacity or otherwise be inconsistent with the City's Solid Waste Management Plan (SWMP) or with state policy related to the City's integrated solid waste management system. According to the *CEQR Technical Manual*, actions resulting in substantial waste generation, defined as 50 tons (100,000 pounds) per week or more, warrant additional analysis for effects on solid waste and sanitation services. Because the Proposed Actions would not result in a substantial increase in solid waste production, an assessment of solid waste and sanitation services is not warranted.

Energy

According to the *2021 CEQR Technical Manual,* a detailed assessment of energy impacts is only required for projects that would significantly affect the transmission or generation of energy or that would result in substantial consumption of energy. The Proposed Action would not affect the transmission or generation of energy, nor would it result in a substantial consumption of energy. Therefore, the effect of the Proposed Actions on the transmission or generation of energy does not require further analysis.

Transportation

According to the *2021 CEQR Technical Manual,* transportation analyses are generally warranted if a project results in 50 or more peak hour vehicle trips, 200 or more peak hour transit trips, or 200 or more peak hour pedestrian trips. The Proposed Project would not result in development densities that would generate trips in excess of these thresholds. Therefore, further analysis is not warranted.

Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, usually referenced as "stationary sources"; or by a combination of both. Under CEQR, an air quality assessment determines both a proposed project's effects on ambient air quality as well as the effects of ambient air quality on the project. As discussed in the *CEQR Technical Manual*, a proposed project may potentially result in the following types of air quality impacts:

- Potential impacts from mobile sources introduced by the Proposed Project.
- Potential impacts from potential air pollutant sources introduced by the Proposed Project, such as:
  - Emissions from a project's heating, ventilation, and air conditioning (HVAC) system
  - Emissions from a project's enclosed parking garage.
- Potential impacts on the Proposed Project from either manufacturing/processing facilities or large/major sources that are located near the Project Site.

Because the Proposed Project would result in the placement of operable windows within 200 feet of a highway (the Henry Hudson Parkway), an analysis of mobile sources is warranted. A stationary source air quality analysis will be conducted and will focus on an assessment of the project's HVAC systems to affect uses in the surrounding area. The air quality assessment will also consider potential impacts onto the project from manufacturing/process facilities or large/major sources that are located near Projected Development Site 1. See **Section 7, Air Quality**.

Greenhouse Gas Emissions and Climate Change

According to the *2021 CEQR Technical Manual,* GHG assessments are appropriate for projects in New York City requiring an EIS that would result in the development of 350,000 square feet or greater. Because the Proposed Project does not exceed this threshold, no further analysis is warranted.

Depending on the sensitivity, location, and useful life of development resulting from a proposed action, it may be appropriate to include discussion of the potential effects of climate change in environmental review. Rising sea levels and increases in storm surge and coastal flooding are the most immediate threats in New York City for which site-specific conditions can be assessed, and an analysis of climate change may be deemed warranted for sites located within the current 100- or 500-year flood zone, as delineated in the FEMA PFIRMs, or within future 100-year flood zones as projected by the New York City Panel on Climate Change, as appropriate. Because the Proposed Project is subject to a consistency review under the Waterfront Revitalization Program (see **Section 2, Land Use, Zoning, and Public Policy**), an assessment of greenhouse gas emissions and climate change is not warranted.

Noise

As discussed in the *2021 CEQR Technical Manual*, a noise analysis is appropriate if a project would generate mobile or stationary sources of noise or would introduce noise-sensitive receptors in an area with high ambient noise levels. Specifically, an analysis would be required if: a project generates or reroutes vehicular traffic; introduces receptors near a heavily trafficked thoroughfare, or within one mile of an existing flight path, or within 1,500 feet of existing rail activity (and with a direct line of sight to that rail facility); results in a playground; causes a stationary source to be operating within 1,500 feet of a receptor (with a direct line of sight to that receptor); includes unenclosed mechanical equipment for manufacturing or building ventilation purposes; or would be located in an area with high ambient noise levels resulting from stationary sources.

The Proposed Project would not increase mobile sources such that noise levels would be changed, nor is it anticipated to include any substantial stationary source noise generators, such as unenclosed cooling or ventilation equipment, loudspeaker systems, stationary diesel engines, or other similar types of uses. However, it would introduce noise-sensitive receptors near a heavily trafficked thoroughfare (the Henry Hudson Parkway) and within 1,500 of an existing rail line. Therefore, a noise analysis is warranted. See **Section 8, Noise**.

Public Health

According to the guidelines of the *2021 CEQR Technical Manual*, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. As detailed in the EAS, no significant unmitigated adverse impacts would occur in the areas of air quality, water quality, hazardous materials, or noise. Therefore, an assessment of public health is not warranted.

Neighborhood Character

As discussed in the *2021 CEQR Technical Manual*, an analysis of neighborhood character is warranted when a project has the potential to result in significant adverse impacts in any of the following technical areas: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; or noise. In addition, an assessment may be warranted when there is a combination of moderate effects in these technical areas that, when considered together, may affect the defining elements of neighborhood character. Because the Proposed Action does not have the potential to result in moderate effects in more than one of the listed technical areas, and because the Proposed Action would not result in significant adverse effects, a neighborhood character analysis is not warranted.

Construction

Construction impacts, although temporary, can include disruptive and noticeable effects resulting from an action. Determination of their significance and need for mitigation is generally based on the duration and magnitude of the impacts. Construction impacts are considered when construction activity could affect traffic conditions, archaeological resources, the integrity of historic resources, community noise levels, and area air quality conditions. In addition, because soils may be disturbed during construction, any action proposed for a site that has been found to have the potential to contain hazardous materials should also consider the potential construction impacts that could result from contamination.

A construction assessment is typically warranted for construction activities (a) lasting longer than two years; (b) located along an arterial highway or major thoroughfare; (c) involving the closing, narrowing, or otherwise impeding of traffic, transit, or pedestrian elements; (d) involving multiple buildings; (e) involving the operation of several pieces of diesel equipment in a single location; (f) resulting in the closure or disruption of a community facility service; (g) located within 400 feet of a historic or cultural resource; (h) disturbing a site containing or adjacent to natural resources; and/or (i) occurring on multiple sites in the same geographic area.

The anticipated period of construction associated with the Proposed Project is roughly 12 months. While the Proposed Project is located adjacent to an arterial highway (the Henry Hudson Parkway), these two roadways do not provide immediate access to the Proposed Project (see **EAS Figure 1**). The Henry Hudson Parkway is elevated to a height of 70 feet and separated from the Development Site by the Amtrak elevated railway. Similarly, Riverside

Drive is elevated to a height of 80 feet and separated from the Development Site by Riverside Park. Access to the Proposed Project is provided by a minor section of Twelfth Avenue, which is not an arterial highway or a major thoroughfare; construction may involve the closing or narrowing of traffic and pedestrian elements there. Furthermore, construction trucks would not use the adjacent arterial highways, as truck traffic is prohibited along the Henry Hudson Parkway and trucks cannot access the Proposed Project through Riverside Drive. Therefore, construction traffic is not anticipated to impede traffic on the nearby arterial highways.

Similarly, construction of the Proposed Project would not result in closure of a community facility, nor would it result in disturbance to a site containing or adjacent to natural resources.

As discussed above, because there are several architectural resources located within 400 feet of the Proposed Project, a construction analysis is warranted. See **Section 9, Construction**.

1

Introduction

As discussed in **Part II: Supplemental Analysis** of this Environmental Assessment Statement (EAS), several technical areas were identified for further analysis:

- Land Use, Zoning, and Public Policy
- Open Space
- Shadows
- Urban Design
- Hazardous Materials
- Air Quality
- Noise
- Construction

Analysis of these areas follow in **Section 2** through **Section 9**.

2

Land Use, Zoning, and Public Policy

This section considers the potential for the proposed project to result in significant adverse impacts to land use, zoning, and public policy. Under the guidelines of the *2021 City Environmental Quality Review (CEQR) Technical Manual*, this analysis evaluates the uses in the area that may be affected by the Proposed Project and determines whether the Proposed Project is compatible with land use, zoning, and public policy conditions, or may otherwise affect them. The analysis also considers the Proposed Project's compatibility with zoning regulations and other public policies applicable to the area.

Introduction

The Applicant, Crosscap Holdings, LLC, is requesting several actions (the "Proposed Actions") to facilitate development of a mixed-use building of an approximately 53,548 gross square foot (gsf) ("the Proposed Project") at 701 West 135th Street in the Manhattanville neighborhood of Manhattan Community District 9. According to the *CEQR Technical Manual*, an analysis of land use, zoning, and public policy is warranted for projects that would affect land use or zoning on a site. Because the Proposed Actions would result in a change in land use and zoning, and because the Project Area is located within the City's coastal zone, an analysis of land use, zoning, and public policy is warranted.

Methodology

This analysis of land use, zoning, and public policy follows the guidelines set forth in the *CEQR Technical Manual* for a preliminary assessment (Section 320). According to the *CEQR Technical Manual*, a preliminary land use and zoning assessment:

- Describes existing and future land uses and zoning information, and describes any changes in zoning that could cause changes in land use;
- Characterizes the land use development trends in the area surrounding the project site that might be affected by the proposed action; and
- Determines whether the proposed project is compatible with those trends or may alter them.

The following assessment method was used to determine the potential for the proposed project to result in significant adverse impacts on Land Use, Zoning, and Public Policy:

1. Establish a "study area," a geographic area surrounding the project site to determine how the proposed project may affect the immediate surrounding area. For this assessment, a study area of 400 feet surrounding the Project Area was used.
2. Identify data sources, including any public policies (formal plans, published reports) to be used to describe the existing and No-Action conditions related to Land Use, Zoning, and/or Public Policy.
3. Assess the proposed project's potential effects on Land Use, Zoning and Public Policy to determine whether the proposed project is consistent with or conflicts with area land uses, zoning, or the identified policies.
    - If a proposed project could conflict with the identified policies, a detailed assessment would be conducted; or
    - If the proposed project is found to not conflict with the identified policies, no further assessment is needed.

The study area for this analysis is the area within 400 feet of the Project Area which, for the Proposed Project, is generally bounded by the Hudson River to the west, West 138th Street to the north, midblock between Riverside Drive and Broadway to the east, and West 134th Street to the south (see **EAS Figure 1**). This is the area in which the Proposed Project would be most likely to have effects in terms of land use, zoning, and public policy.

Assessment

Existing Conditions

Land Use

Development Site and Project Area

The Development Site, on which the Proposed Project would be constructed, is located on Manhattan Block 2101, Lot 58 within the Manhattanville neighborhood of Manhattan Community District 9. Lot 58 is an irregularly shaped, 11,997-square foot corner lot bounded by Twelfth Avenue to the east, West 135th Street to the south, and Lot 60 to the north and

west. It has approximately 362 feet of frontage on Twelfth Avenue and 36 feet of frontage on West 135th Street. It has a maximum depth of approximately 36 feet.

The Development Site is improved with a two-story building that is approximately 42 feet in height and contains 19,186 gross square feet (gsf) of floor area. The building is legally non-complying, per the original Certificate of Occupancy issued in 1928 and per the current Certificate of Occupancy issued in 2015. There have been no enlargements since the original construction. The building is currently vacant. It was most recently occupied with commercial uses (an eating and drinking establishment). A sign structure is present at the roof level; it does not currently contain advertisements.

The Project Area consists of the Development Site and a portion of Manhattan Block 2101, Lot 60. Lot 60 is an irregularly shaped 142,467-square foot lot that runs along the elevated West Side Line railroad tracks from West 135th Street to West 145th Street. The portion of Lot 60 that is included within the Project Area stretches from the western boundary of Lot 58 to the western edge of the West Side Line railroad tracks.

The ground floor of the Proposed Project will extend beneath the West Side Line railroad tracks, which are elevated to a height of approximately 21 feet, 8 inches.

Study Area

The study area's topography informs its land uses and creates physical boundaries between the different land uses. As shown in **EAS Figure 4**, the study area is characterized by transportation, utility, and industrial uses near to the waterfront, and parkland and residential uses to the east near Riverside Drive, which is located at a higher elevation than the waterfront. In addition to the Development Site, the project block contains parcels with state and city parkland, a NYC Department of Sanitation (DSNY) utility building, the New York City Department of Environmental Protection (DEP) North River Wastewater Treatment Plant (WWTP), an active rail line, and the Henry Hudson Parkway.

Parkland is the dominant land use in the study area. A portion of Riverside Park lies east and north of the Project Area. It is accessed from a stairway on the east side of Twelfth Avenue, near West 135th Street, and from a path at Twelfth Avenue and West 138th Street. Riverside Park is a 330-acre, four-mile-long park stretching from 59th Street to 155th Street. Within the study area, the park contains a steep slope with trees, some community gardens, and landscaped walkways. A portion of Riverbank State Park is located to the west and north of the Project Area. It is primarily accessed from the West 145th Street pedestrian overpass from Riverside Drive (outside the study area). It can also be accessed from the West 138th street pedestrian overpass from Riverside Drive. Riverbank State Park is a 28-acre park built atop the North River WWTP and contains playfields, courts, a swimming pool, covered skating rink, cultural theater, athletic complex, and restaurant. Other parkland within the study area includes Block 2005, Lot 27, which is primarily located under the elevated Henry Hudson Parkway, and contains a New York City Parks Department building, vehicle and materials storage, and warehousing. This parcel also includes a transportation/utility use located over the Hudson River. The Hudson River Greenway, a bike path that runs along the west side of Manhattan, is also located under the elevated Henry Hudson Parkway. It connects the study area to the West Harlem Piers to the south and to Hudson River Park to the north.

Transportation and utility uses are the second most common land use in the study area. The elevated railroad right-of-way that extends through the Project Area is owned by Amtrak. Known as the West Side Line, the railroad tracks run along a viaduct that is elevated to a height of approximately 21 feet, 8 inches. It is primarily used by Amtrak's Empire Service, which provides regional passenger service between Pennsylvania Station and Niagara Falls via Albany. Utility uses in the study area include a portion of the North River WWTP, which is located northwest of the Project Area (beneath Riverbank State Park) and a DSNY transfer station, which is located west of the Project and over the Hudson River.

To the east of Riverside Park, elevated approximately 70 feet above the Project Area, is a large residential area. Generally bounded by West 135th Street to the south, West 138th Street to the north, Riverside Drive to the west, and Broadway to the east, it contains multi-family apartment buildings, with six-story elevator buildings lining Riverside Drive. The Riverside Park Community, located partially within the study area, diverges from this pattern. Constructed under the Michell-Lama program, the apartment complex rises to 35 stories and is co-located with schools, a nursery, and parking facilities.

A limited number of industrial uses are located south of the Project Area. They include warehouses along Twelfth Avenue and a 14-story self-storage facility that is accessed from Riverside Drive. There are no commercial land uses within the study area except for the existing building located on the Development Site, which is now vacant. Some commercial uses lie south of the study area, including restaurants and a grocery store on Twelfth Avenue between West 132nd Street and West 134th Street. A community facility use, the Columbia University Manhattanville campus, lies outside of the study area on Twelfth Avenue between West 125th Street and West 131st Street.

Zoning

Project Area

The Project Area is located within a M1-1 manufacturing zoning district. The M1-1 district runs along the waterfront from Claire Place to West 145th Street. Specifically, it is mapped over the Hudson River from Claire Place to West 135th Street. It then stretches to the east to include both the Hudson River and the land west of Twelfth Avenue from West 135th Street and West 138th Street. From West 138th Street to West 145th Street, it includes the Hudson River and the land west of the West Side Line railroad tracks.

The M1-1 district allows for a maximum floor area ratio (FAR) of 1.0 for manufacturing uses and a maximum FAR of 2.4 for allowed community facility uses. M1-1 districts typically allow light industrial uses that meet M1 performance standards. Offices, hotels (by special permit), and most retail uses are also permitted. Buildings must be under 30 feet or two stories, with an initial setback distance of 20 feet on a narrow street and 15 feet on a wide street, after which they are governed by the sky exposure plane. No side yards are required; rear yards are required on lots over 110 feet deep. One accessory off-street parking space is required per every 300 square feet of floor area.

Study Area

As shown in **EAS Figure 3**, in addition to the M1-1 zoning district, the study area is also mapped with M1-2, C6-2, and R8 zoning districts and parkland. A portion of the study area also falls within the Special Manhattanville Mixed Use District.

The M1-2 district is mapped immediately south of the Project Area. It allows for light manufacturing uses at a higher density than M1-1 districts. Specifically, the M1-2 district allows a maximum manufacturing FAR of 2.0 and a maximum community facility FAR of 4.8. Buildings must be under 60 feet or four stories, with an initial setback distance of 20 feet on a narrow street and 15 feet on a wide street, after which they are governed by the sky exposure plane. One accessory parking space is required per every 300 square feet of floor area.

A small C6-2 district is mapped to the south of the Project Area, on the east side of Twelfth Avenue. C6 districts permit a wide range of high-bulk commercial uses. C6-2 districts are typically mapped outside central business cores and have a maximum commercial FAR of 6.0 and a maximum community facility FAR of 6.5. There is no accessory parking requirement. The residential equivalent for C6-2 districts is R8, which allows a maximum residential FAR of 6.02 for height factor developments. Using Quality Housing regulations, the maximum residential FAR is 6.02 on narrow streets and 7.20 on wide streets. Accessory parking is required for 40 percent of dwelling units.

Just outside the study area, southeast of the Project Area, is a larger C6-1 zoning district. Like C6-2 districts, C6-1 districts are typically mapped outside central business cores and have a maximum commercial FAR of 6.0 and a maximum community facility FAR of 6.5. There is no accessory parking requirement. The residential equivalent for C6-1 districts is R7-2, which allows a maximum residential FAR of 3.44 for height factor developments. Using Quality Housing regulations, the maximum residential FAR is 3.44 on narrow streets and 4.0 on wide streets. Accessory parking is generally required for 50 percent of dwelling units.

An R8 district is mapped to the east of the Project Area, beyond Riverside Drive. Apartment buildings in R8 districts can range from mid-rise, eight- to ten-story buildings to much taller buildings set back from the street on large zoning lots. As described above, R8 districts allow a maximum residential FAR of 6.02 for height factor developments. Using Quality Housing regulations, the maximum residential FAR is 6.02 on narrow streets and 7.20 on wide streets. Accessory parking is required for 40 percent of dwelling units.

The Special Manhattanville Mixed Use District in West Harlem, which encompasses the M1-2 and C6-2 districts within the study area, allows a greater density and a wider variety of land uses to facilitate commercial and residential development, plus Columbia University's expansion into a new campus that incorporates substantial below grade development. Active ground floor uses are encouraged along Broadway, West 125th Street, and Twelfth Avenue. Design regulations require publicly accessible open spaces, sidewalk amenities, sidewalk widening, and landscaping. The Special District provides east-west visual and pedestrian connections to encourage the use of the community-oriented waterfront at West Harlem Piers Park. The bulk regulations for buildings to be developed alongside the railroad viaducts accommodate each of these historic elevated structures.

Public Policy

Housing New York 2.0

On May 5, 2014, the de Blasio administration released Housing New York: A Five-Borough, Ten-Year Housing Plan (Housing New York), a plan to build or preserve 200,000 affordable residential units. In 2017, Housing New York 2.0 was released as an update to the original 10-year plan, which increased this number from 200,000 to 300,000 homes. To achieve this goal, the plan aims to double the New York City Department of Housing Preservation and Development (HPD)'s capital budget, target vacant and underused land for new development, protect tenants in rent-regulated apartments, streamline rules and processes to unlock new development opportunities, contain costs, and accelerate affordable construction. The plan details the key policies and programs for implementation, including developing affordable housing on underused public and private sites.

OneNYC 2050

In April 2015, the Mayor's Office of Sustainability and the Mayor's Office of Resiliency released "OneNYC," a comprehensive plan for a sustainable and resilient city. OneNYC represents a reworking of the sustainability plan for the City, known as "PlaNYC: A Greener, Greater New York." Like PlaNYC, growth, sustainability, and resiliency remain at the core of OneNYC, but promoting economic equity is a guiding principle throughout the plan. OneNYC has since been updated to OneNYC 2050, which was released in 2019 and consists of eight goals and thirty initiatives.

The goals of the plan are to support:

- A Vibrant Democracy through empowering participation, welcoming immigrants, promoting justice and equal rights, and promoting democracy and civic innovation;
- An Inclusive Economy through good paying jobs and job training, economic security through fair wages and benefits, expanded decision making power of workers and communities;
- Thriving Neighborhoods through affordable housing, access to neighborhood open spaces and cultural resources, community safety, and place-based community planning;
- Healthy Lives through high quality, accessible health care, addressing health and mental health needs of communities, making healthy lifestyles easier, and designing a healthy physical environment;
- Equity and Excellence in Education through early childhood education, equity in K-12 opportunity, and increasing integration, diversity, and inclusion in NYC schools;
- A Livable Climate through carbon neutrality and clean electricity, resilience, economic opportunities through climate action, and climate accountability and justice;
- Efficient Mobility through modern mass transit, safe and accessible streets, reduced congestion and emissions, and regional and global connections; and
- Modern Infrastructure through investments in core physical infrastructure and hazard mitigation, digital infrastructure improvement, and best practices for asset maintenance and capital project delivery.

Waterfront Revitalization Program

The Project Area is located within the Coastal Zone Boundary. The Waterfront Revitalization Program (WRP) is the City's principal Coastal Zone management tool and establishes a broad range of public policies for the City's coastal areas. The guiding principle of the WRP is to maximize the benefits derived from economic development, environmental conservation, and public use of the waterfront while minimizing the conflicts among these objectives. The WRP was originally adopted in 1982. Subsequent revisions include incorporation of climate change and sea level rise considerations to increase the resiliency of the waterfront area, promotion of waterfront industrial development as well as commercial and recreational waterborne activities, increased restoration of ecologically significant areas, and best practices for the design of waterfront open spaces.

No-Action Condition

In the future No-Action condition, the existing conditions would continue as a two-story brick building that contains 19,186 gsf of floor area intended for commercial uses. For purposes of environmental review, the extant building will be assumed to be vacant, in order to ensure a more conservative analysis.

Land Use

In the future No-Action condition, land use would remain the same as it is in the Project Area and the character of the study area would remain the same. There are no new developments anticipated within the 400-foot study area under the No-Action Condition.

Zoning

There are no other anticipated zoning changes within the study area under the No-Action condition. The Project Area and study area will continue to be governed by the various zoning regulations found in the area, as described in the existing conditions section above.

Public Policy

In the future No-Action condition, there are no known public policy changes that are anticipated to affect the Project Area or study area.

With-Action Condition

In the future With-Action condition, the applicant would demolish the existing two-story, 19,186-gsf building and construct the Proposed Project, a seven-story, approximately 53,548 gsf mixed-use development with 7,415 gsf of ground floor commercial space, 689 gsf of ground floor community facility space, and 45,444 gsf of residential space or 60 residential dwelling units. Approximately 12 of the residential dwelling units would be affordable, in accordance with the requirements of the Mandatory Inclusionary Housing (MIH) program. The Proposed Project would have a maximum height of 71.5 feet.

Land Use

The Proposed Actions would facilitate a change in land use under the With-Action condition, as compared to the future No-Action condition, with the introduction of residential uses to the Project Area. As discussed above, the study area is characterized by a variety of land uses. Parkland is the dominant land use. Transportation and utility uses are also prevalent, particularly in the western portion of the study area. The eastern portion of the study area, elevated approximately 71.5 feet above the Project Area, consists of residential uses, namely multi-family apartment buildings. A limited number of industrial uses are located in the southern portion of the study area. A handful of commercial uses are also located to the south, just outside the study area, as is the Riverside Park Community apartment complex and the Columbia University Manhattanville campus.

The Proposed Project would be compatible with the surrounding land uses in the study area (light industrial to the south, parkland to the north and west, and residential to the east). The Proposed Project would be compatible with the nearby residential uses to the east because it would contain a similar residential use, as well as ground-floor commercial retail that would likely serve residents of this area. The Proposed Project would be compatible with the nearby open space uses in the study area because residents of the Proposed Project would benefit from the presence of these uses. The proposed mixed-use building would be compatible with industrial land uses south of the Project Area because those uses are low-intensity industrial uses that often buffer residential and commercial uses from heavier industrial uses. In addition, the proposed ground floor retail would increase the vitality of the waterfront area. Such mixed-use development is also complimentary to the new Columbia Manhattanville Campus located just outside of the Project Area. According to the impact criteria presented in Section 410 of Chapter 4 of the 2021 *CEQR Technical Manual,* a land use change could lead to impacts if it would directly displace a land use and such a loss would adversely affect surrounding uses, if it would generate a land use that would be incompatible with surrounding uses, or if would alter or accelerate development patterns in the study area. The Proposed Project would not displace an existing land use, nor would it generate an incompatible land use or alter or accelerate development patterns in the study area. The Proposed Actions would not result in non-conforming uses. For these reasons, the Proposed Project would have no adverse land use impacts to the area.

Zoning

As detailed in **Part 1: Project Description**, the Applicant is requesting several actions, including:

- A zoning map amendment to Zoning Map 5c to rezone the Project Area from M1-1 to R7-2 within a C2-4 commercial overlay.
- A zoning text amendment to Appendix F to apply Mandatory Inclusionary Housing (MIH) to the Project Area.
- A special permit under ZR 74-681 "Development within or over a railroad or transit right-of-way or yard."
- A zoning text amendment to map the project within the Special Manhattanville Mixed-Use District, adding the Project Area to "Other Area."
- A zoning text amendment to the Special Manhattanville Mixed Use District regulations, creating a new special permit (ZR 104-60) to allow the modification of applicable bulk

regulations, except floor area ratio regulations, for developments within or over a railroad or transit right-of-way or year.

› A special permit under the newly created ZR 104-60 to allow for the construction of the Proposed Project, which does not comply with the rear yard and lot coverage requirements of the Zoning Resolution.

The proposed zoning map amendment to Zoning Map 5c would change the zoning of the Project Area from a M1-1 manufacturing district to a R7-2 residential district within a C2-4 commercial overlay. R7-2 districts allow a maximum residential FAR of 3.44 for height factor developments. Using Quality Housing regulations, the maximum residential FAR is 3.44 on narrow streets and 4.0 on wide streets. Accessory parking is generally required for 50 percent of dwelling units.

The proposed zoning text amendment to Appendix F of the Zoning Resolution, "Mandatory Inclusionary Housing Areas," would establish an MIH area that is coterminous with the Project Area. The applicant anticipates utilizing Option 1 of the MIH program, which would result in approximately 12 affordable units.

To permit the construction of the Proposed Project within and over a railroad-right-of-way, the Applicant is seeking a special permit under ZR 74-681 “Development within or over a railroad or transit right-of-way or yard.” Because the Proposed Project is not an accessory use to the right-of-way, a special permit is required.

To construct a building that is acceptable to the surrounding community, the Applicant is seeking a zoning text amendment to map the project within the Special Manhattanville Mixed-Use District, adding the Project Area to “Other Area,” such that it is eligible for the proposed new special permit discussed below.

The Applicant is seeking a zoning text amendment to the Special Manhattanville Mixed Use District regulations that would create a new special permit (ZR 104-60), which would allow for the modification of applicable bulk regulations, except floor area ratio regulations, for developments within or over a railroad or transit right-of-way or yard.

Lastly, the Applicant is seeking a special permit under the newly created ZR 104-60 to allow for the construction of the Proposed Project, which does not comply with the rear yard and lot coverage requirements of the Zoning Resolution.

Prior to 2009, the tax lot underlying the Development Site was part of Lot 60. When the Development Site was re-apportioned in 2009, it became a new separate zoning lot. Since the Development Site was not owned separately and individually from all other adjoining tracts of land on December 15, 1961, it is not subject to the Special Provisions for Shallow Interior Lots of ZR 23-52. Therefore, under existing zoning, a 30-foot rear yard would be required, which would result in an unviable shallow building. The new special permit would allow for waiver of the rear yard requirement. Furthermore, to limit the maximum height of the proposed building at, or below Riverside Drive, as requested by the Manhattan Community Board 9, the special permit will allow the construction of the Proposed Project, which will not comply with the lot coverage regulations of the Zoning Resolution.

The Proposed Actions would be compatible with the C6-1 and C6-2 commercial districts and M1-2 industrial district located to the south of the Project Area and the R8 residential district located to the east of the Project Area. The Proposed Actions would result in a new medium-

density residential district being mapped in the Project Area, allowing for residential development at the same or lower density compared to what is allowed as-of-right in residential districts east and southeast the Project Area. The proposed zoning is compatible with the surrounding districts because it would form a transitional area allowing residential, commercial, and community facility uses between the waterfront and denser upland residential and commercial districts. There is an M1-2 industrial district directly south of the Project Area; M1 zoning districts generally serve as buffer areas between more intensive manufacturing districts and adjacent residential or commercial areas. Thus, the zoning under the Proposed Actions would be compatible with the adjacent M1-2 district as well.

The Proposed Actions would introduce new housing, with permanently affordable units, and ground floor retail and community facility space, which would activate the streetscape along the Development Site and increase the vitality of the waterfront area. The Proposed Actions would also result in a building that is viable to construct. As discussed in **Part I, Project Description**, redevelopment of the Development Site under existing zoning would require a 30-foot rear yard, resulting in an unviable shallow building.

The Proposed Actions would also be consistent with the goals of the Special Manhattanville Mixed-Use District. Per ZR Section 104-00, relevant goals of the Special Manhattanville Mixed-Use District include encouraging mixed-use development to complement a revitalized waterfront, encouraging active ground floor uses along 12th Avenue, facilitating design flexibility, and promoting the most desirable use of land in this area. The Proposed Actions would facilitate new mixed-use development with ground-floor retail (a more desirable land use than what would be permitted absent the Proposed Actions) that would address the relevant goals of the Special Manhattanville Mixed-Use District. Therefore, the Proposed Actions would not result in a significant adverse impact to zoning.

Public Policy

Housing New York 2.0

The Proposed Actions would be consistent with this policy by facilitating the development of a total of 60 new residential units including approximately 12 new affordable housing units in the Manhattanville neighborhood of Manhattan Community Board 9. Therefore, the Proposed Actions would be supportive of this public policy goal.

OneNYC 2050

The Proposed Actions would be consistent with OneNYC by increasing access to affordable, high quality housing by creating new, permanently affordable housing units. Therefore, the Proposed Actions would be supportive of this public policy goal.

Waterfront Revitalization Program

Given that the Project Area is located within the New York City Coastal Zone, the Proposed Actions are subject to review for consistency with the City's Waterfront Revitalization Program (WRP). In accordance with the guidelines of the *CEQR Technical Manual*, an evaluation of the Proposed Actions' consistency with WRP policies was undertaken. This preliminary evaluation requires completion of the WRP Consistency Assessment Form (CAF), which contains a series of questions designed to screen out those policies that would have no

bearing on a consistency determination for a proposed action (see the WRP CAF in **Appendix A**). The CAF lists the WRP policies and indicates whether the Proposed Project would promote or hinder that policy, or if that policy would not be applicable. For any policies which may be affected, the analysis provides additional information. As detailed in **Appendix A**, the Proposed Action would be consistent with WRP policies and is assigned WRP #21-199.

Conclusions

As described above, the Proposed Actions would result in the redevelopment of the Development Site with an approximately 53,548 gsf mixed-use building with residential, commercial, and community facility uses. The development resulting from the Proposed Actions would be consistent with the general goals of the Special Manhattanville Mixed-Use District as part of a revitalized Manhattanville waterfront by permitting desirable mixed-use development where none is currently allowed. The Proposed Project would enhance existing land use character within the study area by providing housing, including affordable units, and the proposed ground floor retail would serve the residential population and enliven the waterfront area. Overall, the Proposed Project would activate a lot with a vacant building with new uses beneficial to the economic and residential development of the area. The mixed-use development resulting from the Proposed Actions would be compatible with the surrounding residential, commercial, open space, and industrial uses in the study area, providing both housing and new commercial and community facility uses that could support residents of the Proposed Project and the surrounding area. Residents of the Proposed Project would have access to abundant parkland and a revitalized waterfront. The Proposed Project would be in accordance with Housing New York and OneNYC by facilitating the development of new housing including affordable housing. The Proposed Actions would also be consistent with the goals of the WRP (WRP #21-199), as discussed in **Appendix A**. Therefore, the Proposed Project would not result in any significant adverse impacts to land use, zoning, or public policy.

3

Open Space

This section assesses the potential impacts of the Proposed Actions on open space. The *2021 City Environmental Quality Review (CEQR) Technical Manual* defines open space as publicly or privately-owned land that is publicly accessible and available for leisure, play, or sport, or is set aside for the protection and/or enhancement of the natural environment.

Introduction

This section assesses the potential effects on open space that could result from the Proposed Actions. Open space is defined as publicly- or privately-owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. Open space that is used for sports, exercise, or active play is classified as active, while open space that is used for relaxation, such as sitting or strolling, is classified as passive. According to the *2021 CEQR Technical Manual*, an analysis of open space is conducted to determine whether a proposed action would have a direct impact resulting from the elimination or alteration of open space and/or an indirect impact resulting from overtaxing available open space.

As described in **Part I: Project Description**, the Applicant is requesting several actions (the "Proposed Actions") to facilitate development of a mixed-use building with a total of approximately 53,548 gross square foot (gsf) ("the Proposed Project") at 701 West 135th Street in the Manhattanville neighborhood of Manhattan Community District 9.

Compared to the No-Action condition, the Proposed Project may result in any direct effects on open space due to shadows. Therefore, in accordance with CEQR guidelines, this open space analysis of the Proposed Actions evaluates the direct effects to open spaces from the Proposed Project. The anticipated number of net new residents and workers would not trigger an indirect effects analysis.

Methodology

Direct Effects Analysis

Consistent with the *CEQR Technical Manual*, a direct effects analysis should be performed if a proposed project would directly affect open space conditions by causing the loss of public open space; changing the use of an open space so that it no longer serves the same user population; limiting public access to an open space; or increasing noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. A project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. The Proposed Project is not anticipated to result in the physical loss or direct displacement of publicly accessible open space or increase access to open space. However, the Proposed Project may have potential shadows impacts on nearby open space resources. Thus, a direct effects analysis is warranted, and a preliminary assessment of direct effects on open space is included below. The study area for this assessment of direct effects is the same as the Tier I study area for shadows (see **Section 4, Shadows**)

Indirect Effects Analysis

The *CEQR Technical Manual* states that indirect effects may occur when the population generated by a project would overtax the capacity of open spaces so that their service to the future population of the affected area would be substantially or noticeably diminished. The purpose of the indirect effects analysis is to quantitatively assess the adequacy of open space in the study area for existing and potential future users based on an inventory of open space resources and the effect of the residential population increase anticipated with the Proposed Project as well as any population increase in the No-Action condition due to other planned or proposed developments. The Proposed Project would not result in a net increase of 200 residents and 500 workers compared to the future No-Action condition. Therefore, an indirect effects analysis is not required.

Walk-to-a-Park Initiative

New York City, as part of the OneNYC 2050 Building a Strong and Fair City plan, has put forth a goal for 85 percent of New York City residents living within a walking distance of a park by 2030. To help the City reach this goal, NYC Parks has a Walk-to-a-Park initiative that focuses on increasing access to parks and open space in areas of the City where residents live further than a walk to a park. According to Walk-to-a-Park service area geographic data provided by the City, the Development Site does not overlap with any known walk gap areas (see **Figure 3-1**). Therefore, a detailed assessment is not required based on the results of the Walk-to-a-Park analysis.

Figure 3-1 Walk to a Park Service Area



Preliminary Assessment

Existing Conditions

Open space that is accessible to the public on a constant and regular basis, including for designated daily periods, is defined as publicly accessible and is analyzed as such per *CEQR Technical Manual* guidelines. Publicly accessible open space may be under government or private jurisdiction and includes open space designated through regulatory approvals, such as public plazas. Private open space—that which is not publicly-accessible or is available only to limited users and is not available to the public on a constant and regular basis—is not included in CEQR-compliant quantitative open space analyses.

In addition to the distinction between public and private open spaces, individual spaces may also be classified as either active or passive, according to the types of activities for which the space is primarily used. Open space that is used for sports, exercise, or active play is classified as active and consists mainly of recreational facilities, while open space that is used for relaxation, such as a plaza, is classified as passive. Some types of open space facilities, such as esplanades, may be devoted to both active and passive uses.

In conducting the open space analysis for the Proposed Actions, publicly accessible open spaces within the study area were inventoried. The open space resources were identified by their location, owner, features, total acreage, and acreage of passive and active areas. The secondary sources for this analysis included land use and geographic PLUTO data at the tax lot level and additional data provided by the New York City Department of Parks and Recreation (DPR). According to the *CEQR Technical Manual*, public open space does not include Greenstreets, malls without seating, or sidewalks.

All of the publicly accessible open space resources that include passive and active open space within the study area as well as sunlight sensitive elements are shown in **Figure 3-2** and listed **Table 3-1**.

Figure 3-2 Open Space Resources

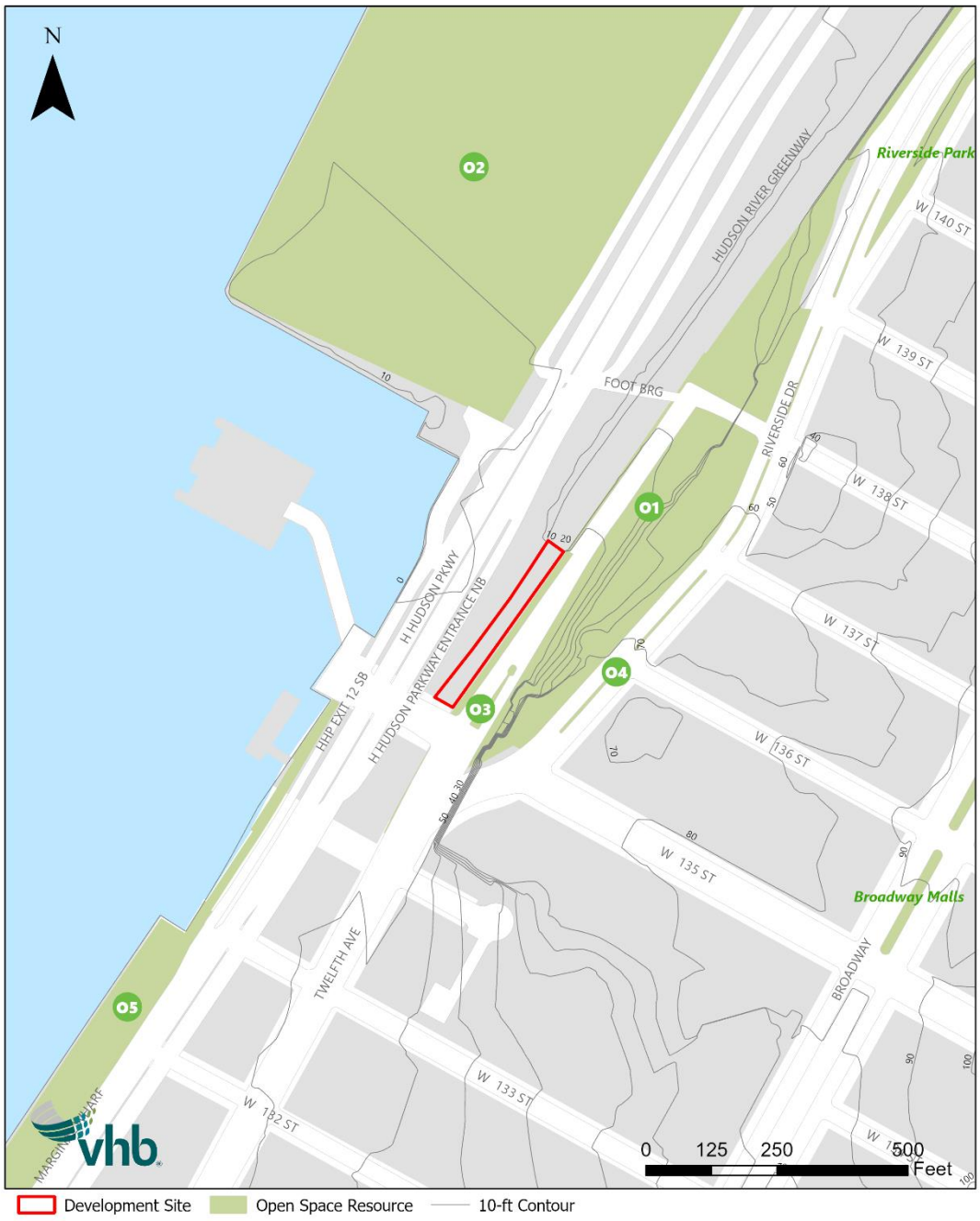


Table 3-1 Open Space Resources

Map ID	Resource Name	Potential Resource Summary	Sunlight-Sensitive Elements
O1	Riverside Park	222-acre park stretching four miles from 72nd to 158th streets along the Hudson River. Within the study area, the park contains vegetated areas, Riverside Valley Community Garden, and walking paths.	Passive and active recreation spaces, vegetation
O2	Riverbank State Park	28-acre state park built on the top of a sewage treatment facility on the Hudson River containing a running track, playing fields/courts, swimming pool, amphitheater, playground, community garden, bench seating, and open lawns.	Passive and active recreation spaces, vegetation
O3	Twelfth Avenue Greenstreet	Planted median containing four trees, a paved walking path, and shrubs.	Vegetation
O4	Riverside Drive Greenstreet	Planted median separating northbound and southbound lanes	Vegetation, passive recreation
O5	West Harlem Piers	Within the study area, this resource contains only a paved recreational walking/running path along the edge of the Hudson River.	None

No-Action Condition

Absent the Proposed Actions, the existing conditions would continue as a two-story brick building that contains 19,186 gsf of floor area intended for commercial uses. Changes in open space resources are not anticipated.

With-Action Condition

As discussed in **Section 4, Shadows**, only Riverside Park (O1) and the Twelfth Avenue Greenstreet (O3), would experience shading from project-generated shadows. The other identified resources were either not sunlight-sensitive or would receive no incremental shadow due to their position relative to the Proposed Project. Direct sunlight would never be entirely eliminated from Riverside Park and the Twelfth Avenue Greenstreet during the period of incremental shadow and the extent of shadow would be very limited. The portion of the park that could expect to receive shading is along the retaining wall on Twelfth Avenue. It contains no benches or other space for passive recreation and is fenced from the public. Therefore, the public's enjoyment of the resource would not be impacted. Therefore, no significant adverse impact would result.

Conclusion

In conclusion, there could be incremental shadow cast on two open space resources: Riverside Park and the Twelfth Avenue Greenstreet. Incremental shadows from the Proposed Project would be limited in extent and duration; they would not disrupt the character, use, or enjoyment of any of the active or passive recreational amenities in either open space. The shadows would have little to no effect on vegetation due to their location. Therefore, there would be no significant adverse impact from the Proposed Project with respect to direct effects on open space, and further analysis is not warranted.

4

Shadows

A shadow is defined in the *2021 CEQR Technical Manual* as the condition that results when a building or other built structure blocks the sunlight that would otherwise directly reach a certain area, space, or feature. The purpose of this section is to assess whether new structures may cast shadows on sunlight sensitive publicly accessible resources or other resources of concern such as natural resources, and to assess the significance of their impact.

Introduction

According to the *2021 CEQR Technical Manual*, a shadow assessment is required if a project would either (a) result in new structures (or additions to existing structures including the addition of rooftop mechanical equipment) of 50 feet or more or (b) be located adjacent to, or across the street from, a sunlight-sensitive resource. Such resources include publicly accessible open spaces, important sunlight-sensitive natural features, or historic resources with sun-sensitive features. A significant adverse shadow impact occurs when the incremental shadow added by a project falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources.

The Proposed Actions are expected to facilitate the construction of an approximately 71.5-foot-tall building in the With-Action condition. Therefore, further assessment is warranted.

Methodology

According to the *CEQR Technical Manual*, the longest shadow a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. In accordance with the *CEQR Technical Manual*, a preliminary screening assessment is conducted to ascertain whether shadows resulting from a project could reach any sunlight-sensitive resource at any time of year; if the preliminary assessment indicates that, in the absence of intervening buildings, shadows from a project could reach sunlight-sensitive resources on any of the representative analysis days, a detailed analysis is typically warranted.

Sunlight-Sensitive Resources

The *CEQR Technical Manual* defines sunlight-sensitive resources as those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. The following are considered to be sunlight-sensitive resources: [1]

- **Public open space** (e.g., parks, beaches, playgrounds, plazas, schoolyards, greenways, and landscaped medians with seating). Planted areas within unused portions of roadbeds that are part of the Greenstreets program are also considered sunlight-sensitive resources. The uses and vegetation in an open space establish its sensitivity to shadows. This sensitivity is assessed for both (1) warm-weather-dependent features like wading pools and sand boxes, or vegetation that could be affected by loss of sunlight during the growing season (i.e., March through October); and (2) features, such as benches, that could be affected by a loss of winter sunlight. Uses that rely on sunlight include passive uses, such as sitting or sunning; active uses, such as playfields or paved courts; and such activities as gardening, or children's wading pools and sprinklers. Where lawns are actively used, the turf requires extensive sunlight. Vegetation requiring direct sunlight includes the tree canopy, flowering plants, and plots in community gardens. Generally, four to six hours a day of sunlight, particularly in the growing season, is a minimum requirement.
- **Features of historic architectural resources that depend on sunlight for their enjoyment by the public.** Only the sunlight-sensitive features are considered, as opposed to the entire architectural resource. Sunlight-sensitive features include the following: design elements that are part of a recognized architectural style that depends on the contrast between light and dark (e.g., deep recesses or voids such as open galleries, arcades, recessed balconies, deep window reveals, and prominent rustication); elaborate, highly carved ornamentation; stained-glass windows; exterior building materials and color that depend on direct sunlight for visual character (e.g., the polychromy (multicolored) features found on Victorian Gothic Revival or Art Deco façades); historic landscapes, such as scenic landmarks including vegetation recognized as an historic feature of the landscape; and structural features for which the effect of direct sunlight is described as playing a significant role in the structure's importance as an historic landmark.

[1] According to the CEQR Technical Manual, City streets, sidewalks, and private open spaces (such as private residential front and back yards, stoops, and vacant lots) are not considered to be sunlight-sensitive resources.

› **Natural resources where the introduction of shadows could alter the resource's condition or microclimate.** Such resources could include surface water bodies, wetlands, or designated resources such as coastal fish and wildlife habitats.

Preliminary Assessment

The preliminary screening assessment consists of three tiers of analysis:

› **Tier 1 Screening:** The first tier determines a simple radius around the proposed building representing the longest shadow that could be cast. If there are sunlight-sensitive resources within the radius, the analysis proceeds to the second tier;

› **Tier 2 Screening:** The second-tier analysis reduces the area that could be affected by project-generated shadows by accounting for a specific range of angles that can never receive shade in New York City due to the path of the sun in the northern hemisphere. According to the *CEQR Technical Manual*, shadows cannot be cast within New York City within 108 degrees from True North. Topographic lines are included to demonstrate the terrain of the area;

› **Tier 3 Screening:** If the second tier of analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a third tier of screening analysis further refines the area that could be reached by new shadows by looking at specific representative days of the year and determining the maximum extent of shadow over the course of each representative day. For the Tier 3 screening, three-dimensional modeling software with the capacity to model shadows is used, and the maximum building envelope that could be achieved as a result of the proposed project is modeled and geo-located within the program. Terrain, which has been included in the Tier 1 and Tier 2 Screenings, is also incorporated into the model to account for how changes in elevation throughout the study area can influence shadows that could be cast by the proposed project. The representative days are December 21 (winter solstice), June 21 (summer solstice), March 21/September 21 (vernal/autumnal equinox), and May 6/August 6 (halfway between summer solstice and the equinoxes). The modeling software is also used to approximate times that shadows cast from the proposed project could enter and exit a resource.

Detailed Assessment

As noted above, if the Tier 3 screening indicates that, in the absence of intervening buildings, shadows from a proposed project would reach a sunlight-sensitive resource on any of the representative analysis days, a detailed shadow analysis would be warranted. Because existing buildings (or No-Action buildings) may already cast shadows on a sun-sensitive resource, a proposed project may not result in additional (incremental) shadows upon that resource. The detailed shadow analysis models a baseline condition (future No-Action) that is compared to the future condition resulting from a proposed project (future With-Action) to illustrate the shadows cast by the No-Action development and distinguish the additional (incremental) shadow cast by the project. The detailed shadows analysis uses a combination of Geographic Information Systems (GIS) 3D modeling and modeling in Sketchup, as well as GIS data provided publicly.

Determination of Significance

As described in the *CEQR Technical Manual*, an incremental shadow is generally not considered significant when its duration is no longer than 10 minutes at any time of year and the resource continues to receive substantial direct sunlight. A significant shadow impact generally occurs when an incremental shadow of 10 minutes or longer falls on a sunlight-sensitive resource and results in one of the following:

- **Vegetation**: a substantial reduction in sunlight available to a sunlight-sensitive feature of the resource to less than the minimum time necessary for its survival (when there was sufficient sunlight in the future without the project), or a reduction in direct sunlight exposure where the sensitive feature of the resource is already subject to substandard sunlight (i.e., less than the minimum time necessary for its survival).
- **Historic and cultural resources**: a substantial reduction in sunlight available for the enjoyment or appreciation of the sunlight-sensitive features of an historic or cultural resource.
- **Open space utilization**: a substantial reduction in the usability of open space as a result of increased shadow, with consideration given to anticipated new users and the open space's utilization rates throughout the affected time periods as well as to the inventory of available open space resources in the study area.
- **For any sunlight-sensitive feature of a resource**: complete elimination of all direct sunlight on the sunlight-sensitive feature of the resource, when the complete elimination results in substantial effects on the survival, enjoyment, or, in the case of open space or natural resources, the use of the resource.

In general, a significant adverse shadow impact occurs when the incremental shadow added by a proposed action falls on a sunlight-sensitive resource and substantially reduces or completely eliminates direct sunlight exposure, thereby significantly altering the public's use of the resource or threatening the viability of vegetation or other resources.

Preliminary Assessment

Tier 1 and 2 Screening

The Proposed Project would consist of a building approximately 71.5-feet in height. This analysis assesses a building of approximately 87 feet including the bulkhead, which could cast a maximum shadow of approximately 374.1 feet. **Figure 4-1** and **Table 4-1** show the sunlight-sensitive resources identified in the Tier 1 and Tier 2 Screening Assessment.

There are five publicly accessible open space resources, four historic resources, and one natural resource that are wholly or partially within the shadow study area. An evaluation of these resources determined that only the five open space resources and the natural resource had sunlight sensitive features, and the four historic resources did not.[2] Therefore, the historic resources were not carried through to the detailed analysis.

[2] The historic resources that are located wholly or partially within the shadow study area but do not contain sunlight sensitive features include: NY Central Railroad Substation No. 11 (H1), Lee Brothers Storage Building (H2), Riverside Drive-W 135-136 St Historic District (H3), and West Harlem Historic District (H4).

Table 4-1 Sunlight-Sensitive Resources in the Study Area

Map ID	Resource Name	Potential Resource Summary	Sunlight-Sensitive Elements
Open Space Resources			
O1	**Riverside Park**	222-acre park stretching four miles from 72nd to 158th streets along the Hudson River. Within the study area, the park contains vegetated areas, Riverside Valley Community Garden, and walking paths.	Passive and active recreation spaces, vegetation
O2	**Riverbank State Park**	28-acre state park built on the top of a sewage treatment facility on the Hudson River containing a running track, playing fields/courts, swimming pool, amphitheater, playground, community garden, bench seating, and open lawns.	Passive and active recreation spaces, vegetation
O3	**Twelfth Avenue Greenstreet**	Planted median containing four trees, a paved walking path, and shrubs.	Vegetation
O4	**Riverside Drive Greenstreet**	Planted median separating northbound and southbound lanes	Vegetation, passive recreation
O5	**West Harlem Piers**	Within the study area, this resource contains only a paved recreational walking/running path along the edge of the Hudson River.	None
Natural Resources			
N1	**Hudson River**	River along Manhattan's west side	Surface waterbody

Figure 4-1 Tier 1 and Tier 2 Screening



Tier 3 Screening Assessment

In accordance with the *CEQR Technical Manual*, a Tier 3 screening assessment was performed because the Tier 1 and Tier 2 assessments identified six sunlight-sensitive resources within ±108 degrees of True North and within the area of the longest shadow that could be cast by the Proposed Project.

The Tier 3 screening assessment was performed for the four representative days of the year set forth in the *CEQR Technical Manual*: December 21, the winter solstice and shortest day of the year; March 21/September 21, the equinoxes; May 6/August 6, the midpoints between the summer solstice and the equinoxes; and June 21, the summer solstice and the longest day of the year.

In accordance with the *CEQR Technical Manual*, a model of the building in the With-Action condition was developed in a three-dimensional computer program (ArcGIS Pro). The model was geo-located, and the surrounding terrain was imported into the model to account for differences in topography. As noted above, the Tier 3 shadow screening shows the shadows that could be cast as a result of the Proposed Project but does not account for existing buildings that may already cast shadows on the identified resources. **Figure 4-2** to **Figure 4-5** below show Tier 3 screening results, which indicate that in the absence of intervening structures:

- Two resources would fall outside the area of potential shadow because of their location relative to the Development Site:
  - O2 Riverbank State Park
  - O4 Riverside Drive Greenstreet
- Shading on the West Harlem Piers (O5) from the Proposed Project could occur on the May 6th/August 6th and June 21st analysis days. However, the shading would be very brief and would occur on a section which is comprised only of a paved bicycle path and which contains no sunlight sensitive resources. Therefore, this open space resource was not advanced to the detailed analysis and no further consideration is warranted.

Therefore, two open space resources and one natural resource were carried through for the detailed analysis:

- O1 Riverside Park
- O3 Twelfth Avenue Greenstreet
- N1 Hudson River

Figure 4-2 Tier 3 Screening December 21 Analysis Day



Figure 4-3 Tier 3 Screening March 21 Analysis Day



Figure 4-4 Tier 3 Screening May 6 Analysis Day



Figure 4-5 Tier 3 Screening June 21 Analysis Day



Detailed Assessment

No-Action Condition

In the future without the Proposed Actions (the No-Action condition), the Development Site would remain in its existing condition.

With-Action Condition

In the future with the Proposed Actions (the With-Action condition), the Development Site would be developed with the Proposed Project.

The detailed shadow analysis compares the future condition resulting from the Proposed Actions (With-Action condition) to the baseline condition (No-Action condition) to illustrate the shadows cast by existing or future buildings and distinguish the additional (incremental) shadow cast by the Proposed Project. Any new shadows projected to be cast onto the identified resources from the Proposed Project are considered "incremental shadows."

Modeling Results

As noted above, based on the Tier 3 screening results, three sunlight-sensitive resources were identified for detailed analysis. **Table 4-2** provides the modeled incremental shadow entry/exit times for the sunlight-sensitive resources. The start times shown in the table represent the time that incremental shadow would enter any portion of the open space or sunlight-sensitive feature of the historic resource, and the end time represents the time that the incremental shadows leave the open space or sunlight-sensitive feature of the historic resource.

Detailed shadow analyses are discussed for each resource in the relevant sub-sections below.

Table 4-2 Detailed Analysis Summary of Incremental Shadow Entry/Exit Times

	Analysis Day			
Resource	**Dec 21 8:51A- 02:53P**	**March 21/Sept 21 7:36A-4:29P**	**May 6/Aug 6 6:27A-5:18P**	**June 21 5:57A-6:01P**
Open Space Resources				
O1 – Riverside Park	-	3:01 – 4:29 PM, 1 hour, 28 minutes	2:49 – 5:18 PM, 2 hours, 29 minutes	3:00 – 6:01 PM, 3 hours, 1 minute
O3 – Twelfth Avenue Greenstreet	-	3:10 – 4:23 PM, 1 hour, 13 minutes	2:56 – 4:43 PM, 1 hour, 47 minutes	3:05 – 5:02 PM, 1 hour, 57 minutes
Natural Resources				
N1 – Hudson River	8:51 – 9:51 AM, 1 hour	7:36 – 8:15 AM, 39 minutes	6:27 – 6:39 AM, 12 minutes	5:57 – 6:07 AM, 10 minutes

O1: Riverside Park

Riverside Park is a large park that stretches from 59th Street to 155th Street along the Hudson River. The portion relevant to the detailed shadows analysis is bounded by Riverside Drive, Twelfth Avenue, West 135th Street, and West 138th Street. It includes a large retaining wall along Twelfth Avenue. A stone staircase leads from Twelfth Avenue to the top of the retaining wall (at an elevation of approximately 30 feet). The staircase then becomes a ramp that leads to a walking path adjacent to Riverside Drive (at an elevation of approximately 70 feet). Atop the retaining wall is forested area with a mix of mature trees and dense underbrush, which slopes upwards to meet the walking path. There are no benches in this portion of the park, only the stairway, walkway, and forested area. Incremental shadow from the Proposed Project would fall on this portion of the park on three analysis days: March 21st/September 21st for 1 hour and 28 minutes (see **Figure 4-6** through **Figure 4-11**), May 6th/August 6th for 2 hours and 29 minutes (see **Figure 4-12** through **Figure 4-16**), and June 21st for 3 hours and 1 minute (see **Figure 4-17** through **Figure 4-22**).

As shown in the above referenced figures, the shading from the Proposed Project reaches the park's west side at 3:01 PM on March 21st/September 21st and lasts until 4:29 PM. At 4:25 PM, as shown in **Figure 4-11** below, the incremental shadow only covers approximately 9.74 percent of the area of this portion of the park. On the May 6th/August 6th analysis day, the incremental shadow is cast from 2:49 PM until 5:18 PM. At 5:00 PM, as shown in **Figure 4-16** below, the shadow cast would only cover approximately 11.14 percent of this portion of the park. On the June 21st analysis day, the park could expect to receive shadow from 3:00 PM until 6:01 PM. At 5:40 PM, as shown in **Figure 4-22** below, the shadow cast would only cover approximately 11.57 percent of this portion of the park.

Direct sunlight would never be entirely eliminated from the park during the period of incremental shadow and, as discussed above, the extent of shadow would be very limited. The portion of the park that could expect to receive shading is along the retaining wall on Twelfth Avenue. It contains no benches or other space for passive recreation and is fenced from the public. Therefore, the public's enjoyment of the resource would not be impacted.

The vegetated area that could receive shading from the Proposed Project is raised approximately 30 feet above Twelfth Avenue at its lowest level (along the retaining wall) and slopes upwards until it reaches Riverside Drive at approximately 70 feet in elevation. Therefore, the leaves of trees located in this area, which range from 40 to 60 feet in height, would be largely outside of shadow. The vegetation that would receive shading is underbrush, which is shaded by the tree canopy under normal conditions during the analysis periods above and, as such, is considered to be shade tolerant. Therefore, the viability of vegetation is not expected to be impacted.

Due to the relatively limited extent of shadow in this portion of the park, the lack of pedestrian amenities, and no anticipated impact to vegetation, there would be no significant adverse impact from the Proposed Project with respect to shadows, and further analysis is not warranted.

Figure 4-6 O1 - March 21/September 21 – 3:10 PM

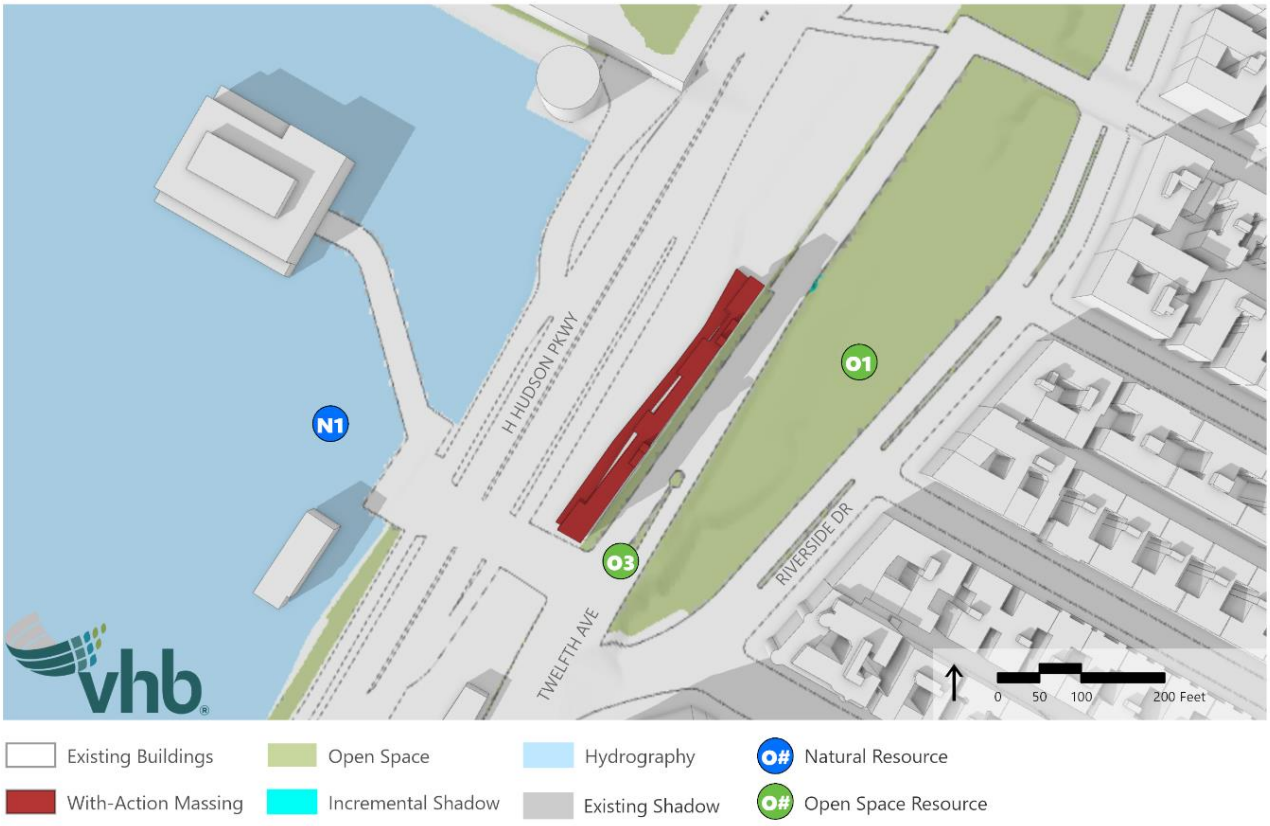


Figure 4-7 O1 - March 21/September 21 – 3:25 PM

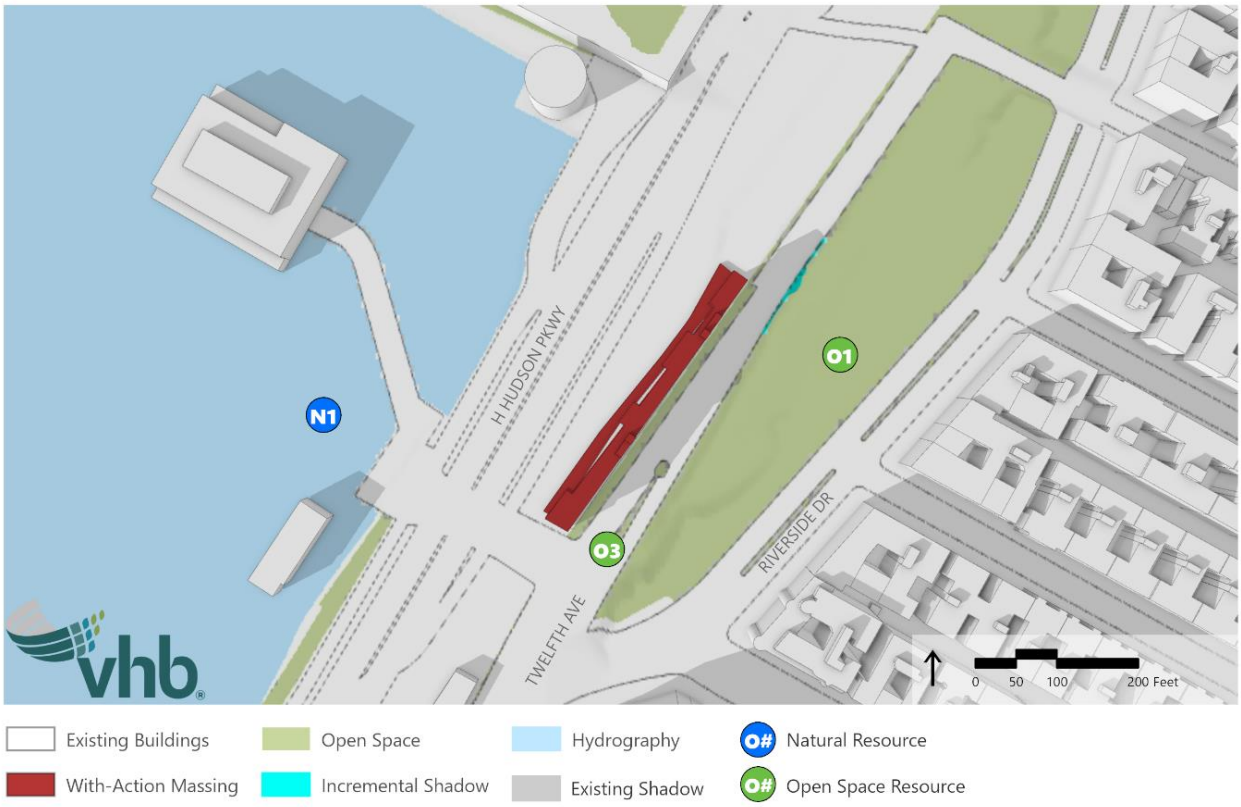


Figure 4-8 O1 - March 21/September 21 – 3:40 PM

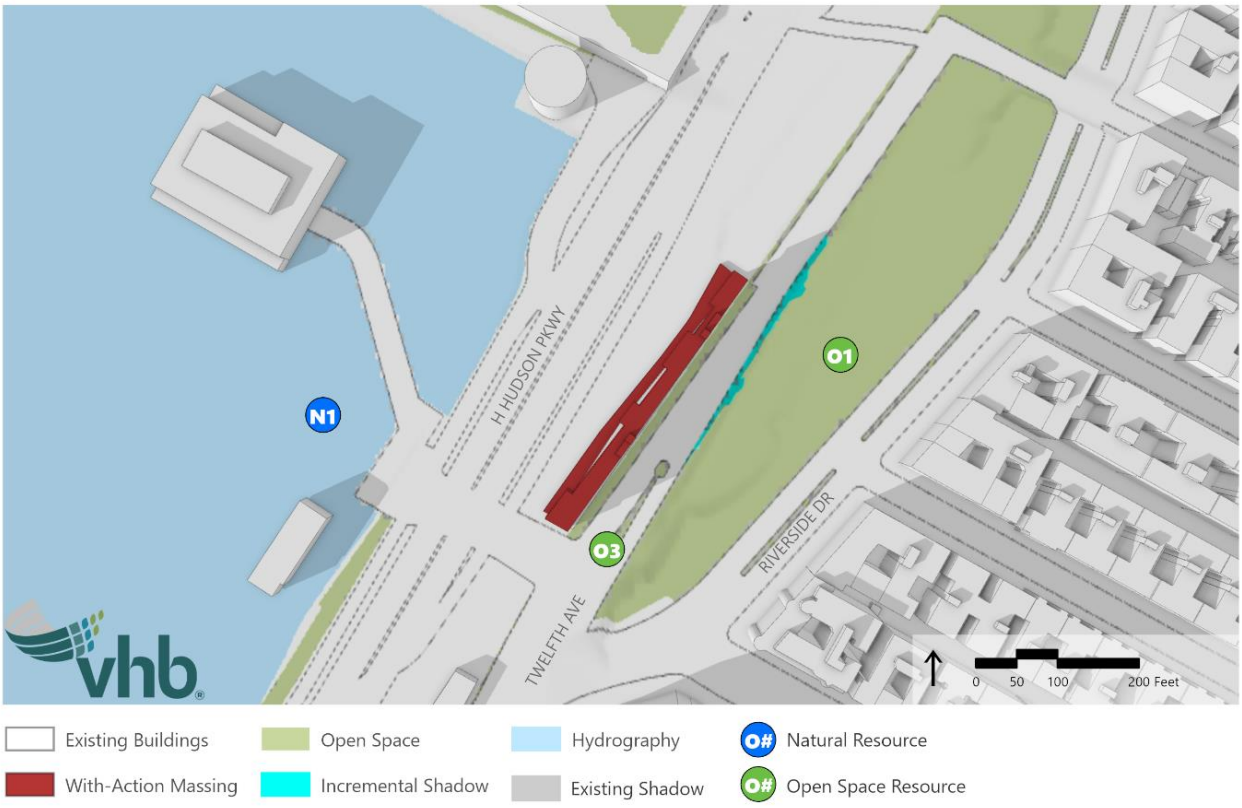


Figure 4-9 O1 - March 21/September 21 – 3:55 PM

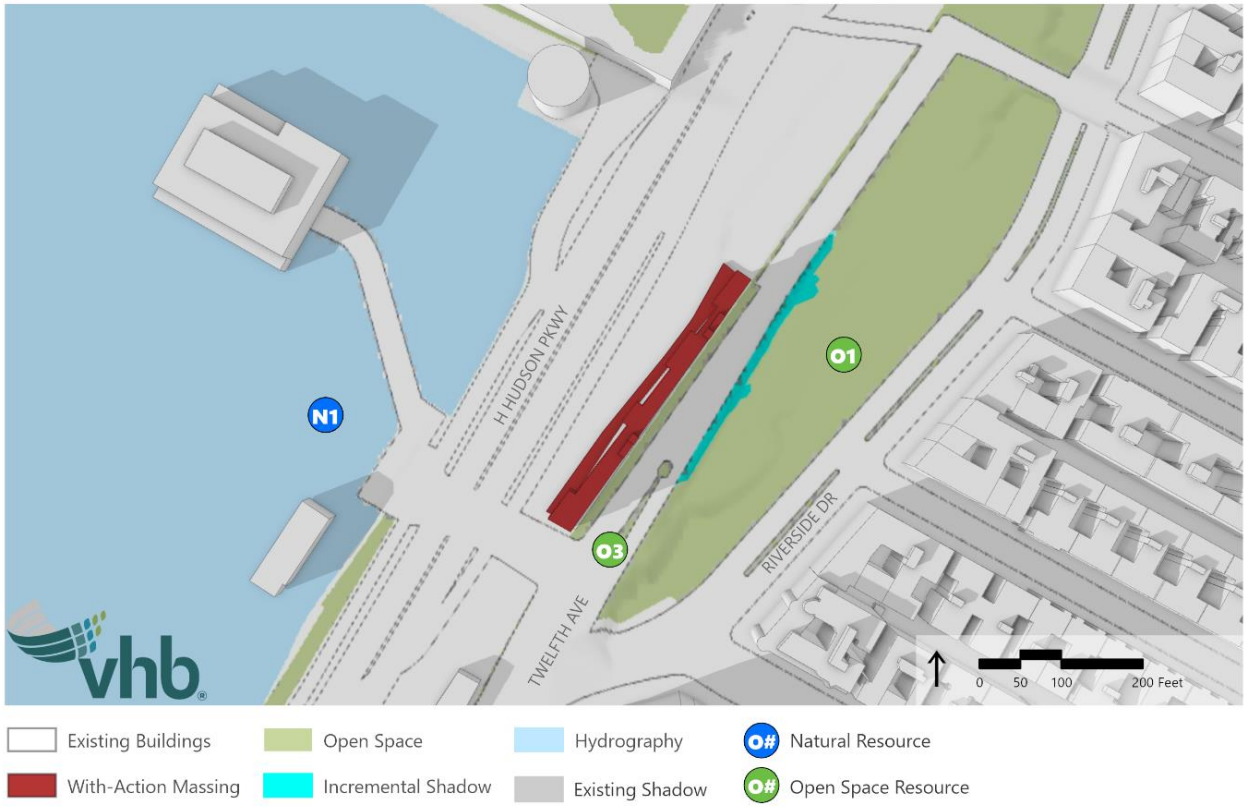


Figure 4-10 O1 - March 21/September 21 – 4:10 PM

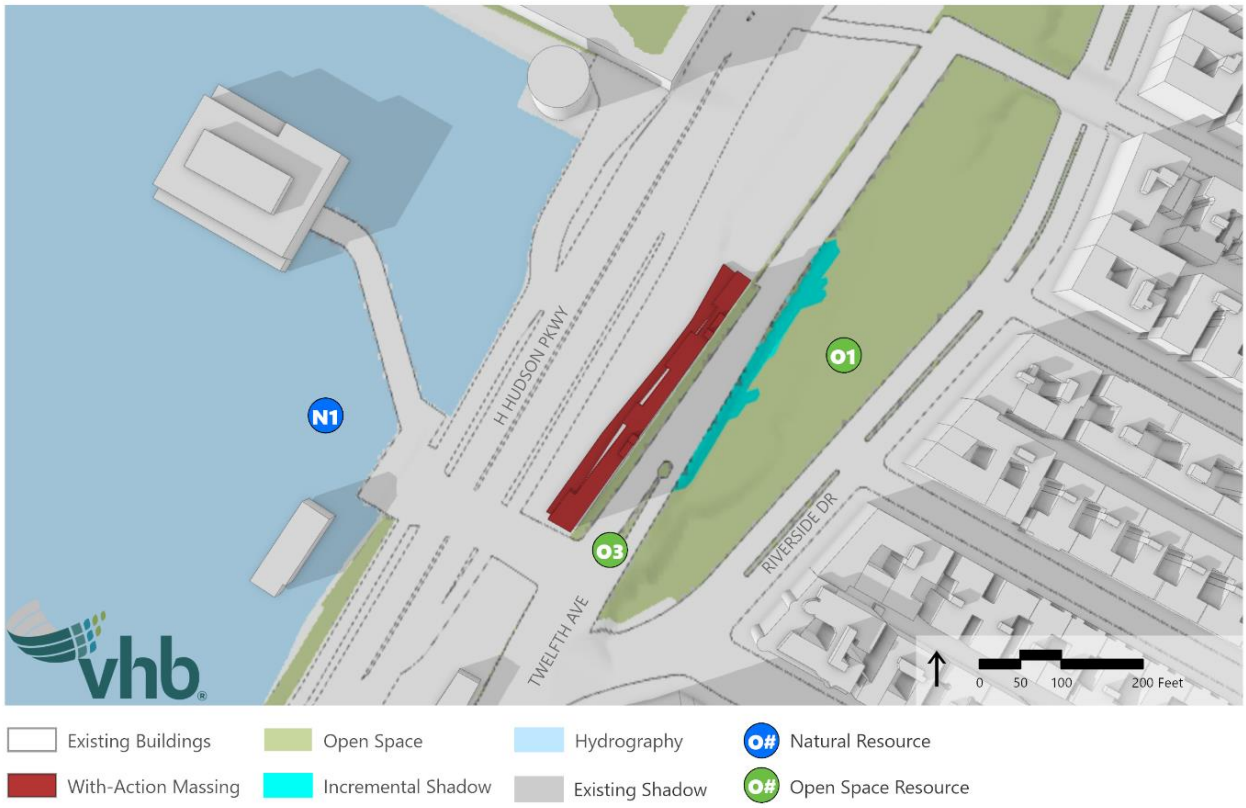


Figure 4-11 O1 - March 21/September 21 – 4:25 PM

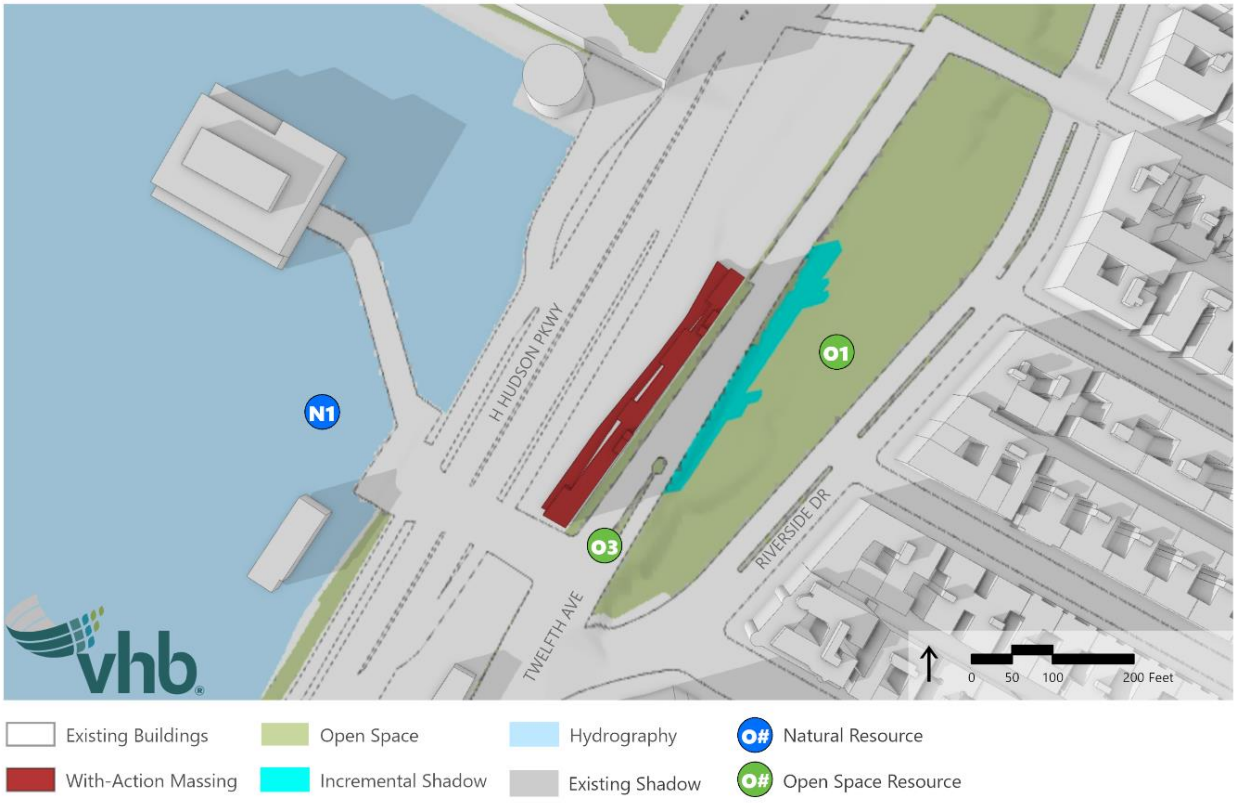


Figure 4-12 O1 – May 6/August 6 – 3:00 PM

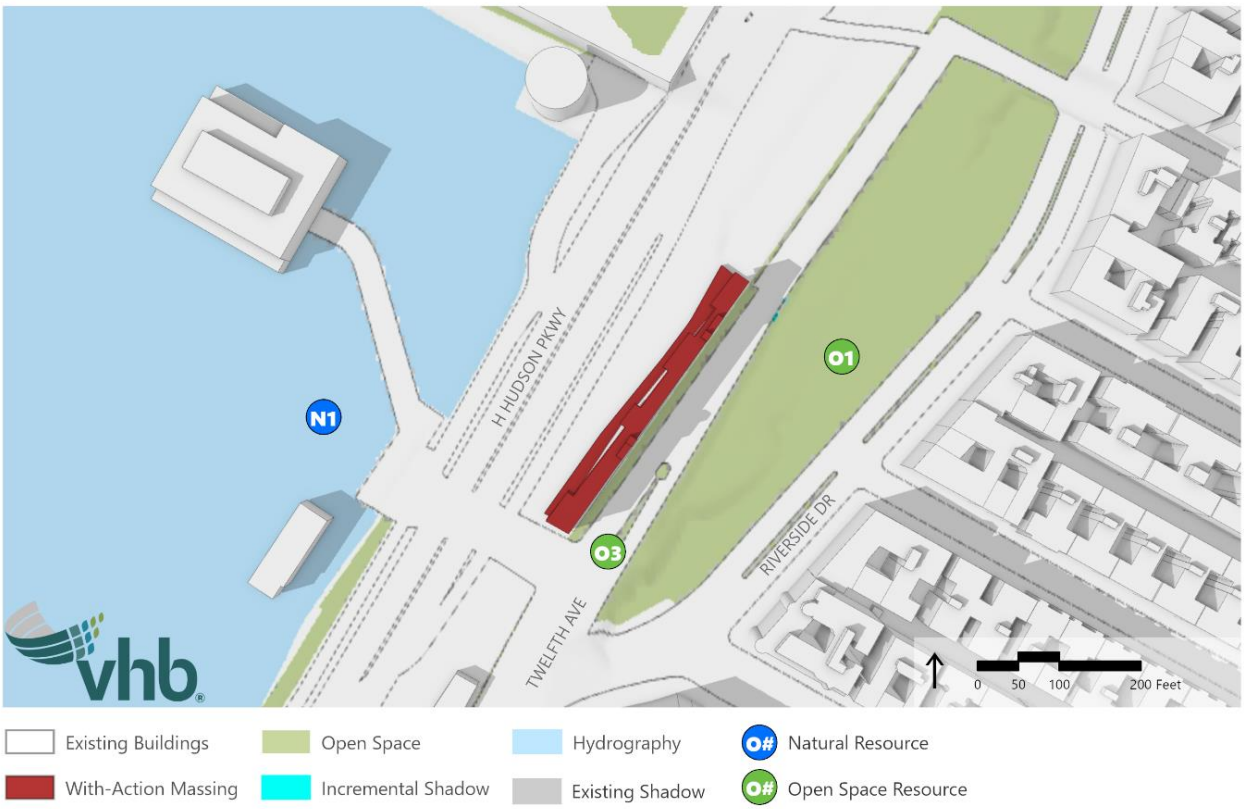


Figure 4-13 O1 – May 6/August 6 – 3:30 PM

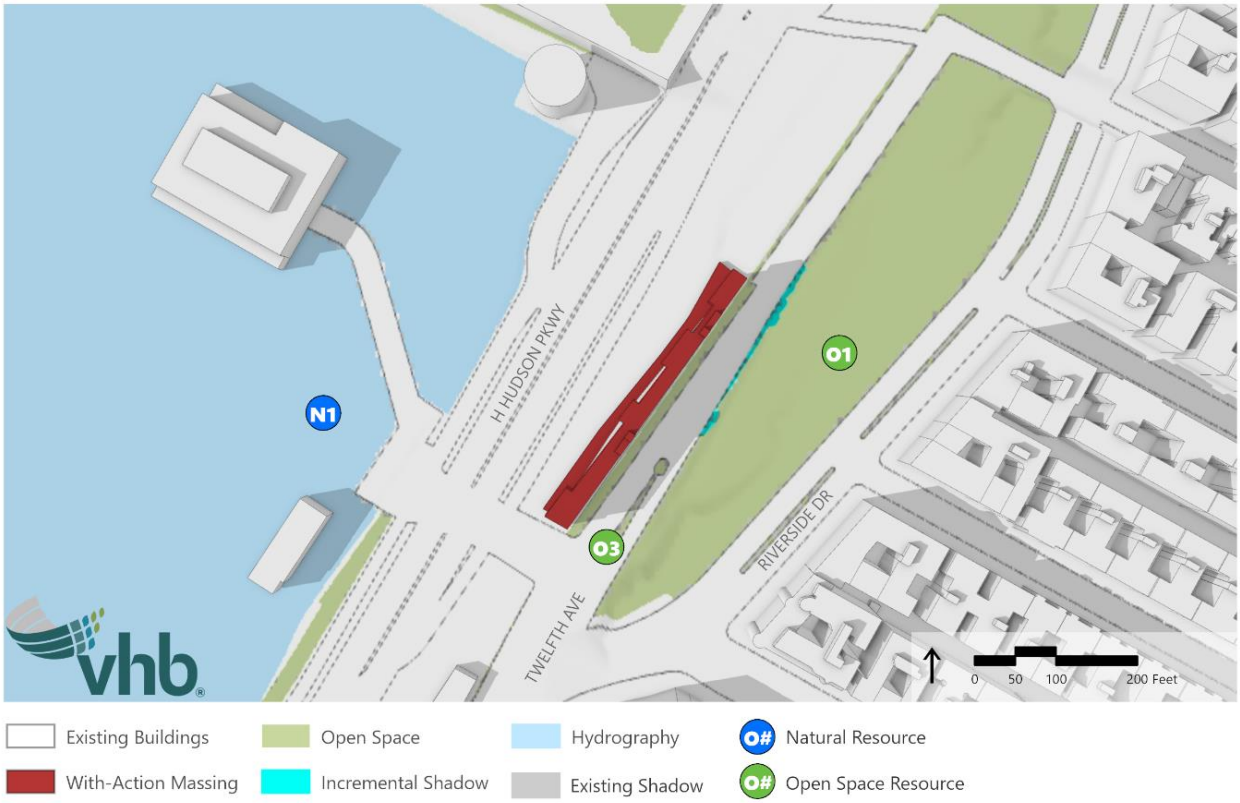


Figure 4-14 O1 – May 6/August 6 – 4:00 PM

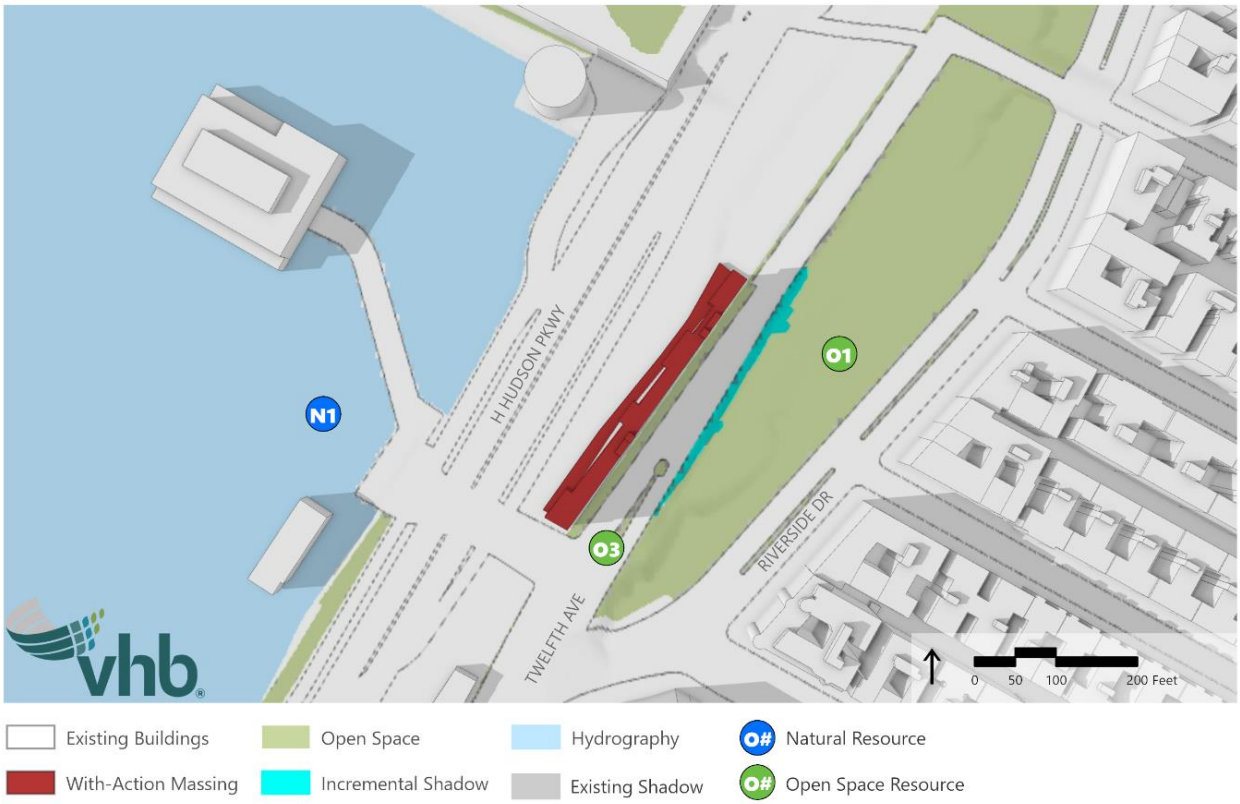


Figure 4-15 O1 – May 6/August 6 – 4:30 PM

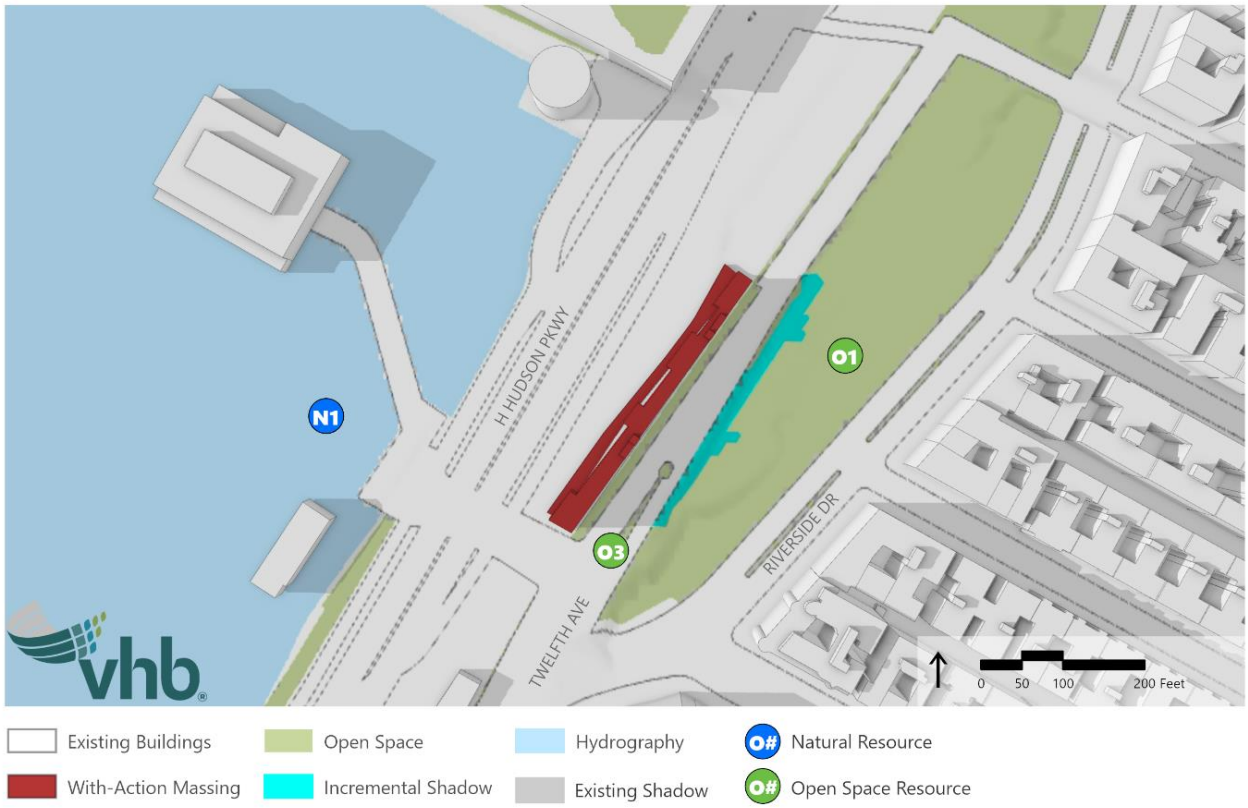


Figure 4-16 O1 – May 6/August 6 – 5:00 PM

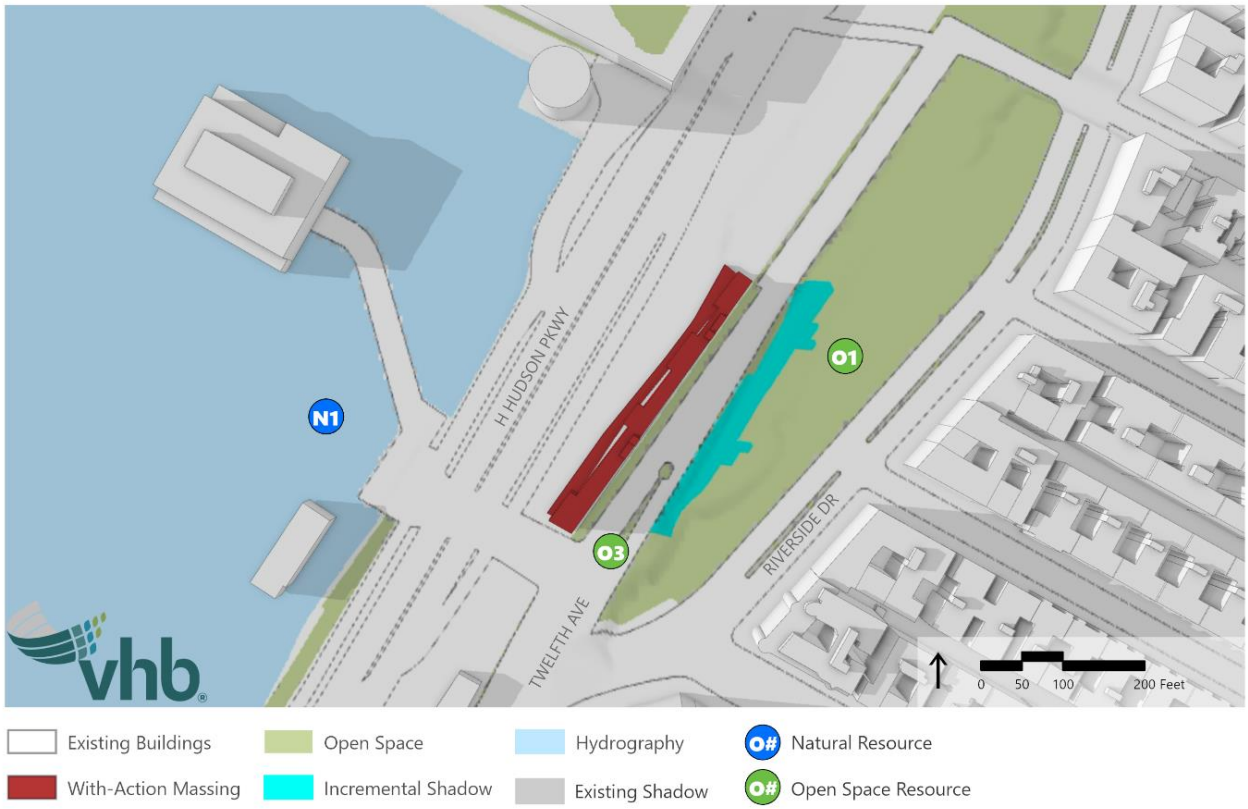


Figure 4-17 O1 – June 21 – 3:10 PM

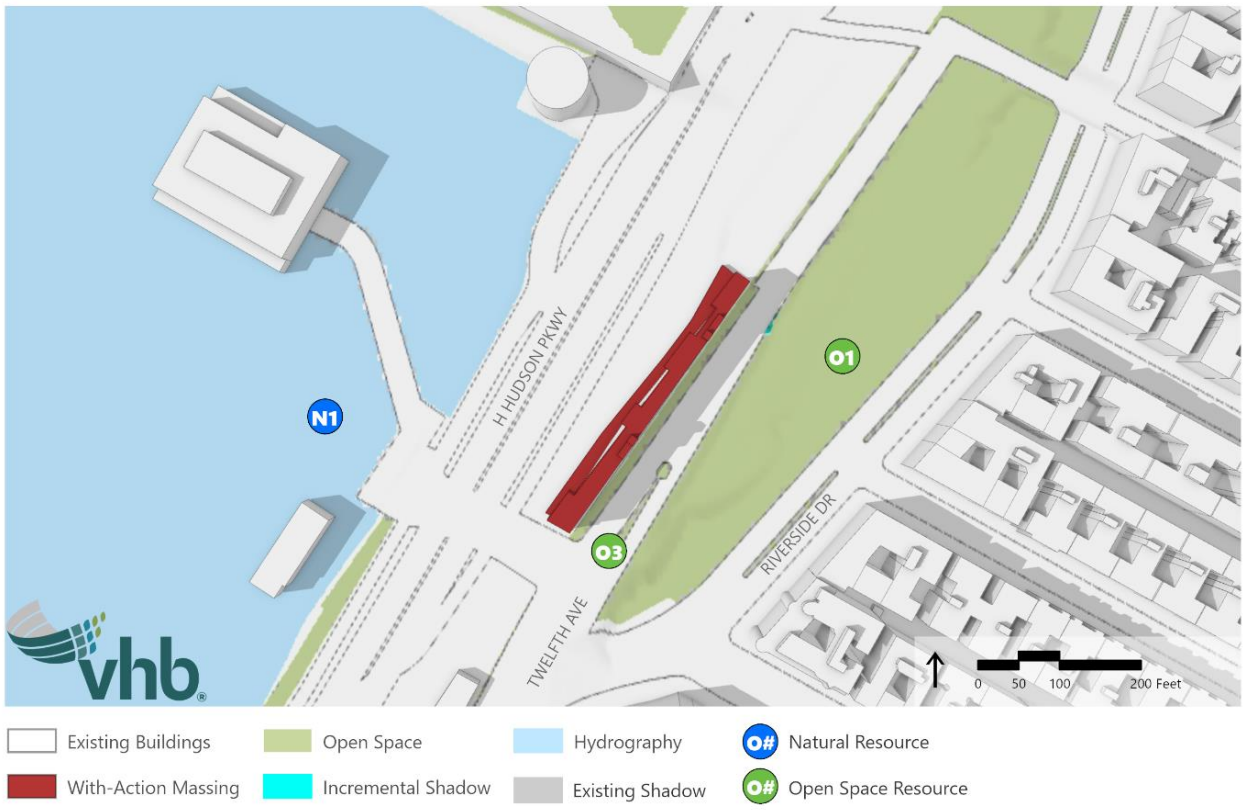


Figure 4-18 O1 - June 21 – 3:40 PM

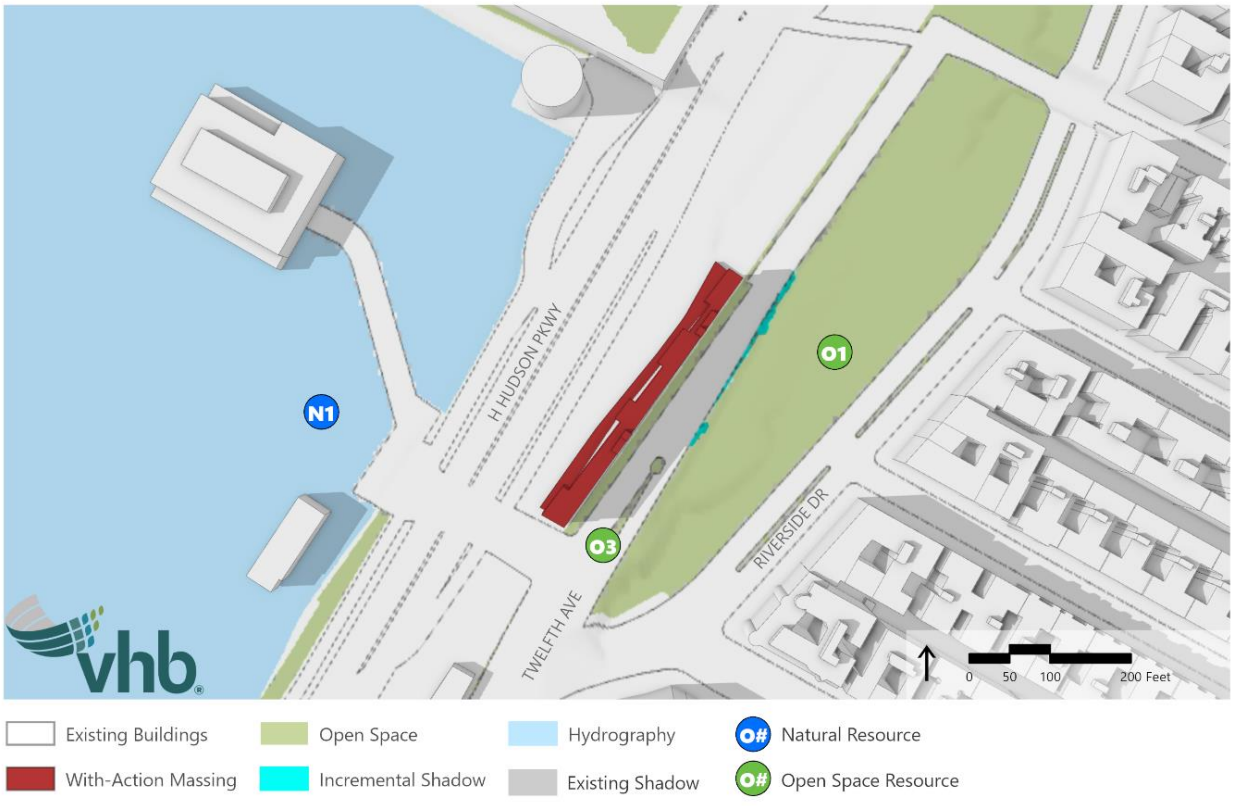


Figure 4-19 O1 - June 21 – 4:10 PM

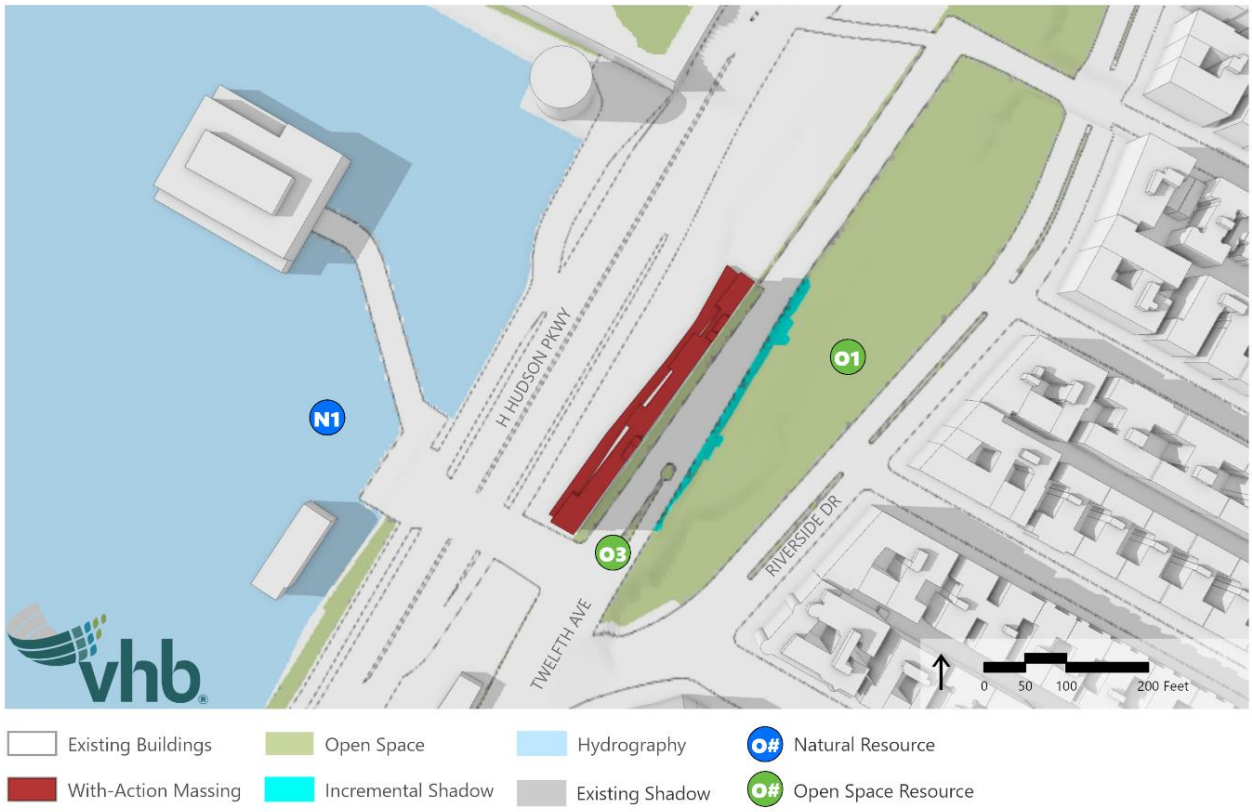


Figure 4-20 O1 - June 21 – 4:40 PM

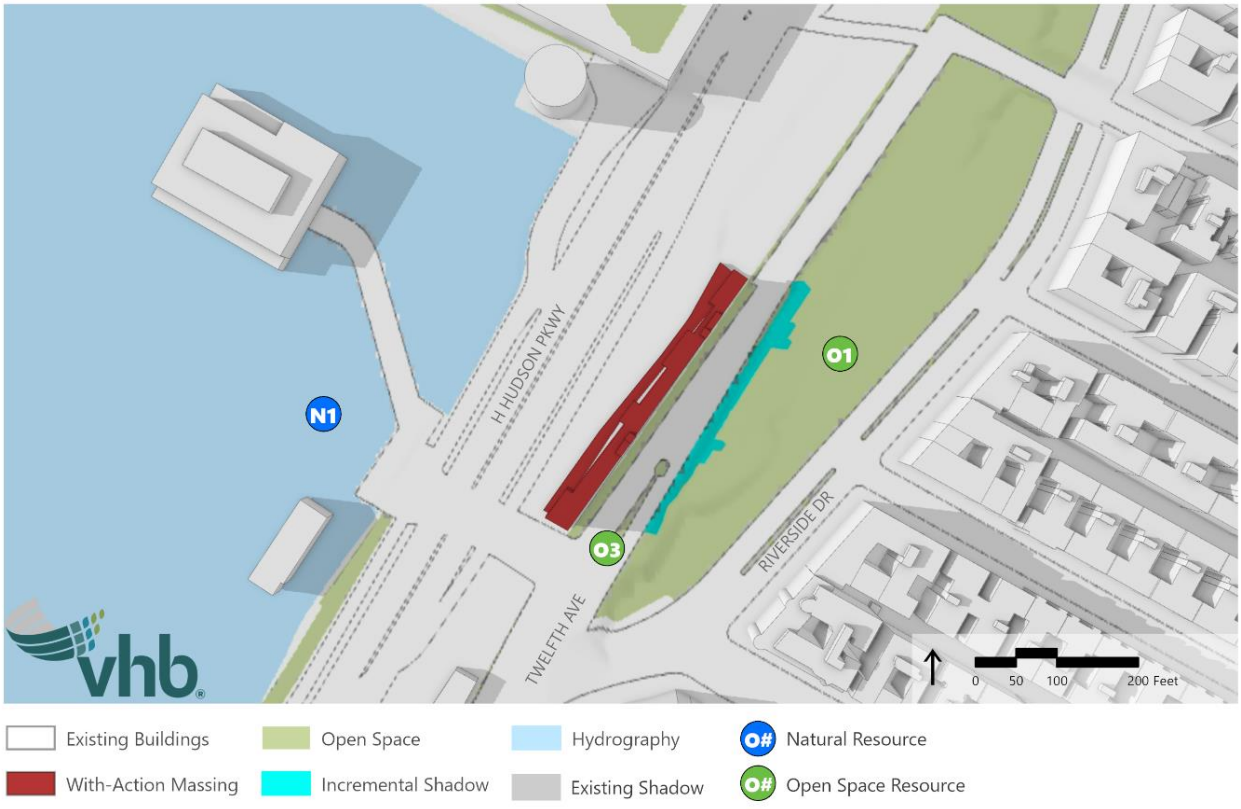


Figure 4-21 O1 - June 21 – 5:10 PM

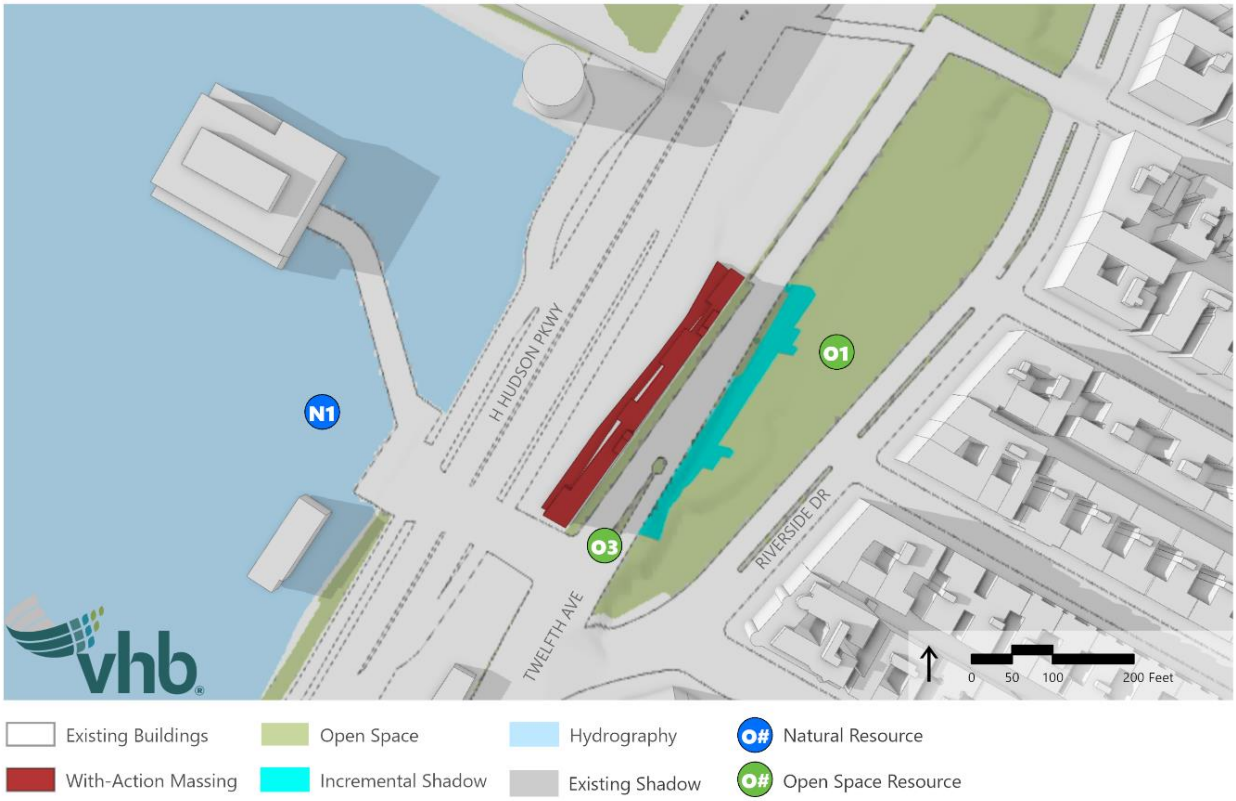
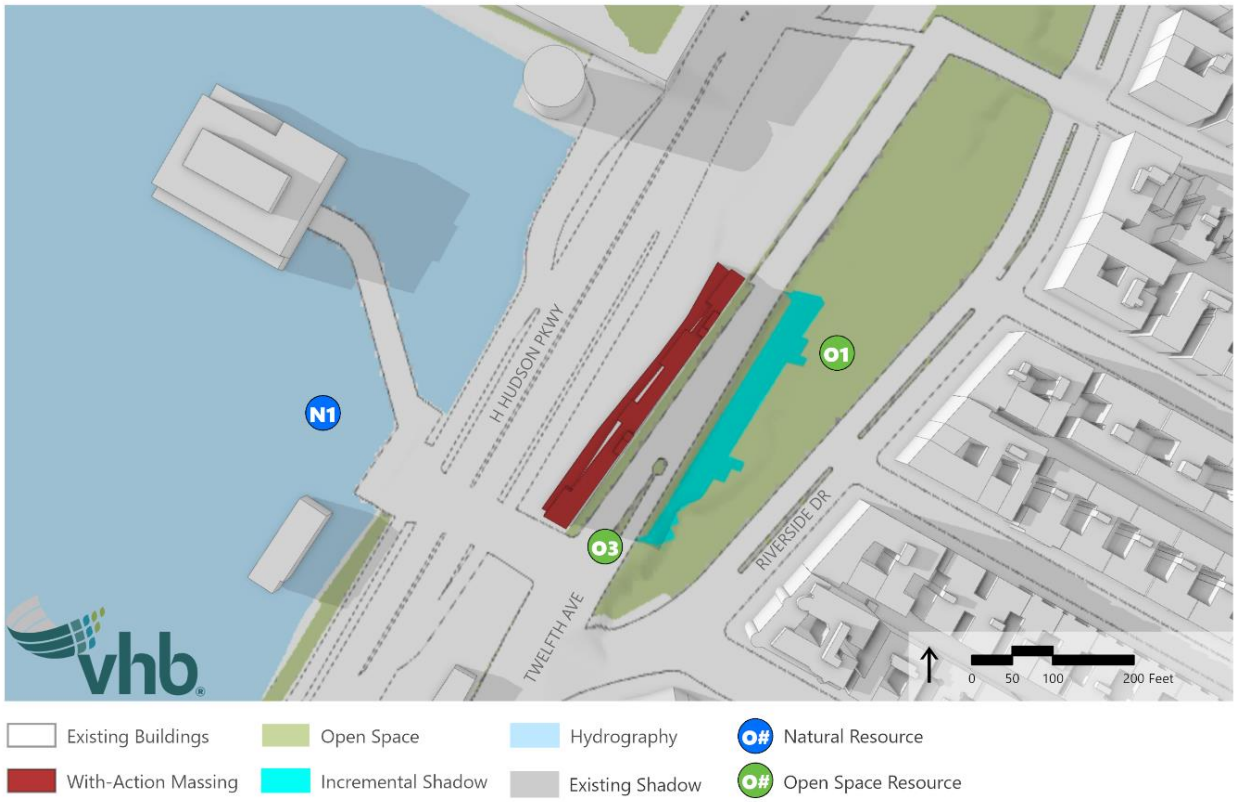


Figure 4-22 O1 - June 21 – 5:40 PM



O3: Twelfth Avenue Greenstreet

The Twelfth Avenue Greenstreet is a small, planted median on Twelfth Avenue directly adjacent to the Development Site. It contains a small number of planted bushes and trees. There are no benches or areas for passive recreation in the greenstreet. Incremental shadow from the Proposed Project would fall on the greenstreet on three analysis days: March 21st/September 21st for 1 hour and 23 minutes (see **Figure 4-23** through **Figure 4-27**), May 6th/August 6th for 1 hour and 47 minutes (see **Figure 4-28** through **Figure 4-34**), and June 21st for 1 hour and 57 minutes (see **Figure 4-35** through **Figure 4-38**).

Although a significant portion of this open space resource could expect to receive shading in the afternoon, the incremental shadow cast by the Proposed Project would never entirely eliminate sunlight from the resource. Due to the resource's proximity to the Development Site, the incremental shadow is narrowed; in the No-Action condition, the existing building casts shadow on the greenstreet. The vegetation on the north side of the greenstreet, which is most affected, would continue to receive mostly uninterrupted sunlight from 9:20 AM until 3:20 PM on the March 21st/September 21st analysis day, a duration of 6 hours. It would receive uninterrupted sunlight from 6:30 AM until 2:56 PM on the May 6th/August 6th analysis day, a duration of 8 hours and 26 minutes, and from 6:35 AM until 3:05 PM on the June 21st analysis day, a duration of 8 hours and 30 minutes. Therefore, the viability of vegetation would not be impacted. Due to this, the greenstreet would not be adversely impacted due to shadows and further analysis is not warranted.

Figure 4-23 O3 – March 21/September 21 – 3:15 PM

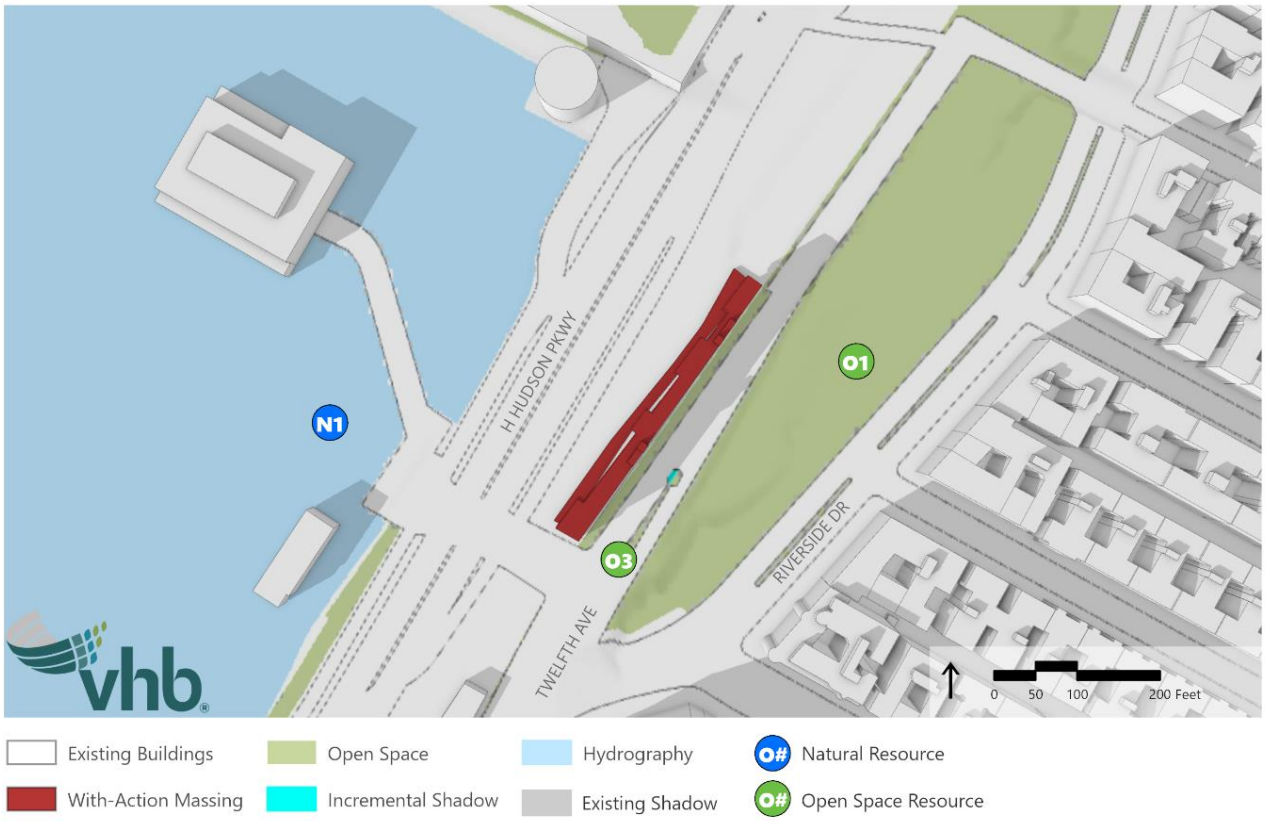


Figure 4-24 O3 – March 21/September 21 – 3:30 PM

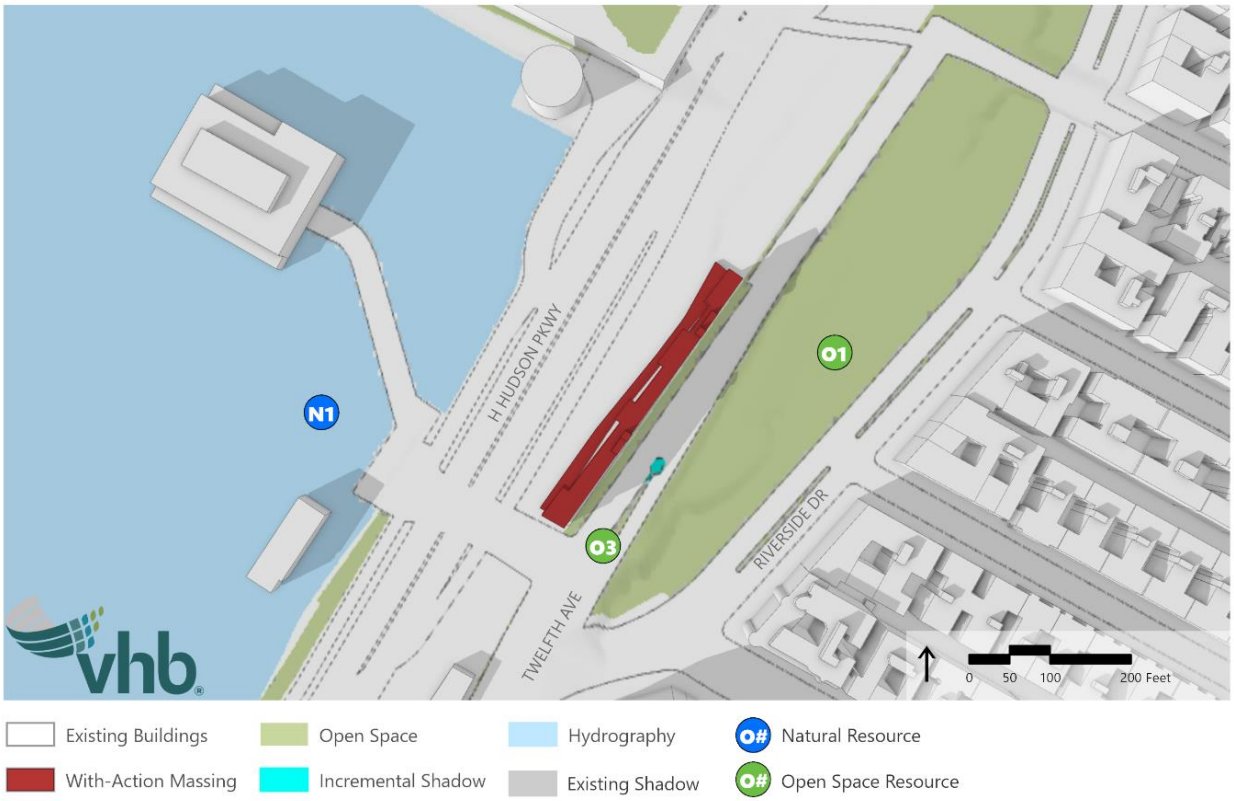


Figure 4-25 O3 – March 21/September 21 – 3:45 PM

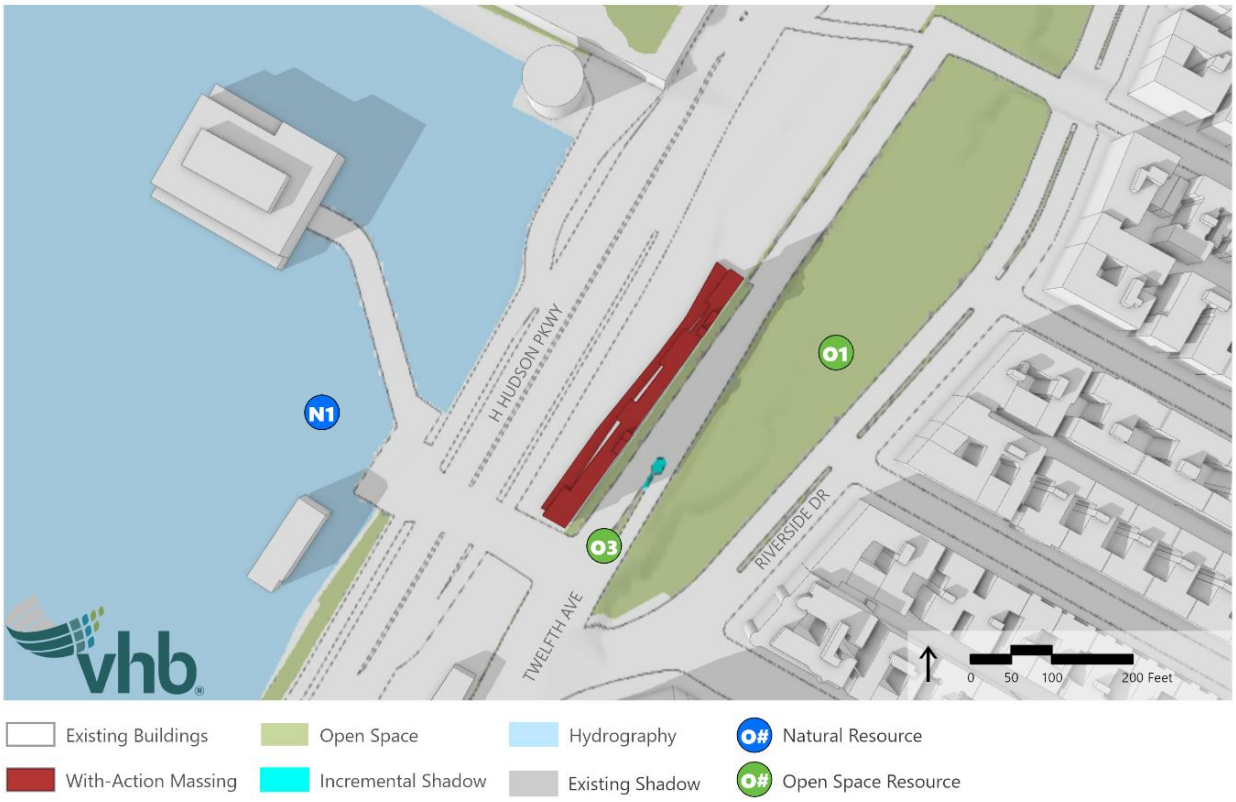


Figure 4-26 O3 – March 21/September 21 – 4:00 PM

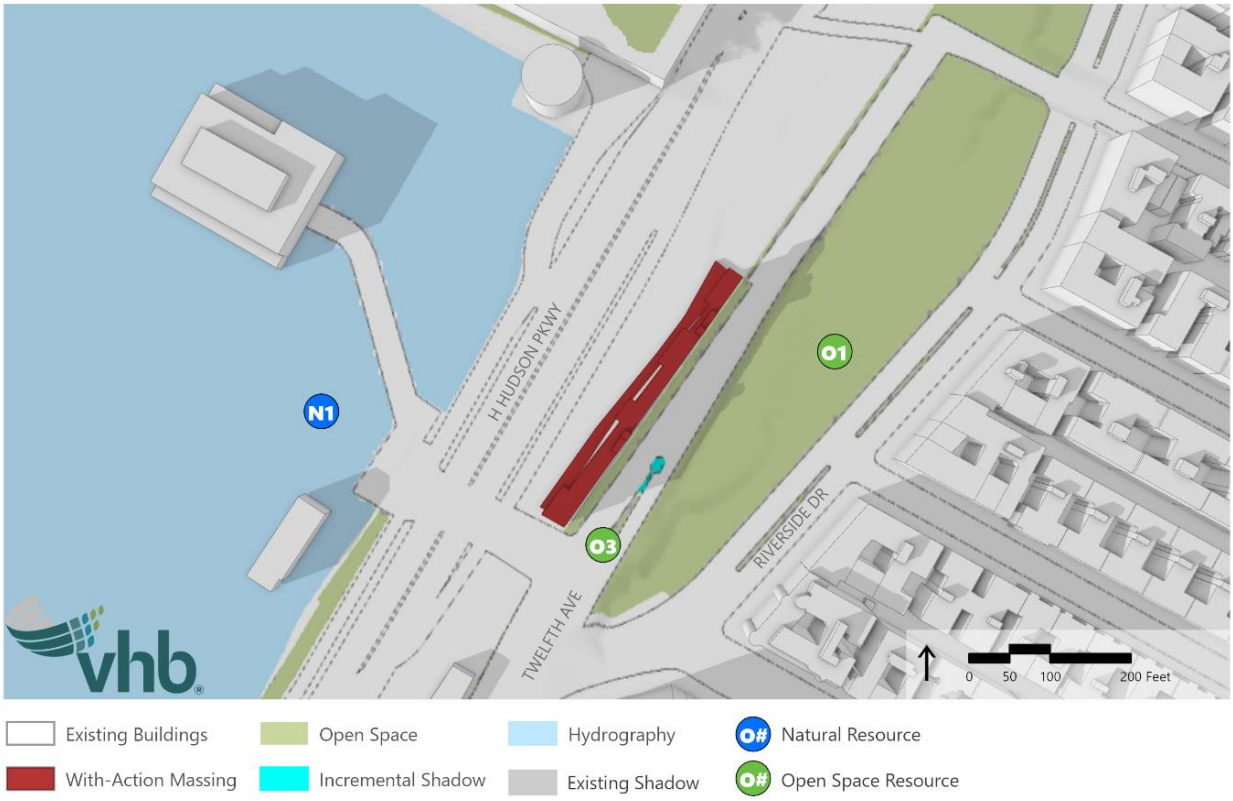


Figure 4-27 O3 – March 21/September 21 – 4:15 PM

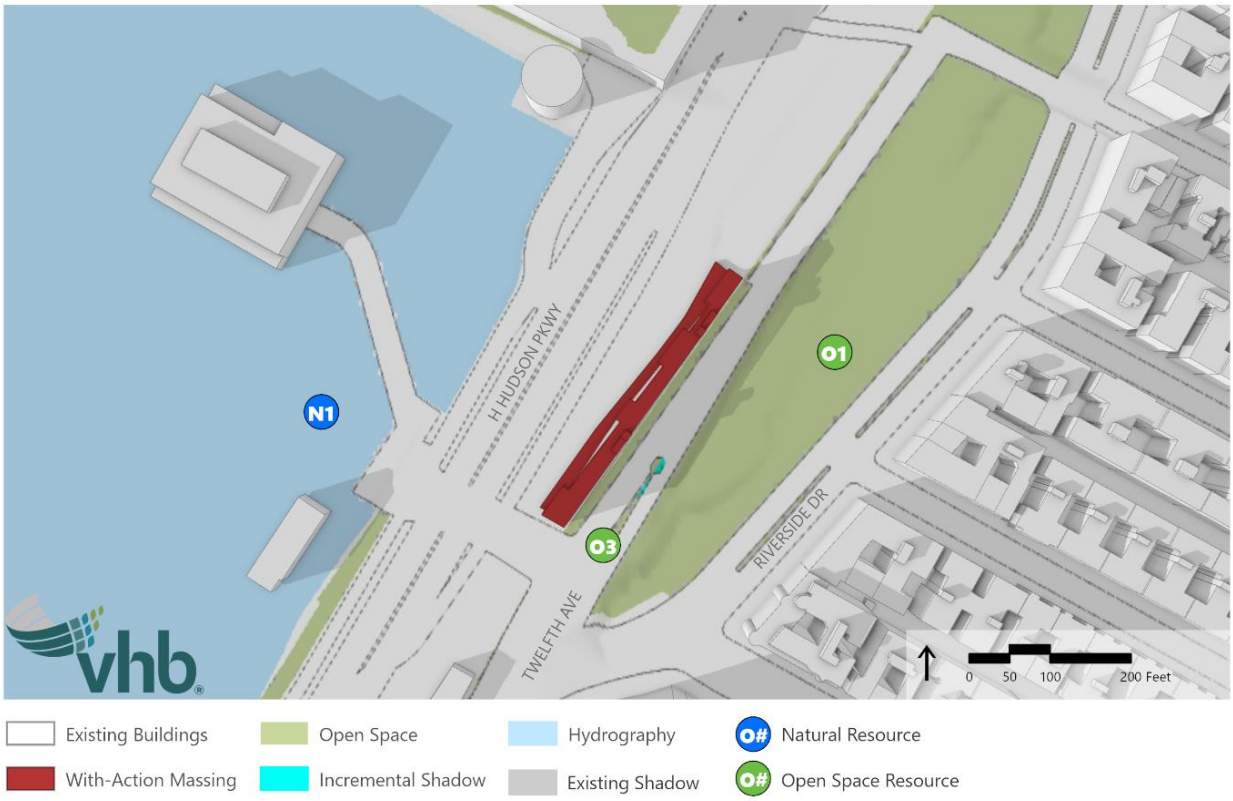


Figure 4-28 O3 – May 6/August 6 – 3:00 PM

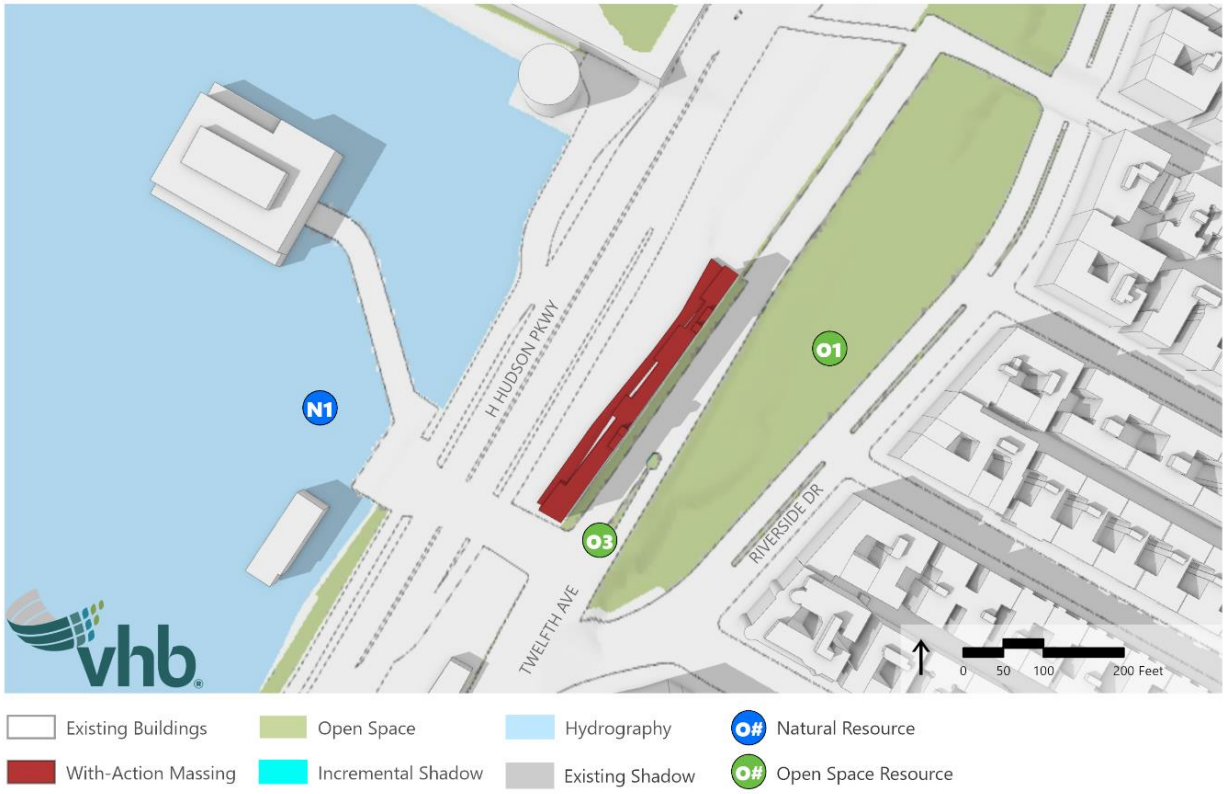


Figure 4-29 O3 – May 6/August 6 – 3:15 PM

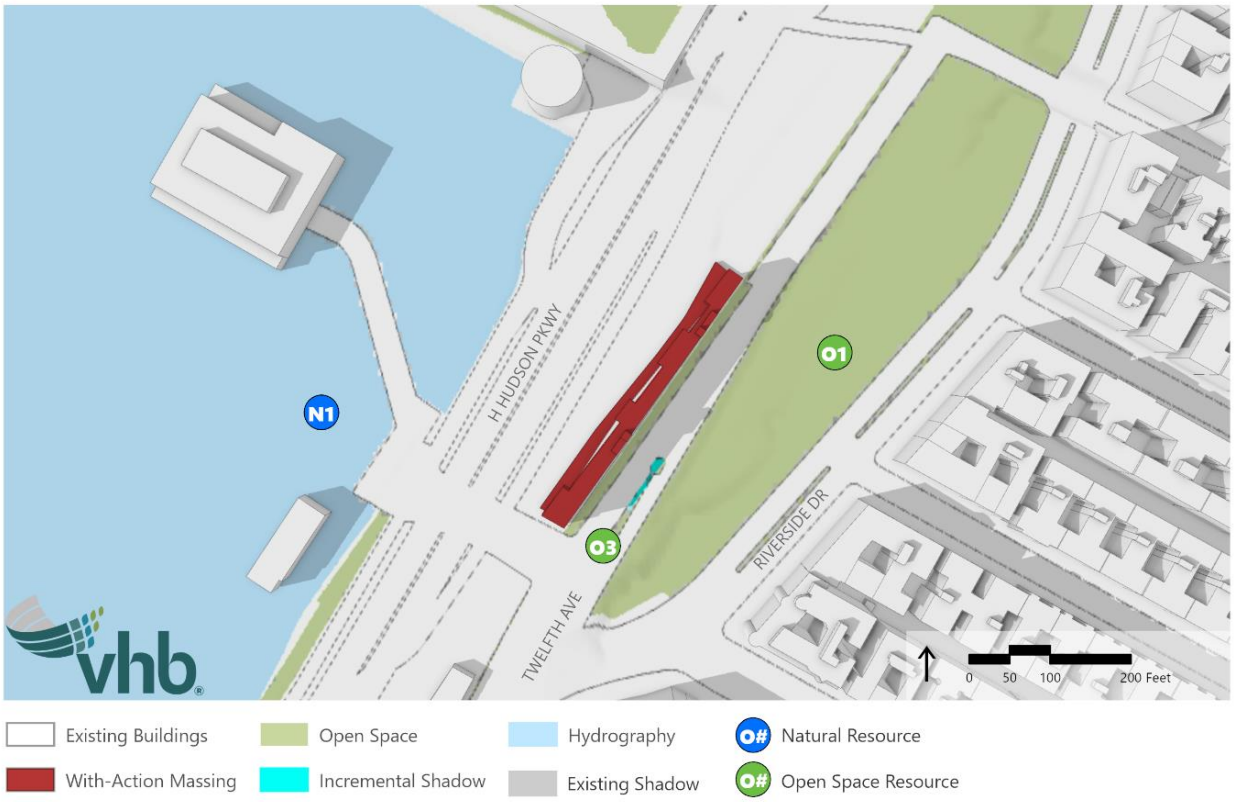


Figure 4-30 O3 – May 6/August 6 – 3:30 PM

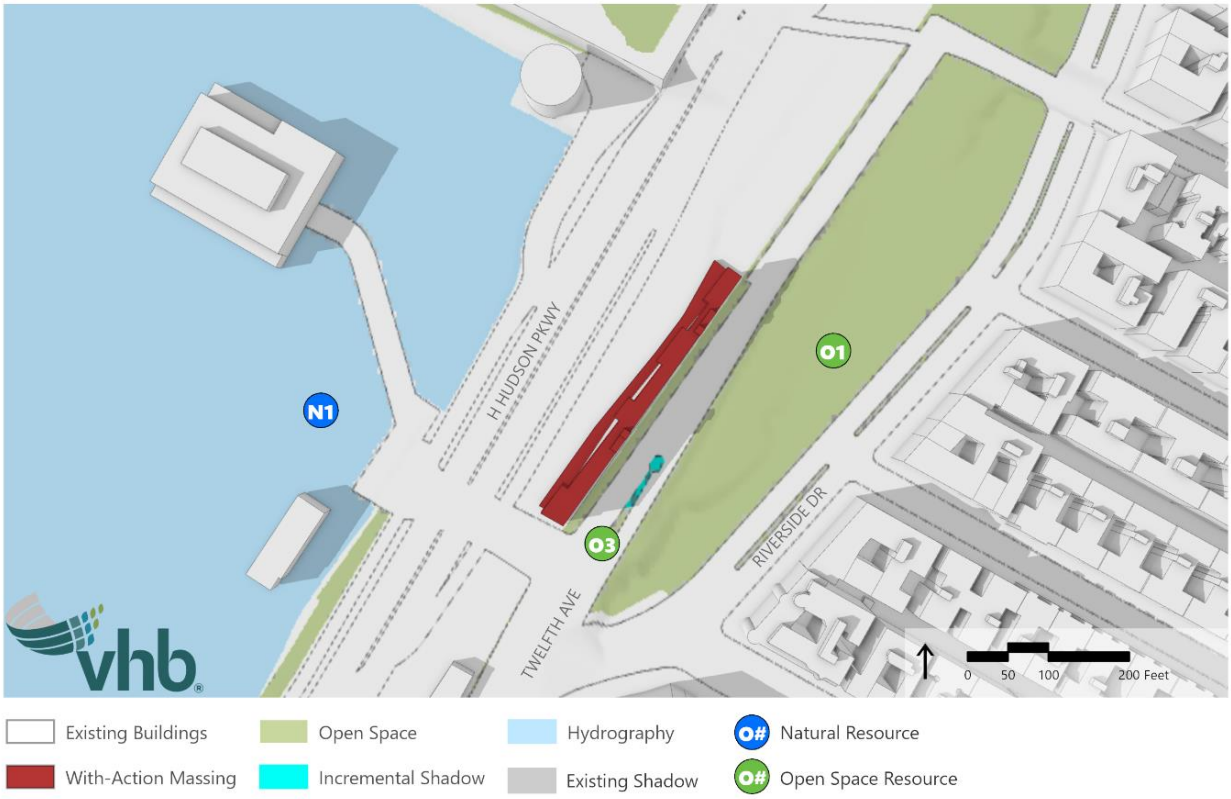


Figure 4-31 O3 – May 6/August 6 – 3:45 PM

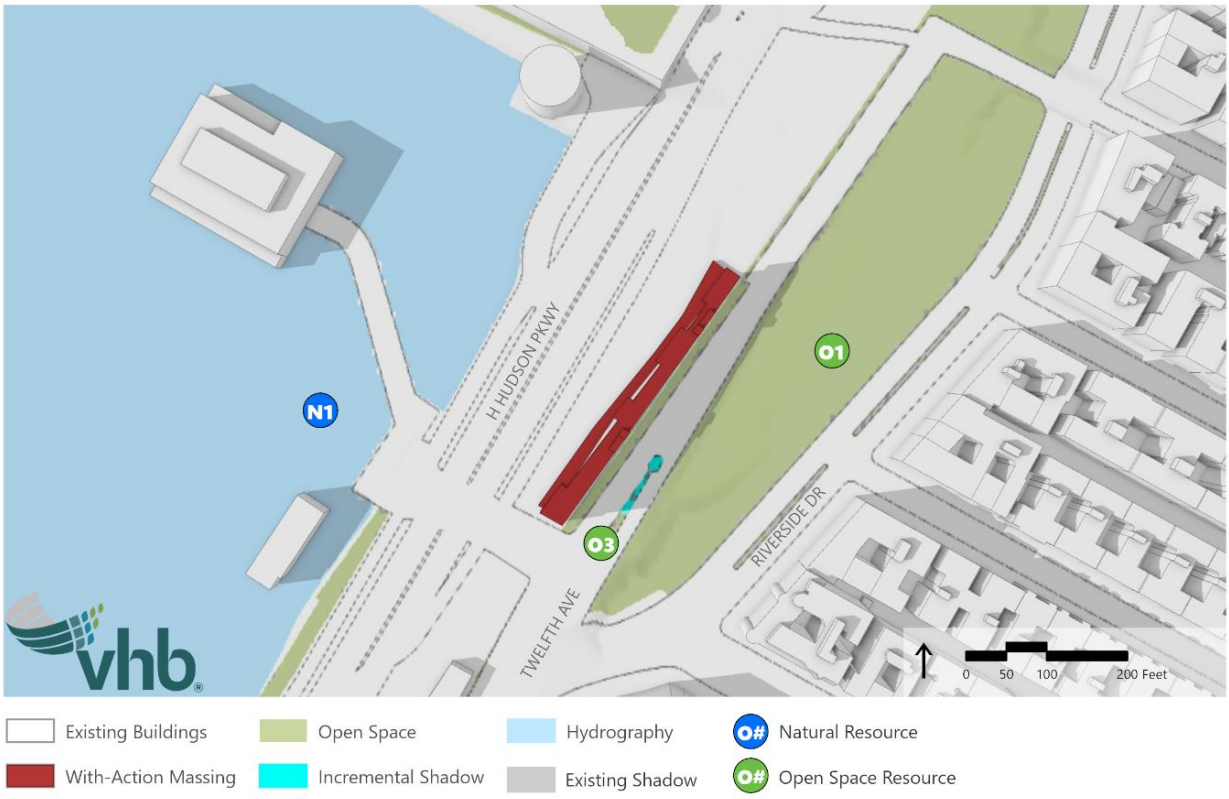


Figure 4-32 O3 – May 6/August 6 – 4:00 PM

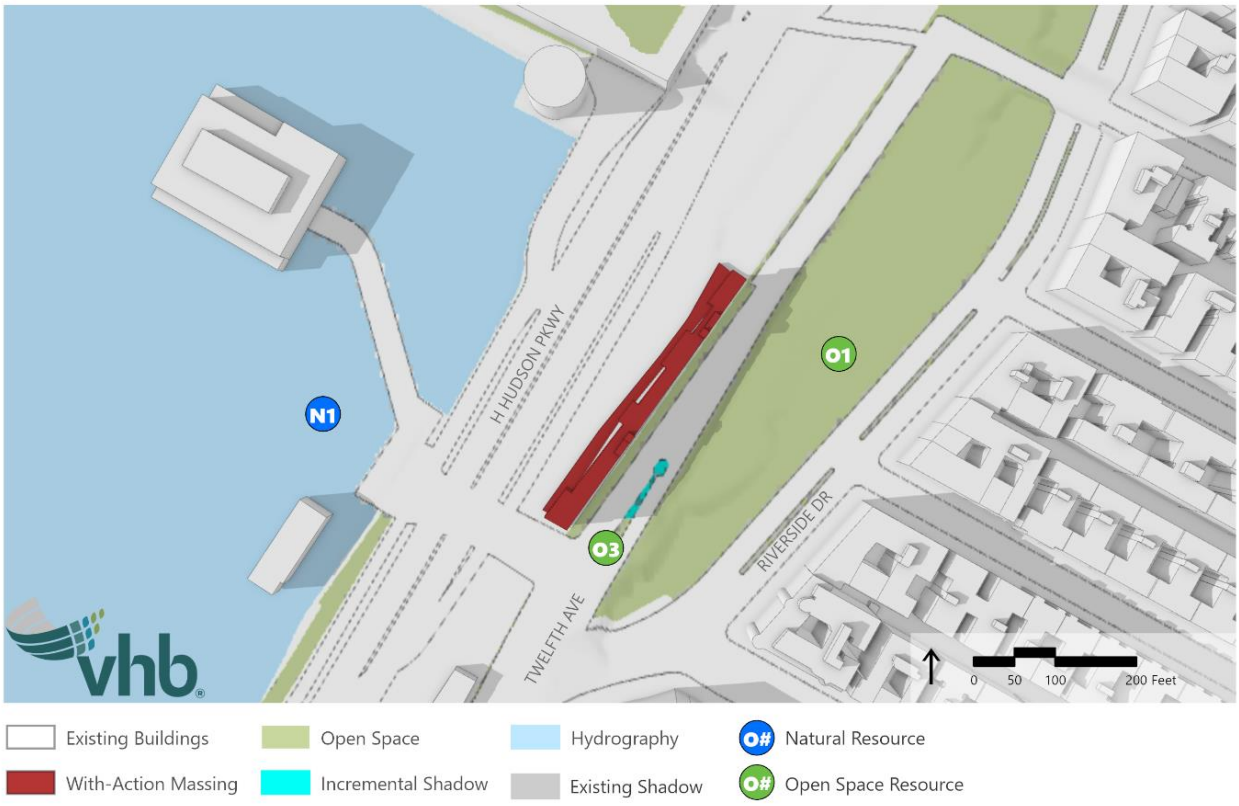


Figure 4-33 O3 – May 6/August 6 – 4:15 PM

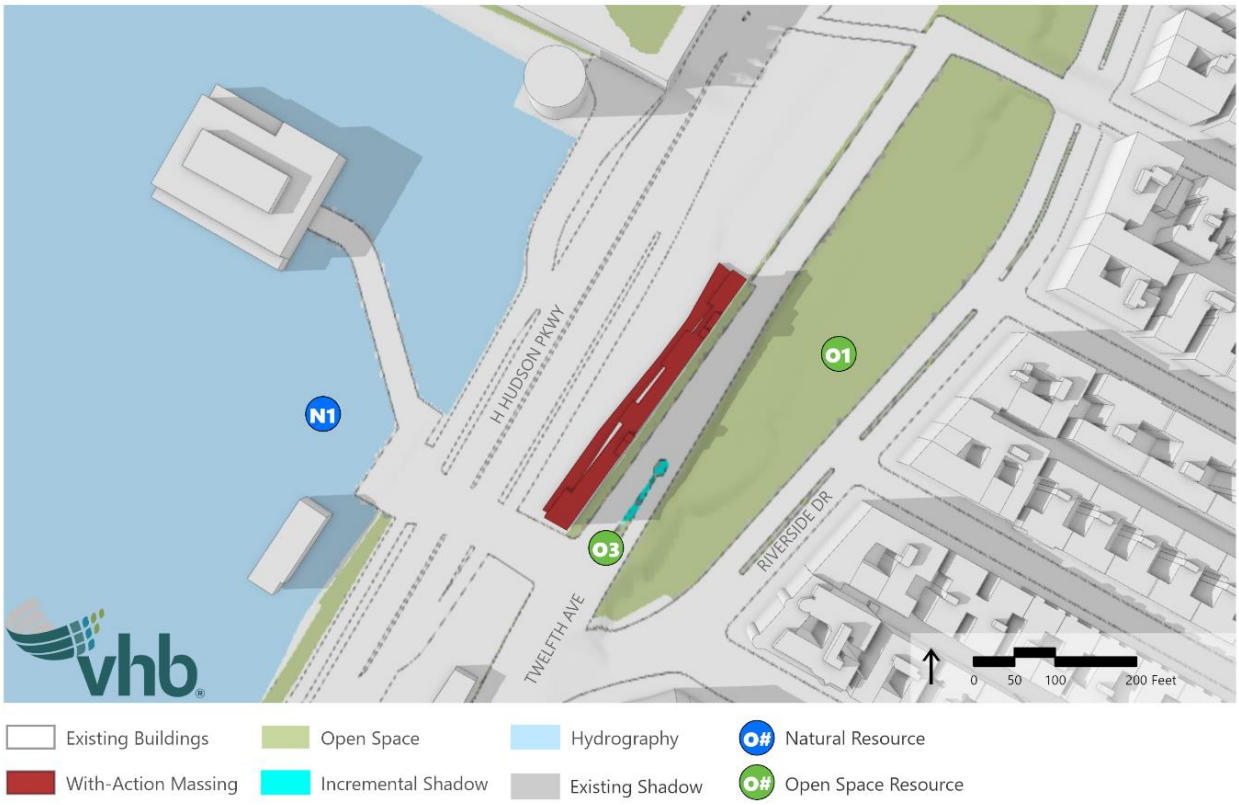


Figure 4-34 O3 – May 6/August 6 – 4:30 PM

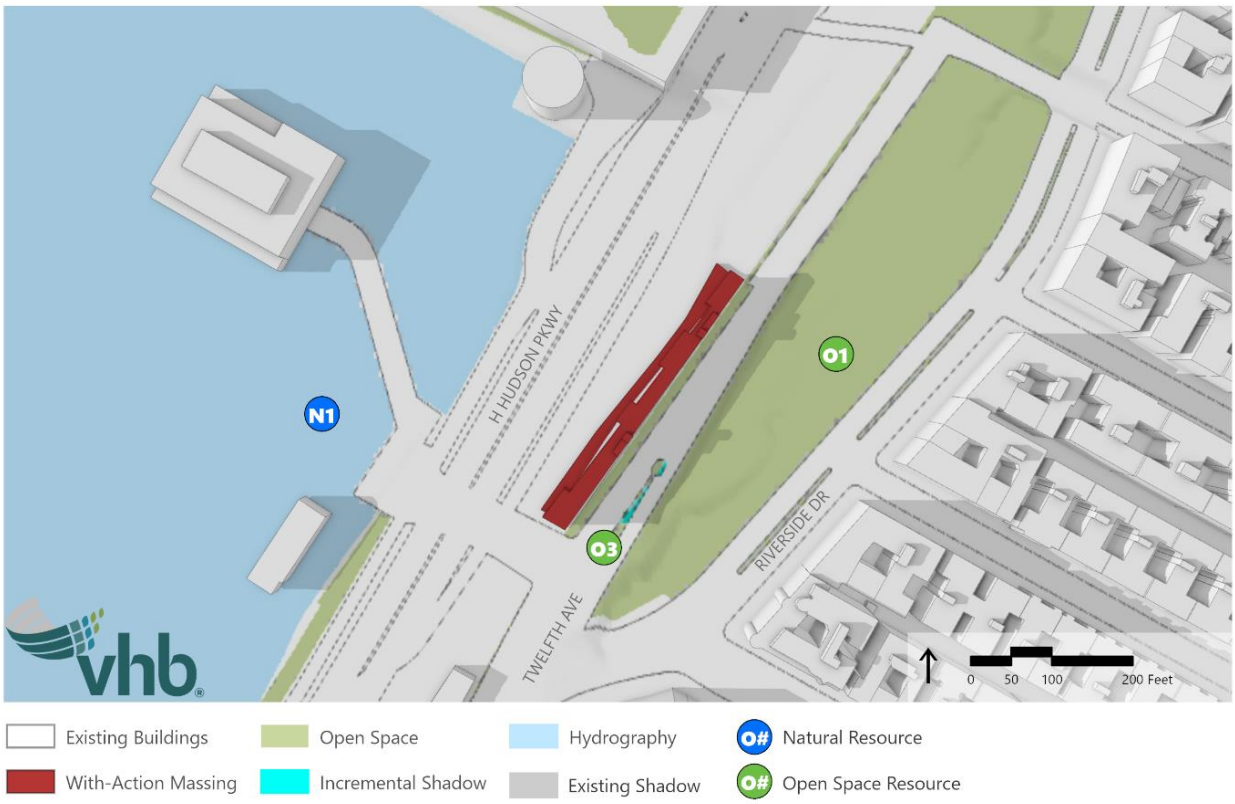


Figure 4-35 O3 – June 21 – 3:05 PM

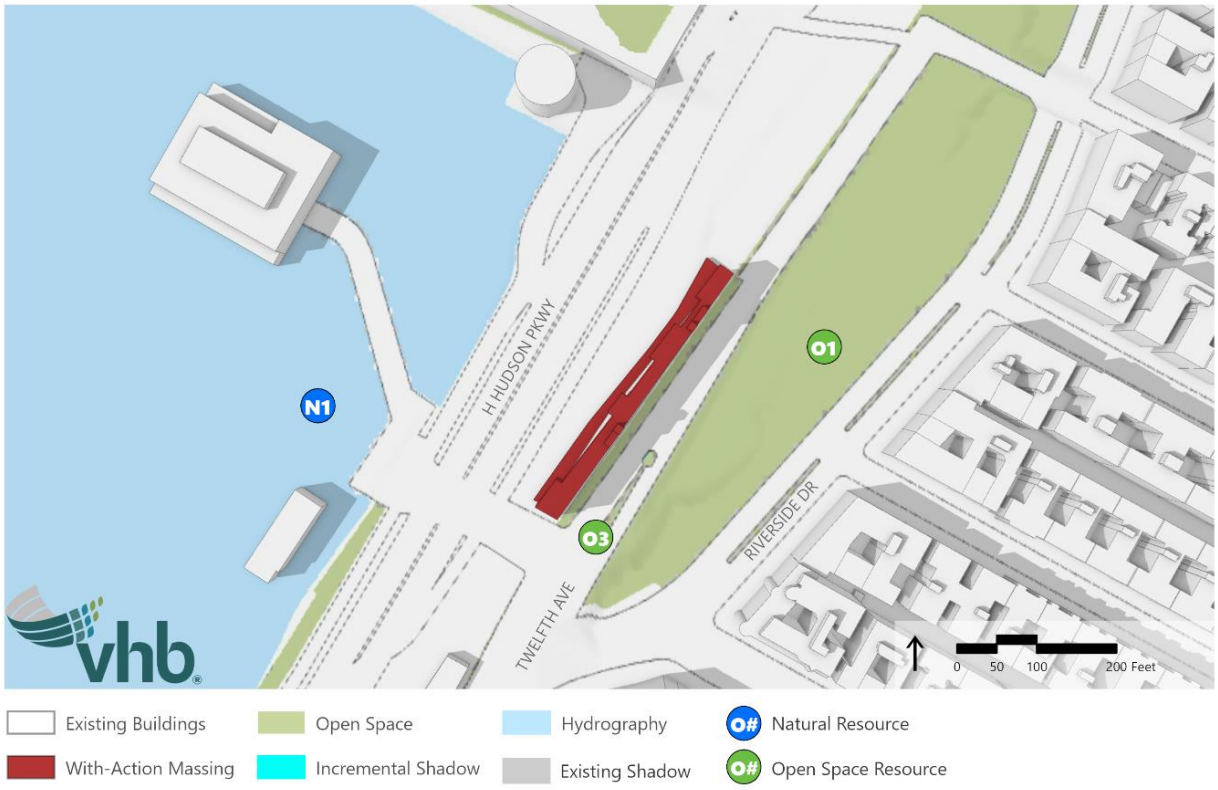


Figure 4-36 O3 – June 21 – 3:35 PM

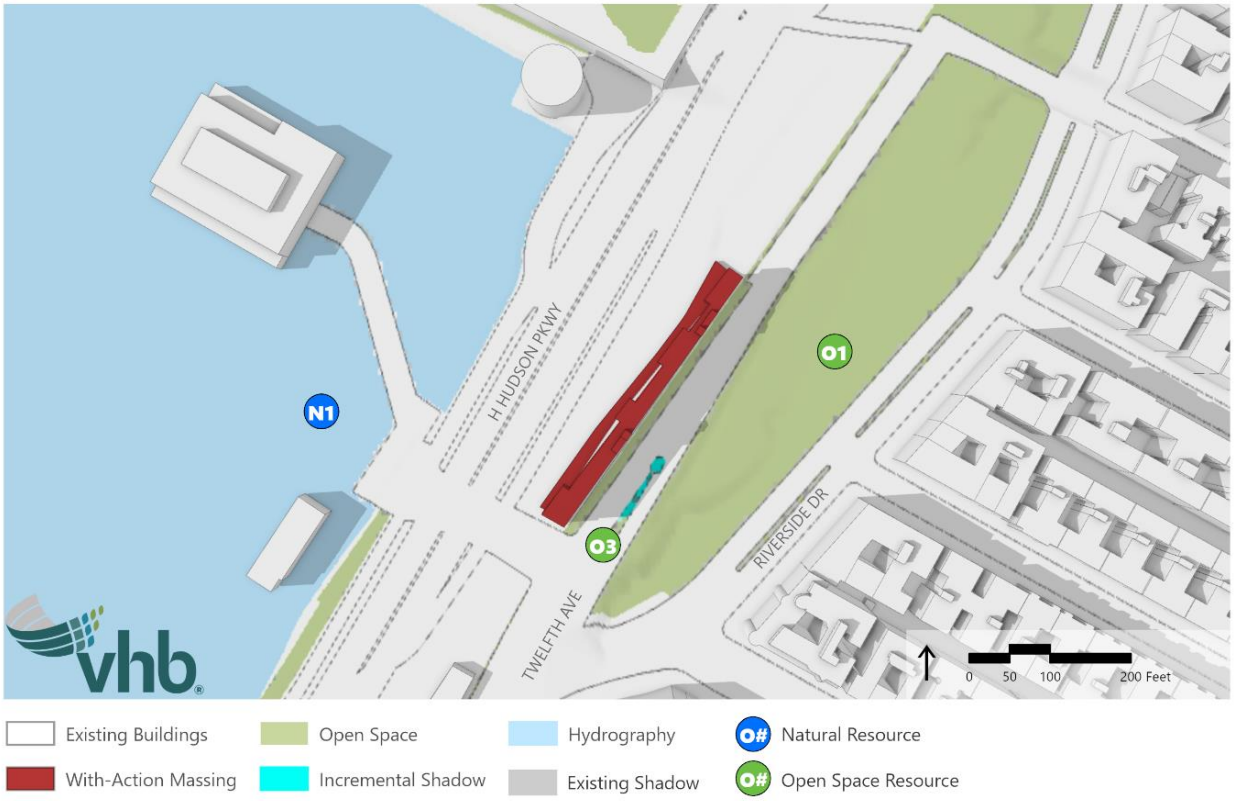


Figure 4-37 O3 - June 21 – 4:05 PM

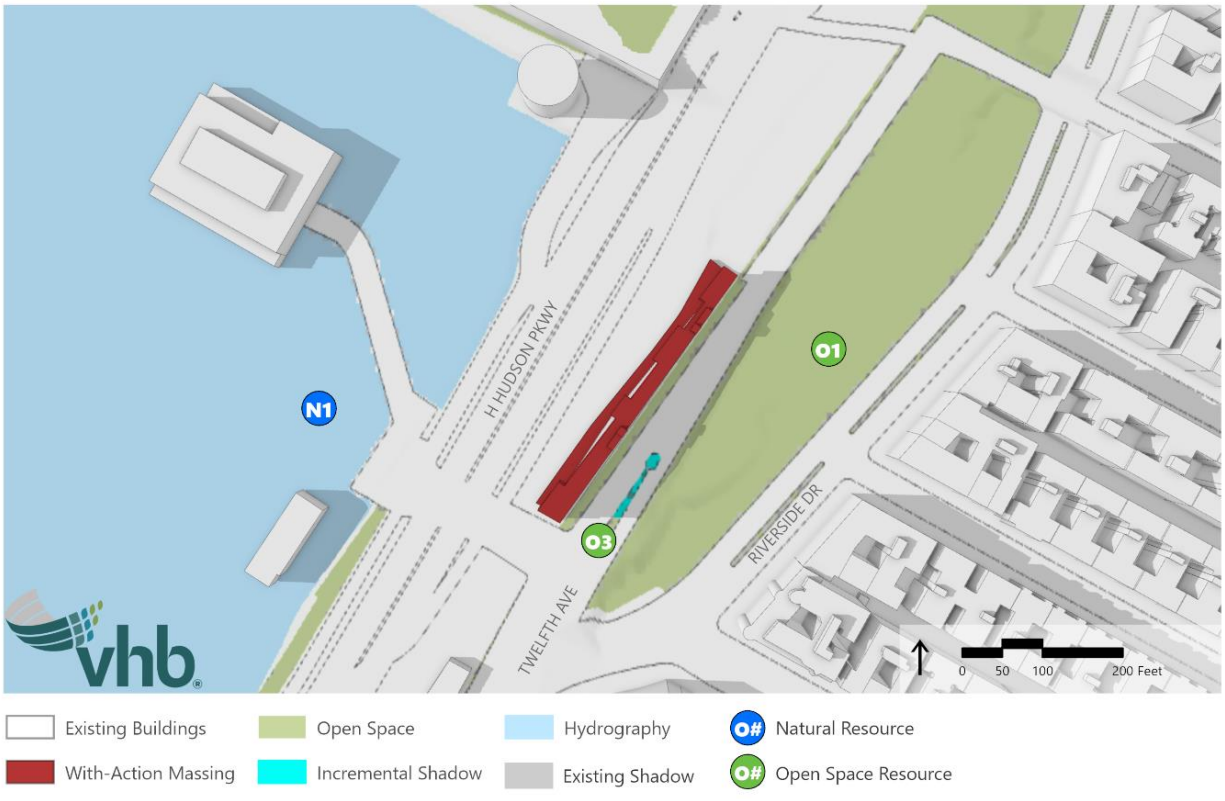
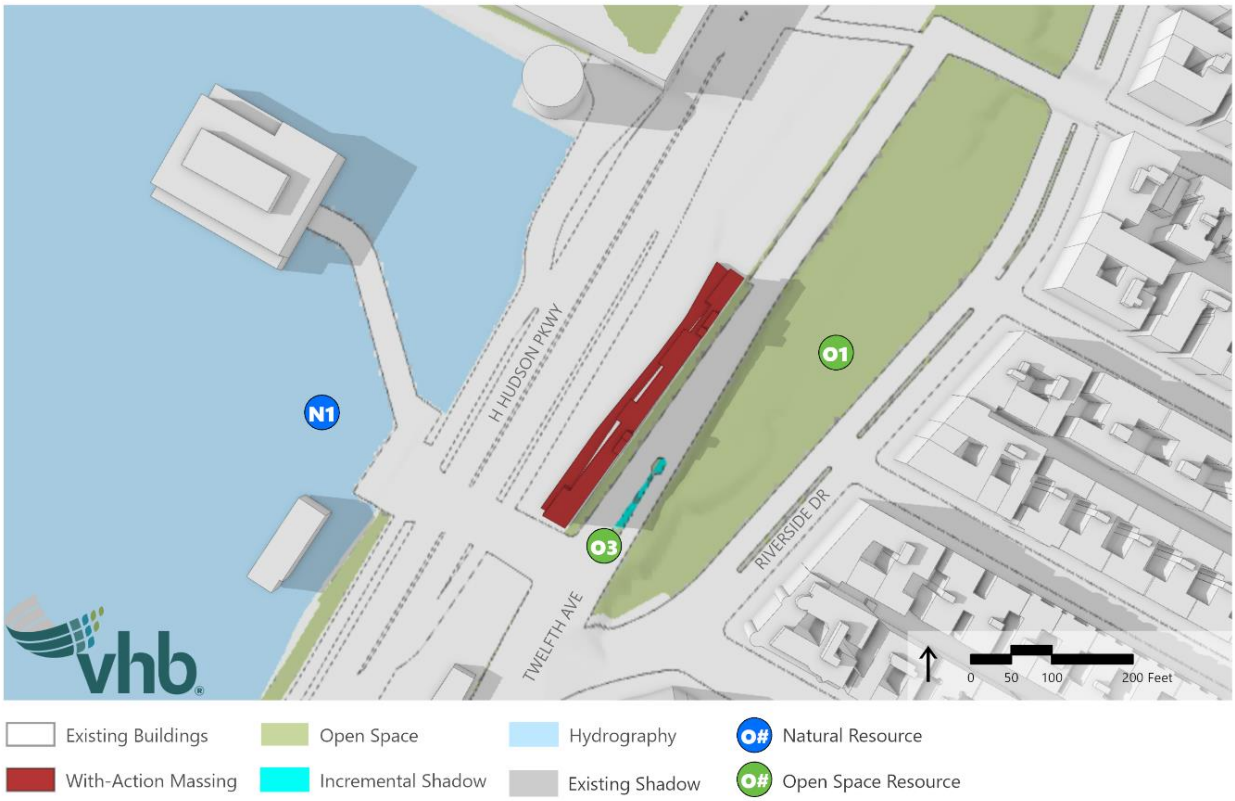


Figure 4-38 O3 - June 21 – 4:35 PM



N1: Hudson River

The Hudson River is a large waterbody running along Manhattan's west side. Incremental shadow from the Proposed Project would fall on the Hudson River on all four analysis days. On December 21st, the period during which the surface waterbody area could expect to receive shading from the Proposed Project is 1 hour (see **Figure 4-39** through **Figure 4-42**). Although this is the longest period of shading, the area of incremental shadow recedes quickly during that period. On March 21st/September 21st, the shadow duration is 39 minutes (see **Figure 4-43** through **Figure 4-45**). The shadow area similarly recedes quickly over the course of the 39 minutes to a limited part of the waterbody surface. On May 6th/August 6th and June 21st, the Hudson River would receive incremental shadow for only 12 minutes (see **Figure 4-46**) and 10 minutes (see **Figure 4-47**), respectively, on a small portion of the waterbody surface. Further, this area of the waterbody is surrounded by industrial uses built in the water. The brief duration and limited extent of incremental shadows would not adversely affect the health of the aquatic habitat, and no significant adverse impact would occur.

Figure 4-39 N1 – December 21 – 9:00 AM

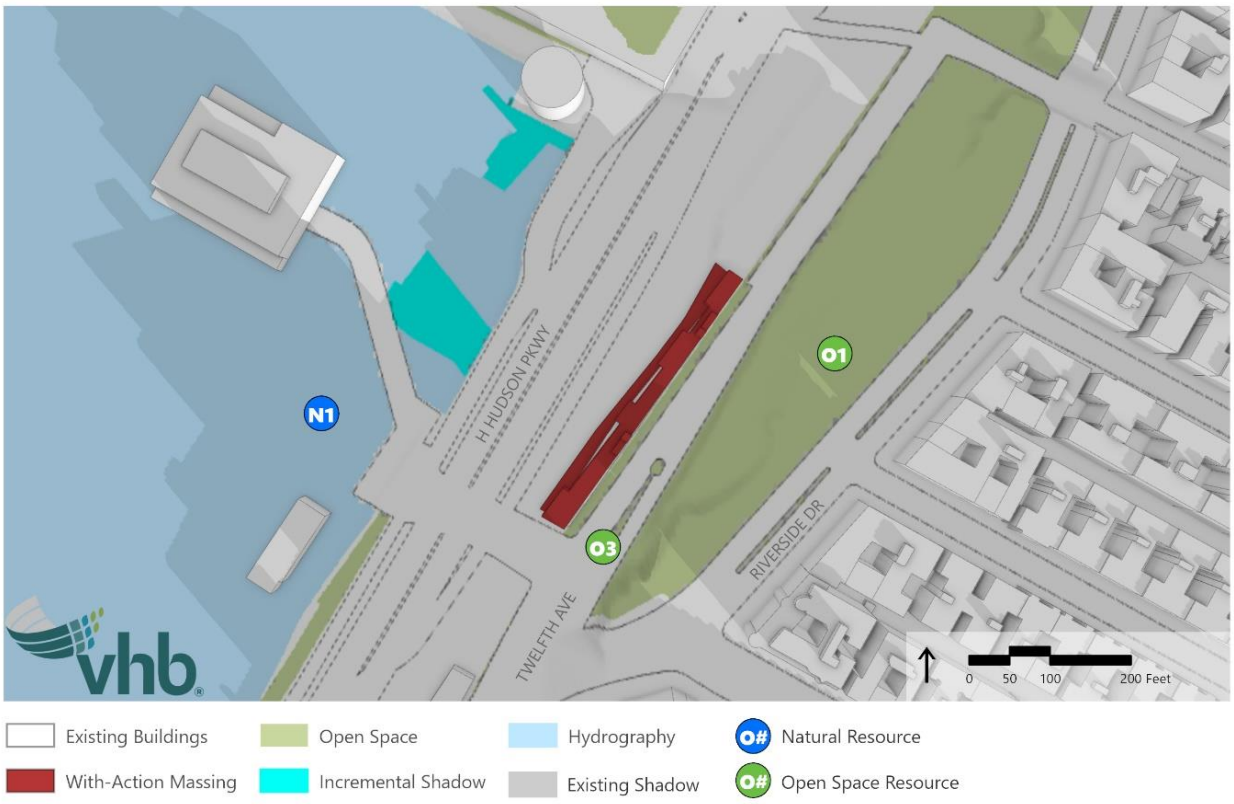


Figure 4-40 N1 – December 21 – 9:15 AM

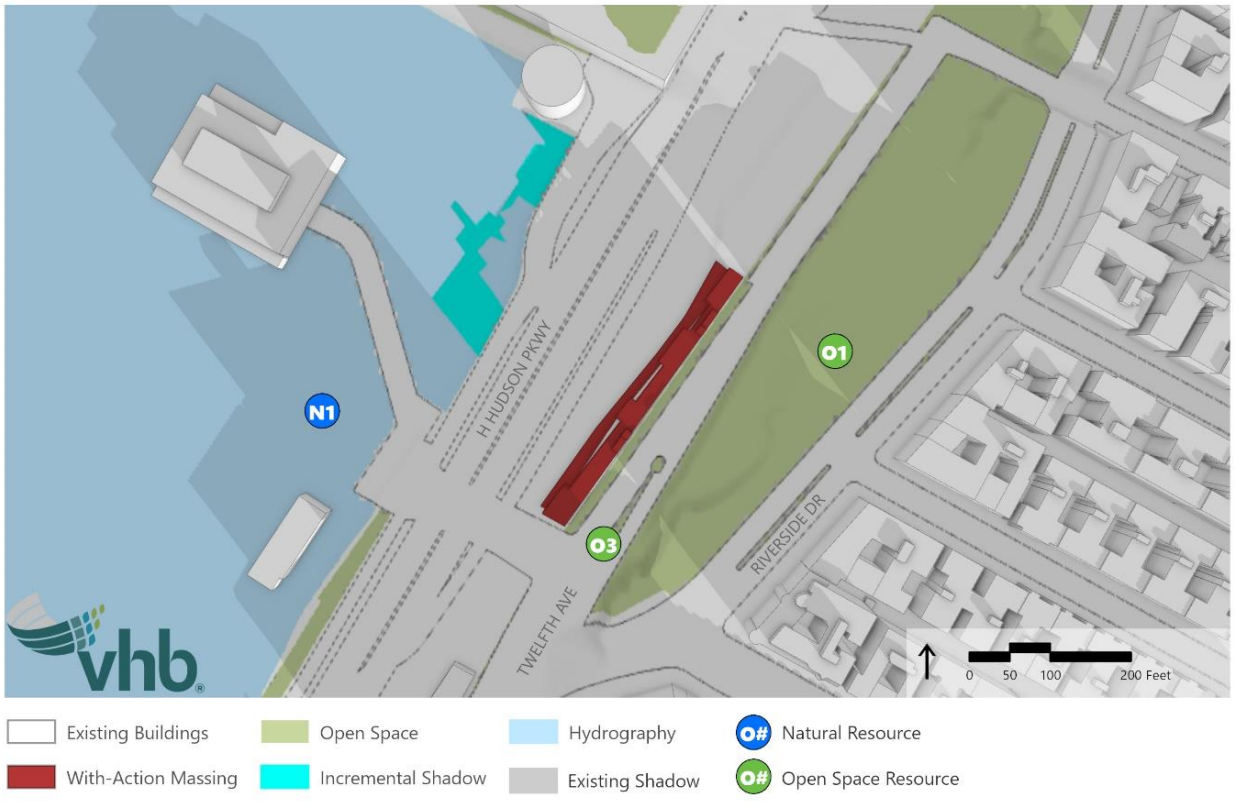


Figure 4-41 N1 – December 21 – 9:30 AM

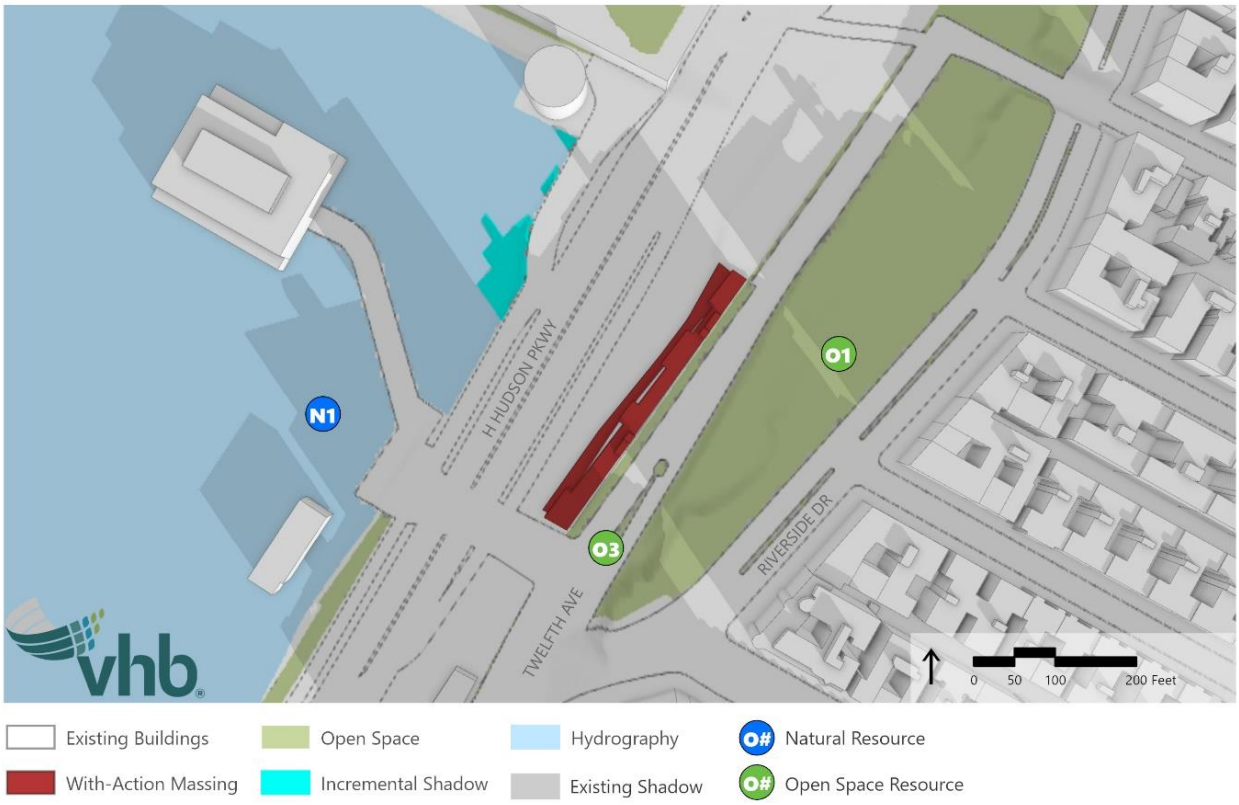


Figure 4-42 N1 – December 21 – 9:45 AM

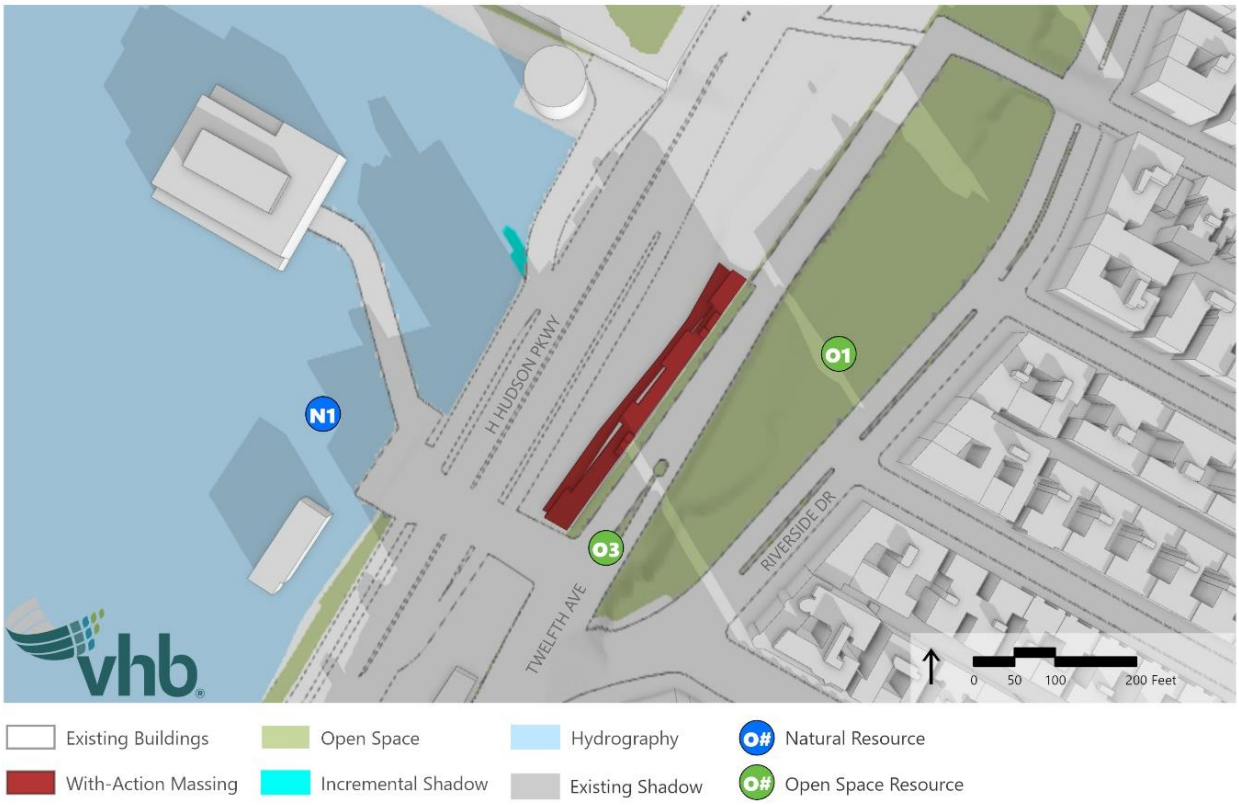


Figure 4-43 N1 - March/September 21 – 7:40 AM

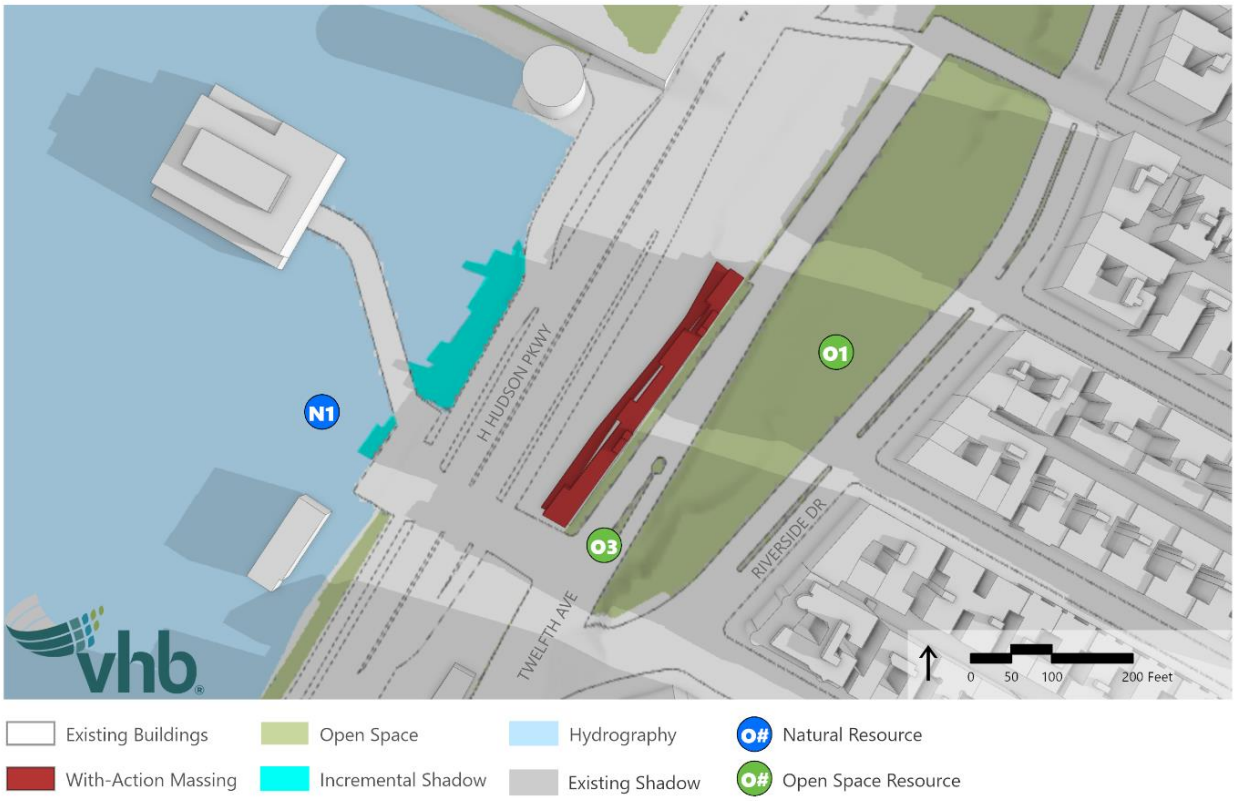


Figure 4-44 N1 - March/September 21 – 7:55 AM

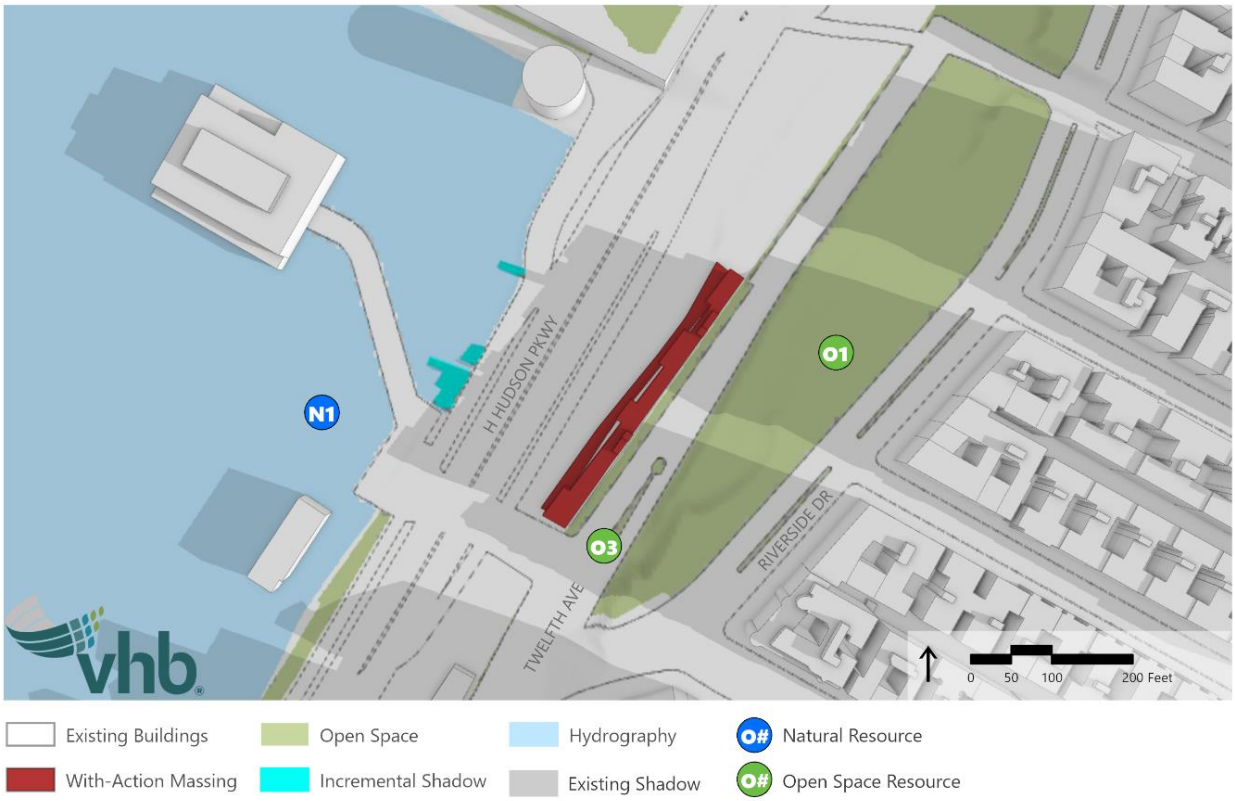


Figure 4-45 N1 - March/September 21 – 8:10 AM

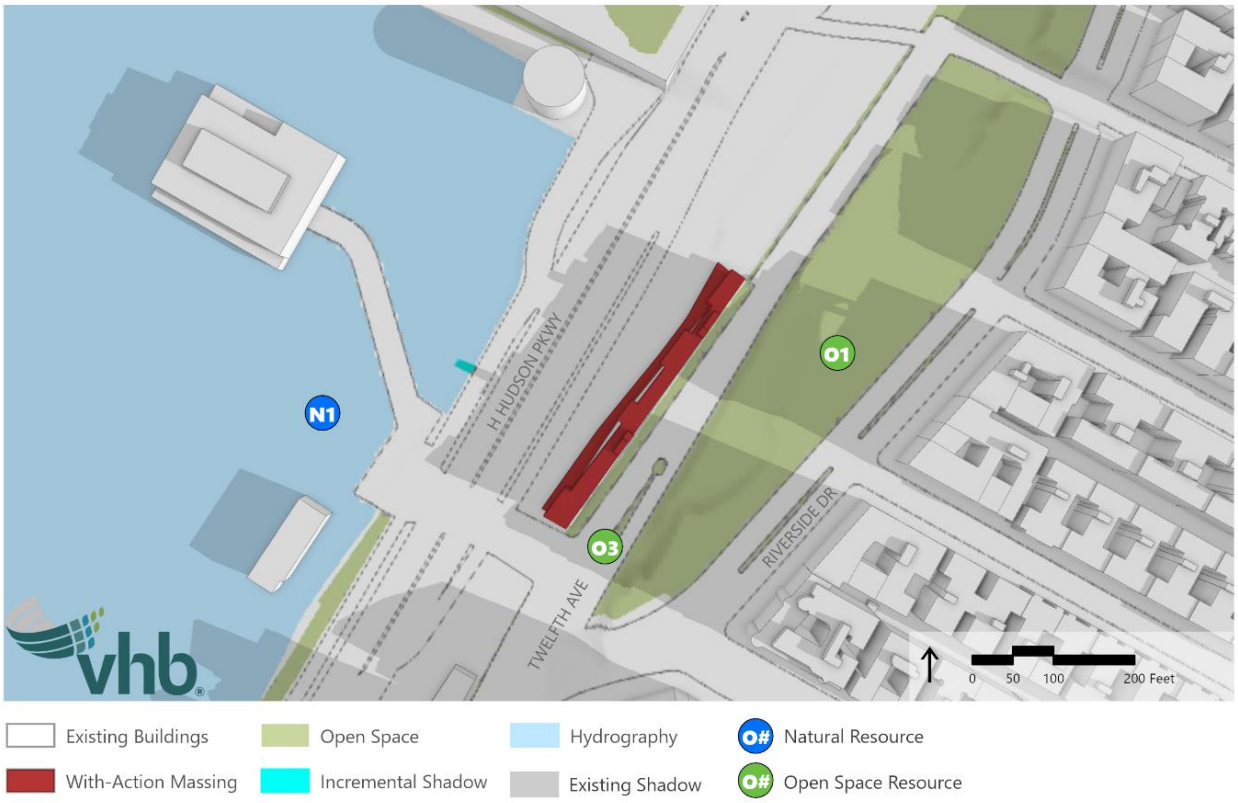


Figure 4-46 N1 – May 6/August 6 – 6:30 AM

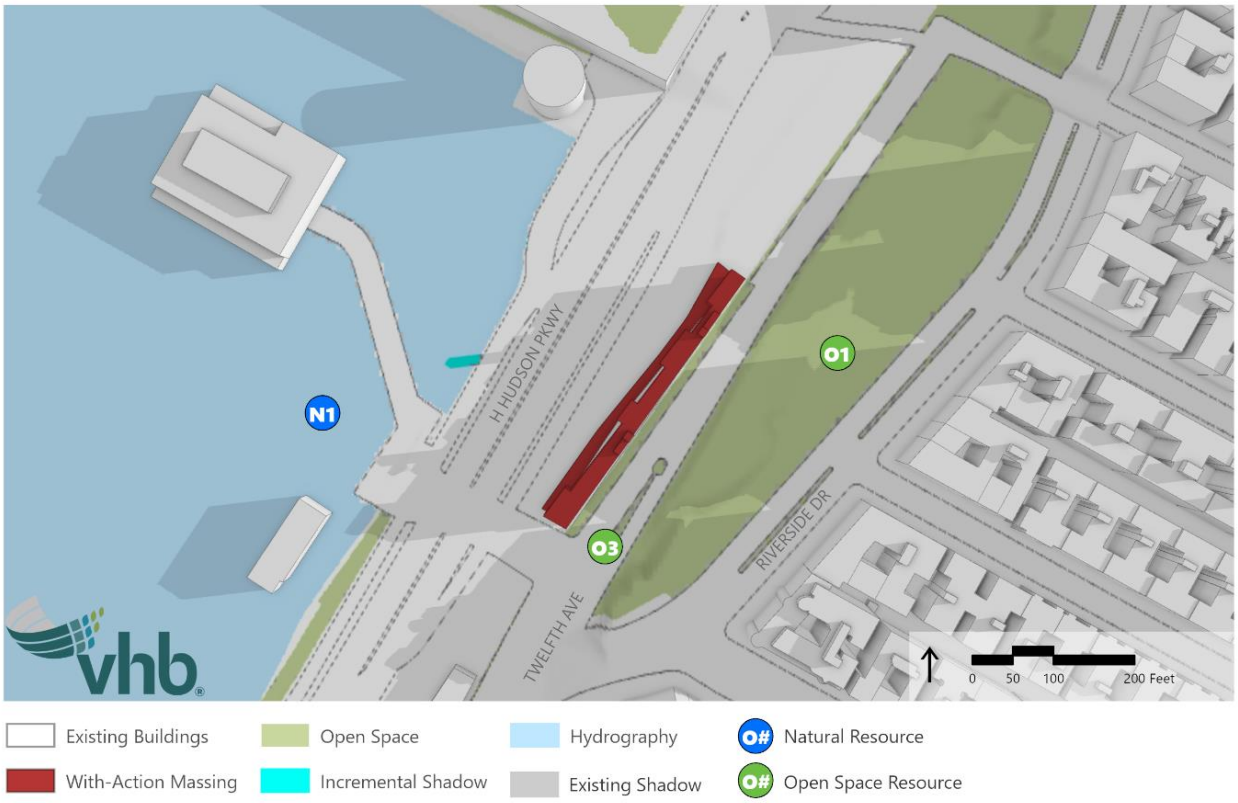
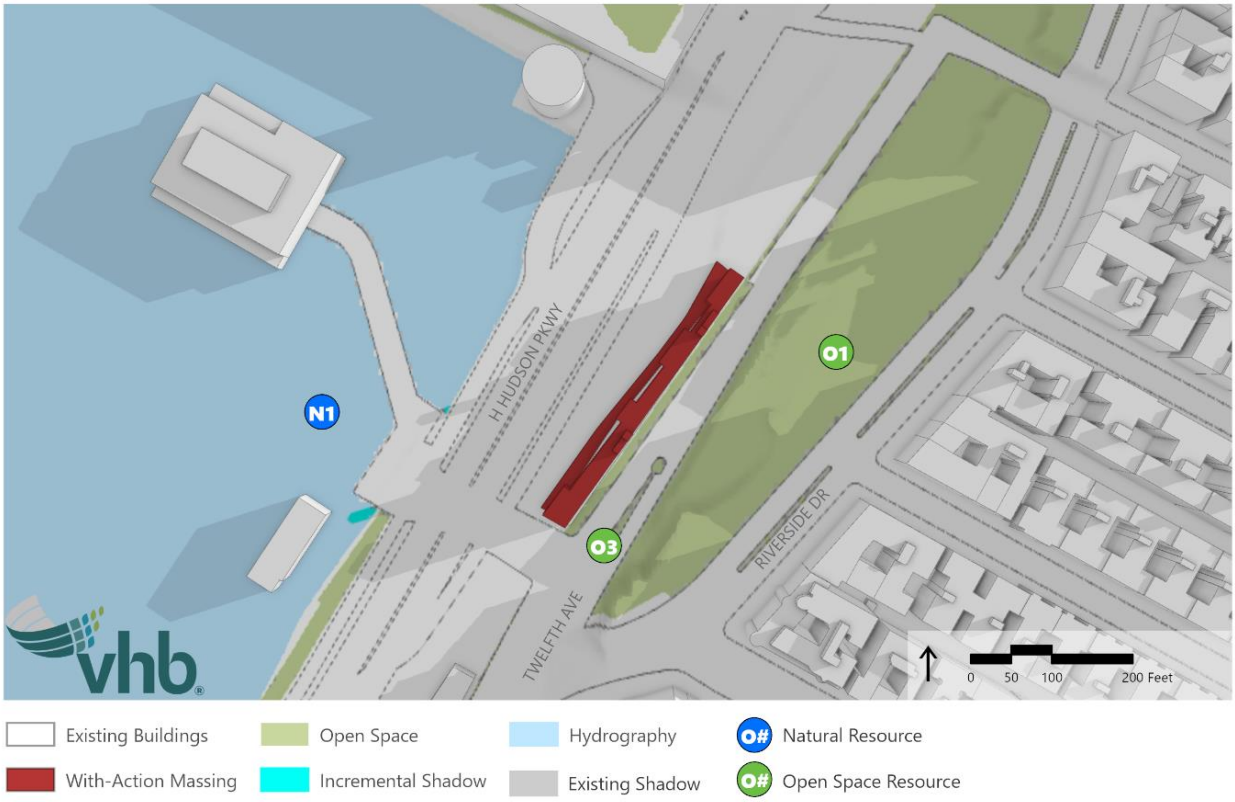


Figure 4-47 N1 – June 21 – 6:00 AM



Conclusion

In conclusion, the detailed analysis showed that there could be incremental shadow cast on three sunlight-sensitive resources identified in the Tier 3 analysis: Riverside Park, the Twelfth Avenue Greenstreet, and the Hudson River. The other identified resources within the potential shadow radius were either not sunlight-sensitive or would receive no incremental shadow due to their position relative to the Proposed Project. Incremental shadows on the above identified resources would range from 10 minutes to 3 hours and 1 minute. Shadows would be cast on Riverside Park and the Twelfth Avenue Greenstreet on the March 21st/September 21st, May 6th/August 6th, and June 21st analysis days. Shadows would be cast on the Hudson River on all analysis days. No amenities within the two open spaces would be negatively affected by Project-generated incremental shadows due to their limited extent and duration, and the shadows would have little to no effect on vegetation due to their location. Due to the small area and short duration of shadows cast on the Hudson River and river currents, there would be little to no effect on this natural resource. Therefore, there would be no significant adverse impact from the Proposed Project with respect to shadows, and further analysis is not warranted.

5

Urban Design and Visual Resources

An urban design assessment under CEQR considers whether and how a project may change the experience of a pedestrian in the study area. The assessment focuses on the components of a proposed project that may have the potential to alter the arrangement, appearance, and functionality of the built environment.

Introduction

This section considers the potential for the Proposed Project to result in significant adverse urban design and visual resources impacts. As defined in the *2021 City Environmental Quality Review (CEQR) Technical Manual*, urban design is the totality of components that may affect a pedestrian's experience of public space. A visual resource is the connection from the public realm to significant natural or built features, including views of the waterfront, public parks, landmark structures or districts, otherwise distinct buildings or groups of buildings, or natural resources.

Based on the *CEQR Technical Manual*, a preliminary assessment of urban design and visual resources is appropriate when there is the potential for a pedestrian to observe, from the street level, a physical alteration beyond that allowed by existing zoning. Examples include 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," or in the future No-Action condition.

The Proposed Actions are expected to facilitate construction of an approximately 71.5-foot-tall building in with the With-Action condition. Therefore, a preliminary urban design and visual resources screening assessment was conducted.

Methodology

In accordance with the *CEQR Technical Manual* guidelines, the following preliminary urban design and visual resources assessment considers a 400-foot radius study area where the proposed action would be most likely to influence the built environment. The preliminary assessment focuses on those project elements that have the potential to alter the built environment, or urban design, of the development site, which is collectively formed by the following components:

- **Street Pattern and Streetscape:** The arrangement and orientation of streets define location, flow of activity, street views, and create blocks on which buildings and open spaces are arranged. Other elements including sidewalks, plantings, street lights, curb cuts, and street furniture also contribute to an area's streetscape.
- **Buildings:** A building's size, shape, setbacks, pedestrian and vehicular entrances, lot coverage, and orientation to the street are important urban design components that define the appearance of the built environment.
- **Open Space:** Open space includes public and private areas that do not contain structures, including parks and other landscaped areas, cemeteries, and parking lots.
- **Natural Features:** Natural features include vegetation and geologic and aquatic features that are natural to the area.
- **View Corridors and Visual Resources:** Visual resources include significant natural or built features, including important view corridors, public parks, landmark structures or districts, or otherwise distinct buildings.

The following information is included in a preliminary assessment:

- A concise narrative of the existing study area, and conditions under the future No-Action and With-Action conditions;
- An aerial photograph of the study area and ground-level photographs of the Project Site with immediate context;
- Zoning and floor area calculations of the existing and future No-Action and With-Action conditions;
- Building massing and building heights; and
- A three-dimensional representation of the future With-Action and No-Action condition streetscape.

If the preliminary assessment determines that a change to the pedestrian experience is minimal and unlikely to disturb the vitality, walkability or the visual character of the area, then no further assessment is warranted. However, if it shows that changes to the pedestrian environment and/or visual resources are significant enough to require greater explanation and further study, then a detailed analysis may be appropriate.

The following preliminary urban design and visual resources assessment follows these guidelines and provides a characterization of existing conditions, a description of urban

design and visual resources under the future No-Action and With-Action conditions, and an analysis determining the extent to which physical changes resulting from the proposed development would alter the pedestrian experience.

Within the 400-foot radius of the project site there are a few features that might warrant a visual resources assessment. Views of the Hudson River from Riverside Park were determined to warrant a visual resources assessment (See **Table 5-1**).

Table 5-1 List of Visual Resources in the 400-Foot Study Area

Resource Name	Potential Resource Summary	Significant Viewpoint	Initial Screening Results
Visual Resources			
Riverside Park	330-acre park that stretches from 59th Street to 155th Street along the Hudson River. In the study area, it consists of walking paths that run through trees and landscaped areas along Riverside Drive.	The park is visible from various points in the study area, including Twelfth Avenue and Riverside Drive.	Development Site does not impact views of the Park due to positioning; Screened
Hudson River Greenway	Two lane, 13-mile paved path along the Hudson River and the west side of Manhattan for walking, jogging and biking. In the study area, it runs mostly under the Henry Hudson Parkway, and partially along the waterfront.	The Hudson River is visible from the southern portion of the Greenway in the study area.	Development Site does not impact view of Greenway or views from Greenway; Screened
Riverbank State Park	28-acre park, 69 feet above the Hudson River on the rooftop of a wastewater treatment plant. The southeastern corner falls within the study area.	Views of the Hudson river and New Jersey Shoreline from the sides of the park.	Development Site does not impact views due to positioning; Screened
Hudson River	315-mile river that flows from the Adirondacks to the Upper New York Bay. It is located in the western portion of the study area.	The Hudson River and New Jersey shoreline is visible from a lookout point in Riverside Park at the intersection of Riverside Drive and 135th Street.	Building lies between lookout and river; Analysis warranted

Study Area

The urban design and visual resources study area is typically defined as the area within 400 feet of the Project Area which, for this project, by is generally bounded by the Hudson River to the west, West 138th Street to the north, midblock between Riverside Drive and Broadway to the east, and West 134th Street to the south (see **EAS Figure 1**). This is the area in which the Proposed Actions would be most likely to have effects in terms of urban design and visual resources. A field survey was conducted to document existing conditions in the study area. Representative photographs of the study area are included in the discussion below; **Figure 4-1** provides a key map depicting the location and viewing direction from which each photograph was captured.

Preliminary Assessment

Existing Conditions

Development Site and Project Area

The Development Site is located on Manhattan Block 2101, Lot 58 within the Manhattanville neighborhood of Manhattan Community District 9. Lot 58 is an irregularly shaped, 11,997-square foot corner lot bounded by Twelfth Avenue to the east, West 135th Street to the south, and Lots 55 and 60 to the north, west, and east. It has approximately 362 feet of frontage on Twelfth Avenue and 36 feet of frontage on West 135th Street. It has a maximum depth of approximately 36 feet. Situated approximately 175 feet from the waterfront, the Development Site is surrounded by parkland and transportation/utility uses.

The Development Site is improved with a two-story, brick building that is approximately 42 feet in height. Originally constructed as a railroad freight house, there have been no enlargements since the original construction. The building is currently vacant. It was most recently occupied with commercial uses (an eating and drinking establishment). A sign structure is present at the roof level; it does not currently contain advertisements.

Study Area

As described above, the study area is generally bounded by the Hudson River to the west, West 138th Street to the north, midblock between Riverside Drive and Broadway to the east, and West 134th Street to the south. Study area photographs can be found in **Photo 5-1** through **Photo 5-19** below, and their locations can be found in **Figure 5-1**.

Figure 5-1 Urban Design Photo Location Map



Photo 5-1 Looking North on Twelfth Avenue, Near West 135th Street

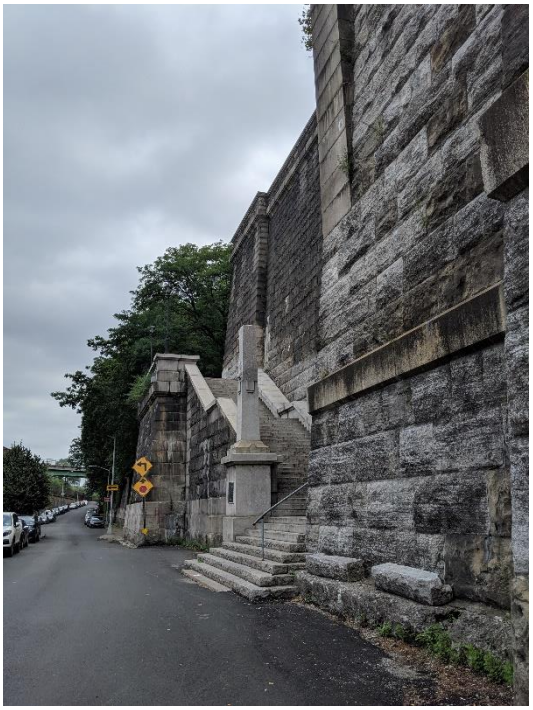


Photo 5-2 View Looking South on Twelfth Avenue, Near West 135th Street

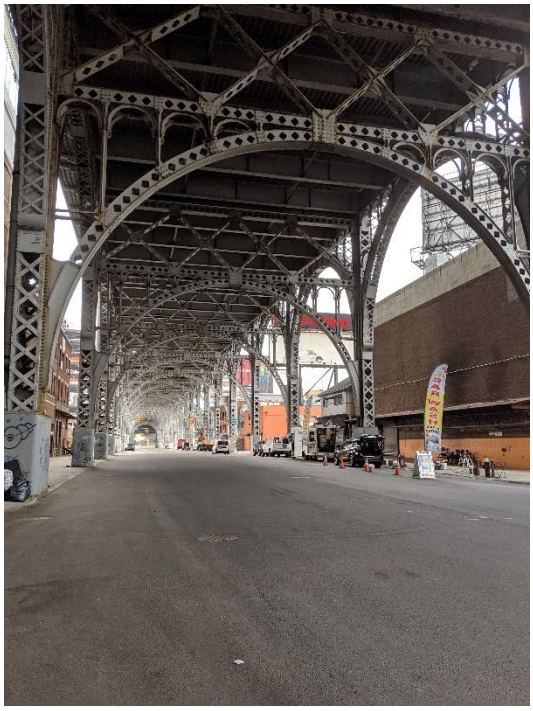


Photo 5-3 View Looking Northwest from Lookout on Riverside Drive/Park, Near West 135th Street

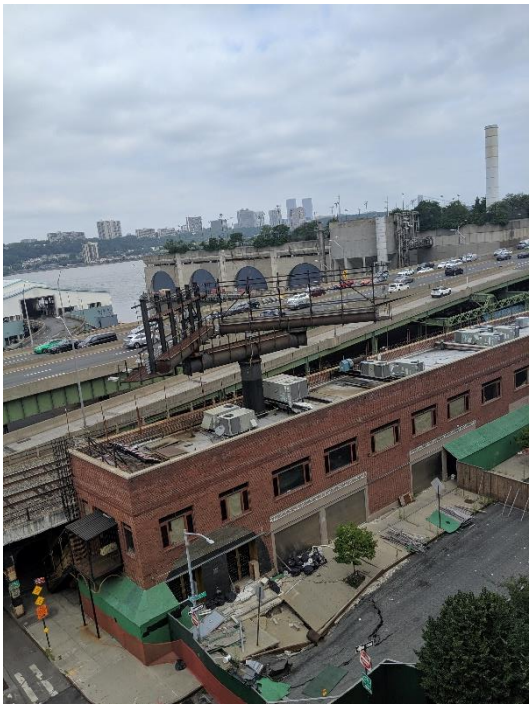


Photo 5-4 View Looking West on Riverside Drive Toward Riverbank State Park



Photo 5-5 Riverside Park Near West 135th Street



Photo 5-6 Riverside Valley Community Garden, on Twelfth Avenue and West 138th Street



Photo 5-7 View Looking North in Riverside Park, Near West 137th Street



Photo 5-8 View Looking Southwest from Lookout on Riverside Drive/Park, Near West 135th Street



Photo 5-9 Looking South on Twelfth Avenue Towards Development Site, Near West 138th Street



Photo 5-10 View Looking West on West 135th Street, Near Twelfth Avenue



Photo 5-11 View Looking East on West 134th Street from Twelfth Avenue



Photo 5-12 View Looking North on Twelfth Avenue Towards Development Site



Photo 5-13 View Looking East Towards Riverside Drive/Park on West 135th Street



Photo 5-14 View of Hudson River Greenway Looking Northwest from West 135th Street



Photo 5-15 View Looking South on Riverside Drive, Near West 137th Street



Photo 5-16 View Looking East on West 136th Street from Riverside Drive



Photo 5-17 View Looking East on West 135th Street from Riverside Drive



Photo 5-18 View Looking East of West 134th Street from Riverside Drive



Photo 5-19 View Looking Southeast on Twelfth Avenue, Near West 134th Street



Urban Design

The study area contains greatly varied topography. The Development Site is located at eight feet of elevation whereas Riverside Drive and West 135th Street is located at 78 feet of elevation. A large retaining wall stretches along Twelfth Avenue, from West 135th Street to West 138th Street; atop it is a steeply sloping hill with mature trees and dense underbrush. A stone staircase leads to the top of the retaining wall, providing a connection from the waterfront to Riverside Drive (**Photo 5-1**). The retaining wall, constructed of limestone and granite, functions as the approach to another large, defining infrastructure piece of the study area: the Riverside Drive Viaduct (**Photo 5-2**). Built in 1901, the steel viaduct runs between Tienmann Place and West 135th Street above Twelfth Avenue. A third significant piece of infrastructure that borders the study area is the North River Wastewater Treatment Plant, which opened in 1986 and is built upon a reinforced concrete platform on the Hudson River (**Photo 5-3**). Atop the plant is Riverbank State Park, a 28-acre state park with playfields, courts, a swimming pool, covered skating rink, cultural theater, athletic complex, and restaurant. It is accessed from Riverside Drive via pedestrian bridges that span the Henry Hudson Parkway and the West Side Line railroad tracks (**Photo 5-4**). A portion of Riverside Park, a 330-acre, four-mile-long park, also falls within the study area. It includes the steeply sloping hill between Twelfth Avenue and Riverside Drive, which is largely forested and fenced from the public (**Photo 5-5**). Riverside Park can also be accessed via landscaped paths at Twelfth Avenue and West 138th Street, where there is a community garden (**Photo 5-6** and **Photo 5-7**).

The major thoroughfares in the study area are the Henry Hudson Parkway, Twelfth Avenue, and Riverside Drive, along of which run north to south. The Henry Hudson Parkway is located

nearest to the waterfront and elevated above the street grade. It consists of six lanes of traffic and has two on/off ramps within the study area (**Photo 5-8**). The West Side Line railroad tracks run between the Henry Hudson Parkway and Twelfth Avenue; the tracks are at grade in the northern portion of the study area (**Photo 5-9**) and become elevated in the southern portion of the study area. Due to the study area's varied topography, the street grid is disjointed; Riverside Park and the Riverside Drive Viaduct interrupt the cross-streets between West 133rd Street and West 138th Street (**Photo 5-10** and **Photo 5-11**) and create irregularly shaped blocks near to the waterfront, which primarily contain transportation/utility uses, with informal on-street parking, incomplete sidewalks and crosswalks, and elevated roadways (**Photo 5-12** and **Photo 5-13**). The lack of connectivity in the waterfront portion of the study area is mitigated somewhat by the Hudson River Greenway, a bike path that runs along the west side of the Manhattan, which is located below the Henry Hudson Greenway within the study area (**Photo 5-14**).

The portion of the study area that is located to the east of Riverside Drive (at a higher elevation) differs from the waterfront portion of the study area; it is characterized by multi-family elevator and walk-up residential buildings that are five- to six-stories tall and built to the lot line to create a uniform street wall (**Photo 5-15**). The buildings are of a similar style, with brick masonry, rusticated bases on the bottom floors, small balconies, decorative lintels or pediments above the windows, and cornice lines roofs (**Photo 5-16**). Sidewalks with street trees line the blocks and crosswalks traverse the streets and Riverside Drive, which has four lands separated by a small median. Riverside Park community complex, which intersects the study area to the south, diverges from this pattern; the apartment complex rises to 35 stories and is co-located with schools, a nursey, and parking facilities (**Photo 5-17**). It is built with a central base that is ringed in a semicircle by five connected towers of varying heights.

To the west of Riverside Park Community, in the southern portion of the study area, is a 14-story self-storage building; the base of the building was constructed on Twelfth Avenue and while the building entrances are located on Riverside Drive (**Photo 5-18**). The same block contains a few industrial warehouses of three- to four-stories with entrances on Twelfth Avenue, many of which are leasing space (**Photo 5-19**).

Visual Resources

Some of the publicly accessible sidewalks and open spaces within the study area provide a view of the Hudson River and the New Jersey shoreline, which is considered a visual resource. However, for much of the year, these view corridors are partially obscured by trees and vegetation planted along Riverside Drive and in Riverside Park. The exception is a viewpoint from the corner of Riverside Drive and West 135th Street (atop the approach to the Riverside Drive Viaduct) that is unobscured by vegetation year-round.

No-Action Condition

Absent the Proposed Actions (the future No-Action condition), the existing conditions would continue as a two-story brick building intended for commercial use. For purposes of environmental review, the extant building is assumed to be vacant, in order to ensure a more conservative analysis.

As discussed in **Section 2, Land Use, Zoning, and Public Policy**, there are no new developments anticipated within the 400-foot study area expected to be completed by the 2025 analysis year. Thus, in the No-Action condition, there would be no change to the existing urban design character of the study area.

With-Action Condition

In the future With-Action condition, the applicant would demolish the existing two-story, 19,186-gsf building and construct the Proposed Project, a seven-story, approximately 53,548 gsf mixed-use development with 7,415 gsf of ground floor commercial space, 689 gsf of ground floor community facility space, and 60 residential dwelling units. Approximately 12 of the residential dwelling units would be affordable, in accordance with the requirements of the Mandatory Inclusionary Housing (MIH) program. The Proposed Project would have a maximum height of 71.5 feet. See **Figure 5-2** and **Figure 5-3** for an aerial perspective of the With-Action condition. **Figure 5-4** through **Figure 5-7** provide comparative visualizations of the future No-Action and With-Action conditions.

Because the Proposed Project would have a maximum building height of 71.5 feet, its upper-most floors would closely match the height of the limestone and granite retaining wall that stretches along Twelfth Avenue from West 135th Street to West 138th Street, directly to the east of the Development Site. By extension, the Proposed Project would also closely match the height of the Riverside Drive Viaduct, which runs between Tienmann Place and West 135th Street above Twelfth Avenue.

The ground floor of the Proposed Project will extend beneath the West Side Line railroad tracks, which are elevated to a height of approximately 21 feet, 8 inches, and the upper floors of the building would be cantilevered over the West Side Line railroad tracks.

The Proposed Project would be accessed from Twelfth Avenue. Specifically, the ground floor retail space would be accessed from through two entrances and the residential lobby would be accessed from two lobbies. The building would be built to the lot lines on West 135th Street and Twelfth Avenue and contain no setbacks.

Figure 5-2 Aerial Perspective, Facing Northwest



Source: SWA Architecture

Figure 5-3 Aerial Perspective, Facing Northeast



Source: SWA Architecture

Urban Design

The Proposed Actions would allow for greater bulk and density on the Development Site compared to the future No-Action condition. The With-Action condition would be compatible with the urban design character of the study area. As detailed above and shown

in **Figure 5-4** through **Figure 5-7**, while the Proposed Project would be taller than neighboring buildings on the project block, the Proposed Project's building height closely matches the height of significant pieces of infrastructure in the area, including the retaining wall along Twelfth Avenue and the Riverside Drive Viaduct, and would be lower in elevation than the residential uses east of Riverside Drive. In addition, the Proposed Project would be constructed to height comparable to nearby Riverbank State Park.

The With-Action condition would improve the pedestrian experience along Twelfth Avenue compared to the future No-Action condition. Instead of a vacant building, the Proposed Project would introduce the residential uses that would increase the vibrancy of the project block and surrounding area. By providing active ground floor retail uses in the waterfront portion of the study area, which is primarily characterized by transportation/utility uses, the Proposed Project would draw new visitors to the project block and serve residents of the neighborhood, students from the Columbia campus, and visitors from the park and greenway resources adjacent to the Development Site.

Therefore, the Proposed Actions would not result in any adverse impacts to the urban design character of the study area.

Figure 5-4 Comparative View from Twelfth Avenue and West 135th Street, Looking Northwest

No-Action Condition **With-Action Condition**

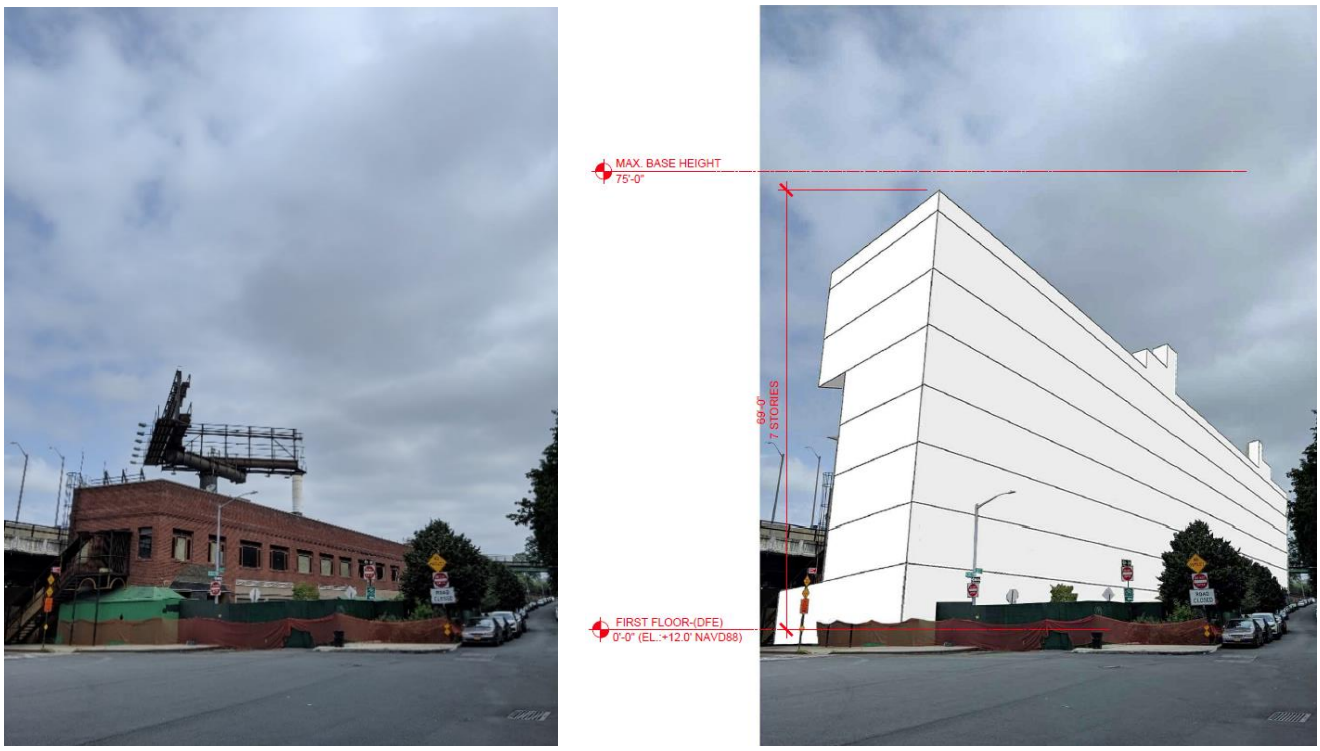


Figure 5-5 Comparative View from Twelfth Avenue, Looking southeast

No-Action Condition **With-Action Condition**



Figure 5-6 Comparative View from Riverside Drive and West 135th Street, Looking West

No-Action Condition

With-Action Condition

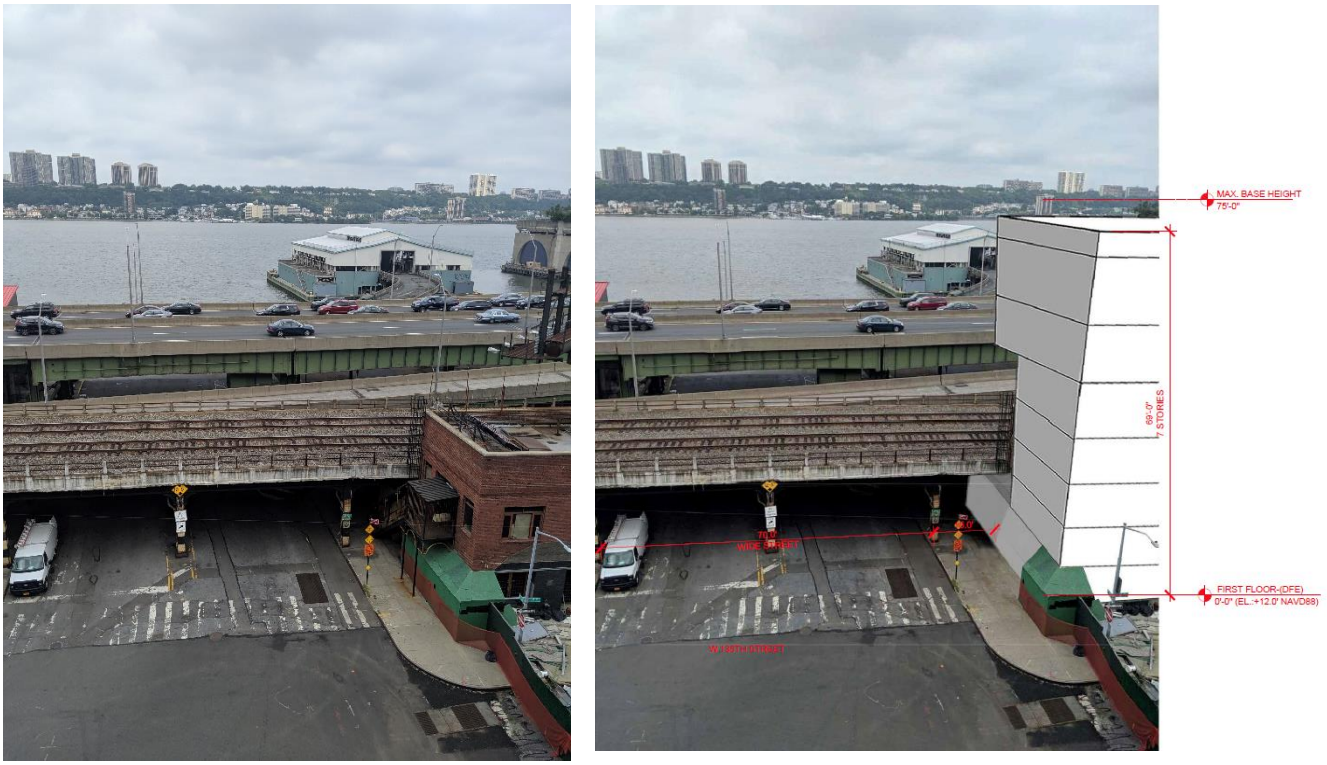


Figure 5-7 Comparative View from Riverside Drive and West 135th Street, Looking West

No-Action Condition



With-Action Condition



Visual Resources

As described above, the corner of Riverside Drive and West 135th Street (atop of the approach to the Riverside Drive Viaduct) provides a viewpoint of the Hudson River and the

shoreline of New Jersey that is unobscured by vegetation year-round. As shown in **Figure 5-6**, in the With-Action condition, the view of the visual resource would be affected by the Proposed Project. The obstruction of a view of a visual resource with the study area does not constitute a significant adverse impact. Per *CEQR Technical Manual* guidance, assessment of the potential significance of a visual resource impact may include, among other factors, whether the view is unique or do similar views exist; or whether the visual resource can be seen from many other locations. Views of the Hudson River and New Jersey shoreline are not unique to the viewpoint shown in **Figure 5-7**. Within the study area, similar views would remain accessible directly to the south along Riverside Drive between W 134th and W 135th Streets and to the north from within Riverside Park between W 136th and W 138th Streets, as well as along the Hudson River Greenway and from Riverbank State Park. Other views of the Hudson River and New Jersey shoreline would be visible from publicly-accessible locations throughout the eastern bank of the Hudson River. Therefore, the Proposed Project would not have significant adverse impacts on this visual resource.

Conclusion

Overall, the With-Action condition would be compatible with the urban design character of the study area and would be compatible with the surrounding building form and streetscape. While the Proposed Actions would allow for greater bulk and density on the Development Site, the Proposed Project's building height closely matches the height of significant pieces of infrastructure in the study area, including the adjacent Riverside Drive Viaduct and nearby Riverbank State Park. Though the Proposed Actions would also allow the Proposed Project to be taller than surrounding residential buildings located east of Riverside Drive, any effects of this height increase would be diminished by the topography surrounding the Development Site; the roof elevation of the Proposed Project would still be lower than that of the six-story residential buildings east of Riverside throughout the study area. The Proposed Actions would also introduce active ground floor use, thereby improving the pedestrian experience.

As demonstrated by the perspective renderings of the With-Action condition, the Proposed Project could obstruct views of the Hudson River and New Jersey shoreline from certain viewpoints within the study area. However, both the Hudson River and the New Jersey shoreline would remain readily visible from publicly accessible streets and parkland throughout the study area.

The Proposed Actions would result in changes to the appearance and functionality of the built environment beyond what would be allowed as-of-right. However, these changes would not negatively affect the pedestrian experience within the study area. Therefore, the Proposed Actions would not result in a significant adverse impact on urban design and visual resources, and no further analysis is necessary.

6

Hazardous Materials

The goal of the hazardous materials assessment is to determine whether a proposed action would lead to a potential increase in exposure of hazardous materials to people or the environment or whether the increased exposure would lead to significant public health impacts or environmental damage.

Introduction

A hazardous materials assessment determines whether a proposed action 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. According to the *CEQR Technical* Manual, The potential for significant impacts related to hazardous materials can occur when:

- Elevated levels of hazardous materials exist on a site and the project would increase pathways to human or environmental exposures;
- A project would introduce new activities or processes using hazardous materials and the risk of human or environmental exposure is increased; or
- The project would introduce a population to potential human or environmental exposure from off-site sources.

The hazardous materials assessment discloses if the Project Area may have been adversely affected by present or historical uses at or adjacent to the site. A Phase I Environmental Site

Assessment (ESA) would be prepared for the site, in accordance with the American Society for Testing and Materials (ASTM) standards. The results of the Phase I ESA would determine if any conditions are present at the Project Area that may warrant further investigations (a Phase II ESA). The executive summary and findings of the Phase I ESA are presented in **Appendix B.**

Methodology

The potential for hazardous materials at the Development Site was evaluated based on a Phase I Environmental Site Assessment (ESA), dated August 25, 2023, prepared by VHB. This Phase I ESA was completed using the American Society of Testing and Materials (ASTM) E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (the Standard) and the All Appropriate Inquiries (AAI) Final Rule at 40 CFR Part 312 as guidance. The USEPA "All Appropriate Inquiry" requirement establishes specific regulatory requirements for conducting appropriate inquiries into the previous ownership, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

A Phase I ESA was previously performed in December 11, 2015, prepared by IVI Assessment Services, a CBRE Company (IVI). This Phase I ESA was prepared in accordance with the American Society for Testing and Materials (ASTM) Practice E1527-13, inclusive of the "All Appropriate Inquiry" requirement amended in the Federal Register on December 30, 2013.

Assessment

Existing Conditions

The Development Site is an irregularly shaped 11,997-square foot (sf) corner lot bounded by Twelfth Avenue to the east, West 135th Street to the south, and Lots 55 and 60 to the north, west, and east. Portions of the Development Site are located below the elevated West Side Line railroad tracks.

The Development Site is improved with a 19,186 gross square foot (gsf) two-story brick building that had been occupied with commercial uses but it currently vacant.

As described in **Part I: Project Description**, the Applicant is requesting several actions ("The Proposed Actions") to facilitate development of a mixed-used building of approximately 53,548 gross square feet (gsf) ("the Proposed Project"). Specifically, the Applicant would demolish the existing two-story brick building (and rooftop sign structure) and construct a seven-story development with 7,415 gsf of ground floor commercial space. 689 gsf of ground floor community facility space, and 60 residential dwelling units.

Phase I Environmental Site Assessment

As described above, a Phase I ESA, dated August 25, 2023, was completed by VHB for the Development Site and included analyses as specified in the ASTM Method E1527-21. The

goal of the Phase I ESA process is to identify "Recognized Environmental Conditions" (RECs), defined by the ASTM Standard as, *"(1) the presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the Subject Property under conditions that pose a material threat of a future release to the environment"*.

Per the ASTM Standard, the Phase I ESA reviewed a variety of information sources, including current and historic Sanborn Fire Insurance Maps and aerial photographs; state and federal environmental regulatory databases identifying listed sites; and local environmental records. The Phase I ESA also included reconnaissance of the site and surrounding neighborhood and interviews with the building manager.

The Phase I ESA indicates the Development Site consists of a 0.27-acre parcel improved with a partially occupied commercial building constructed circa 1926. Prior to construction of the existing building, the Development Site was part of a right-of-way for elevated freight rail lines. The existing building was constructed as a freight building and was converted for restaurant/nightclub use after 1978. The building is currently vacant.

The following pertinent information and findings were presented in VHB's August 2023 Phase I ESA:

- The Development Site is located at a surface elevation of approximately 20-feet above mean sea level (msl).
- The nearest surface water body is the Hudson River, located approximately 200 feet to the west.
- Groundwater flow beneath the Development Site is assumed to mimic surface topography and flows to the west, toward the Hudson River.
- Sanitary wastes generated at the Development Site discharge into the municipal sewer system.
- The building was not heated or cooled at the time of the reconnaissance. Ceiling-mounted heating units were observed on the first floor. The building was reportedly formerly heated with natural gas.
- NYC Department of Buildings (DOB) records indicate that fuel oil burning equipment was installed in 1949. A potential aboveground storage tank (AST) was likely present in association with the former oil burner. Also, the presence of an underground storage tank (UST) could not be ruled out.
- The Development Site was not identified in the standard regulatory agency database listings.
- No environmental concerns were identified in association with solid waste generation, storage of hazardous materials, sanitary waste discharges, stained soils, liquid discharges, pools, pits, ponds, lagoons, drums, wells, odors, polychlorinated biphenyls (PCBs), elevators or compactors were identified.
- No fill materials other than typical engineered fill used in foundation construction were identified in the Phase I ESA.

The August 2023 Phase I report revealed that historical on-site and surrounding area land uses consisted of a variety of residential, commercial, and industrial uses including a freight station, railroad tracks, a transit substation, a park, commercial and residential buildings, a boat club, a police station, a water pollution control office, a carpet and upholstery cleaning plant, nightclubs, restaurants, etc. Regulatory databases identified 77 spills, one historical auto site, and one historical cleaner site within 1/8 mile; 14 underground storage tank sites, 91 aboveground storage tank sites, and two dry cleaners within 1/4 mile; 50 leaking storage tank sites, one voluntary cleanup program site, and one brownfield site within 1/2 mile of the Development Site.

Based upon the results of VHB's Phase I ESA, it was determined that there was one REC for the Development Site.

› REC #1 – Former Heating Oil UST or AST

  The subject property was developed as early as 1928 pursuant to the historic records reviewed. Although no evidence of USTs or ASTs was observed during the site reconnaissance, according to the NYCDOB action records, the subject property was issued permit number FO2674-49 for an oil burner application on January 14, 1949. The NYSDEC PBS did not provide records on the removal of an UST or AST. Therefore, the potential exists for a UST or AST to be present at the subject property.

Based upon the results of VHB's Phase I ESA, it was determined that there is a vapor encroachment condition (VEC) for the Development Site.

› VEC #1 – Nearby Property at 2335 12th Avenue

  Clean Tex Dry Cleaning was located approximately 0.09 miles southeast and upgradient of the subject property and is listed in the EDR US Historical Dry Cleaners database as a "carpet and upholstery cleaning plant" from 1969 through 2014. Based on the lack of database cross-listings indicative of a historical release or generation of hazardous wastes, this listing is not considered a REC. However, unreported releases of hazardous substances related to former dry-cleaning operations have the potential to adversely impact groundwater and/or soil vapor at the subject property and may be a potential VEC.

In addition, the following business environmental risks (BERs) were identified in VHB's 2023 Phase I ESA for the Development Site:

› BER #1 – Historical Operations

  According to historical records, the subject property was utilized as a freight station from at least 1928 through at least 1978. Documentation of the materials stored and transported to and from the subject property was not identified. Although there is no documentation identified for releases or discharges, the historic operations at the subject property may represent a potential source of on-site impact.

› BER #2 – Historic Fill Material

  Based upon the soil classification for the subject property, the potential exists for urban historic fill to be present beneath the subject property. Urban historic fill is commonly found throughout the New York City metropolitan area and can contain contaminants

such as heavy metals and semi-volatile organic compounds. If identified, and required to be removed from the subject property, appropriate transportation and disposal/recycling procedures should be followed.

› BER #3 – Upgradient Dry Cleaning Facility

Clean Tex Dry Cleaning was located approximately 0.09 miles southeast and upgradient of the subject property and is listed in the EDR US Historical Dry Cleaners database as a "carpet and upholstery cleaning plant" from 1969 through 2014. Based on the lack of database cross-listings indicative of a historical release or generation of hazardous wastes, this listing is not considered a REC. However, unreported releases of hazardous substances related to former dry-cleaning operations have the potential to adversely impact groundwater and/or soil vapor at the subject property.

There was one additional BER identified in the 2015 IVI Phase I ESA that was not identified in VHB's 2023 Phase I ESA:

› Based on the age of the building, the use of asbestos-containing materials (ACM) is suspected. IVI observed suspect friable ACM within readily accessible spaces in the form of duct insulation in the active restaurant kitchen, and as acoustical ceiling tile in various locations throughout the building. In addition, non-friable suspect ACM was observed in readily accessible spaces including plaster, wallboard assemblies, resilient floor finishes, build-up roofing components, caulking and mastic.

Future No-Action Condition

Absent the Proposed Project (the No-Action condition), the existing conditions on the site would continue as a two-story brick building with 19,186 gsf of floor area. The Applicant would continue to experience difficulties in retaining tenants for a conforming use. Under the No-Action condition, the lead and reviewing agency would not review the Phase I ESA and provide administration with respect to the hazardous materials analyses, and an (E) Designation for hazardous materials would not be applied. The REC, VEC, and BERs would not be investigated or mitigated.

Future With-Action Condition

As detailed in **Part I: Project Description**, the With-Action condition involves the demolition of the existing two-story 19,186 gsf building (and rooftop sign structure). The Applicant would construct the Proposed Project (seven-story, approximately 53,548 gsf mixed-use development with 7,415 gsf of ground floor commercial space, 689 gsf of ground floor community facility space, and 60 residential dwelling units). The building would have a maximum height of 71.5 feet.

Based on consultation with the NYC Department of Environmental Protection (DEP), to address any concerns relating to hazardous materials on the Development Site, a subsurface investigation (Phase II) would be required to identify potential subsurface contamination relating to the REC, VEC, and BERs identified in the Phase I ESA. A Phase II would characterize the Development Site for contaminants relating to soil, groundwater and soil vapor conditions as outlined in the *CEQR Technical Manual*. A plan for mitigation/remediation of

subsurface contaminants would subsequently be development and implemented with a Remedial Action Plan (RAP) or Remedial Action Work Plan (RAWP) and Construction Health and Safety Plan (CHASP), which would be prepared to mitigate potential risk and exposure relating to the presence of hazardous materials in the subsurface. As such, the Proposed Actions would include an (E) Designation for hazardous materials (E-761), which would be applied to Manhattan Block 2101, Lot 58. Applying an (E) Designation to the Development Site provides a mechanism for regulatory oversight for future remedial action as a post-demolition, pre-construction requirement that would reduce or eliminate the potential for future risk or exposure as it relates to hazardous materials and the conditions identified in the Phase I ESA. Compliance in association with the hazardous materials (E) Designation on the Development Site would be conducted under the administration of the Mayor's Office of Environmental Remediation (OER).

The (E) Designation process generally begins with the evaluation of RECs and/or areas of concern (AOCs) that may require additional investigation based upon the results of the Phase I ESA. Any potential RECs or AOCs identified would follow the (E) Designation protocol for additional investigation and potential remedial action. Compliance with the (E) Designation protocols will rely on the conclusions of the Phase I ESA. The applicable text for the (E) Designation to be applied to Manhattan Block 2101, Lot 58 would be as follows:

Task 1: Sampling Protocol

Prior to construction, the applicant submits to OER, for review and approval, a Phase II Investigation protocol, including a description of methods and a site map with all sampling locations clearly and precisely represented.

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, the specific source of suspected contamination (i.e., petroleum-based contamination and non-petroleum-based contamination), and the remainder of the site's condition. The characterization should be thorough enough to determine what remediation strategy (if any) is necessary after review of the sampling data. Guidelines and criteria for selecting sampling locations and collecting samples are provided by OER upon request.

Task 2: Remediation Determination and Protocol

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

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

An OER-approved CHASP would be implemented during evacuation and construction and activities to protect workers and the community from potentially significant adverse impacts

associated with contaminated soil and/or groundwater. This plan would be submitted to OER for review and approval prior to implementation.

In addition to applying a hazardous materials (E) Designation to the Development Site, regulatory requirements relating to asbestos, lead-based paint and PCBs in building materials would be followed as part of standard demolition practices. Given these procedures, the With-Action condition would not result in any significant adverse impacts with respect to hazardous materials for the Development Site.

Conclusion

The Phase I ESA identified a REC, a VEC from an off-site source, and several BERs. Potential impacts relating to these conditions would be reduced or eliminated through the placement of a hazardous materials (E) Designation (E-761) on the Development Site (Manhattan Block 2102, Lot 58). Applying an (E) Designation to the Development Site would reduce or eliminate the potential for future risk or exposure as it relates to hazardous materials. Compliance in association with the hazardous materials (E) Designation on the Development Site would be conducted under the administration of OER.

In addition to the above, regulatory requirements pertaining to building materials containing ACM, LBP and/or PCBs would be addressed under standard demolition/renovation procedures. With the implementation of the above measures, there would be no significant adverse impacts with respect to hazardous materials.

7

Air Quality

Ambient air quality, or the quality of the surrounding air, may be affected by air pollutants produced by motor vehicles, referred to as "mobile sources"; by fixed facilities, referred to as "stationary sources"; or by a combination of both. Under CEQR, an air quality assessment determines both a proposed project's effects on ambient air quality as well as the effects of ambient air quality on the project.

Introduction

The Proposed Actions would introduce a new seven-story, mixed-use building at 701 West 135th Street in Manhattanville, with frontage on Twelfth Avenue. The Proposed Project would contain a total of approximately 53,548 gsf, including approximately 60 residential dwelling units and ground floor commercial space, and have a maximum height of 71.52 feet. The Project Area is bounded by Twelfth Avenue and Riverside Park to the east and Route 9A or Henry Hudson Parkway to the west. The upper most portion of Riverside Park and Riverside Drive are elevated to a height of approximately 70 feet, roughly the same height as the Proposed Project.

Consistent with the *CEQR Technical Manual*, air quality analyses for a proposed project focus on the following areas of potential concern:

- Potential impacts from mobile sources introduced by a project
- Potential impacts from the atypical mobile sources on the project

- Potential impacts from stationary sources introduced by a project, such as:
  - Emissions from a project's heating, ventilation, and air conditioning (HVAC) system
  - Emissions from a project's enclosed parking garage
- Potential impacts on the proposed project from manufacturing/processing facilities
- Potential impacts on the project from large or major sources

The Proposed Project would not introduce any parking. Therefore, an assessment of emissions from such a facility is not warranted. However, the Henry Hudson Parkway and the West Side Line railroad tracks border the project. Therefore, this analysis focuses on the following:

- An assessment of the potential for air quality impacts from mobile sources generated by the project
- An assessment of potential impacts from atypical mobile sources on the project
- An assessment of the project's HVAC systems to affect uses in the surrounding area
- An assessment of the impacts of the manufacturing/processing facilities on the project
- An assessment of the impacts from the major and large sources on the project

Air Quality Standards

In accordance with the requirements of the Clean Air Act (CAA), as amended 1990, the U.S. Environmental Protection Agency (EPA) has promulgated National Ambient Air Quality Standards (NAAQS) (40 CFR part 50) for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of sensitive populations such as sick, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The EPA Office of Air Quality Planning and Standards (OAQPS) has set NAAQS for six principal pollutants, which are called "criteria" pollutants. These six pollutants are ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in diameter (PM_{10}) and less than 2.5 microns in diameter ($PM_{2.5}$), and lead (Pb). These standards are reviewed from time to time and may be revised.

The State of New York has adopted similar standards as those set by the EPA, with the exception of sulfur dioxide, particulates, fluorides, and hydrogen sulfide. The NAAQS are presented in **Table 7-1**.

In addition to criteria pollutants, there are other pollutants, air toxics, not included by the EPA in the list of principal pollutants. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources. These pollutants are sometimes referred to as hazardous air pollutants (HAP) and when emitted from mobile sources, as Mobile Source Air Toxics (MSATs). No federal ambient air quality standards have been promulgated for toxic air pollutants. However, EPA and New York State Department of Environmental Conservation (NYSDEC) have issued guidelines that establish acceptable ambient levels for these pollutants based on human exposure.

Table 7-1 National Ambient Air Quality Standards

Pollutant	Primary/ Secondary	Averaging Level	Level	Form
Carbon Monoxide (CO)	Primary	8 hours	9 ppm	Not to be exceeded more than once per year
		1 hour	35 ppm	
Lead (Pb)	Primary and secondary	Rolling 3-month average	0.15 µg/m^3 (1)	Not to be exceeded
Nitrogen Dioxide (NO_2)	Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Primary and secondary	1 year	53 ppb (2)	Annual mean
Ozone (O_3)	Primary and secondary	8 hours	0.070 ppm (3)	Annual fourth-highest daily maximum concentration, averaged over 3 years
Particulate Matter ($PM_{2.5}$)	Primary	1 year	12.0 µg/m^3	Annual mean, averaged over 3 years
	Secondary	1 year	15.0 µg/m^3	Annual mean, averaged over 3 years
	Primary and secondary	24 hours	35 µg/m^3	98th percentile, averaged over 3 years
Particulate Matter (PM_{10})	Primary and secondary	24 hours	150 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO_2)	Primary	1 hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
	Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

Notes:

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m3 as a calendar quarter average) also remain in effect.

(2) The level of the annual NO2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

(3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.

(4) The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO2 standards or is not meeting the requirements of a SIP call under the previous SO2 standards (40 CFR 50.4(3)). A SIP call is a USEPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

Source: EPA NAAQS Table, https://www.epa.gov/criteria-air-pollutants/naaqs-table, accessed May 2020

Regulatory Context

The 1990 CAA with Amendments resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air quality problems. Air quality control regions are classified and divided into one of three categories: attainment,

unclassified, or non-attainment depending upon air quality data and ambient concentrations of pollutants. Attainment areas are regions where ambient concentrations of a pollutant are below the respective NAAQS; non-attainment areas are those where concentrations exceed the NAAQS. Maintenance areas are former non-attainment that achieved attainment. An unclassified area is a region where data are insufficient to make a determination and is generally considered as an attainment area for administrative purposes. A single area can be in attainment of the standards for some pollutants while being in non-attainment for others.

New York County is designated as a serious non-attainment area for the 2008 8-hour ozone standard and a moderate non-attainment area for the 2015 8-hour ozone standard. Both designations are part of a larger New York-Northern New Jersey-Long Island, NY-NJ-CT non-attainment areas. New York County has been a PM_{10} non-attainment area since 1994. The county has been designated as a maintenance area for CO as of May 20, 2002 and for the 2006 $PM_{2.5}$ standard as of April 18, 2014. New York County is in attainment for all other criteria pollutants (Pb, NO_2, and SO_2).

Pollutants of Concern

Air pollution is of concern because of its demonstrated effects on human health. Of special concern are the respiratory effects of the pollutants and their potential toxic effects, as described below.

Carbon monoxide (CO) is a colorless and odorless gas that is a product of incomplete combustion. Carbon monoxide is absorbed by the lungs and reacts with hemoglobin to reduce the oxygen carrying capacity of the blood. At low concentrations, CO has been shown to aggravate the symptoms of cardiovascular disease. It can cause headaches, nausea, and, at sustained high concentration levels, can lead to coma and death.

Particulate matter is made up of small solid particles and liquid droplets. PM_{10} refers to particulate matter with a nominal aerodynamic diameter of 10 micrometers or less, and $PM_{2.5}$ refers to particulate matter with an aerodynamic diameter of 2.5 micrometers or less. Particulates can enter the body through the respiratory system. Particulates over 10 micrometers in size are generally captured in the nose and throat and are readily expelled from the body. Particulates smaller than 10 micrometers, and especially particles smaller than 2.5 micrometers, can reach the air ducts (bronchi) and the air sacs (alveoli) in the lungs. Particulates are associated with increased incidence of respiratory diseases, cardiopulmonary disease, and cancer.

Nitrogen oxides (NOX), the most significant of which are nitric oxide (NO) and nitrogen dioxide (NO2), can occur when combustion temperatures are extremely high (such as in engines) and atmosphere nitrogen gas combines with oxygen gas. NO is relatively harmless to humans but quickly converts to NO2. Nitrogen dioxide has been found to be a lung irritant and can lead to respiratory illnesses. Nitrogen oxides, along with VOCs, are also precursors to ozone formation.

Sulfur Dioxide (SO2) emissions are the main components of the "oxides of sulfur," a group of highly reactive gases from fossil fuel combustion at power plants, other industrial facilities, industrial processes, and burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment. High concentrations of SO2 will lead to formation of other sulfur oxides. By reducing the SO2 emissions, other forms of sulfur oxides are also expected to

decrease. When oxides of sulfur react with other compounds in the atmosphere, small particles that can affect the lungs can be formed. This can lead to respiratory disease and aggravate existing heart disease.

Non-criteria pollutants may be of concern in addition to the criteria pollutants discussed above. Non-criteria pollutants are emitted by a wide range of man-made and naturally occurring sources. These pollutants are sometimes referred to as hazardous air pollutants (HAP) and when emitted from mobile sources, as Mobile Source Air Toxics (MSATs). Emissions of non-criteria pollutants from industrial sources are regulated by the United States Environmental Protection Agency (EPA).

Federal ambient air quality standards do not exist for non-criteria pollutants; however, the New York State Department of Environmental Conservation (NYSDEC) has issued standards for certain non-criteria compounds, including beryllium, gaseous fluorides, and hydrogen sulfide. NYSDEC has also developed guidance document DAR-1 (February 2021), which contains a compilation of annual and short term (1-hour) guideline concentration thresholds for these compounds. The NYSDEC's DAR-1 guidance thresholds represent ambient levels that are considered safe for public exposure. EPA has also developed guidelines for assessing exposure to non-criteria pollutants. These exposure guidelines are used in health risk assessments to determine the potential effects to the public.

Impact Criteria

The predicted concentrations of pollutants of concern associated with a proposed project are compared with either the National Ambient Air Quality Standards for criteria air pollutants or ambient guideline concentrations for non-criteria pollutants. In general, if a project would cause the standards for any pollutant to be exceeded, it would likely result in a significant adverse air quality impact. In addition, the City's de minimis criteria are also used to determine significance of impacts for CO and $PM_{2.5}$.

CO De Minimis Criteria

New York City has developed de minimis criteria to assess the significance of the increase in CO concentrations that would result from the impact of project-generated mobile sources, as set forth in the CEQR Technical Manual. These criteria set the minimum change in CO concentration that defines a significant adverse environmental impact. Significant increases of CO concentrations in New York City are defined as:

- An increase of 0.5 ppm or more in the maximum eight-hour average CO concentration at a location where the predicted No-Action eight-hour concentration is equal to or between 8.0 and 9.0 ppm; or
- An increase of more than half the difference between baseline (i.e., No-Action) concentrations and the eight-hour standard, when No-Action concentrations are below 8.0 ppm.

$PM_{2.5}$ De Minimis Criteria

New York City uses de minimis criteria to determine a project's potential to result in a significant adverse $PM_{2.5}$ impact under CEQR. The de minimis criteria are as follows:

- Predicted increase of more than half the difference between the background concentration and the 24-hour standard;
- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.1 µg/m^3 at ground level on a neighborhood scale (i.e., the annual increase in concentration representing the average over an area of approximately 1 square kilometer, centered on the location where the maximum ground-level impact is predicted for stationary sources; or at a distance from a roadway corridor similar to the minimum distance defined for locating neighborhood scale monitoring stations); or
- Annual average $PM_{2.5}$ concentration increments which are predicted to be greater than 0.3 µg/m^3 at a discrete receptor location (elevated or ground level).

Background Concentrations

Background concentrations are ambient pollution levels associated with existing stationary, mobile, and other emission sources from the area and not associated with the proposed project. The latest three years of monitoring data (2017 to 2019) from the representative monitoring stations were used to develop background concentrations for all pollutants (see **Table 7-2**). CO and PM background concentrations were obtained from monitoring stations in Manhattan: CO was collected at The City College of New York, 160 Convent Avenue, PM_{10} was collected at the Yung Wing Elementary School, 40 Division Street, and $PM_{2.5}$ was collected from the station at JHS 45, 2351 First Avenue. One-hour and annual NO_2 and one-hour SO_2 background concentrations were developed from monitoring data collected from the IS52 monitoring station at 681 Kelly Street in the Bronx. These concentrations were estimated using the form of the NAAQS (see **Table 7-1**).

Table 7-2 Background Concentrations (2017-2019)

Pollutant	Averaging Time	Monitoring Location	Background Concentration
Carbon Monoxide	1-Hour	160 Convent Ave	1.7 ppm
	8-Hour		1.2 ppm
Nitrogen Dioxide	1-Hour	IS 52	58.7 ppb
	Annual		17.2 ppb
Particulate Matter (PM_{10})	24-Hour	Division St	43 µg/m^3
Particulate Matter ($PM_{2.5}$)	24-Hour	JHS 45	18.7 µg/m^3
	Annual		7.6 µg/m^3
Sulfur Dioxide	1-Hour	IS 52	6 ppb

Source: VHB, Inc. September 2020

The *CEQR Technical Manual de minimis* threshold for the 24-hour $PM_{2.5}$ concentrations was estimated to be 8.2 µg/m^3 from the JHS 45 observations.

Methodology

Mobile Sources

The Proposed Project mobile source analysis is two-fold: it consists of analysis of the impacts from mobile sources generated by the project and from the impact of the Henry Hudson Parkway and West Side Line railroad tracks on the project. The impacts of trips generated by the project will be analyzed using *2021 CEQR Technical Manual* screening approach, while impacts of the parkway traffic and rail emissions will be analyzed in more detail.

Screening Analysis from Project-Generated Mobile Trips

A screening analysis of mobile source CO emissions on ambient pollutant levels in the study area was conducted per *CEQR Technical Manual* guidance as described in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. The threshold for conducting an analysis of CO emissions is 170 project-generated vehicles at a given intersection in the peak hour, which the Proposed Project would not exceed. The Proposed Project is not expected to generate any heavy-duty diesel trips. The equivalent number of truck-trips were compared to the PM thresholds using the *CEQR Technical Manual* spreadsheet based on guidance described in Sections 210 and 311.

Detailed Analysis from Atypical Sources on the Proposed Development

The Proposed Project abuts the West Side Line railroad tracks and Route 9A/Henry Hudson (HH) Parkway. The West Side Line, owned by Amtrak, operates diesel trains in Manhattan north of 41st Street Emissions from the West Side Line railroad tracks were considered by comparison with the impacts of the same rail line emissions assessed in the Western Rail Yards EIS[1] for the site further south.

Impacts of the Henry Hudson Parkway traffic emissions were estimated using the following procedures. Impacts of traffic CO emissions were assessed directly following the approach described below. Impacts of $PM_{2.5}$ emissions were evaluated based on comparison with the Industry City EIS[2] that analyzed impacts of the Gowanus Expressway on the proposed development located approximately 45 feet from it.

CO Analysis

Traffic Data and Vehicle Emissions

The Henry Hudson Parkway does not allow commercial and truck traffic, nor are there buses travelling in the vicinity of the Development Site. Vehicular CO emission factors utilized in the dispersion modeling were computed using the latest version of the EPA's Motor Vehicle Emission Simulator - MOVES3. This emissions model is capable of calculating engine emission factors for various vehicle types, based on the fuel type (gasoline, diesel, or electricity), meteorological conditions, vehicle speeds, vehicle age, roadway types, number of

[1] https://www.nyc.gov/site/planning/applicants/env-review/western-rail-yard.page

[2] https://www.nyc.gov/site/planning/applicants/env-review/industry-city.page

starts per day, engine soak time, and various other factors that influence emissions, such as inspection maintenance programs.

Traffic data for input into emissions and dispersion modeling include the following:

- Vehicle volumes were obtained from the NYSDOT for 2019 and projected to the 2025, the Build Year.
- Traffic speeds obtained from the Uber Movement were used in the CO modeling and PM comparison analyses .
- Vehicle classification data obtained from the 2016 New York State Department of Environmental Conservation (NYSDEC) data for Manhattan (New York County) provided as inputs for MOVES.
- MOVES input files (i.e., fuel data, county-specific hourly temperature and relative humidity data, IM coverage, etc.) obtained from NYSDEC.
- Source type age distribution data obtained from the NYSDEC and processed using the EPA's *Age Distribution Projection Tool for MOVES3*.[3]

CO Dispersion Model

CO concentrations resulting from vehicular emissions from the Henry Hudson Parkway were predicted using the EPA's CAL3QHC dispersion model.

The CAL3QHC model (Version 2.0)[4] employs a Gaussian (normal distribution) dispersion assumption and calculates emissions and dispersion of air pollutant from idling and moving vehicles. CAL3QHC predicts peak one-hour pollutant concentrations using assumed meteorology and peak-period traffic conditions. Different emission rates occur when vehicles are stopped (idling), accelerating, decelerating and moving at different average speeds. CAL3QHC simplifies these different emission rates into the following two components:

- Emissions when vehicles are stopped (idling) during the red phase of a signalized intersection.
- Emissions when vehicles are in motion during the green phase of a signalized intersection.

For this analysis, since all vehicles are in free flow pattern, idling emissions were not considered.

CAL3QHC model predicts maximum 1-hour CO concentration on the Proposed Project using variable wind angle to determine the wind direction that would result in the maximum concentrations at each receptor. Following the EPA guidelines, CAL3QHC computations were performed using a wind speed of one meter per second, and the neutral stability class D.

The 8-hour average CO concentration was estimated by multiplying the predicted 1-hour average CO concentration by a factor of 0.7 to account for persistence of meteorological conditions and fluctuations in traffic volumes. At each receptor location, concentrations were calculated for all wind directions, and the highest predicted concentration is reported,

[3] USEPA. Age Distribution Projection Tool for MOVES3.xlsx, https://www.epa.gov/moves/tools-develop-or-convert-moves-inputs

[4] EPA, User's Guide to CAL3QHC, A Modeling Methodology for Predicted Pollutant Concentrations Near Roadway Intersections, Office of Air Quality, Planning Standards, Research Triangle Park, North Carolina, EPA-454/R-92-006.

regardless of frequency of occurrence. These assumptions ensure that reasonable worst-case meteorology was used to estimate the greatest potential for a significant adverse impact.

A surface roughness of 3.21 meters was utilized. Since Henry Hudson Parkway is an elevated structure, a source height of approximately 10 meters (32 feet)—the maximum height to which CAL3QHC was validated—was assumed in the modeling.

Receptor Placement

Discrete receptors (i.e., locations at which concentrations are calculated) were placed at the Proposed Project on each floor along all building façades to represent potentially sensitive locations such as operable windows or air intake vents. The Proposed Project is at grade while the HH Parkway is elevated. Receptors were placed below the level of the HH Parkway as well as above the level at all floors.

Analysis Year

The elevated mobile sources analyses were performed for the 2025 analysis year—the year by which the proposed project is likely to be completed. The future analysis was performed for the With-Action condition only.

$PM_{2.5}$ Analysis

Analysis of impacts from $PM_{2.5}$ emissions generated by vehicles on the HH Parkway onto the Proposed Project was conducted by comparing to the impacts of Gowanus Expressway traffic $PM_{2.5}$ emissions on the Industry City development. Total 24 hourly $PM_{2.5}$ emissions generated by traffic on Gowanus Expressway were compared to the similar $PM_{2.5}$ emissions generated by the HH Parkway traffic. The total emissions were calculated by adding together hourly emissions for each of the 24 hours for the respective roadway.

Emissions from the Proposed Project were estimated using MOVES3 for the year 2025 and hourly traffic volumes projected to 2025. Same basic inputs to MOVES that were used in the CO analysis were used in the $PM_{2.5}$ analysis. Speeds for the other time periods that were used in the $PM_{2.5}$ analysis were also obtained from the Uber Movement website.

$PM_{2.5}$ analysis considered 24 hourly conditions. The hourly volumes were sourced from NYSDOT as in the CO analysis. Following the Industry City, speeds were selected for the peak AM, PM, midday and night time hours and spread to other hours of the day assuming that the same speeds would last for the entire period, AM peak period, midday period, etc.

Stationary Sources

HVAC Analysis

As described in **Part I: Project Description**, the Proposed Project proposed will introduce a seven-story, mixed-use building containing approximately 53,548 gsf. The CEQR screening analysis was used to assess impacts from the HVAC emissions on the existing sensitive land uses. The screening analysis assumed that the boiler would use natural gas.

CEQR Graphical Screening (HVAC Screening Analysis)

As described in Section 220 and Section 322 in Chapter 17 of the *CEQR Technical Manual*, for single-building projects that would use natural gas for HVAC systems, a preliminary stationary source screening analysis is typically warranted to evaluate the potential for impacts on existing buildings from HVAC systems emissions for the proposed project. The *CEQR Technical Manual* provides screening nomographs based on fuel type, building use, minimum distance from the source to the nearest receptor buildings with similar or greater heights and floor area of development resulting from the proposed project.

If the distance from projected development to the nearest buildings/sensitive land uses of similar or greater height are less than the minimum required distances determined, there is the potential for a significant air quality impact from the project's boilers, and further analysis needs to be conducted using the USEPA's AERMOD model. Otherwise, emissions of the proposed project's HVAC are considered to have no adverse significant air quality impact.

Large or Major Source Analysis

As described in Section 220 and Section 322 in Chapter 17 of the *CEQR Technical Manual*, an air quality assessment is required to evaluate the potential impacts of emissions from a "large" or "major" emission source within a 1,000-foot radius of a project site. "Major" sources are identified as those sources located at Title V facilities that require Prevention of Significant Deterioration permits. "Large" sources are identified as sources located at facilities that require a State Facility Permit. A detailed dispersion analysis is usually performed for such sources to determine a potential for significant adverse impact. One major source, North River Wastewater Treatment Plant, and one large source, an apartment complex located at 3333 Broadway, are within a 1,000-foot radius of the Development Site.

Refined Dispersion Modeling

For projects where large and/or major sources are identified, a detailed air quality analysis is performed using EPA's AERMOD model (version 19191) to evaluate the potential for emissions from such sources to result in a significant adverse impact on the proposed project. AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area, and volume sources). AERMOD is a steady-state plume model that incorporates current concepts about flow and dispersion in complex terrain, including updated treatments of the boundary layer theory, understanding of turbulence and dispersion, and includes handling of terrain interactions. The AERMOD model calculates pollutant concentrations from one or more points (e.g., exhaust stacks) based on hourly meteorological data and has the capability to calculate pollutant concentrations at locations where the plume from the exhaust stack is affected by the aerodynamic wakes and eddies (downwash) produced by nearby structures. AERMOD can be run with and without building downwash (the downwash option accounts for the effects on plume dispersion created by the structure the stack is located on, and other nearby structures).

Emission Rates and Stack Parameters

Emission rates for the large and major sources were estimated using information from the permits and the AP-42, EPA's Compilation of Air Emission Factors. Stack and exhaust

parameters are obtained from the permits or, if not available, using the NYCDEP boiler database, which is compiled from the information about the New York City boilers by size.

Methodology Utilized for Estimating NO_2 Concentrations

The 1-hour NO_2 concentration associated with the Proposed Project was estimated using the AERMOD Plume Volume Molar Ratio Method (PVMRM) module. The PVMRM module limits the NO_x to NO_2 conversion by considering NO_2 formation based on the amount of ozone within the plume volume.

Meteorological Data

Dispersion analysis used the latest five years (2015-2019) of hourly meteorological observations from La Guardia Airport National Weather Service station and upper air data obtained from the Brookhaven station, New York.

Industrial Source Analysis

As described in Section 220 and Section 322 in Chapter 17 of the *CEQR Technical* Manual, an air quality assessment is required to evaluate the potential impacts of air toxics emissions from ventilation exhaust systems of manufacturing or processing facilities within a 400-foot radius of a project site when a project would result in new sensitive uses (particularly residences, schools, hospitals, or parks). If any sources are identified, a screening analysis is performed based on Table 17-3 in Chapter 17 of the *CEQR Technical Manual*. If a proposed project fails the screening analysis, or the screening analysis methodology is not applicable to the project, further refined analysis using EPA's AERSCREEN and/or AERMOD model is warranted to determine any potential for significant adverse impacts. Potential impacts predicted from the industrial source of concern based on the screen table are compared with the short-term guideline concentrations (SGCs) and annual guideline concentration (AGCs) recommended in NYSDEC's DAR-1 AGC/SGC Tables.

Assessment

Mobile Sources

Screening Analysis from Project-Generated Mobile Trips

The Proposed Project would generate fewer than 50 peak hour vehicular trips, which is less than the *CEQR Technical Manual* threshold of 170 auto trips at any intersection in the peak hour. As such, no adverse significant CO impacts are anticipated from the project-generated mobile sources.

It was assumed that since the project would generate less than 50 trips in the entire network, no more than 25 trips would be generated at any roadway. No diesel trucks would be associated with the project. However, for the purpose of PM screening analysis, vehicles generated by the project were assumed to be LDGT1. The equivalent truck trips are expected to pass the *CEQR Technical Manual* PM screening for any road type. Therefore, no adverse air quality impacts are anticipated from PM traffic emissions.

Impacts from Elevated Mobile Sources

CO Impacts

Emissions from traffic on the Henry Hudson Parkway and on the on and off ramps in the vicinity of West 135th Street could potentially adversely impact pollutant concentrations at the Proposed Project. Route 9A/HH Parkway is part of the New York City parkway system, which does not allow commercial vehicles, trucks, or trailers.

Traffic volumes were obtained from the NYSDOT sources and grown from 2019 baseline to the 2025 build year using *CEQR Technical Manual* annual growth rates. Volumes were obtained on an hourly basis for a weekday. Vehicular speeds were sourced from the New York Metropolitan Transportation Council (NYMTC) Best Practices Model and from the Uber Movement. The BPM model outputs four time periods, AM and PM peak hours, midday and nighttime periods, the PM peak was used in the analysis. The 2025 predictions (see **Table 7-3**) were examined to select the worst combination of high volume and low speed for a conservative estimate of the highest impact. The PM peak period was considered to represent the highest impacts and was selected for modeling.

Table 7-3 Henry Hudson Parkway Traffic Volumes and Speeds

	Peak Traffic Volume (VPH)				Traffic Speeds (MPH)			
Roadway Segment	**AM**	**MD**	**PM**	**NT**	**AM**	**MD**	**PM**	**NT**
Henry Hudson Parkway Northbound Mainline	3,786	4,253	5,041	4,460	52	48	32	48
Henry Hudson Parkway Southbound Mainline	5,654	4,449	4,720	2,760	38	52	46	52
Henry Hudson Parkway Northbound On-Ramp	593	976	892	666	34	33	26	32
Henry Hudson Parkway Southbound Off-Ramp	856	1,028	1,020	765	36	38	32	37

Source: VHB, November 2022

Vehicle classification data for Manhattan obtained from the NYSDEC input files for MOVES emission model was preprocessed to exclude trucks and other vehicles (e.g., buses) that are not allowed on the HH Parkway. 2025 vehicular CO emission rates were estimated using MOVES3 and the NYSDEC inputs for Manhattan (See **Table 7-4**).

Table 7-4 PM Peak Hour CO Emission Rates on HH Parkway

Roadway Segment	**Average CO Emission Rate[1] (g/veh-mile)**
Henry Hudson Parkway Northbound Mainline	3.26
Henry Hudson Parkway Southbound Mainline	2.30
Henry Hudson Parkway Northbound On-Ramp	4.80
Henry Hudson Parkway Southbound Off-Ramp	1.96

Source: VHB, November 2022
Note: Emission rates were averaged over the links for each roadway listed

The CAL3QHC run followed the *CEQR Technical Manual* guidance to analyze maximum impacts from the HH Parkway traffic emissions on the Proposed Project. The results of this analysis are presented in **Table 7-5**.

Table 7-5 Highest Predicted Concentration from the Elevated Source

Time Period	Highest Impact	Background Concentration	Total Concentration	NAAQS
1 hour	0.8 ppm	1.7 ppm	2.5 ppm	35 ppm
8 hours	0.6 ppm	1.2 ppm	1.8 ppm	9 ppm

Source: VHB, November 2022

The results indicate that the highest CO concentrations at the Proposed Project would be below the applicable CO ambient standards. As such, no adverse air quality impacts are expected from the traffic emissions on the Proposed Project.

PM Impacts

Impact of $PM_{2.5}$ emissions from the HH Parkway was assessed based on comparison with another project. The idea of comparison is based on the premises that if the comparison project has higher or similar emissions and demonstrated no significant adverse air quality impact on the close receptors, the proposed project would not likely have significant adverse air quality impact at receptors located at the same distance or further away.

The Industry City EIS analyzed impacts of emissions from traffic on Gowanus Expressway on the proposed buildings located approximately 40-45 feet away along the 3rd Avenue in the Sunset Park neighborhood in Brooklyn. The EIS published in 2020 compared modeled $PM_{2.5}$ impacts to the *CEQR de minimis* criteria. These $PM_{2.5}$ impacts together with the background concentrations are below the respective 24-hour and annual $PM_{2.5}$ NAAQS. The Proposed Project is located about 50 feet away from the elevated Henry Hudson Parkway.

The current analysis considered only vehicular exhaust, tire and break wear $PM_{2.5}$ emissions from the Gowanus Expressway and from the Henry Hudson Parkway. It was assumed that the fugitive dust emissions on both highways are similar and will not change result. Since annualized emissions are lower than the peak diurnal emissions, only diurnal emissions for both projects were compared.

Table 7-6 presents hourly and total daily $PM_{2.5}$ emissions from both projects. 24-hour total emissions from the Gowanus Expressway are more than two times higher than emissions from the Henry Hudson Parkway.

Table 7-6 Comparison of $PM_{2.5}$ Emissions at Henry Hudson Parkway and Gowanus Expressway (g/mi-hr)

Hour of day	Proposed Project				Industry City	
	HH NB	HH SB	On Ramp	Off Ramp	GE EB	GE WB
1	11	4	2	3	37	25
2	5	3	1	2	25	16
3	3	2	1	1	17	12
4	2	2	1	1	15	12
5	3	4	1	2	19	17
6	4	16	1	6	72	47
7	9	42	3	8	117	76
8	19	41	5	8	133	76
9	22	36	6	9	125	70
10	15	35	4	10	120	65
11	16	23	4	10	64	66
12	16	19	4	11	65	60
13	19	18	5	12	67	55
14	21	16	6	9	67	54
15	26	19	7	9	69	66
16	24	22	8	9	69	122
17	38	27	13	12	70	120
18	33	28	11	11	69	113
19	38	27	9	11	71	122
20	39	20	7	10	74	116
21	25	14	6	7	71	104
22	24	12	5	7	66	103
23	23	11	4	6	47	41
24	18	8	3	5	45	35
	453	**449**	**115**	**181**	**1595**	**1592**
Total	**1198**				**3187**	

Source: VHB, December 2022

Impacts from AMTRAK Emissions

Impacts from the AMTRAK diesel train emissions were evaluated based on the impacts from the same trains closer to Penn Station as considered in the Western Rail Yard EIS (CEQR# 07DCP007M). That analysis assessed impact of emissions from the idling and moving locomotives at several tracks below the platform and exhausted through two sets of ventilation stacks above the platform. Total concentrations at the housing development located on the platform above the rail yard next to the ventilation stacks were below the appropriate NAAQS. Therefore, emissions of moving locomotives at only two tracks along the Proposed Project would not result in a significant adverse air quality impact.

HVAC Analysis

HVAC Screening Analysis

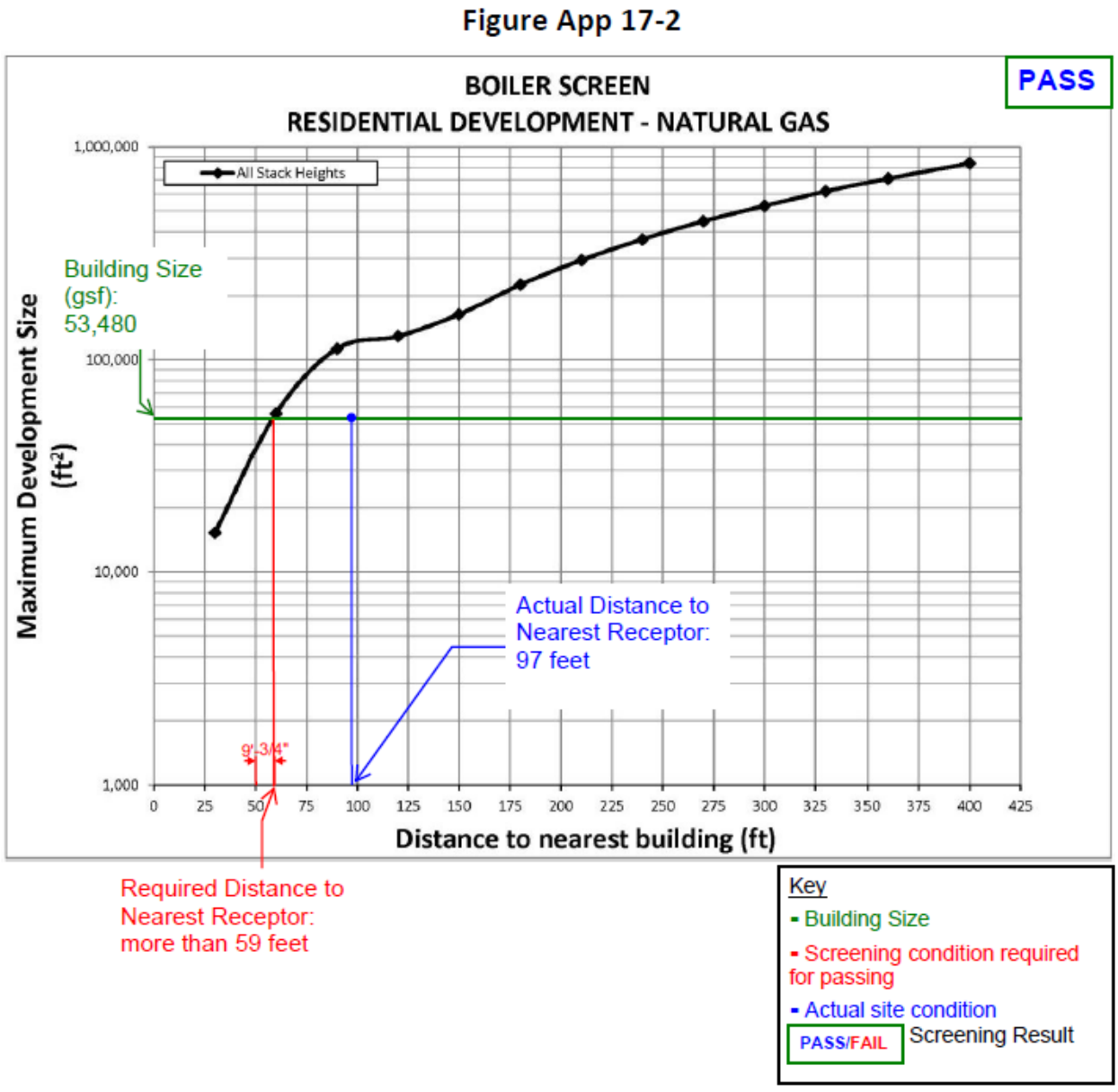
The Proposed Project is a seven-story, mixed-use building that would contain approximately 53,548 gsf and have a maximum height of 71.5 feet. The closest building that is taller than the Proposed Project is the located on the corner of West 135th Street and Riverside Drive. This building is approximately 200 feet away from the Proposed Project. The other sensitive land uses of similar or greater height are the Riverside Park features that are located directly across from the Proposed Project: the elevated terrace at the top of the staircase (123 feet away) and the staircase/ramp used to access it (97 feet away). Per the CEQR nomograph result (see **Figure 7-1**), a minimum distance of 59 feet from the nearest sensitive land use to the proposed stack is required. All elevated sensitive land uses are at a greater distance. Therefore, no adverse significant impacts are expected from the Proposed Project's HVAC emissions.

To ensure that there would be no significant adverse impacts from the HVAC and hot-water systems of the Proposed Project, certain restrictions related to the fuel type and stack locations would be incorporated into an E-Designation for air quality (**E-761**).

The E-Designation text would be as follows:

Block 2101, Lots 58 (Projected Development Site): Any new residential, commercial and/or community facility development must exclusively use natural gas as the type of fuel for heating, ventilating, and air conditioning system and hot water equipment, and ensure the HVAC system and hot water equipment stack is located at the highest tier and at least 75 feet above grade to avoid any potential significant air quality impacts.

Figure 7-1 HVAC Screening from the Proposed Building



"Large" or "Major" Source Analysis

Two sources were identified in the 1,000-foot radius of the proposed development site: the major source is the North River Wastewater Treatment Plant (NRWWTP) and the large source is an apartment complex located at 3333 Broadway.

North River Wastewater Treatment Plant

The Wastewater Treatment Plant Title V permit was renewed in 2019 and is valid for five years, expiring in 2024. According to this permit, the NRWWTP is being renovated with five new 3.37 MW generators, of which four could operate at the same time to a maximum capacity of 13.5 MW while the fifth will be in a standby mode. These cogeneration engines

could operate on both anaerobic digester gas and natural gas. They are equipped with an oxidation catalyst for CO, VOC, and non-criteria pollutants (air toxics) control. These engines are housed in the same room and exhaust through the same stacks with same parameters as the engines in the previous permit. The permit states that the installation of the new cogeneration engines should be complete by 2021 and thus will be operational in 2025, the Build Year for the Proposed Project.

In 2013, the NYCDEP published an Environmental Assessment Statement (EAS) for the North River Plant Cogen Project (CEQR # 13DEP008M – DEP EAS) to assess the impacts of the replacement of 10 existing engines at the North River Plant with five new cogeneration engines.[5] Results of the DEP EAS were used to determine impacts from the NRWWTP on the proposed project. **Table 7-7** and **Table 7-8** present the stack parameters and emission rates used in the DEP EAS to model NRWWTP cogeneration plant emissions in the future. The Title V permit set specific requirements, capping, of the following pollutant emissions from this facility: formaldehyde, CO, particulates (PM_{10} and $PM_{2.5}$), total hazardous air pollutants (HAPs), NO_x, and volatile organic compounds (VOCs). The main difference between the 2019 Title V permit and the emission sources analyzed in the DEP EAS is the replacement of a thermal oxidizer that was envisioned in the DEP EAS with a catalytic oxidizer. Catalytic oxidizer is more efficient because it has higher VOC flows and more fuel efficient as it uses heat recovery. Based on these considerations, it is assumed that emissions from the catalytic oxidizer should be lower than those of a thermal oxidizer and, thus, DEP EAS results are more conservative, i.e., higher, than they would be under the current Title V permit.

Table 7-7 Stack Exhaust Parameters for the North River Plant Cogeneration Facility

Parameter	Cogeneration Engines	Thermal Oxidizer
Number of Units	4 operating at 100% load and 1 standby for the short-term analyses 5 operating at a reasonable worst-case load for the annual average analyses	1
Size	3.37 MW	8.85 mmBtu/hr
Stack Height (feet above grade)[1]	161	161
Stack Diameter (inches)	23.5	23.5
Stack Exhaust Temperature (F)[2]	356	1600
Stack Exhaust Velocity (feet per second)[3]	71.85	8.85

Notes:

[1] Cogeneration engines exhausting through the existing pump engine stacks. Thermal oxidizer exhausting through an existing blower engine stack. Grade elevation is 5 feet. The height of the rooftop park is 54 feet above grade and the height of the stacks above the park is 107 feet.

[2] Stack exhaust temperature for the cogeneration engines was provided by the vendor, which is the minimum exhaust temperature after heat recovery. Stack exhaust temperature and flow for the thermal oxidizer were also an estimate of 1600 acfm at 1600 F based on vendor information.

[3] Stack exhaust velocity for the cogeneration engines was based on a stack flow rate of 12,985 acfm at 356 F provided by the vendor.

Source: Table D-2 of the North River Wastewater Treatment Plant Cogeneration and Electrification Project EAS, Attachment D: Air Quality, page D-12

[5] North River Wastewater Treatment Plant Cogeneration and Electrification Project, https://www1.nyc.gov/html/dep/html/dep_projects/north_river_cogeneration.shtml

Table 7-8 Emission Rates for the North River Plant Cogeneration Facility

	Cogeneration Engines	Thermal Oxidizer
Parameter	**Emission Rate [4] (g/s)**	**Emission Rate (g/s)**
NO_x (1-hour) [1]	4.871	0.0231
NO_x (Annual) [2]	3.761	0.0231
CO (1-hour and 8-hour) [1]	8.034	0.0069
PM_{10} (24-hour) [1]	0.854	0.0069
$PM_{2.5}$ (24-hour) [1]	0.251	0.0239
$PM_{2.5}$ (Annual) [2]	0.194	0.0239
SO_2 (1-hour and 3-hour) [1]	0.805	0.0047
Formaldehyde (1-hour) [3,1]	0.100	0.000236
Formaldehyde (Annual) [3,2]	0.078	0.000236

Notes:

[1] Short-term emissions for the cogeneration engines are the maximum of either digester gas or natural gas combustion. CO emissions included in the table are the maximum emissions before tripping PSD regulatory thresholds and are expected to be much lower due to the oxidation catalyst. No credit was taken to account for the catalyst in the modeling analysis for CO. Formaldehyde emissions reflect control due to the oxidation catalyst.

[2] Annual emissions for the cogeneration engines are the total emissions from both digester gas and natural gas combustion.

[3] Formaldehyde is readily photo-oxidized in the atmosphere, so a half-life of 1-hour[1] was used in the analysis. For the thermal oxidizer, formaldehyde emissions in the tail gas are expected to be removed by at least 90%; emission rates provided are conservative and are expected to be lower.

[4] Emission rates for the cogeneration engines are the total emissions from all engines exhausting through a collocated stack (4 engines operating in the short-term condition; 5 engines operating in the annual condition).

Source: Table D-3 of the North River Wastewater Treatment Plant Cogeneration and Electrification Project EAS, Attachment D: Air Quality, page D-13

The DEP EAS used a widespread receptor grid for up to 10 kilometers from the center of NRWWTP. The grid was refined closer to the source, coarse 1,500 meters away from the source and even more coarse 3 kilometers beyond the 1,500 meters. The fine grid with 75-meter spacing was analyzed from the fence line of the facility to a 1,500 meters radius. The development site falls within this grid. The highest predicted concentrations at any receptor in the grid was conservatively considered in this analysis without regard to actual place of occurrence or the wind direction under which this concentration was estimated.

3333 Broadway LLC

The apartment building located at 3333 Broadway operates five Easco PLW-331 Low Pressure Boilers rated 11.1 MMBtu/hr each and five exempt combined heat and power (CHP) units. According to the 2017 ASF permit, boilers were converted from the No. 2 fuel oil to natural gas. This analysis assumes that all boilers are operating on natural gas. CHP units are exempt and not covered by the ASF permit. As such, they were not included in this analysis. **Table 7-9** presents parameters used in the modeling of the impacts of emissions from the apartment complex boilers on the Proposed Project.

Table 7-9 Stack Exhaust Parameters for 3333 Broadway LLC Sources

Parameter	Boiler(s)	Unit
Stack Height	338	ft
Stack Diameter[1]	51.3	in
Exit Velocity	19.4	ft/sec
Exhaust Temperature	307.8	°F

Notes:
[1] An equivalent stack diameter was estimated from the permit information supplemented by the Google map measurements.
Source: VHB, Inc. September 2020

Emission rates for the five boilers combined used in the modeling are presented in **Table 7-10**. Emission rates were estimated using EPA's AP-42 and information obtained from the permit.

Table 7-10 Emissions Rates (g/s) from 3333 Broadway LLC Sources

Pollutant	Averaging Time	Combined Boiler Emission Rate
Nitrogen Dioxide	1-Hour	0.6789
	Annual	0.1860
Particulate Matter (PM_{10})	24-Hour	0.0516
Particulate Matter ($PM_{2.5}$)	24-Hour	0.0516
	Annual	0.0141

Source: VHB, Inc. September 2020

An AERMOD analysis was conducted to estimate impacts from the large source under the two scenarios, with and without downwash effects.

Cumulative Impacts – NRWWTP and 3333 Broadway LLC

The resultant highest concentrations from the apartment complex's boilers were conservatively summed together with the maximum impacts of the NYCDEP North River EAS modeling of the cogeneration facility. These results were compared with the respective NAAQS as shown in **Table 7-11.** As the table demonstrates, the impacts of the large and major sources on the Proposed Project, even under conservative assumptions, were below the appropriate ambient standards. As such, no adverse air quality impacts on the Proposed Project are expected from the large and major sources.

Table 7-11 Highest Concentrations from the Large and Major Sources

Pollutant	Time period	Unit	Predicted Impact[1]	Background Concentration	Total Concentration	NAAQS
Nitrogen Dioxide	1-hour[2]	ppb		-	99.96	100
	Annual[3]	ppb	8.3	17.2	25.5	53
Particulate Matter ($PM_{2.5}$)	24-Hour	µg/m3	1.9	18.7	20.6	35
	Annual	µg/m3	0.1	7.6	7.7	12.0
Particulate Matter (PM_{10})	24-Hour	µg/m3	22.5	43.0	65.5	150

[1] Predicted Impacts are the combination of pollutant concentrations from the sources at the North River Plant Cogeneration Facility and 3333 Broadway LLC.

[2] The 1-hour NO_2 concentration conservatively uses the background concentrations from North River Plant Cogeneration Facility EAS and combines it with the predicted impact from the 3333 Broadway LLC sources. The 1-hour background concentration represents Queens College monitoring data from 2007-2011 and is conservative relative to current background concentrations.

[3] IS52 NO_2 background concentrations as presented in **Table 7-2** were used to estimate the annual NO_2 concentrations

Source: VHB, Inc. September 2020

Industrial Source Analysis

To assess potential air quality impacts on the Proposed Project from existing industrial sources that emit toxic air contaminants, an investigation of existing land uses within a 400-foot radius of the project block was conducted to identify potential sources and determine if there are active permits associated with those sources. Land use maps were reviewed to identify surrounding land uses that could have NYCDEP-issued industrial permits (i.e., sites classified as Industrial/Manufacturing, Transportation/Utility, or Public Facilities/Institutions).

No existing industrial sources were found within 400 feet of the proposed development site. The only source of air toxics in the vicinity of the proposed facility is the NRWWTP. It is located approximately 450-480 feet away from the Proposed Project. The Wastewater Treatment Plant emits large number of air toxics. The DEP EAS considered 139 air contaminants. Most of these pollutants met the DAR-1[6] short-term (SGC) and annual (AGC) criteria.

Table D-10 from the DEP EAS shows that all non-criteria pollutants except chloroform and formaldehyde were below DAR-1 guideline thresholds. The predicted concentrations of chloroform were representative of the previous process sources that would continue to operate in the future: the Best Available Control Technology (BACT) from the North Odor Control System stack and the Final Sedimentation Tanks. Because no changes were made to the existing process sources, the DEP EAS concluded that there would be no significant adverse air quality impacts from the predicted chloroform concentrations. Additionally, although formaldehyde concentrations exceeded its AGC threshold, the DEP EAS predicted concentrations were less than the previous condition concentrations. Moreover, the inclusion of an oxidation catalyst was considered a BACT used to reduce formaldehyde emissions. Thus, there would be no significant adverse air quality impacts from the predicted formaldehyde concentrations.

[6] NYSDEC DAR-1 Guidance, August 2016

Conclusion

The number of incremental trips generated by the Proposed Project would be lower than the screening thresholds for carbon monoxide and particulate matter identified in the *CEQR Technical Manual*; therefore, traffic emissions from the Proposed Project would not result in a significant adverse impact on air quality.

Carbon monoxide pollutant concentrations from the Henry Hudson Parkway in combination with ambient background concentrations were below CO NAAQS. $PM_{2.5}$ emissions from the Henry Hudson Parkway traffic would not create an adverse air quality impact on the Proposed Project. As a result, the Henry Hudson Parkway would not adversely impact the Proposed Project.

Emissions from AMTRAK trains would not adversely impact air quality levels at the Proposed Project.

The nomograph screening of the proposed HVAC system using No 2. fuel oil resulted in minimum required distances to nearby sensitive receptors that are smaller than the distances to existing sensitive land uses of similar or greater height. To ensure that there would be no significant adverse impacts from the HVAC and hot-water systems of the Proposed Project, certain restrictions related to the fuel type and stack locations would be incorporated into an E-Designation for air quality (**E-761**). As such, the Proposed Project would not significantly affect the air quality levels at nearby existing sensitive land uses.

One large and one major source were identified within a 1,000-feet radius of the Proposed Project. The North River Wastewater Treatment Plant is a major source with a Title V permit, while an apartment complex at 3333 Broadway holds a state ASF permit for a large source. A conservative analysis combined highest impacts from the modeling of the large source with the highest impacts from the major source estimated in the DEP EAS. No significant adverse air quality impacts on the Proposed Project were found from the large and major sources.

No industrial sources of air toxics were identified within 400-feet radius of the proposed development site. The North River Wastewater Treatment Plant, located more than 400 feet from the Proposed Project, is the only source of air toxic emissions nearby. The DEP EAS for this facility found no significant adverse impacts from the non-criteria pollutants at the receptor network that covers the Development Site.

8

Noise

This section presents the results of the noise assessment to determine whether the Proposed Actions would increase noise exposure at existing receptors and whether new receptors that would be introduced at the Development Site would be in an acceptable ambient noise environment.

Introduction

The applicant is requesting several actions (the Proposed Actions) to facilitate development of a mixed-used building (the Proposed Project) at 701 West 135th Street in the Manhattanville neighborhood of Manhattan Community District 9. The Development Site is located on Manhattan Block 2101, Lot 58. Lot 58 is an irregularly shaped lot bounded by Twelfth Avenue to the east, West 135th Street to the south, and Lot 60 to the north and west. The west façade is adjacent to the elevated West Side Line railroad tracks to the west. The Proposed Project would introduce ground floor commercial and community facility space and residential dwelling units on floors two through seven.

Because the Proposed Actions would introduce new noise-sensitive receptors to the Development Site, a noise assessment is required under CEQR is to determine if:

- The Proposed Actions would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the Development Site, such as residential, commercial, and institutional land uses; and
- New noise receptors introduced at the Development Site would be in an acceptable ambient sound level environment.

Per the *2021 CEQR Technical Manual*, a noise analysis is appropriate if an action would generate mobile or stationary sources of noise or would be located in an area with high ambient noise levels. Mobile sources include vehicular traffic; stationary sources include rooftop equipment such as emergency generators, cooling towers, and other mechanical equipment.

The noise assessment includes the following:

- Background on metrics used to describe noise;
- The methodology and criteria used to assess potential impacts;
- An assessment of the potential for a proposed development to significantly affect existing receptors due to the introduction of new mobile or stationary sources;
- Results from ambient sound level monitoring conducted as part of previous environmental assessments;
- Results from sound modeling from train operations on the West Side Line; and
- An evaluation of the ambient sound levels at new receptor locations.

Noise Background

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, work, or recreation. How people perceive sound depends on several measurable physical characteristics. These factors include:

- Level - Sound level is based on the amplitude of sound pressure fluctuations and is often equated to perceived loudness.
- Frequency - Sounds are comprised of acoustic energy distributed over a variety of frequencies. Acoustic frequencies, commonly referred to as tone or pitch, are typically measured in Hertz (Hz). Pure tones have energy concentrated in a narrow frequency range and can be more audible to humans than broadband sounds. Sound levels are most often measured on a logarithmic scale of decibels (dB). The decibel scale compresses the audible acoustic pressure levels which can vary from the threshold of hearing (0 dB) to the threshold of pain (120 dB). Because sound levels are measured in dB, the addition of two sound levels is not linear. Adding two equal sound levels results in a 3 dB increase in the overall level. Research indicates the following general relationships between sound level and human perception:
  - A 3-dB increase is a doubling of acoustic energy and is the threshold of perceptibility to the average person.
  - A 10-dB increase is a tenfold increase in acoustic energy and is perceived as a doubling in loudness to the average person.

Audible sound is comprised of acoustic energy over a range of frequencies typically from 20 to 20,000 Hz. The human ear does not perceive sound levels at each frequency as equally loud. To compensate for this phenomenon in perception, a frequency filter known as A-weighting (dBA) is used to evaluate environmental noise levels. **Table 8-1** presents a list of common outdoor and indoor sound levels.

Table 8-1 Common Indoor and Outdoor Sound Levels

Outdoor Sound Levels	Sound Pressure µPa		Sound Level dBA	Indoor Sound Levels
	6,324,555	-	110	Rock Band at 5 m
Jet Over-Flight at 300 m		-	105	
	2,000,000	-	100	Inside New York Subway Train
Gas Lawn Mower at 1 m		-	95	
	632,456	-	90	Food Blender at 1 m
Diesel Truck at 15 m		-	85	
Noisy Urban Area—Daytime	200,000	-	80	Garbage Disposal at 1 m
		-	75	Shouting at 1 m
Gas Lawn Mower at 30 m	63,246	-	70	Vacuum Cleaner at 3 m
Suburban Commercial Area		-	65	Normal Speech at 1 m
	20,000	-	60	
Quiet Urban Area—Daytime		-	55	Quiet Conversation at 1 m
	6,325	-	50	Dishwasher Next Room
Quiet Urban Area—Nighttime		-	45	
	2,000	-	40	Empty Theater or Library
Quiet Suburb—Nighttime		-	35	
	632	-	30	Quiet Bedroom at Night
Quiet Rural Area—Nighttime		-	25	Empty Concert Hall
Rustling Leaves	200	-	20	
		-	15	Broadcast and Recording Studios
	63	-	10	
		-	5	
Reference Pressure Level	20	-	0	Threshold of Hearing

µPA MicroPascals describe pressure. The pressure level is what sound level monitors measure.
dBA A-weighted decibels describe pressure logarithmically with respect to 20 µPa (the reference pressure level).
Source: Highway Noise Fundamentals, Federal Highway Administration, September 1980.

Because sound levels change over time, a variety of sound level metrics can be used to describe environmental noise. The following is a list of sound level descriptors that are used in the noise analysis:

- L10 is the sound level which is exceeded for 10 percent of the time during a given time period. Therefore, it represents the higher end of the range of sound levels. The unit is commonly used in the *CEQR Technical Manual* to evaluate acceptable thresholds for noise exposure for new receptors that would be introduced by a proposed development.
- Leq is the energy-average A-weighted sound level. The Leq is a single value that is equivalent in sound energy to the fluctuating levels over a period of time. Therefore, the Leq considers how loud noise events are during the period, how long they last, and how many times they occur. Leq is commonly used to describe environmental noise and relates well to human annoyance. In accordance with the *CEQR Technical Manual*, the

Leq sound level is used to assess the potential for significant increases in noise due to a proposed development at existing receptors in the study area.

› Ldn is the day-night average noise level. The Ldn is a single value that is equivalent to the sound energy fluctuating over a 24-hour period with a 10-decibel penalty applied to sound that occur during the night between 10:00 PM and 7:00 AM when there is greater potential to affect people.

Assessment Methodology

This noise analysis considers two receptor types when evaluating noise for the Proposed Project: existing and new receptor(s). Since the Proposed Actions would introduce new housing units, these are considered "new receptors." The analysis also considers "existing receptors," which are the current noise-sensitive uses such as commercial and residential properties surrounding the Development Site. The following describes the results of the noise assessment for these two types of receptors.

Noise Assessment for Existing Receptors

Noise impact at existing nearby sensitive receptors is assessed according to the relative increase between No-Action and With-Action sound levels. Noise impact is assessed according to the increase in the Leq sound level in accordance with the *CEQR Technical Manual*. If mobile or stationary sources associated with a proposed development would increase Leq sound levels by 3 dB or more and absolute levels would exceed 65 dBA Leq, the Proposed Actions would cause a significant adverse impact prior to mitigation. Additionally, if No-Action condition noise levels are 60 dBA Leq or less, a 5-dB increase would be considered a significant adverse noise impact.

Mobile Sources

Since the With-Action scenario would not generate sufficient vehicular traffic to exceed the threshold for a detailed transportation analysis, according to Table 16-1 in the *CEQR Technical Manual* and with the relatively moderate to high numbers of existing vehicles in the immediate area, the Proposed Actions would not result in a doubling of noise passenger car equivalents (PCEs), which would be necessary to cause a 3-dBA increase in noise levels. Therefore, the Proposed Project would not cause a significant adverse vehicular noise impacts to existing receptors, and the existing noise measurement results are representative of the With-Action conditions.

Stationary Sources

The Proposed Project is not anticipated to include any substantial stationary source noise generators, such as unenclosed cooling or ventilation equipment, loudspeaker systems, stationary diesel engines, car washes, or other similar types of uses. The design and specifications for the mechanical equipment—such as heating, ventilation, and air conditioning—are not known at this time. As the project design advances, mechanical equipment would be selected that incorporates sufficient noise reduction to comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code. This would ensure that mechanical equipment does not

result in any significant increases in noise levels by itself or cumulatively with other project noise sources.

Noise Assessment for New Receptors

With-Action noise conditions at new sensitive receptors that would be introduced by the Proposed Actions are evaluated according to absolute exterior sound level. The noise exposure guidelines for acceptable ambient conditions depend on the type of land use; for residential buildings, the goal is to maintain interior L10 noise levels of 45 dBA or lower and interior Ldn noise levels of 40 dBA or lower, depending on the type of dominant noise source; for commercial office, the goal is to maintain interior L10 noise levels of 50 dBA or lower. With-Action exterior sound levels are evaluated to determine if receptors would be in an acceptable ambient sound level environment. It is generally assumed that without specific information on a building's window and wall construction, the outdoor-to-indoor noise reduction of the building is 25 decibels. Therefore, exterior ambient traffic sound levels exceeding L10 of 70 dBA at residential receptors (which would equate to an interior L10 noise level of 45 dBA) are considered to be Marginally Unacceptable and the need to provide window/wall sound attenuation that is sufficient to reduce interior sound levels to acceptable levels must be considered.

Since the Proposed Actions would introduce new housing units and community facility space to the Development Site, the highest L10/Ldn sound level (depending on dominant noise source) is used to evaluate whether the Proposed Actions would introduce new receptors into an acceptable noise environment. The analysis presents the results of ambient sound monitoring that has been conducted as part of the following studies:

- 675 West 57th Street Final Supplemental Environmental Impact Statement (FSEIS) (CEQR No. 12DCP020M)
- 633-649 142nd Street Rezoning Environmental Assessment Statement (CEQR No. 20DCP106M)

Additionally, since the Proposed Project is immediately adjacent to the West Side Line, sound from train operations has been modeled using the Federal Transit Administration's (FTA) prediction methods as outlined in the FTA's noise and vibration guidance manual.1

Noise Exposure Guidelines

The *CEQR Technical Manual* provides noise exposure guidelines for assessing ambient noise conditions at new residential receptors, as shown in **Table 8-2**.

[1] Federal Transit Administration. September 2018. Transit Noise and Vibration Impact Assessment Guidance Manual. Report No. 0123.

Table 8-2 Noise Exposure Guidelines for Use in City Environmental Impact Review

Receptor Type	Time Period	Acceptable External Exposure	Marginally Acceptable External Exposure	Marginally Unacceptable External Exposure	Clearly Unacceptable External Exposure
Residence	7 AM to 10 PM	L10 ≤ 65 dBA	65 < L10 ≤ 70 dBA	70 < L10 ≤ 80 dBA	L10 > 80 dBA
	10 PM to 7 AM	L10 ≤ 55 dBA	55 < L10 ≤ 70 dBA	70 < L10 ≤ 80 dBA	L10 > 80 dBA
	Day and Night	Ldn ≤ 60 dBA	60 < Ldn ≤ 65 dBA	65 < Ldn ≤ 75 dBA	Ldn > 75 dBA

Source: Table 19-2, *2021 CEQR Technical Manual*.

Existing Sound Levels

Existing sound levels in the study area have been evaluated based on previous measurements conducted for other approved projects (see **Figure 8-1** and **Figure 8-2**).

Noise measurements were conducted at Site A adjacent to the West Side Highway between 57th Street and 58th Street (Site 1: 625 West 57th Street FSEIS) for 24 hours in May 2011. Although this measurement was conducted on NY 9A between West 57th and West 58th Street, it is representative of the noise exposure on the west, north, and south facades of the Proposed Project from NY 9A (Henry Hudson Parkway) since it has similar traffic volumes, speeds, and elevation. The measurement results included the loudest-hour L10 sound level results.

Noise measurements were conducted at Site B on Riverside Drive (Site 1: 633-639 142nd Street EAS) and Site C on West 142nd Street (Site 2: 633-639 142nd Street EAS) for 20 minutes during the morning peak (8:00 to 9:00 AM), midday (12:00 to 1:00 PM) and evening peak (5:00 to 6:00 PM) periods with simultaneous traffic counts. Measurements were conducted using a Type I sound level meter at ground level. Measurement results included Leq, Lmin, Lmax, and statistics including L01, L10, L50, and L90. The measurements on Riverside Drive are representative of noise from Twelfth Avenue and Riverside Drive at the east, north, and south facades of the Project Site at upper floors with a direct line-of-sight to Riverside Drive (7th floor). The measurements on West 142nd Street are representative of noise from Twelfth Avenue and Riverside Drive at the ground through 6th floor.

Table 8-3 summarizes the measurement results. The measured Leq levels at Site B and C ranged from 69.0 dBA to 75.9 dBA and the L10 levels at Sites A, B, and C ranged between 72.5 to 79.1 dBA.

Table 8-3 Ambient Sound Level Measurements (dBA)

Site	Monitoring Location	Period	Leq	Lmin	Lmax	L1	L10	L50	L90
A	West Side Highway between 57th Street and 58th Street (675 West 57th Street Site 1)	24-hour	N/A	N/A	N/A	N/A	**79.1**	N/A	N/A
B	Riverside Drive (633-639 142nd Street Site 1)	Morning	72.7	59.9	85.1	80.8	**76.1**	70.4	63.7
		Midday	75.0	60.7	97.4	84.1	**74.5**	68.7	64.0
		Evening	75.9	60.5	97.6	84.7	**77.4**	71.3	64.9
C	West 142nd Street (633-639 142nd Street Site 2)	Morning	70.8	59.9	83.2	78.1	**74.5**	68.4	63.1
		Midday	69.0	58.7	81.1	76.5	**72.5**	66.9	62.4
		Evening	70.1	58.1	83.6	80.4	**73.8**	65.4	61.4

Source:
Site A measurements conducted by Cerami & Associates May 2011.
Site B and C measurements conducted by VHB on April 4, 2019.

Figure 8-1 Noise Measurement Locations (625 West 57th Street)



Figure 8-2 Noise Measurement Locations (633-639 142nd Street)



Train Sound Levels

Sound from train operations on the West Side Line has been evaluated according to FTA methods. Amtrak trains operate on the West Side Line, including the Adirondack, Empire, Maple Leaf, Lake Shore Limited, and Ethan Allen lines. A total of 24 daily trains pass by the Development Site, including 23 during the daytime (7:00 AM to 10:00 PM) and one at night (10:00 PM to 7:00 AM). The maximum allowable speed (MAS) in this section of the West Side Line is 60 to 70 mph.2 Daily train operations (not including schedule changes due to COVID-19) and typical consists3 by Amtrak line are as follows:

- Adirondack line has 2 daily trains which consist typically of one locomotive and 5 to 7 passenger coaches.
- Empire line has 16 daily trains which consist typically of one locomotive and 5 passenger coaches.
- Maple Leaf line has 2 daily trains which consist typically of one locomotive and 5 passenger coaches.
- Lake Shore Limited line has 2 daily trains which consisttypically of one locomotive and 7 passenger coaches.
- Ethan Allen line has 2 daily trains which consist typically of one locomotive and 5 passenger coaches.

Train noise levels have been calculated using the FTA noise spreadsheet (dated September 2018), 70 mph speed, and consists including one locomotive and seven passenger coaches. The west façade of the Proposed Project is assumed to be nine feet from the near track centerline and 21 feet from the far track. It has been assumed that north bound trains would operate on the near track, and south bound trains would operate on the far track. Noise from train operations would be 72.5 dBA Ldn at the western, northern, and southern façades of the Proposed Project.

Total (Train and Traffic) Sound Levels

Sound from train and traffic operations have been presented to determine the total sound level at each façade as shown in **Table 8-4**. Sound levels on the eastern façade have been separated by floor according to exposure to noise on Riverside Drive. The sound level from vehicular traffic sources would be 79.1 dBA L10 on the western, northern, and southern facades. The calculated train noise level would be 72.5 dBA (Ldn). The sound level would be 77.4 dBA L10 on the seventh floor of the eastern façade and 74.5 dBA L10 on the first through sixth floors.

[2] NYSDOT, "High Speed Rail Empire Corridor Program Tier 1 Draft EIS", January 2014.

[3] Data accessed from timetables_Empire_Service_20230717_external.pdf (juckins.net) .

Table 8-4 Ambient Sound Level Measurements (dBA)

Facades	Traffic Noise (L10)	Train Noise (Ldn)	Noise Levels
Western, Southern, and Northern	79.1	72.5	79.1 (L10)
Western, Southern, and Northern			72.5 (Ldn)
Eastern 7th floor	77.4	N/A	77.4 (L10)
Eastern 1st to 6th floors	74.5	N/A	74.5 (L10)

N/A: Train noise does not substantially contribute to sound levels on the eastern façade due to acoustic shielding from the building itself.
Source: VHB, 2021.

Acceptability Assessment

The *CEQR Technical Manual* provides noise exposure guidelines for assessing ambient sound levels, as shown in **Table 8-2**. Based on the *CEQR Technical Manual* noise exposure guidelines, noise impact has been assessed to determine the level of acceptability. As shown in **Table 8-5,** L10 sound levels are Marginally Unacceptable on all façades. Based on the finding of Marginally Unacceptable sound levels, sufficient outdoor-to-indoor sound attenuation of the window/walls must be specified to provide acceptable sound attenuation for interior spaces at the Development Site.

Table 8-5 Sound Level Acceptability, dBA

Facades	Noise	Acceptability
Western, Southern, and Northern	79.1 (L10)	Marginally Unacceptable
Western, Southern, and Northern	72.5 (Ldn)	Marginally Unacceptable
Eastern 7th floor	77.4 (L10)	Marginally Unacceptable
Eastern 1st to 6th floors	74.5 (L10)	Marginally Unacceptable

Source: VHB, 2020.

Noise Attenuation Measures

The most common measure for reducing interior noise from ambient sources is to specify sufficient outdoor-to-indoor sound attenuation. As shown in **Table 8-6**, the required level of attenuation varies based on the exterior sound levels and type of receptor.

Table 8-6 Required Attenuation Values to Achieve Acceptable Interior Noise Levels

	Marginally Unacceptable				Clearly Unacceptable
Vehicular Traffic	70<L10≤73	73<L10≤76	76<L10≤78	78<L10≤80	80<L10
Train	65<Ldn≤68	68<Ldn≤71	71<Ldn≤73	73<Ldn≤75	75<Ldn
Attenuation A	(I) 28 dBA	(II) 31 dBA	(III) 33 dBA	(IV) 35 dBA	See NoteB

Note:
A Commercial office spaces and meeting rooms would be 5 dBA less in each category. All of the above categories require a closed window situation and hence an alternate means of ventilation.
B The required attenuation value is the difference between Lbuild and Linterior,, using the appropriate noise descriptor
Where: Lbuild is the projected noise level under the build condition rounded up to the whole number
Linterior is the designed interior noise level (45 dB(A) for vehicular noise, 40 dB(A) for aircraft and train noise)
Source: New York City Department of Environmental Protection (*2021 CEQR Technical Manual*, Table 19-3)

The composite outdoor-to-indoor transmission classification (OITC) value of the window-wall structure is used to determine the necessary sound attenuation. As shown in **Table 8-7**, the minimum OITC would be 35 dBA for residential spaces on the western, southern, and northern facades, 33 dBA for residential spaces on the eastern façade on the seventh floor and 31 dBA for residential spaces on the first through sixth floors.

Table 8-7 Sound Level Acceptability, dBA

Facades	Total Noise	OITC Requirement
Western, Southern, and Northern	**79.1 (L10)**	**35**
Western, Southern, and Northern	**72.5 (Ldn)**	**33**
Eastern 7th floor	**77.4 (L10)**	**33**
Eastern 1st to 6th floors	**74.5 (L10)**	**31**

Source: VHB, 2020.

Sound attenuation measures would be achieved through construction materials and techniques with sufficient OITC-rated windows and walls. An alternate means of ventilation such as well-sealed air conditioners, package-terminal air conditioners, or central air conditioning is also required to allow windows to remain closed.

To implement these attenuation requirements, an (E) Designation (**E-761**) for noise would be applied to the Development Site specifying the appropriate amount of window/wall attenuation and the need for alternate means of ventilation. The text for the (E) Designation would be as follows:

Block 2101, Lot 58

In order to ensure an acceptable interior noise environment, future residential/community facility uses must provide a closed-window condition with a minimum of 35 dBA window/wall attenuation on the western facades facing Henry Hudson Parkway, the southern facades facing West 135th Street, and the northern facades facing West 138th Street and 33 dBA of attenuation on the facades facing Twelfth Avenue for floors at or above Riverside Drive and 31 dBA of attenuation on the facades facing Twelfth Avenue for floors below Riverside Drive to maintain an interior noise level not greater than 45 dBA for residential and community facility uses. To maintain a closed-window condition,

an alternate means of ventilation must also be provided. Alternate means of ventilation includes, but is not limited to, well-sealed air conditioners, package-terminal air conditioners, or central air conditioning.

With this commitment, no significant adverse impacts related to noise are expected and no further analysis is warranted.

Conclusion

A noise assessment was conducted to determine whether the Proposed Project would significantly increase sound levels from mobile and stationary sources at existing noise receptors adjacent to the Development Site, and if new noise receptors that would be introduced by the Proposed Project would be in an acceptable ambient sound level environment.

As the Proposed Actions do not exceed the detailed transportation analysis thresholds of Table 16-1 in the *CEQR Technical Manual* and with the relatively moderate to high numbers of vehicles in the immediate areas, they would not result in a doubling of noise PCEs, which would be necessary to cause a 3-dBA increase in noise levels. Therefore, the Proposed Project would not result in a significant adverse vehicular noise impact.

The Proposed Actions are not anticipated to include any substantial stationary source noise generators. The design and specifications for the building's mechanical equipment would incorporate sufficient noise reduction devices that would comply with applicable noise regulations and standards, including the standards contained in the revised New York City Noise Control Code.

Noise monitoring was previously conducted as part of the 625 West 57th Street FSEIS and the 633-639 142nd Street EAS. Noise monitoring and noise modeling of train operations on the West Side Line were conducted to determine total sound levels on each façade of the Proposed Project. Based on the monitoring and modeling results, a composite outdoor-to-indoor window/wall sound attenuation of 35 dBA or more is required to obtain acceptable interior noise conditions for residential uses on the western facades facing Henry Hudson Parkway and the southern facades facing West 135th Street and the northern facades facing West 138th Street and 33 dBA of attenuation on the facades facing Twelfth Avenue for floors at or above Riverside Drive and 31 dBA of attenuation on the facades facing Twelfth Avenue for floors below the Riverside Drive.

To implement these attenuation requirements, an (E) Designation (**E-761**) for noise would be applied to the Development Site specifying the appropriate amount of window/wall attenuation and the need for alternate means of ventilation. With this commitment, no significant adverse impacts related to noise are expected and no further analysis is warranted.

9

Construction

A project's construction activities may affect a number of technical areas analyzed for the operational period, such as air quality, noise, and traffic; therefore, a construction assessment relies to a significant extent on the methodologies and resulting information gathered in the analyses of these technical areas.

Introduction

Construction activities, although temporary in nature, can sometimes result in significant adverse environmental impacts. Consideration of several factors, including the location and setting of the project in relation to other uses, and the intensity and duration of the construction activities, may indicate that a project's construction activities warrant analysis.

The Proposed Project would include the construction of approximately 45,444 gsf of residential space, 7,415 gsf of ground floor commercial retail space, and 689 gsf of community facility space. The Proposed Project would have a maximum height of 71.5 feet (excluding the bulkhead). Construction would occur over a period of approximately 12 months but would occur in the vicinity of several architectural resources. Therefore, an assessment of construction-period impacts is provided in this section.

This chapter includes a discussion of construction regulations and general practices and an assessment of the potential for the Proposed Project to result in significant adverse construction-period impacts.

Construction Regulations and General Practices

Governmental Oversight

Governmental oversight of construction in New York City is extensive and involves a number of City, State, and Federal agencies, each with specific areas of responsibility, as follows.

- The New York City Department of Buildings (DOB) has primary oversight of construction. DOB oversees compliance with the New York City Building Code to ensure that buildings are structurally, electrically, and mechanically safe. In addition, DOB enforces safety regulations to protect both workers and the general public during construction. Areas of oversight include installation and operation of equipment such as cranes and lifts, sidewalk sheds, safety netting, and scaffolding.
- The New York City Department of Environmental Protection (DEP) enforces the New York City Noise Code, reviews and approves certain Remedial Action Plans (RAPs) and associated Construction Health and Safety Plans (CHASPs) as well as the removal of fuel tanks and abatement of hazardous materials. DEP also regulates water disposal into the sewer system and reviews and approves any rerouting of wastewater flow. A Community Air Monitoring Program (CMP) may be established in conjunction with other remedial and regulatory programs.
- The New York City Fire Department (FDNY) has primary oversight of compliance with the New York City Fire Code and the installation of tanks containing flammable materials.
- The New York City Department of Transportation Office of Construction Mitigation and Coordination (DOT OCMC) reviews and approves any traffic lane and sidewalk closures.
- The New York City Landmarks Preservation Commission approves studies and testing to prevent loss of archaeological resources and to prevent damage to architectural resources.
- The New York State Department of Environmental Conservation (NYSDEC) regulates disposal of hazardous materials, and construction, operation, and removal of bulk petroleum and chemical storage tanks. NYSDEC also regulates discharge of water into rivers and streams.
- The New York State Department of Labor (DOL) licenses asbestos workers.
- The New York State Department of Transportation (NYSDOT) reviews and approves any traffic lane closures on its roadways, should any be necessary. NYSDOT also reviews any modifications of pedestrian and vehicular crossings over active rail lines.
- The U.S. Environmental Protection Agency (EPA) has wide-ranging authority over environmental matters, including air emissions, noise, hazardous materials, and the use of poisons, however, much of its responsibility is delegated to the state level.
- The Occupational Safety and Health Administration (OSHA) sets standards for work site safety and construction equipment.
- Under the City Charter, the New York City Department of Small Business Services (SBS) have jurisdiction over waterfront properties. For some projects led by private developers, the agency works in conjunction with DOB and New York City Economic Development Corporation (NYCEDC) to oversee activities.

Construction Oversight

Construction Hours

New York City regulates the hours of construction work through the New York City Noise Control Code, as amended in December 2005 and effective July 1, 2007. Construction is limited to weekdays between the hours of 7:00 AM and 6:00 PM, and noise limits are set for certain specific pieces of construction equipment. The City may permit work outside of these hours to accommodate: (1) emergency conditions; (2) public safety; (3) construction projects by or on behalf of City agencies; (4) construction activities with minimal noise impacts; and (5) undue hardship resulting from unique site characteristics, unforeseen conditions, scheduling conflicts, and/or financial considerations. The DOB issues these work permits, and in some instances, approval of a noise mitigation plan from the DEP under the City's Noise Code is also required.

In New York City, construction work typically occurs on weekdays and begins at 7:00 AM, with most workers arriving between 6:00 AM and 7:00 AM. Work typically ends at 4:00 PM, with some exceptions when certain critical tasks (e.g., finishing a concrete pour for a floor deck, completing the drilling of piles, or completing the bolting of a steel frame erected that day) require that the workday be extended beyond normal work hours. Any extended workdays generally last until approximately 5:30 PM or 6:00 PM and do not include all construction workers on-site, but only those involved in the specific task requiring additional work time. For work outside of normal construction hours, work permits are obtained from DOB prior to such work commencing. The numbers of workers and pieces of equipment in operation for work outside normal hours is generally limited to those needed to complete the particular authorized task. Overall, the level of activity for any work outside of normal construction hours is less than a normal workday.

Air Emission Reduction Measures

There are a number of laws, regulations, and building codes in place that focus on reducing air pollutant emissions associated with construction:

- Clean Fuel. Ultra-low sulfur diesel (ULSD) is required in New York City for diesel engines used on construction sites.[1]
- Dust Control. The New York City Air Pollution Control Code regulates construction-related dust emissions and requires that fugitive dust control plans are developed and implemented as part of contract specifications. Plans include requirements to establish stabilized truck exit areas for washing off the wheels of all trucks that exit a construction site; to water truck routes within a site as needed to avoid the re-suspension of dust; to equip all trucks hauling loose material with tight fitting tailgates and to securely cover their loads prior to leaving a site.
- Restrictions on Vehicle Idling. Vehicles are not allowed to idle more than three minutes in accordance with New York City Administrative Code §24-163.[2]

[1] The Environmental Protection Agency (EPA) required a major reduction in the sulfur content of diesel fuel intended for use in locomotive, marine, and non-road engines and equipment, including construction equipment. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be ULSD fuel. Sulfur levels in non-road diesel fuel are limited to a maximum of 15 parts per million.

[2] Exceptions are made for vehicles that are using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing trucks).

In addition, federal standards for nonroad diesel engines have become more stringent over time. Federal standards for nonroad diesel engines were first adopted in 1994 for engines over 50 hp and were phased in from 1996 to 2000 (Tier 1 standards). Subsequently, more stringent regulations were adopted (Tier 1-3 standards) and phased in from 2000 to 2008 and most recently, Tier 4 standards were adopted and phased in from 2008 to 2015. These regulations address emissions of particulate matter (PM) and nitrogen oxide (NO_x). It is expected that air emissions associated with such engines is reduced. Given the construction timeframe (2022-2024), equipment meeting Tier 4 standards for diesel engines (model years 2011/12 and beyond) is expected to be in wide use and comprise the majority of contractors' fleets.

Noise Reduction Measures

The New York City Noise Code includes requirements to implement certain controls to reduce construction-period noise at the source:

- Equipment must meet the sound level standards specified in Subchapter 5 of the New York City Noise Control Code.
- Construction equipment is required to be equipped with necessary noise reduction equipment, including mufflers. All equipment with internal combustion engines is required to be operated with the doors closed, including noise-insulating materials and at the lowest engine speed allowable.
- The use of back-up alarms is required to be minimized to the extent feasible, practical, and safe, and/or quieter back-up alarms are to be installed in accordance with OSHA standards.
- Vehicles are not allowed to idle more than three minutes in accordance with New York City Administrative Code §24-163.
- Contractors must implement training programs to inform workers on methods that can minimize construction noise.

The New York City Noise Code also includes path noise control requirements:

- When the DOB regulations require a perimeter barrier or "construction fence" and the site is within 200 feet of a receptor, the barrier shall be constructed in a specific manner (as described in the New York City Noise Code) to provide sufficient sound attenuation. Section 3307.7 of the New York City Building Code requires a solid 8-foot wall made out of wood or other suitable material be constructed where a new building is being constructed or a building is being demolished to grade.

Construction Practices

Access, Deliveries, and Staging Areas

Access to construction sites is controlled. Work areas are fenced off, and limited access points for workers and construction-related trucks are provided. Typically, worker vehicles are not allowed into the construction area, and workers or trucks without a need to be on the site are not allowed entry. After work hours, the gates are closed and locked. Security guards may patrol the construction site after work hours and over weekends to prevent unauthorized access. Material deliveries to the site are controlled and scheduled.

Lane and Walkway Closures

Temporary curb-lane and sidewalk closures are typical for construction projects in New York City. To manage such closures, a Maintenance and Protection of Traffic (MPT) plan is developed consistent with DOT requirements. DOT OCMC reviews and approves MPT plans, and the implementation of the closures is also coordinated with DOT OCMC. In general, construction managers for major projects on adjacent sites also coordinate their activities to avoid delays and inefficiencies.

Public Safety

A variety of measures are employed to ensure public safety during construction at sites within New York City. Examples include the use of sidewalk bridges to provide overhead protection for pedestrians passing by the construction site and the employment of flaggers to control trucks entering and exiting the construction site, to provide guidance to pedestrians, and/or to alert or slow down the traffic. Other safety measures include following DOB requirements during the installation and operation of tower cranes to ensure safe operation of the equipment and the installation of safety nettings on the sides of the project as the superstructure advances upward to prevent debris from falling to the ground.

Rodent Control

Construction projects in New York City typically include provisions for a rodent (i.e., mouse and rat) control program with provisions for this formalized in construction contracts for the development. Rodent control programs are typically carried out throughout construction, beginning with surveying and baiting appropriate areas prior to construction and providing for proper site sanitation and maintenance during construction. Signage would be posted, and coordination would be conducted with appropriate public agencies. Only EPA- and NYSDEC-registered rodenticides would be permitted, and the contractor would be required to implement the rodent control program in a manner that is not hazardous to the general public, domestic animals, and non-target wildlife.

Assessment of Project Construction

The *CEQR Technical Manual* provides guidance to assist in evaluating whether a construction assessment is warranted. In accordance with the guidelines of the *CEQR Technical Manual*, this preliminary assessment evaluates the effects associated with the Proposed Project's construction related activities on historic and cultural resources located near the area of construction.

Historic Resources

Development Site and Project Area

There are no known architectural resources within the Development Site and Project Area. According to the NYS Cultural Resources Information System (CRIS), the Project Area does not fall within an archaeologically sensitive area. Soil disturbance on the Development Site would be within the confines of the existing building footprint and foundation.

Study Area

Figure 9-1 and **Table 9-2** show the architectural resources that are located within a 400-foot radius of the Project Area. As discussed in the EAS Technical Screenings section, a majority of these resources are separated from the Development Site by a significant change in grade.

H1—NY Central Railroad Substation No.11

Across the street along the western side of Twelfth Avenue is the former NY Central Railroad Substation No. 11, a three-story building used as a warehouse. The warehouse is at a similar elevation as the Development Site. However, it is located 354 feet south of the Development Site, with intervening structures between the warehouse and the Development Site.

H2—Lee Brothers Storage Building

The Lee Brothers Storage Building (USN 06101.015100) is a 14-story brick and stone building that is currently used as a warehouse. The bottom portion of the building features a warm brown-toned façade while a white stone façade sits on top marked by two stone Corinthian columns. The warehouse is located at an elevation of approximately 70 feet on Riverside Drive, which is approximately 60 feet higher than the Development Site.

Figure 9-1 Historic Resources within 400-foot Radius

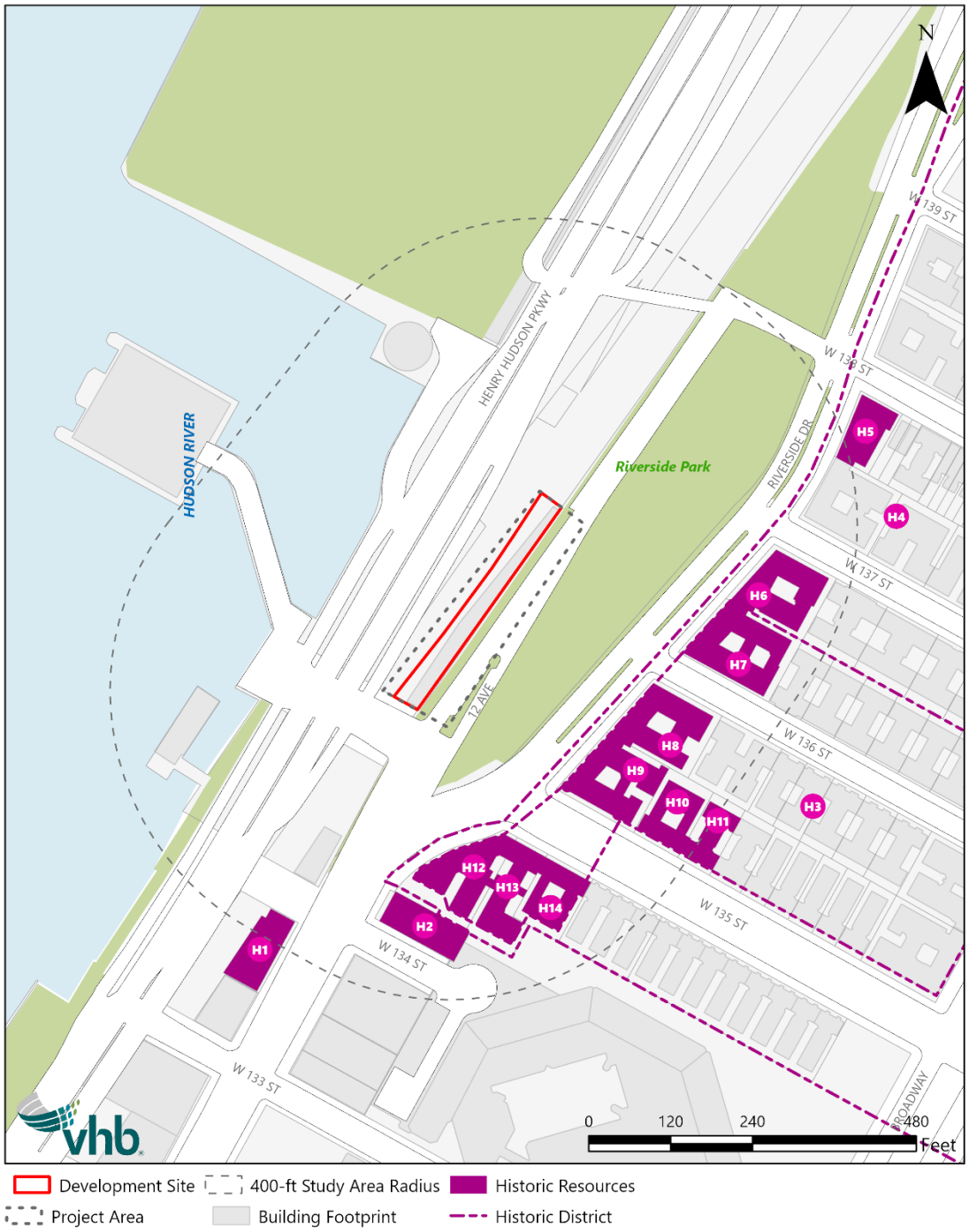


Table 9-2 Known Architectural Resources within 400-foot Radius

Map No.	Block, Lot	Resource Name	NYCL	NYCL-eligible	S/NR	S/NR-eligible
H1	2005, 9	NY Central Railroad Substation No.11				X
H2	2001, 1	Lee Brothers Storage Building				X
H3[1]	-	Riverside Drive-W 135-136 St Historic District				
H4	-	West Harlem Historic District				X
H5	2086, 54	Riverside Cooperative Unit 1D				X
H6	2002, 67	596 Riverside Drive				X
H7	2002, 69	590 Riverside Drive				X
H8	2002, 101	587 Riverside Drive				X
H9	2002, 2	583 Riverside Drive				X
H10	2002, 11	629 West 135th Street				X
H11	2002, 14	625 West 135th Street				X
H12	2001, 60	575 Riverside Drive				X
H13	2001, 58	634 West 135th Street				X
H14	2001, 55	629-630 West 135th Street				X

Source: MapPLUTO 21v3, NYS Cultural Resources Information System (CRIS) and LPC Designation Reports.

[1] According to CRIS, Riverside Drive-W 135-136 St Historic District is characterized as 'Undetermined'. Because the preliminary historic resources assessment only considers resources that are 'Listed' or 'Eligible,' it was excluded.

H4—West Harlem Historic District

A portion of the study area falls within the West Harlem Historic District (USN 06101.020859). The district was determined eligible for the National Register of Historic Places in 2018, with a period of significance of 1860 to 1972.

The district's architecture is known for its collection of residential, commercial, and religious architecture reflecting the district's rapid transformation from a suburban village to a dense urban neighborhood in a short thirty-year period. The district has an outstanding cohesive collection of late-nineteenth and early twentieth century residential architecture with an overwhelming representation of the "new-law" apartment house type. Its significance as a district stems from its association with New York City's Black community and related issues of housing, discrimination, redlines, civil rights, and Black Culture. As Harlem developed as the capital of Black America in the early twentieth century, housing discrimination persisted in West Harlem through the 1940s. Black community leaders including Rev. Adam Clayton Powell Jr., Eugene Ramsey, and Dr. Charles N. Ford, fought against racist landlords by buying and racially integrating apartment buildings on Riverside Drive. As a result, the center of Harlem society shifted from Sugar Hill to West Harlem from the mid-1940s through the 1960s. The new Harlem elite on Riverside Drive was influential in Harlem high society, the Civil Rights movement, politics, public service, and Black Culture.

The district encompasses the neighborhood of Harlem from West 135th Street to the south and West 153rd Street to the north, extends east to Amsterdam Avenue, and west to Riverside Drive. The forty-two-block area includes approximately 907 resources including

873 contributing buildings, 4 contributing sites (parks), 1 contributing object, and 29 non-contributing buildings.

Two buildings in the district occur within the study area that are also eligible for listing, Most of the resources are six-story brick multi-family apartment buildings, discussed in detail below.

H5—Riverside Cooperative Unit 1D

Riverside Cooperative Unit 1D (USN 06101.017241) is located at 604 Riverside Drive. This resource occurs at a higher elevation than the Development Site with an estimated grade change of 40 feet.

H6 and H7—596 Riverside Drive and 590 Riverside Drive

Further south is another state-eligible building of the historic district located at 596 Riverside Drive (USN 06101.012195). The building also occurs at a higher elevation than the Development Site with an estimated grade change of 60 feet. Adjacent to 596 Riverside Drive is 590 Riverside Drive (USN 06101.015128), which is located at an elevation of approximately 65 feet which results in a grade change relative to the Development Site of approximately 55 feet. Both are six-story multi-family buildings.

H8 and H9—587 Riverside Drive and 583 Riverside Drive

Between West 135th Street and West 136th Street is 587 Riverside Drive (USN 06101.015127) and 583 Riverside Drive (USN 06101.015121). Both buildings occur at an elevation of approximately 70 feet, which is a change in 60 feet from the elevation of the Development Site.

H10—629 West 135th Street

Along West 135th Street is another resource, located at 629 West 135th Street (USN 06101.015124), which occurs at an elevation of approximately 80 feet or 70 feet higher than the Development Site.

H11—625 West 135th Street

Further east along 135th Street is 625 West 135th Street (USN 06101.009539), which is also located at an elevation of approximately 80 feet.

H12—575 Riverside Drive

South of West 135th Street is 575 Riverside Drive (USN 06101.015118), which is located at an elevation of approximately 70 feet or approximately 60 feet higher than the Development Site.

H12 and H13—634 West 135th Street and 629-630 West 135th Street

Adjacent to 575 Riverside Drive is 634 West 135th Street (USN 06101.015119) and 629-630 West 135th Street (USN 06101.015120), which are also located at an elevation of approximately 70 feet or approximately 60 feet higher than the Development Site.

Impact Assessment

As mentioned in **Part II: Supplemental Analyses**, soil disturbance would be within the confines of the existing building footprint and foundation. This disturbance would be minimal and approximately 10 feet in depth in certain areas as needed. The existing foundation would remain and there is no additional cellar area being proposed. Therefore, there would be no significant adverse impacts to archaeological resources.

Additional protective measures would have applied to NYCL-designated and S/NR-listed historic resources located within 90 linear feet of a proposed construction activities. For these structures, DOB's TPPN #10/88 applies. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring, among other things, monitoring to reduce the likelihood of construction damage to adjacent LPC-designated or S/NR-listed resources (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. However, there are no such buildings that are located within 90 feet of the Development Site and the historic resources located within 400 feet of the Development Site are located at a higher elevation than the Development Site or are separated by intervening buildings.

Thus, significant adverse impacts to architectural resources would not occur as a result of the Proposed Project from construction activities.

Conclusion

Overall, construction of the Proposed Project would not involve any unusual or exceptional construction activities or practices for residential buildings in New York City. As noted above, demolition, foundation/excavation and superstructure work would occur in fewer than 24 months. With the adherence to existing construction regulations as it relates to development in the vicinity of historic and cultural resources, a qualitative analysis is sufficient and demonstrates that the Proposed Project would not result in significant adverse construction historic impacts to nearby resources.

Appendix A: Waterfront Revitalization Program 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: Crosscap Holdings LLC

Name of Applicant Representative: Rick Serrapica

Address: 1841 Broadway, Suite 811

Telephone: (646) 545-6700 Email: rserrapica@libertyplacepm.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, Crosscap Holdings LLC, is seeking a number of actions to facilitate a mixed-used development of approximately 53,548 gross square foot (gsf) at 701 West 135th Street in the Manhattanville neighborhood of Manhattan Community District 9. The Proposed Project would include 7,415 gsf of ground floor commercial space, 689 gsf of ground floor community facility space, and 45,444 gsf of residential space or 60 residential dwelling units. The Proposed Project would meet the requirements of the Mandatory Inclusionary Housing program and have a maximum height of 71.5 feet.

2. Purpose of activity

The existing building on the Development Site has a history of an inability to retain tenants for conforming use. Given the Project Area's location adjacent to Riverside Park and the Hudson River Greenway, as well as its proximity to the Special Manhattanville Mixed Use District, it is the Applicant's belief that there is a land use justification to modify the underlying zoning district to permit residential use. With the Proposed Actions, the Applicant can redevelop the site to accommodate demand for new housing with affordable units.

C. PROJECT LOCATION

Borough: Manhattan Tax Block/Lot(s): Block 2010, Lot 58 (entirely) and Lots 55 and 60 (partially)

Street Address: 701 West 135th Street

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

D. REQUIRED ACTIONS OR APPROVALS

Check all that apply.

City Actions/Approvals/Funding

City Planning Commission ☑ Yes ☐ No

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

Board of Standards and Appeals ☐ Yes ☑ No

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

Other City Approvals

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

State Actions/Approvals/Funding

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

Federal Actions/Approvals/Funding

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

Is this being reviewed in conjunction with a Joint Application for Permits? ☐ Yes ☑ No

E. LOCATION QUESTIONS

1. Does the project require a waterfront site? ☐ Yes ☑ No
2. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters? ☐ Yes ☑ No
3. Is the project located on publicly owned land or receiving public assistance? ☐ Yes ☑ No
4. Is the project located within a FEMA 1% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
5. Is the project located within a FEMA 0.2% annual chance floodplain? *(6.2)* ☑ Yes ☐ No
6. Is the project located adjacent to or within a special area designation? *See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).* ☐ Yes ☑ No

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

F. WRP POLICY ASSESSMENT

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

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

		Promote	Hinder	N/A
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

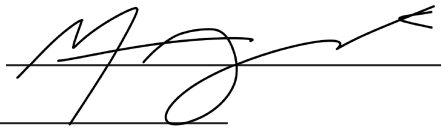
The applicant or agent must certify that the proposed activity is consistent with New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification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

Address: One Penn Plaza, Suite 715

Telephone: 212-857-7338 Email: mlevich@vhb.com

Applicant/Agent's Signature: 

Date: 3/28/2024

Submission Requirements

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

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

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

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

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

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

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

Applicant Checklist

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

WRP Consistency Assessment

The New York City Waterfront Revitalization Program (WRP) establishes the City's policies and objectives for maximizing benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives. The Project Area is located within the City's Coastal Zone (**Figure A-1**) and the Proposed Actions are consequently subject to the policies of New York City's Waterfront Revitalization Program (WRP).

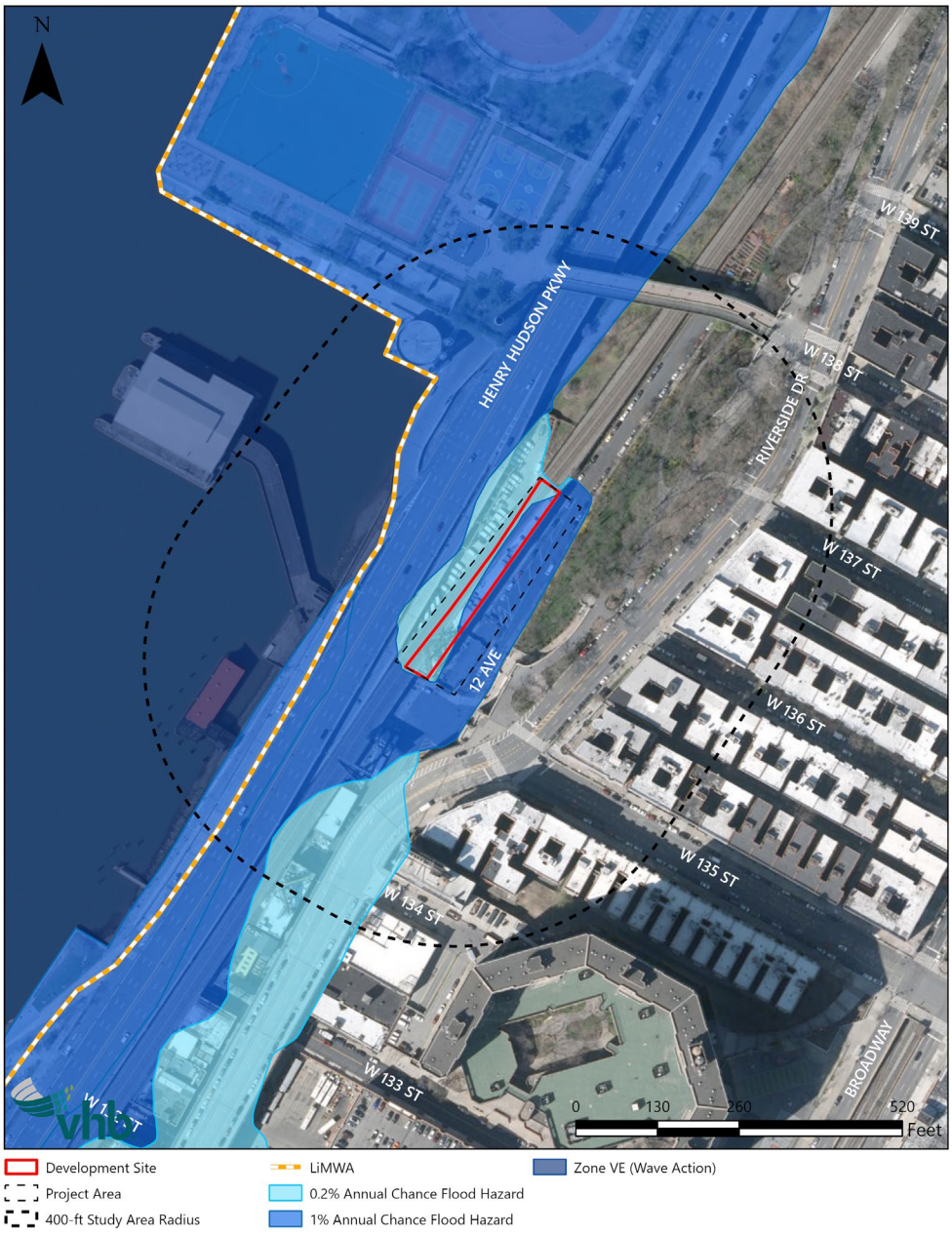
The WRP Consistency Assessment Form (CAF) is used to identify the relevant WRP policies; the CAF is included in this appendix. For all relevant policies, a written assessment to determine consistency with the applicable WRP policy is provided.

As described in **Section 1, Project Description**, the applicant, Crosscap Holdings LLC, is requesting several actions (the "Proposed Actions") to facilitate development of a mixed-used building of approximately 53,548 gross square foot ("the Proposed Project") at 701 West 135th Street in the Manhattanville neighborhood of Manhattan Community District 9. The Proposed Actions are as follows:

- A Zoning Map Amendment to Zoning Map 5c to rezone the Project Area from M1-1 to C6-1 (R7-2 equivalent);
- A Zoning Text Amendment to Appendix F to apply Mandatory Inclusionary Housing to the Project Area;
- A Zoning Text Amendment to ZR Section 23-544 to modify the rear yard requirement such that it is waived for zoning lots meeting within R7-2 zoning districts, within Manhattan Community District 9, and on zoning lots below an elevated rail line; and
- A Zoning Text Amendment to ZR Section 23-674 and ZR Section 33-433 to modify the height limit of residential and commercial buildings to 70 feet within R7-2 zoning districts and C6-1 zoning districts north of West 135th Street, within Manhattan Community District 9, and on zoning lots below an elevated rail line.

The existing building on the Development Site has a history of an inability to retain tenants for conforming use. Given the Project Area's location adjacent to Riverside Park and the Hudson River Greenway, as well as its proximity to the Special Manhattanville Mixed Use District, it is the Applicant's belief that there is a land use justification to modify the underlying zoning district to permit residential use. With the Proposed Actions, the Applicant can redevelop the site to accommodate demand for new housing, with affordable units.

Figure A-1 Flood and Coastal Zone Map



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

Policy 1.1: Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.

The Proposed Actions would facilitate development of a seven-story, approximately 53,548 gsf mixed-use building with 7,415 gsf of ground floor commercial space, 689 gsf of ground floor community facility space, and 45,444 gsf of residential space or 60 residential dwelling units on the floors two through seven. The ground-floor commercial space would be occupied by four retail users, all of which would have frontage on Twelfth Avenue. Approximately 12 of the 60 residential dwelling would be affordable, in accordance with the requirements of the Mandatory Inclusionary Housing (MIH) program.

In doing so, the Proposed Actions would introduce new commercial and residential development in a historically industrial area, where there is an absence of unique or significant natural features. No maritime or industrial uses would be displaced.

Development of a mixed-use building with commercial space and residential dwelling units would activate the streetscape and improve the pedestrian experience. It would also increase the vitality of the waterfront area by providing new retail and service amenities near to the new Columbia University Manhattanville Campus, a community facility that will serve thousands of students and faculty. The new development is also near to existing residential, commercial, and open space resources.

As discussed in detail below under Policy 6, according to 2015 Preliminary Flood Insurance Rate Maps, the Project Area is located within the National Flood Insurance Program's 100-year floodplain while the western portion of the Project Site is within the 500-year floodplain. The lowest floor elevation of the Proposed Project, which consists of vulnerable features such as common facilities, retail space and electrical switchgear and critical equipment, would be constructed at an elevation of 12.75 feet NAVD88, which is 2.75 feet higher than the current 100-year flood height and consistent with the New York City Building Code that requires 1 foot of freeboard. The electrical switchgear and other critical equipment would be further elevated on equipment pads for addition protection and floodproofed to protect from floodwaters. Additionally, critical features such as mechanical equipment would be located on the roof of the proposed building at an elevation of 71.5 feet NAVD88.

Therefore, the Proposed Project would be consistent with this policy.

Policy 1.2: Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.

The Proposed Actions would result in new commercial and residential development that would attract the public and enliven the waterfront. By contributing to the mix of uses in this waterfront area, the Proposed Project would increase its vitality. The Proposed Project is near to many open space resources, including Riverside Park, the Hudson River Greenway, and the West Harlem Piers. It also near to the new open space on the Columbia University Manhattanville campus. The ground-floor commercial space would serve existing and future residents, as well as visitors to these open spaces. It would also complement the restaurant

and grocery store used to the south. The new residential dwelling units would provide future residents with abundant access to open space and proximity to nearby commercial and community facility uses. The Proposed Project would also provide waterfront views, without hindering waterfront views from Riverside Park and Riverside Drive.

As discussed in detail below under Policy 6, according to 2015 Preliminary Flood Insurance Rate Maps, the Project Area is located within the National Flood Insurance Program's 100-year floodplain while the western portion of the Project Site is within the 500-year floodplain. The lowest floor elevation of the Proposed Project, which consists of vulnerable features such as common facilities, retail space and electrical switchgear and critical equipment, would be constructed at an elevation of 12.75 feet NAVD88, which is 2.75 feet higher than the current 100-year flood height and consistent with the New York City Building Code that requires 1 foot of freeboard. The electrical switchgear and other critical equipment would be further elevated on equipment pads for addition protection and floodproofed to protect from floodwaters. Additionally, critical features such as mechanical equipment would be located on the roof of the proposed building at an elevation of 71.5 feet NAVD88.

Therefore, the Proposed Project would be consistent with this policy.

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

The Proposed Actions would result in new ground-floor commercial space (specifically, retail users, with frontage on Twelfth Avenue) and residential dwelling units on floors two through seven. This area of the Coastal Zone is well served by public transportation: there are bus stops on West 135th Street, and an entrance to the 1 subway train is located within three blocks of the Development Site. The Hudson River Greenway bike path is also adjacent to the Development Site.

As discussed in detail below under Policy 6, according to 2015 Preliminary Flood Insurance Rate Maps, the Project Area is located within the National Flood Insurance Program's 100-year floodplain while the western portion of the Project Site is within the 500-year floodplain. The lowest floor elevation of the Proposed Project, which consists of vulnerable features such as common facilities, retail space and electrical switchgear and critical equipment, would be constructed at an elevation of 12.75 feet NAVD88, which is 2.75 feet higher than the current 100-year flood height and consistent with the New York City Building Code that requires 1 foot of freeboard. The electrical switchgear and other critical equipment would be further elevated on equipment pads for addition protection and floodproofed to protect from floodwaters. Additionally, critical features such as mechanical equipment would be located on the roof of the proposed building at an elevation of 71.5 feet NAVD88.

Therefore, the Proposed Project would be consistent with this policy.

Policy 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.

The Proposed Actions would result in a change in zoning within the Project Area that would enable residential and commercial development on the Development Site, which is situated roughly 200 feet upland of the Hudson River waterfront. Though the Project Area would

include a portion of the adjacent Block 2101, Lot 60 (which contains an elevated rail structure), no development could occur in this area; therefore, the area where development could occur as a result of the Proposed Actions would be limited to a single tax lot. As discussed below under WRP Policy 6.2, the Proposed Project and any future development in the Project Area would not have the potential to adversely affect the floodplain or result in increased coastal flooding at adjacent sites or within the study area. During and following construction, activities within the Project Area would be completed in accordance with applicable stormwater regulations. As the Development Site is in a location that is relatively isolated from its surroundings due to the Henry Hudson Parkway directly to the west and the Hudson River Park retaining wall directly east, the Proposed Project and any future development on the site will take into account the unique features of the location in preparing adaptive strategies for addressing climate change and future sea level rise. As described below, the Proposed Project will be designed to incorporate floodproofing measures that could be upgraded in the future depending on the actual future sea level rise scenario affecting the Project Area.

According to NPCC projections for the 2100s (beyond the building lifespan for the Proposed Project), under the High Estimate scenario (75 inches of sea level rise), the Project Area could be subject to daily high tide flooding at the Mean Higher High Water (MHHW) elevation. According to the NYC Flood Hazard Mapper, NPCC's projections are likely to evolve over time because the science and underlying data are not static and will continue to advance. Tidal flooding generally causes less damage from storm surge but can have significant long-term consequences. As discussed in further detail below and under the response for Policy 6.2, the Proposed Project would be designed to incorporate wet and dry floodproofing measures to minimize the risk of damage from potential tidal and stormwater flooding. All vulnerable or critical features of the Proposed Project would be above the future high tide elevation even under the most extreme scenarios. Future development in the Project Area beyond the projected lifespan of the Proposed Project could be subject to tidal flooding or even inundation. However, given the inherent uncertainty in projecting future sea level rise, a developer undertaking future development in the Project Area would have access to more accurate information for devising a floodproofing strategy to take into account both storm surge flooding and tidal flooding, if applicable. Additionally, the sea level rise projections do not account for any potential shoreline improvements or reinforcements that could be constructed in the future, lessening the risk of inundation from tidal flooding and storm surge.

The surrounding context of the Project Area presents a potential risk from future high tide inundation or coastal flooding because of the site's elevation, the area's topography, and the presence of the retaining wall separating Twelfth Avenue from Riverside Drive. In a hypothetical future scenario in which the Project Area were inundated due to high tide flooding, it is possible that site access would be impeded, particularly near West 135th Street where the elevation is lowest. However, as discussed above and under the response for Policy 6.2, the Proposed Project would incorporate a variety of floodproofing measures. A future tidal flooding scenario could be avoided if actual sea level rise does not reach the NPCC High Estimate and/or if any shoreline improvements or reinforcements are carried out along the nearby waterfront by the 2100s. During a coastal flooding event, the topography of the Project Area could hinder access, particularly at the lowest points of elevation close to West 135th Street. However, the National Weather Service and various City agencies issue

coastal flooding warnings and other advanced warnings to encourage or require residents in flood-prone areas to evacuate and relocate to higher elevations. In the event that an emergency rescue is required, emergency responders would still be able to access the site as fire trucks have high ground clearance and would be able to traverse flooded areas to access the site. Additionally, FDNY responders could deploy ladders or use rescue boats if flooding at the Project Area makes the site inaccessible by fire trucks.

As discussed under WRP Policy 6.2, the Proposed Project will be designed with consideration of climate change and sea level rise. According to 2015 Preliminary Flood Insurance Rate Maps, the Project Area is located within the National Flood Insurance Program's 100-year floodplain while the western portion of the Project Site is within the 500-year floodplain. The lowest floor elevation of the Proposed Project, which consists of vulnerable features such as common facilities and retail space, would be constructed at an elevation of 12.75 feet NAVD88, which is 2.75 feet higher than the current 100-year flood height and consistent with the New York City Building Code that requires 1 foot of freeboard. The electrical switchgear and other critical equipment would be further elevated on equipment pads for addition protection and floodproofed to protect from floodwaters, at an elevation of 15.5 feet NAVD88. Additionally, critical features such as mechanical equipment would be located on the roof of the proposed building at an elevation of 71.5 feet NAVD88.

Therefore, the Proposed Actions would be consistent with this policy.

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

Policy 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.

As discussed under WRP Policy 6.2, the Proposed Project will be designed to minimize losses caused by flooding and erosion and increase resilience to flooding caused by climate change.

Policy 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.

1. Identify vulnerabilities and consequences

1(a). Complete the Flood Elevation Worksheet to identify current and future flood elevations in relation to the elevations of the site and project features.

See attached Flood Evaluation Worksheet below.

1(b). Identify any project feature that may be located below the elevation of the 1-Percent Floodplain over the lifespan of the project under any sea level rise scenario.

For this assessment, building features are defined in one of four categories:

- (1) vulnerable: project features that have the potential to incur significant damage if flooded;
- (2) critical: project features that if damaged would have severe impacts on the project and its ability to function as designed;
- (3) potentially hazardous: project features that if damaged or made unsecure by flooding could potentially adversely affect the health and safety of the public and the environment; and
- (4) other: project features that are entirely open and unenclosed spaces, except the open storage of potentially hazardous materials, which may be damaged by flooding, but are not likely to present significant consequences and are more easily repaired.

The Flood Elevation Worksheet was prepared for the Approved Project[1] and is provided in this Appendix below. This tool identifies current and future flood elevations in relation to the elevations of the site and project features, presents a range of future flood elevations in relation to the elevations of the site and project features, and presents a range of future flood elevations as affected by sea level rise, from high (90th percentile) to low (10th percentile), where the "high estimate" represents a high-end projected increase in flood elevation.

According to the NYC Panel on Climate Change (NPCC), sea level rise projections in the middle range (25th to 75th percentile) in NYC are likely to have an increase of 4 to 8 inches by the 2020s, 11 to 21 inches by the 2050s, 18 to 39 inches by the 2080s, and 22 to 50 inches by 2100. Under the "high estimate" scenario (90th percentile), sea level rise projections reach 10 inches by the 2020s, 30 inches by the 2050s, 58 inches by the 2080s, and 75 inches by 2100. Sea level rise projections are relative to a 2000-2004 base period (the most recent projections from the NPCC were issued in 2015). According to 2015 Preliminary Flood Insurance Rate Maps (FIRMs), the Project Area is located within the National Flood Insurance Program's (NFIP) 100-year floodplain while the western portion of the Project Site is within the 500-year floodplain, as mapped in the Preliminary Flood Insurance Rate Map (PFIRM) for New York County, NY dated January 30, 2015 (Map Number 3604970079G) (see **Figure A1**). The height of the 100-year floodplain is 10 feet NAVD88. The height of the 500-year floodplain is not given, and is assumed to be the same as the 100-year floodplain. No portion of the development site abuts the line of moderate wave action (LiMWA). Based on the NPCC "high estimate" scenario, the 1% annual chance flood BFE for the Project Area could increase up to 10.83 feet in the 2020s, 12.50 feet in the 2050s, 14.83 feet in the 2080s, and up to 16.25 feet by 2100 (NAVD88) as compounded by sea level rise projections(see **Table A-1**). All SLR calculations are provided in the flood elevation worksheets attached.

[1] As discussed above, the Proposed Actions would not affect the design elevation of the Approved Project.

Table A-1 100-Year Floodplain Elevations with Sea Level Rise

Decade	Low Estimate – 10th percentile (ft)	Mid-Range – 25th to 75th percentile (ft)		High Estimate – 90th percentile (ft)
2020	11.2	11.3	11.7	11.8
2050	11.7	11.9	12.8	13.5
2080	12.1	12.5	14.3	15.8
2100	12.3	12.8	15.2	17.3

The lowest floor elevation of the Proposed Project, which consists of vulnerable features such as common facilities and retail space, would be constructed at an elevation of 12.75 feet NAVD88, which is 2.75 feet higher than the current 100-year flood height.

The New York City Building Code requires 1 foot of freeboard for most building types except for one- to two-family homes, essential facilities, and hospitals. In this case, the required design flood elevation would be 11 feet. The grade and first floor level of the building would, therefore, be elevated above the design flood elevation. However, these features may be located below the 1% floodplain elevation in high SLR estimates for the 2050s and middle estimates for the 2080s. Therefore, critical features such as mechanical equipment would be located on the roof of the proposed building at an elevation of 71.5 feet NAVD88; thus, the mechanical equipment would be elevated out of the floodplain in current and future scenarios. In addition, electrical switchgear will be located and constructed to prevent water from entering or accumulating within the components during any potential flooding. Electrical switchgear and other critical equipment would be further elevated on equipment pads for additional protection and floodproofed to protect from floodwaters; switchgear will be located in a mechanical/electrical space with an open ceiling until the third floor. The electrical switchgear would be elevated at 15.5' (NAVD88), which would be above the 1% flood elevation in high SLR estimates in the 2080s.

The proposed project will utilize wet floodproofing. Both residential lobby egresses will have wet floodproofing. Only flood-damage-resistant materials and finishes will be used in the residential lobby areas to minimalize any potential damage if flooding were to reach above the design flood elevation. Both stair cores (which provide egress for all residents) will have access to egress doors that discharge to the street level at the design flood elevation. As such, floodproofing measures will not have an adverse impact on egress for residents during a storm event. Maintaining egress means that these exits will not be sealed (which means they will not be dry-floodproofed). As a result, the residential lobby may be flooded in a 1% flood scenario. However, given the wet floodproofing measures that will be incorporated into the residential lobbies, damage from potential flooding would be minimized. Further, the proposed building would be equipped with a sub-pump system to reduce or avoid any potential impacts due to major flooding events. As a result, it is anticipated that flood-related impacts to elevators or power systems would be minimal and that residents would not be affected.

1(c). Identify any vulnerable, critical, or potentially hazardous features that may be located below the elevation of Mean Higher High Water over the lifespan of the project under any sea level rise scenario.

Based on the range of sea level rise predictions described above, Mean Higher High Water (MHHW) at the National Oceanic and Atmospheric Administration (NOAA) Station nearest the Project Area (Dykeman St Station #8518902) could range up to 8.59 feet NAVD88 by 2100 under the "high estimate" (90th percentile) scenario. Current tidal and flood heights of the Dykeman St NOAA Station is 2.34 feet NAVD88, as adjusted for changes in sea level since the 1983-2001 tidal epoch. The BFE at the Project Area is 10 feet NAVD88, which is the lowest elevation in the Project Area. According to the NYC Flood Hazard Mapper, portions of the Project Area could be affected by tidal flooding in the 2100s under the high sea level rise scenario, which would be beyond the assumed operational lifespan of the Proposed Project. As shown in the figure in the attached Flood Evaluation Worksheet, all ground floors and vulnerable and critical features would be elevated out of the MHHW level over the lifespan of the project under any sea level rise scenario. Vulnerable features would include the ground floor commercial space, the two residential lobbies, trash rooms and laundry rooms. As discussed above under Policy 1.5, future development in the Project Area would be able to take into account more accurate information about both storm surge flooding and tidal flooding, if applicable. Additionally, the sea level rise projections do not account for any potential shoreline improvements or reinforcements that could be constructed in the future, lessening the risk of inundation from tidal flooding and storm surge.

1(d). Describe how any additional coastal hazards are likely to affect the project, both currently in the future, such as waves, high winds, or debris.

Since the Project Area is located within Zone AE, portions of the site currently are and would continue to be at risk for inundation from 1% annual chance flood events. However, wave action hazards (i.e., Zone VE or Coastal A Zone) have not been designated for the Project Area. Therefore, storm impacts due to waves, high winds, or debris would not be expected to affect the project features. No hazardous features would be located below the elevation of MHHW over the lifespan of the project under any sea level rise scenario.

2. Identify adaptive strategies

2(a). For any features identified in Step 1(b), identify adaptive strategies:

The Proposed Project would incorporate floodproofing measures to protect from current and future flood risk that would comply with Appendix G of the NYC Building Code. The Building's entire ground floor would utilize dry flood-proofing measures. The proposed building is anticipated to have a lifespan of about 60 years (around 2085), when adaptive reuse in the form of major rehabilitation or reconstruction is anticipated to be required. If retrofits of vulnerable elements of the building are required prior to the 2070's, there are some adaptive strategies that can be undertaken. For example, as shown in the Flood Evaluation Worksheet, in a 100-year flood occurring with the sea level rise that is projected in high estimates for the 2050's (an additional 0.67-2.5 feet) the water level could rise 12.5 feet NAVD88. Measures to adapt and protect the site would rely on the implementation of best practices and technology available at that time. These may include but not limited to structural changes such as dry flood-proofing the ground floor areas, considering the

implementation of a passive barrier strategy to protect vulnerable features, and incorporating marine glass into the lower level facades. Floodproofing techniques will most likely need to be updated throughout the lifespan of the building depending on the actual sea level rise scenario. As building designs do no limit or bind floodproofing techniques, there are several potential strategies for floodproofing upgrades that could feasibly be carried out throughout the lifespan of the building. For example, dry flood shield sizes could be increased, and additional wet flood vents could be added. Operational changes may include moving vulnerable uses to a higher elevation. As noted above, electrical switchgear would be located at 15.5' NAVD88; this equipment could potentially be elevated further if needed. The Climate Resiliency Guidelines developed by the Mayor's Office of Recovery and Resiliency recommend designing adaptive strategies for a proposed project with features below the projected elevation of the "middle range estimate" MHHW (50th percentile) scenario and sea level rise combined, over a project's anticipated useful life. The MHHW compounded by the effects of sea level rise in the 50th percentile scenario at the Project Area is projected to be 4.76 feet NAVD88 by year 2080. The elements of the project subject to this Consistency Assessment—including critical maintenance systems, and ground floor levels of the midrise buildings—would all be elevated above this level as described above. Additionally, the proposed project's two stair cores (which provide egress for all residents) will have access to egress doors that discharge to the street level at the design flood elevation, and therefore, the proposed dry-floodproofing measures are not expected to have an adverse impact on egress for residents during a storm event, as described above.

2(b). Describe any additional measures being taken to protect the project from additional coastal hazards such as waves, high winds, or debris.

As discussed above, wave action hazards (i.e., Zone VE or Coastal A Zone) have not been designated for the Project Area. However, measures to protect the project from additional coastal hazards include resilient landscaping materials and plant species. Species will be selected from the native coastal habitat of the region to promote survival in a highly saline environment. Furthermore, all construction materials of areas vulnerable to flooding will be flood-resistant, including landscaping materials.

2(c). Describe how the project would affect the flood protection of adjacent sites, if relevant. How would the project lead to increased flooding on adjacent sites? How would the project protect upland sites from coastal hazards? Does the project complement or conflict with planned, adjacent flood protection projects?

Because the floodplain within NYC is controlled by astronomic tide and meteorological forces (e.g., nor'easters and hurricanes) and not by fluvial flooding, the proposed modifications would not have the potential to adversely affect the floodplain or result in increased coastal flooding at adjacent sites or within the study area. Although development of the Approved Project would result in a change in elevation of the Project Area, it would not encroach into adjacent areas. During and following construction, activities within the Project Area would be completed in accordance with applicable stormwater regulations. Therefore, the construction and operation of the Proposed Project as amended by the Proposed Actions would not exacerbate future projected flooding conditions on adjacent sites.

3. Assess policy consistency

Based on this information, the Proposed Actions would promote Policy 6.2. As described above, the ground floors of the midrise buildings along Edgemere Avenue and the microbrewery building would be elevated above the design flood elevation. Vulnerable project features below the projected elevation of the future high estimate of MHHW or 1% chance annual flood and sea level rise would be made resilient through the implementation of site-specific adaptive strategies such as those described above.

NYC Waterfront Revitalization Program - Policy 6.2 Flood Elevation Workhsheet

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

Enter information about the project and site in highlighted cells in Tabs 1-3. Tab 4, "Summary Charts" contains primary results. Tab 5, "0.2%+SLR" produces charts to be used for critical infrastructure or facilities. Tab 6, "Calculations" contains background computations. Appendix A contains tide elevations for station across the city to be used for the elevation of MHHW if a site survey is not available. Non-highlighted cells have been locked.

Background Information	
Project Name	701 West 135th Street Rezoning
Location	701 West 135th Street, New York, NY 10031 - Manhattan Block 2101, Lot 58 (entirely) and Lots 55 and 60 (partially)
Type(s)	☑ Residential, Commercial, ☐ Parkland, Open Space, and Natural Areas ☐ Tidal Wetland Restoration ☐ Critical Infrastructure or Facility ☐ Industrial Uses ☐ Over-water Structures ☐ Shoreline Structures ☐ Transportation ☐ Wastewater ☐ Coastal Protection
Description	The applicant, Crosscap Holdings LLC, is seeking a number of actions to facilitate a mixed-used development of 53,548 gross square foot (gsf) at 701 West 135th Street in the Manhattanville neighborhood of Manhattan Community District 9. The Proposed Project would include 7,415 gsf of ground floor commercial space, 689 gsf of ground floor community facility space, and 45,444 gsf of residential space or 60 residential dwelling units. The Proposed Project would meet the requirements of the Mandatory Inclusionary Housing program and have a maximum height of 71.5 feet.
Planned Completion Date	2025
Expected Project Lifespan	60+ Years

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

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

Last update: Sept. 7, 2018

Establish current tidal and flood heights.

	FT (NAVD88)	Feet	Datum	Source
MHHW	2.34	**2.34**	**NAVD88**	*Appendix A*
1% flood height	10.00	**10.00**	**NAVD88**	*FEMA PFIRM*
Design flood elevation	11.00	**11.00**	**NAVD88**	
As relevant:				
0.2% flood height	10.00	10.00	**NAVD88**	

Data will be converted based on the following datums:

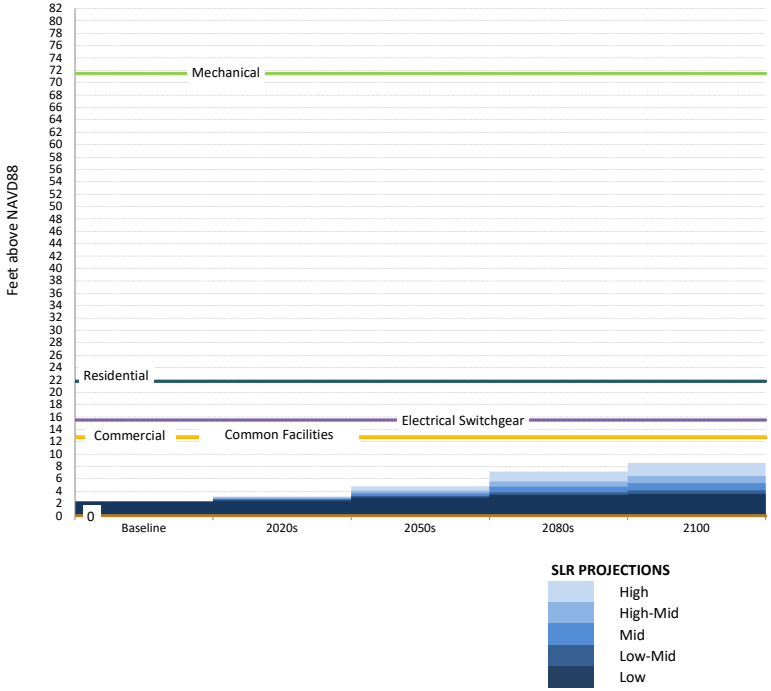
Datum	FT (NAVD88)
NAVD88	*0.00*
NGVD29	*-1.10*
Manhattan Datum	*1.65*
Bronx Datum	*1.51*
Brooklyn Datum (Sewer)	*0.61*
Brooklyn Datum (Highway)	*1.45*
Queens Datum	*1.63*
Richmond Datum	*2.09*

Describe key physical features of the project.

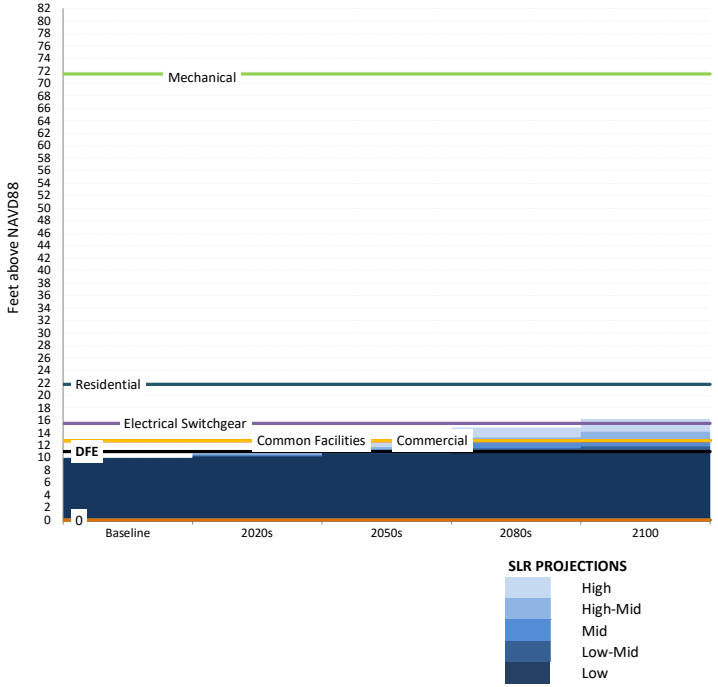
Feature *(enter name)*	Feature Category	Lifespan	Elevation	Units	Datum	Ft	Ft Above NAVD88	Ft Above MHHW	Ft Above 0.2% flood height
Commercial	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	60+	12.8	Feet	NAVD88	*12.8*	*12.8*	*10.4*	*2.8*
The minimum elevation of the ground floor commercial space is 12 feet.									
Common Facilities	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	60+	12.8	Feet	NAVD88	*12.8*	*12.8*	*10.4*	*2.8*
The minimum elevation of the ground floor amentities (two residential lobbies, trash rooms, and laundry rooms) is 12 feet.									
Mechanical	☐ Vulnerable ☑ Critical ☐ Potentially Hazardous ☐ Other	60+	71.5	Feet	NAVD88	*71.5*	*71.5*	*69.2*	*61.5*
The minimum elevation of the mechanical equipment, located on the roof, is 71.5 feet.									
Residential	☑ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other	60+	21.8	Feet	NAVD88	*21.8*	*21.8*	*19.4*	*11.8*
The minimum elevation of the residential apartments is 21 feet.									
Electrical Switchgear	☐ Vulnerable ☑ Critical ☐ Potentially Hazardous ☐ Other	60+	15.5	Feet	NAVD88	*15.5*	*15.5*	*13.2*	*5.5*
The ground floor will also include electrical switchgear and other critical equipment, which will be elevated on equipment pads and floodproofed.									
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
	☐ Vulnerable ☐ Critical ☐ Potentially Hazardous ☐ Other			Feet	NAVD88				
	☐ Vulnerable ☐ Critical ☑ Potentially Hazardous ☐ Other			Feet	NAVD88				

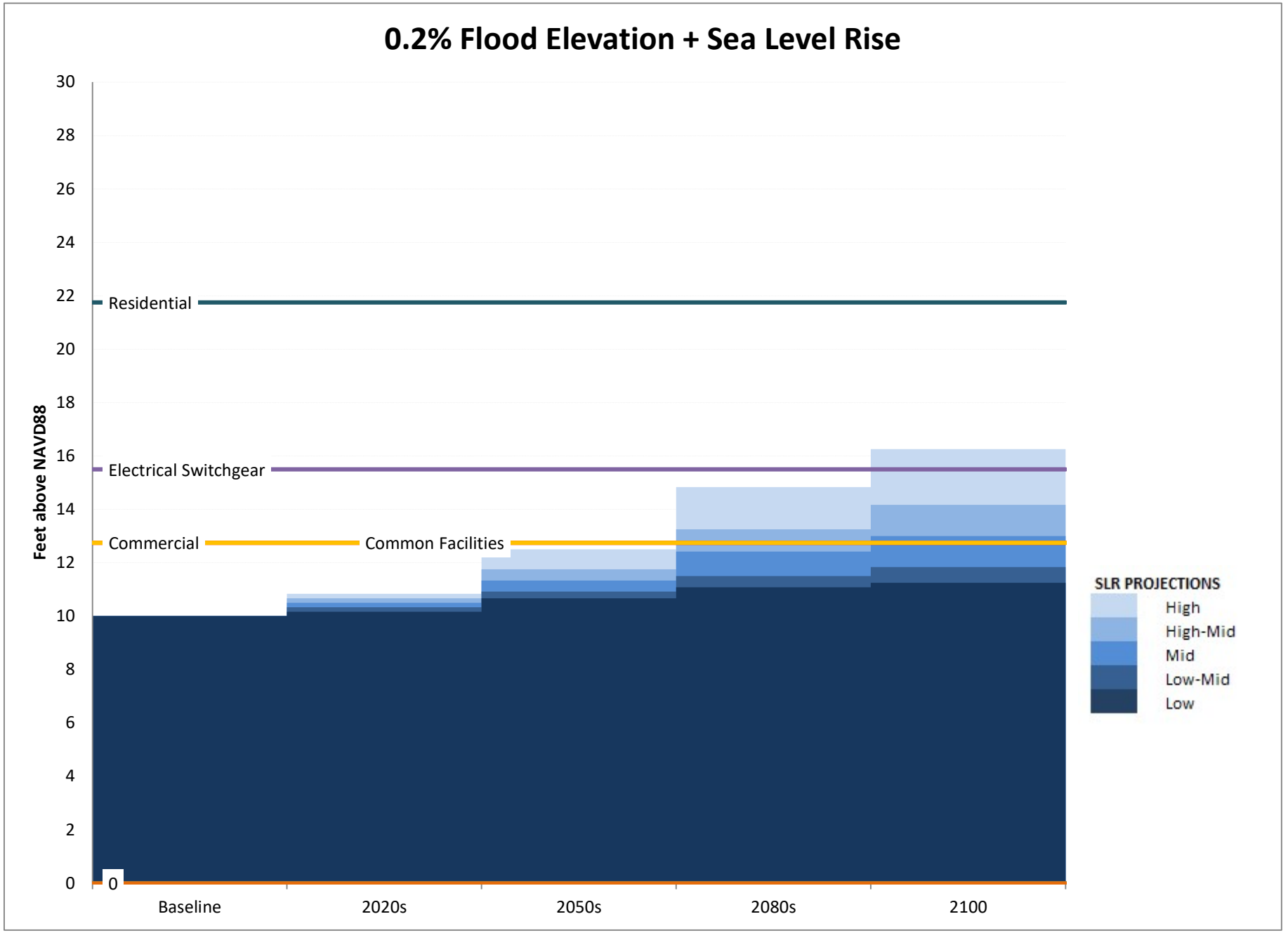
Assess project vulnerability over a range of sea level rise projections.

Mean Higher High Water + Sea Level Rise



1% Flood Elevation + Sea Level Rise




0.2% Flood Elevation + Sea Level Rise
Feet above NAVD88
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
Residential
Electrical Switchgear
Commercial
Common Facilities
0
Baseline
2020s
2050s
2080s
2100
SLR PROJECTIONS
High
High-Mid
Mid
Low-Mid
Low

SLR (ft)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	0.00	0.00	0.00	0.00	0.00
2020s	0.17	0.33	0.50	0.67	0.83
2050s	0.67	0.92	1.33	1.75	2.50
2080s	1.08	1.50	2.42	3.25	4.83
2100	1.25	1.83	3.00	4.17	6.25

SLR (in)

	Low	Low-Mid	Mid	High-Mid	High
2014	0	0	0	0	0
2020s	2	4	6	8	10
2050s	8	11	16	21	30
2080s	13	18	29	39	58
2100	15	22	36	50	75

MHHW+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	2.34	2.34	2.34	2.34	2.34
2020s	2.51	2.67	2.84	3.01	3.17
2050s	3.01	3.26	3.67	4.09	4.84
2080s	3.42	3.84	4.76	5.59	7.17
2100	3.59	4.17	5.34	6.51	8.59

1%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	10.00	10.00	10.00	10.00	10.00
2020s	10.17	10.33	10.50	10.67	10.83
2050s	10.67	10.92	11.33	11.75	12.50
2080s	11.08	11.50	12.42	13.25	14.83
2100	11.25	11.83	13.00	14.17	16.25

0.2%+SLR (ft above NAVD88)

	Low	Low-Mid	Mid	High-Mid	High
Baseline	10.00	10.00	10.00	10.00	10.00
2020s	10.17	10.33	10.50	10.67	10.83
2050s	10.67	10.92	11.33	11.75	12.50
2080s	11.08	11.50	12.42	13.25	14.83
2100	11.25	11.83	13.00	14.17	16.25

	0	1
Commercial	13	12.75
Common Facilities	13	12.75
Mechanical	71.5	71.5
Residential	21.75	21.75
Electrical Switchgear	15.5	15.5
0	0	0
0	0	0
0	0	0
DFE	11.00	11.00

NOAA Tide Station Data

(to be used only when a site survey is unavailable)

Station ID	*Station Name*	*Source MHHW (Feet, NAVD88)**	*Adjusted MHHW (Feet, NAVD88)**	*Source*
8518687	Queensboro Bridge	2.27	2.60	NOAA Tides and Currents
8530095	Alpine	2.11	2.44	NOAA Tides and Currents
8516614	Glen Cove	3.72	4.05	NOAA Tides and Currents
8516990	Willets Point	3.72	4.05	NOAA Tides and Currents
8518639	Port Morris	3.33	3.66	NOAA Tides and Currents
8518699	Williamsburg Bridge	2.14	2.47	NOAA Tides and Currents
8518750	The Battery	2.28	2.61	NOAA Tides and Currents
8531680	Sandy Hook	2.41	2.74	NOAA Tides and Currents
8518490	New Rochelle	3.71	4.04	NOAA Tides and Currents
8531545	Keyport	2.66	2.99	NOAA Tides and Currents
8516891	Norton Point	2.08	2.41	NOAA VDATUM
8517201	North Channel	2.72	3.05	NOAA Tides and Currents
8517137	Beach Channel	2.10	2.43	NOAA VDATUM
8517756	Kingsborough	2.13	2.46	NOAA VDATUM
8519436	Great Kills	2.22	2.55	NOAA VDATUM
8531142	Port Reading	2.82	3.15	NOAA VDATUM
8519483	Bergen Point	2.56	2.89	NOAA VDATUM
8519050	USCG	2.28	2.61	NOAA Tides and Currents
8518902	Dyckman St	2.01	2.34	NOAA Tides and Currents
8517251	Worlds Fair Marina	3.59	3.92	NOAA VDATUM
8518668	Horns Hook	2.54	2.87	NOAA VDATUM
8518643	Randalls Island	2.60	2.93	NOAA VDATUM
8518526	Throggs Neck	3.68	4.01	NOAA Tides and Currents

* MHHW values include an addition 0.33 feet to account for changes in sea level since the 1983-2001 tidal epoch.



Appendix B: Phase I Executive Summary

ASTM E 1527-21 PHASE I ENVIRONMENTAL SITE ASSESSMENT

Unoccupied Building

Block 2101 Lot 58
701 West 135th Street
Manhattan, New York 10031

PREPARED FOR

Crosscap Holdings LLP
Attn: Mr. Rick Serrapica
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New York, NY 10023
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PREPARED BY

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VHB Project No. 26364.00

Effective Date: August 2, 2023
Report Completion Date: August 25, 2023

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Executive Summary

VHB was retained by Crosscap Holdings LLP (Client/User) to conduct a Phase I Environmental Site Assessment (Phase I ESA) for a property located at 701 West 135th Street, Borough of Manhattan, New York County, New York (hereinafter referred to as the subject property). The subject property is identified as Block 2101 Lot 58 on the New York City Department of Finance (NYCDOF) tax maps, and is located north of West 135th Street, south of West 138th Street, east of Henry Hudson Parkway, and west of 12th Avenue. The subject property is a rectangular-shaped lot encompassing 0.27 acres of land currently developed with one unoccupied three-story building with a partial cellar.

According to information obtained from the New York City Zoning and Land Use (ZoLa) database the subject property is 11,873 square feet and located in a manufacturing district (M1-1). The subject property consists of one three-story vacant 19,186 gross square foot building. The subject property is located in the Manhattanville neighborhood of New York County, New York, and can be accessed from West 135th Street to the south and 12th Avenue to the east. According to NYCDOF, the current owner of the property is identified as "Crosscap Holdings LLC".

This Phase I ESA has been completed using the American Society of Testing and Materials (ASTM) E 1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (the Standard) and the All Appropriate Inquiries (AAI) Final Rule at 40 CFR Part 312 as guidance.

The objective of this Phase I ESA is to identify Recognized Environmental Conditions (RECs) in connection with the Subject Property. RECs are defined in the Standard as *"(1) the presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the Subject Property under conditions that pose a material threat of a future release to the environment".*

The Client is the sole User of this Phase I ESA. Pursuant to Section 3.2.94.1 of the Standard, "the User has specific obligations for completing a successful application of this practice as outlined in Section 6" of the Standard.

The Phase I ESA should be read in its entirety to gain a comprehensive understanding of the findings presented in this Executive Summary.

Recognized Environmental Conditions (RECs)

VHB has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527 for 701 West 135th Street, Borough of Manhattan, New York, the subject property. Any exceptions to, or deletions from, this practice are described in Section 8.1 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property except for the following:

This assessment has revealed evidence of the following RECs:

- **REC #1 – Former Heating Oil UST or AST**

Historical Recognized Environmental Conditions (HREC)

This assessment has revealed no evidence of historic recognized environmental conditions in connection with the subject property.

Controlled Recognized Environmental Conditions (CREC)

This assessment has revealed no evidence of controlled recognized environmental conditions in connection with the subject property.

Vapor Encroachment Condition (VEC)

A VEC is the presence or likely presence of COC vapors in the vadose zone of the subject property caused by the release of vapors from contaminated soil or groundwater either on or near the target property. Based on the information reviewed in the EDR and historical records, VHB has concluded that the following VEC has potential to exist at the subject property.

- **VEC #1 – Nearby Property at 2335 12th Avenue**

Business Environmental Risks (BERs)

The following business environmental risks represent conditions at the subject property that may have an environmentally driven impact on the current or planned use of the subject property, but do not constitute RECs or *de minimis* conditions as defined in the Standard. However, the Environmental Professional views these as potential risks that should be considered when making decisions regarding the subject property.

- **BER #1 – Historical Operations**
- **BER #2 – Historic Fill Material**
- **BER #3 – Upgradient Dry Cleaning Facility**

Data Gaps

VHB identified the following data gap at the subject property during the course of this Phase I ESA. The Environmental Professional's assessment as to whether these data gaps are considered significant is outlined below.

Data Gap	***Assessment***
FOIL responses are pending from the New York City Fire Department, and New York City Department of Environmental Protection at the issuance of this Phase I ESA.	Based upon the information available regarding the Subject Property history, this is not considered a significant data gap.

As described above and when appropriate, data gaps have been conservatively incorporated into the findings of this report.

1

Introduction

1.1 Purpose and Scope of Work

VHB was retained by Crosscap Holdings LLP (Client/User) to conduct a Phase I Environmental Site Assessment (Phase I ESA) for a property located at 701 West 135th Street, Borough of Manhattan, New York County, New York (hereinafter referred to as the subject property). The subject property is identified as Block 2101 Lot 58 on the New York City Department of Finance (NYCDOF) tax maps, and is located north of West 135th Street, south of West 138th Street, east of Henry Hudson Parkway, and west of 12th Avenue. The subject property is a rectangular-shaped lot encompassing 0.27 acres of land currently developed with one vacant three-story building with a partial cellar. See **Figure 1 – Subject Property Location Map** and **Figure 2 – Parcel Map** for additional information regarding the subject property.

This Phase I ESA has been completed using the American Society of Testing and Materials (ASTM) E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (the Standard) and the All Appropriate Inquiries (AAI) Final Rule at 40 CFR Part 312 as guidance.

Crosscap Holdings LLP is the User of this report as defined by the Standard. Pursuant to Section 3.2.94.1 of the Standard, "the User has specific obligations for completing a successful application of this practice as outlined in Section 6" of the Standard. This Phase I ESA is subject to the terms of the agreement between VHB, and the Client dated July 25, 2023 (the Agreement). Other than those limitations expressly provided in **Appendix A** and/or specified in Section 8, completion of the Phase I ESA was not subject to additional assumptions, limitations, or exceptions to the Standard.

The objective of this Phase I ESA is to identify, to the extent feasible pursuant to the process described in the Standard, Recognized Environmental Conditions (RECs) in connection with the Subject Property. The Phase I ESA was completed following the Standard as guidance. RECs are defined in the Standard as *"(1) the presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the Subject Property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the Subject Property under conditions that pose a material threat of a future release to the environment.*

A Controlled REC is a REC "affecting the Subject Property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum allowed to remain in place

subject to implementation of required controls (for example, activity and use limitations or other property use limitations)."

Although not considered RECs, the Phase I ESA may identify other concerns or considerations, referred to as Historical RECs, *de minimis* conditions, and/or business environmental risks as defined below.

Historical RECs are *"a previous release of hazardous substances or petroleum products affecting the Subject Property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities, without subjecting the property to any controls (for example, activity and use limitations or other property use limitations)."*

A *de minimis* condition is *"a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies."*

A business environmental risk is *"a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of commercial real estate, not necessarily related to those environmental issues required to be investigated in [the Phase I ESA] practice."*

Per the agreement between VHB and the Client, the scope of services to complete this Phase I ESA consisted of the following main components:

- an inquiry by an "Environmental Professional" as defined by the Standard;
- interviews with past and present owners, operators, and occupants, or abutters if the property is abandoned, in an effort to gather any specialized knowledge or experience with regard to the Subject Property;
- a review of historical sources, including, but not limited to, chain of title documents, aerial photographs, building department records, and land use records to determine previous uses and occupancy since first development;
- searches for recorded environmental cleanup liens against the facility that are filed under federal, state or local law;
- a review of federal, state, or local government records; and
- a visual inspection of the Subject Property and surrounding properties.

The scope of the Phase I ESA did not include any environmental testing or sampling of soil, water, air, or soil vapor.

1.2 User Reliance

This Phase I ESA was completed solely for the Client/User, subject to the terms, conditions and limitations referenced herein and as issued in connection with the Agreement and the provisions thereof. Any use or reliance upon information provided in this report without the specific written authorization of the Client and VHB shall be at such party's sole risk.

2

Subject Property Description

2.1 Subject Property Location, Ownership and Description

The subject property consists of a rectangular-shaped lot encompassing 0.27 acres of land currently developed with one unoccupied three-story building with a partial cellar. The approximate center of the subject property is located at 40˚ 82′ 18.98″ north latitude and -73˚ 95′ 76.56″ west longitude. The subject property is identified as Block 2101 Lot 58 on the NYCDOF tax maps, and is located north of West 135th Street, south of West 138th Street, east of Henry Hudson Parkway, and west of 12th Avenue.

According to information obtained from the ZoLa database the subject property is 11,873 square feet and located in a manufacturing district (M1-1). The subject property consists of one three-story vacant 19,186 square foot building. According to NYCDOF, the current owner of the property is identified as "Crosscap Holdings LLP."

A Subject Property Location Map showing the location of the subject property is provided as **Figure 1**, a subject property aerial photograph is included as **Figure 2**, a tax map depicting the property boundaries is included as **Figure 3**, and a topographic map showing the topography of the subject property and the surrounding area is provided as **Figure 4.**

2.2 Site and Vicinity General Characteristics

The subject property is located in the Manhattanville neighborhood of Manhattan, New York County, New York, and can be accessed from West 135th Street to the south and 12th Avenue to the east. The subject property is located in a manufacturing district (M1-1). M1-1 manufacturing districts typically include light industrial uses, such as woodworking shops, repair shops, and wholesale service and storage facilities. Additionally, parking and loading requirements vary with district and use. The M1-1 district is subject to parking requirements based on the type of use and size of an establishment.

The topography of the subject property is relatively flat with an approximate elevation of 20 feet above mean sea level (MSL). The closest named surface water body is the Hudson River, located approximately 200 feet west of the subject property.

Additional information on the physical setting of the subject property and nearby area is presented in Section 4.1.

2.3 Description of Structures, Roads, and Other Site Improvements

The subject property is a rectangular-shaped lot situated on the north side of West 135th Street and the west side of 12th Avenue. The parcel encompasses 0.27-acres of land and is developed with a unoccupied three-story building with a partial cellar. A gated and locked construction fence surrounds the eastern portion of the subject property. The southeastern boundary of the subject property along 12th Avenue has a sinkhole within the sidewalk and the pavement of 12th Avenue.

2.4 Current Uses of Adjoining and Surrounding Properties

The table below presents the properties and features surrounding the Subject Property:

Direction	Adjoining	Surrounding
North	› West 138th Street and Metropolitan Transit Authority (MTA) railroad tracks.	› Riverbank State Park, Riverside Valley Community Garden, and Multi-story commercial and residential buildings.
South	› West 135th Street and New York City Transit Sub Station.	› Multi-story commercial buildings followed by the raised Riverside Drive.
East	› 12th Avenue and Riverside Drive.	› Riverside Community Park followed by multi-story residential buildings.
West	› Henry Hudson Parkway and MTA railroad tracks.	› Hudson River.

3

User Provided Information

To qualify for one of the Landowner Liability Protections offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001, the User(s) and/or Grantee(s) or a party on behalf of the User(s) and/or Grantee(s) must collect the following information, if applicable, and should make the information available to the Environmental Professional upon request:

- Environmental cleanup liens that are filed or recorded against the Subject Property.
- Activity and land use limitations that are in place on the Subject Property or that have been filed or recorded in a registry.
- Specialized knowledge or experience of the person seeking to qualify for the Limited Liability Protections.
- Relationship of the purchase price to the fair market value of the Subject Property if it were not contaminated.
- Commonly known or reasonably ascertainable information about the Subject Property.
- The degree of obviousness of the presence or likely presence of contamination at the Subject Property and the ability to detect the contamination by appropriate investigation.

VHB provided the User Questionnaire to Mr. Rick Serrapica, the User Representative for Crosscap Holdings LLP. The User Questionnaire specifically requests information related to each of the items listed above. Information obtained from User Questionnaire responses have been incorporated throughout this report. The completed questionnaire was received for the subject property on August 1, 2023 and has been included as **Appendix B** of this report. The Client/User indicated there were no environmental cleanup liens, no activity and land use limitations filed or recorded for the property, and there was no specialized knowledge or experience of the person seeking to qualify for the LLP.

3.1 Interview

VHB was escorted by Ms. Rosario Ruiz (site representative) who provided access during the site reconnaissance on August 4, 2023. Ms. Ruiz indicated the entire building has been vacant since at least 2018 and was formerly occupied by a restaurant on the first floor and a nightclub on the second floor and partial third floor. According to Ms. Ruiz, the building is currently disconnected from heating, but formerly utilized natural gas for heating. Ms. Ruiz was not aware of environmental issues or hazardous material usage onsite.

Ms. Ruiz advised VHB that a Phase I Environmental Site Assessment (Phase I ESA) was prepared by Castellan Real Estate Partners, Inc. (CBRE) dated December 11, 2015, for the subject property. VHB reviewed the 2015 Phase I ESA, which did not identify RECs; however, the 2015 Phase I ESA identified the following two BERs:

1) Historical Records of Oil Burning Equipment. New York City Building Department records indicate that fuel burning equipment was installed in 1949. However, no evidence of remaining fuel burning equipment or fuel storage tanks was observed during the site visit.

2) Asbestos-Containing Material. Based on the age of the Subject [property building] the use of ACM is suspected.

HRECs and CRECs were not identified in the 2015 Phase I ESA. A copy of the 2015 Phase I is included in **Appendix C**.

4

Records Review

VHB conducted a review of environmental databases and municipal files to identify potential environmental concerns at the subject property. This review also included properties in the vicinity that have had a release or pose a threat of release of hazardous materials and/or petroleum products that may potentially impact the environmental media at the subject property. VHB reviewed federal and state environmental databases supplied by Environmental Data Resources, Inc. (EDR) of the subject property and the area within a one-mile radius.

In addition to the review of state and federal government databases. VHB accessed the United States Environmental Protection Agency (USEPA) Envirofacts online database, the New York State Department of Environmental Conservation (NYSDEC) Spills database and NYSDEC Petroleum; Bulk Storage (PBS) database to obtain information regarding the subject property. VHB submitted online requests to the NYSDEC and New York City Department of Environmental Protection (NYCDEP) via their online portal for information regarding environmental conditions at the subject property. The results of the records review are summarized below.

4.1 Physical Setting

Site-specific physical setting information was obtained from several physical setting resources. This includes the most recent USGS 7.5-Minute Topographic Map (**Figure 1**), State Bedrock Geology Maps, State Surficial Geology Maps, National Cooperative Soil Survey Maps, State Surface Water Maps, and State Bedrock Aquifer Maps. Specifically, the United States Department of Agriculture (USDA) Web Soil Survey (WSS) applications were used.

4.1.1 Topography

The topography of the subject property is relatively flat with an approximate elevation of 20 feet above mean sea level (MSL).

4.1.2 Geology and Soils

New York County is underlain by geological formations known collectively as the Piedmont Province. The rocks of the Piedmont Group are predominantly of Late Triassic and Early Jurassic age (230 to 190 million years old). They rest on a large elongated crustal block that dropped downward in the initial stages of the opening of the Atlantic Ocean. The sediments are composed of material caused by the erosion of adjacent uplands, which were deposited along rivers and in lakes within basins. These sediments became compacted to form conglomerate, sandstone, siltstone, and shale. They commonly have a reddish-brown color. The subject property is underlain by the Cambrian Manhattan Formation.

According to the Soil Survey for New York County, the soils at the subject property are classified as Urban land, till substratum (UtA) with zero (0) to three (3) percent slopes with a very low available water capacity. An on-site investigation would be necessary to determine classes of soil present on the subject property.

4.1.3 Hydrology

Groundwater flow is best determined using site-specific groundwater elevation data and may be affected by surface topography, hydrology, and characteristics of the soil and nearby wells. No site-specific groundwater flow data was provided for the subject property. In the absence of site-specific data, other sources of information are typically used to determine flow direction including surface topographic information and hydrogeologic information collected from nearby properties. Based on a review of available information, regional groundwater flow is presumed to be generally to the west towards the Hudson River, located approximately 250 feet west of the subject property.

According to the EDR report, no public drinking water wells are located in the vicinity of the subject property.

4.2 Standard Environmental Record Sources

EDR provided a report dated August 2, 2023, summarizing available and reasonably ascertainable information from standard environmental record sources at the minimum distances required in Section 8.2.2 of the Standard. A copy of the EDR report is provided as **Appendix D**.

A summary of the EDR findings is included in the table below and the following sections.

Record Source	Search Radii	Site Listed	Number Sites Within Search Distance
Federal National Priorities List ("NPL") Sites	1.0 mile	No	1
Federal Delisted NPL Sites	0.5 mile	No	0
Superfund Enterprise Management System ("SEMS") Sites	0.5 mile	No	1
Federal SEMS No Further Action Planned Sites	0.5 mile	No	0

Record Source	Search Radii	Site Listed	Number Sites Within Search Distance
Federal Resource Conservation and Recovery Act ("RCRA") Corrective Action ("CORRACTS") Sites	1.0 mile	No	1
Federal RCRA Non-CORRACTS Treatment, Storage and Disposal (RCRA-TSD) Sites	0.5 mile	No	1
Federal RCRA Generators	0.25-mile	No	9 LQG 6 SQG 4 VSQG 54 NonGen
Federal Engineering/Institutional Control (EC/IC) Sites	0.5 mile	No	2
Department of Defense (DOD) Sites	1.0 mile	No	0
Formerly Used Defense Sites (FUDS)	1.0 mile	No	3
Facilities in Industries that May Be Handling PFAS Listing (PFAS ECHO)	0.25-mile	No	1
USEPA Brownfield Sites	0.5 mile	No	1
Superfund (CERCLA) Consent Decrees (CONSENT)	1.0 mile	No	1
Superfund (CERCLA) Records of Decision (ROD)	1.0 mile	No	1
Mines Master Index File (UMTRA)	0.5 mile	No	0
Formally Utilized Sites Remedial Action Program (FUSRAP)	1.0 mile	No	0
Open Dump Inventory (ODI)	0.5 mile	No	0
Land Use Control Information System (LUCIS)	0.5 mile	No	0
Mines Master Index File (MINES)	0.25-mile	No	0
FEMA Underground Tank Database (FEMA-UST)	0.25-mile	No	0
Federal Emergency Release Notification System (ERNS)	Property	No	0
Inactive Hazardous Waste Disposal Sites, including De-listed Sites (SHWS)	1.0 mile	No	0
Vapor Intrusion Legacy Site List (VAPOR)	1.0 mile	No	0
Vapor Reopened Site Database (VAPOR REOPENED)	1.0 mile	No	0
Hazardous Substance Waste Disposal Site (SHWS)	1.0 mile	No	22
Solid Waste Facilities/Landfill Sites (SWF/LF)	0.5 mile	No	1
Recovered Government Archive Solid Waste Facilities List (RGA LF)	Not Provided	No	0

Record Source	Search Radii	Site Listed	Number Sites Within Search Distance
Registered Recycling Facility List (SWRCY)	0.5 mile	No	0
Registered Waste Tire Storage Facility List (SWTIRE)	0.5 mile	No	0
Leaking Underground Storage Tanks (LTANKS)	0.5 mile	No	50
Petroleum Bulk Storage – Underground and Aboveground Storage Tank Databases (PBS-UST/AST)	0.25-mile	No	14 UST 91 AST 1 NY TANKS
Chemical Bulk Storage – Underground and Aboveground Storage Tank Databases (CBS-UST/AST)	0.25-mile	No	1 CBS UST 4 NY CBS 3 CBS AST
Major Oil Storage Facility – Underground and Aboveground Storage Tank Databases (MOSF UST/AST)	0.5 mile	No	0
Registry of Engineering Controls (NYEC)	0.5 mile	No	0
Registry of Institutional Controls (NYIC)	0.5 mile	No	0
Voluntary Cleanup Agreements (VCP)	0.5 mile	No	1
Environmental Restoration Program (ERP)	0.5 mile	No	0
US Brownfields Site List (Brownfields)	0.5 mile	No	1
E-Designated Site List (NY E Designation)	0.125	No	0
Spills Information Database (NYSPILLS)	0.125 mile	No	77
Facility and Manifest Data (MANIFEST)	0.25-mile	No	127
Registered Drycleaning Facilities (DRYCLEANERS)	0.25-mile	No	2
Coal Ash Disposal Sites List (CADS)	0.5 mile	No	0
PFAS Facilities (NY PFAS)	0.25 mile	No	0
Indian Reservations (IRESERVE)	1.0 mile	No	0
Indian Reservation – Leaking Underground Storage Tanks (ILTANKS)	0.5 mile	No	0
Indian Reservation – Registered Underground Storage Tanks (IUST)	0.25-mile	No	0
Indian Reservation – Voluntary Cleanup Program Sites (IVCP)	0.5 mile	No	0
Indian Reservation – Open Dump Inventory Sites (IODI)	0.25-mile	No	0

Record Source	Search Radii	Site Listed	Number Sites Within Search Distance
Manufactured Gas Plants (MGP)	1.0 mile	No	2
US Historical Auto Stations (HAS)	0.25-mile	No	1
US Historical Cleaners (HCL)	0.25-mile	No	1

The EDR report provides search results of other federal, state, and local databases which are not listed as *Standard Environmental Resources* in the Standard.

4.2.1 Summary of Site Records

According to the EDR report the subject property was not listed in the standard environmental record sources.

4.2.2 Summary of Nearby Properties of Interest

Based on preliminary information from the EDR report, certain nearby environmental listings were deemed to require additional review to evaluate their potential to impact environmental conditions at the subject property. Available records were reviewed electronically. Information obtained is summarized below.

Intersection of 135th Street and 12th Avenue: Approximately *100 feet south of subject property*

The above-listed nearby property is located approximately 100 feet south of the subject property and was identified in the NY Spills, NY Manifest, and Chemical Bulk Storage (CBS) AST databases.

- The "135th Street & 12th Avenue" was assigned NYSDEC Spill No. 9213748 on March 15, 1993, for the release of 1,000 gallons of No. 6 fuel oil to the storm sewer. The spill case was closed by NYSDEC on March 15, 1993.
- The "North River Water Pollution" was assigned NYSDEC Spill No. 0207449 on October 18, 2002, for the release of 50 gallons of sodium hypochlorite to the soil due to equipment failure. The spill case was closed by NYSDEC on October 18, 2002.
- The "North River Plant" was assigned NYSDEC Spill No. 0510836 on December 16, 2005, for the release of an unknown amount of raw sewage to surface water due to equipment failure. The spill case was closed by NYSDEC on December 19, 2005.
- The "Wastewater Plant" was assigned NYSDEC Spill No. 0514737 on March 24, 2006, for the release of 250 gallons of lube oil to the soil due to equipment failure. The spill case was closed by NYSDEC on April 27, 2006.
- The "Wards Island" was assigned NYSDEC Spill No. 0501822 on May 14, 2005, for the release of an unknown amount of raw sewage to surface water due to equipment failure. The spill case was closed by NYSDEC on May 18, 2005.

- The "North River Plant" was assigned NYSDEC Spill No. 0612940 on March 2, 2007, for the release of an unknown amount of raw sewage to surface water due to equipment failure. The spill case was closed by NYSDEC on March 2, 2007.
- The "North River Water Pollution" was assigned NYSDEC Spill No. 0701140 on April 27, 2007, for the release of an unknown amount of raw sewage to surface water due to equipment failure. The spill case was closed by NYSDEC on April 27, 2007.
- The "North River Water Pollution" was assigned NYSDEC CBS No. 2-000241 for one in-service 500-gallon AST containing ammonia, two in-service 10,000-gallon AST containing sodium hypochlorite, one 4,000-gallon AST containing sodium hypochlorite, and one 12,000-gallon AST containing sodium hydroxide.
- The "North River Water Pollution" was assigned EPA ID No. NYP004535001 under the NY-Manifest database for the transport of 2,000 pounds of lead impacted waste on May 16, 2014.

135th Street and North River Road - *0.012 miles south of the subject property*

The above-listed nearby property is located approximately 0.012 miles south and downgradient of the subject property and identified in the Solid Waste Facilities/Landfill Sites (SWF/LF) database.

- The "NYCDOS WEST 135TH ST. MTS" was identified with an inactive transfer station permit.

2335 12th Avenue - *0.09 miles southeast of the subject property*

The above-listed nearby property is located approximately 0.09 miles southeast and upgradient of the subject property and identified in the EDR Historic Cleaner, NY AST, NY UST and NY Spills databases.

- The "Cleantex Process Co Inc" was identified in the EDR Historic Cleaner database as a carpet and upholstery cleaning plant from 1969 through 2014.
- The "Commercial" property at 2335 12th Avenue was identified in the NY AST and NY UST databases under NYSDEC PBS No. 2-613391 for one in-service 1,500-gallon No.2 fuel oil UST, one out-of-service 500-gallon white mineral spirits AST, and one 300-gallon white mineral spirits AST.
- The "Clean Tex" was assigned NYSDEC Spill No. 9512453 on January 5, 1996, for the release of two gallons of No. 2 fuel oil to the soil due to equipment failure. The spill case was closed by NYSDEC on January 5, 1996.

Numerous other surrounding properties were identified by EDR as having listings in regulatory databases; however, the regulatory-listed sites are unlikely to impact the subject property for one or more of the following reasons, and therefore records were not requested:

- The listed property was judged to be too distant to likely impact the subject property;
- The listed property was topographically downgradient or side-gradient of the subject property;
- The listed property is separated from the subject property by a hydrologic barrier, such as a river; and/or,

› The property was listed as engaging in an activity that requires environmental registration but for which no violation was documented, such as a registered UST with no documented leak, or it was closed by the NYSDEC.

4.2.3 Orphan Summary

Sites with minimal address information that may be in proximity to the subject property are listed separately in the database report as "Orphan sites." The EDR Orphan Summary Report has listings for four properties included in certain federal or state environmental databases but reported by EDR to be unmapped due to insufficient address information. The listings of the orphan sites within the database search were reviewed, cross-referencing available address information with facility names. The orphan sites do not appear to be associated with the subject or adjoining properties as best can be determined.

4.3 Local Records Review

In addition to the review of state and federal government databases, as discussed in Section 4.3 above, VHB accessed the USEPA Envirofacts Database, NYC ZoLa database, NYSDEC's Spill Incident Database and PBS Database for information concerning environmental issues at the Subject Property and adjoining properties. VHB also provided communications to the following agencies via their online portals to request information concerning environmental issues at the subject property. Copies of government documents are provided in **Appendix E**.

Office	Types of Information Available	Date Freedom of Information Request Submitted	Date of Agency Response, Records Review or Records Receipt
New York City Department of Buildings (DOB)	Building permit applications, building permits, site plans, surveys.	N/A	Readily ascertainable information was provided via the DOB NOW database, which was accessed by VHB on August 2, 2023.
New York City Fire Department (FDNY)	Information regarding storage tanks, storage of hazardous material, the handling of flammable or toxic materials, etc.	Violation Special Report Request and Fuel Tank Special Report Request submitted August 2, 2023.	Responses are pending.
New York City Department of Finance (DOF)	Tax assessment records, site tax history, parcel/building size, ownership.	N/A	Readily ascertainable information was provided via the ACRIS and NYCDOF Property Tax Public Access databases, which were accessed by VHB on August 2, 2023.

Office	Types of Information Available	Date Freedom of Information Request Submitted	Date of Agency Response, Records Review or Records Receipt
New York City Department of Health and Mental Hygiene (DOHMH)	Site assessment records, flammable storage permits, chemical or petroleum storage, spills, registered above or underground storage tanks, air discharge permits, asbestos, lead.	August 2, 2023.	Response received on August 3, 2023. No environmental records were found for the subject property.
New York City Department of Environmental Protection (DEP)	City permits, information regarding oil and chemical spills, generator registrations, Right-to-know information	August 2, 2023.	Acknowledgement received August 3, 2023. Further responses are pending.
New York State Department of Environmental Conservation	Information regarding oil and chemical spills, sites being addressed under DEC's Superfund, Brownfield Cleanup, etc., petroleum and chemical bulk storage, RCRA records, etc.	August 2, 2023.	Response received August 7, 2023. A diligent search of the files maintained by NYSDEC produced no responsive records.

4.3.1 New York City Department of Buildings

Based on readily ascertainable information provided through the DOB NOW database, VHB did not submit a FOIL request to the New York City Department of Buildings (DOB) for the subject property. The following is a summary of pertinent information obtained from the DOB NOW database accessed on August 2, 2023.

Thirteen DOB violations were issued for the subject property (BIN No. 1087748) dating from 1999 through 2020. Seven violations have been either dismissed, closed, or resolved. Six open violations remain active. The violations are in relation to construction, the roof sign and the foundation. These violations are not environmental in nature and do not represent an environmental concern with respect to the subject property. A stop work order is currently issued for the subject property for a 15-day letter of intent to revoke permit #140503596. A Certificate of Occupancy (CO) was reviewed for the subject property, dated January 9, 1928. The CO included a cellar with a heating room, first floor with freight room and offices, and a second floor with offices under permit number 13549. According to the DOB Actions, the subject property was issued permit number FO2674-49 for an oil burner application on January 14, 1949.

4.3.2 New York City Fire Department

VHB submitted FOIL requests to the New York City Fire Department (FDNY) for the subject property on August 2, 2023. A response from this agency is pending.

4.3.3 New York City Department of Finance

Based on readily ascertainable information provided through the ACRIS and NYCDOF Property Tax Public Access databases, VHB did not submit a FOIL request to the New York City Department of Finance (DOF) for the subject property. The following is a summary of pertinent information obtained from the databases accessed on August 2, 2023:

Three deeds are provided via the ACRIS database. The latest deed transfers ownership from CRP 701 West 135th Street A LLC to Crosscap Holdings, LLP on October 5, 2016. Additionally, tax records were accessed via the NYCDOF Property Tax Public Access database. As per this database, the current owner of the subject property is Crosscap Holdings, LLP. The building class is listed as multi-story retail.

4.3.4 New York City Department of Health and Mental Hygiene

VHB submitted a FOIL request to the New York City Department of Health and Mental Hygiene (DOHMH) on August 2, 2023. VHB received a response from DOHMH on August 3, 2023, stating that no environmental records were found for the subject property.

4.3.5 New York City Department of Environmental Protection

VHB submitted a FOIL request to the New York City Department of Environmental Protection (DEP) for the Subject Property on August 2, 2023. An acknowledgment letter was received on August 2, 2023, stating a response can be expected on or about December 20, 2023.

4.3.6 New York State Department of Environmental Conservation

VHB submitted a FOIL request to the NYSDEC for the subject property on August 2, 2023. A response was received on August 7, 2023, stating that a diligent search of the files maintained by DEC produced no responsive records.

4.3.7 Nearby Properties of Interest

VHB evaluated the nearby properties with information provided from the EDR report, the following nearby properties were identified as NYSDEC closed spill cases and were not further evaluated:

- Intersection of 135th Street and 12th Avenue;
- 135th Street and North River Road; and
- 2335 12th Avenue.

4.3.8 Summary of Records Review

VHB reviewed the EDR computer database search results, the available NYSDEC online database, and relevant municipal files for properties that have or could potentially have impacted environmental conditions at the subject property. No nearby properties of interest or on-going releases of petroleum and/or hazardous substances have been documented to warrant a REC.

4.4 Historical Use Information

VHB reviewed the historical use information for the subject property and nearby properties for conditions that have the potential to environmentally impact the subject property.

4.4.1 Sanborn Maps

Sanborn maps are a uniform series of large-scale detailed maps, dating from 1867, that depict the commercial, industrial, and residential sections of cities. The maps historically assisted fire insurance agents in determining the degree of hazard associated with a particular property. Sanborn maps are currently used to track the changing landscape and property uses.

Summary of Sanborn Maps

Year(s)		Description
1893	Subject Property:	The subject property appears undeveloped.
	Surrounding Area:	The north adjacent property is developed with a one-story structure identified as "Boat Club". The adjacent properties to the east are developed with one and two-story structures. The adjacent property to the south is developed with a one-story structure. Railroad tracks are depicted adjacent west of the subject property.
1909, 1922	Subject Property:	The subject property appears similar to the 1893 Sanborn Map.
	Surrounding Area:	The north and east adjacent properties are developed with the present day "Riverside Park". The south adjacent property is developed with three commercial structures identified as "R. Gordon & Son Coal Pockets". The west adjacent properties appear similar to the 1893 Sanborn Map.
1928	Subject Property:	The subject property appears developed with a structure identified as "New York Central Freight Station".
	Surrounding Area:	The adjacent properties appear similar to the 1922 Sanborn Map.
1939, 1950, 1969, 1976	Subject Property:	The subject property appears similar to the 1928 Sanborn Map and identified as N.Y. Central Freight Station".
	Surrounding Area:	The present-day "Henry Hudson Parkway" is depicted to the west of the subject property. A one-story structure identified as "Police Station" is depicted on the south adjacent property. The remaining adjacent properties appear similar to the 1928 Sanborn Map.
1979, 1981, 1983, 1986,	Subject Property:	The subject property building is identified as "Water Pollution Control Office".

Year(s)	Description	
1988, 1989, 1991, 1992, 1993, 1994, 1995, 1996, 2001, 2002, 2003, 2004, 2005	Surrounding Area:	The adjacent properties appear similar to the 1976 Sanborn Map.

The Sanborn Maps are provided in **Appendix F**.

4.4.2 City Directory

The City Directory Abstract provided by EDR was reviewed; the report provides address and owner or business name information from available City Directory data for the area. City Directory reports for 701 West 135th Street were provided for the years 2010 through 2017 at 3 to 5-year intervals.

Year	Business Name	Source
2010	Body Bar & Grill Covo	Cole Information
2014	AZ Lock N Store Covo Phuket Lounge Suite 135	Cole Information
2017	AZ Lock N Store Lock Smith NY	Cole Information

The southeast adjoining properties at 666 and 676 West 135th Street were identified with a residential tenant in 2005 and 2014, respectively.

The remaining adjoining property addresses were not researched by EDR. A copy of the EDR-City Directory Abstract is provided in **Appendix G**.

4.4.3 Topographic Maps

Historic U.S. Geological Survey (USGS) topographic maps were obtained from EDR showing the subject property. Relevant information obtained from these maps is summarized below.

Summary of Topographic Maps

Year(s)	Description	
1897, 1898, 1900, 1947	Subject Property:	The subject property appears undeveloped.
	Surrounding Area:	Railroad tracks and the Hudson River are visible to the west of the subject property. Development is depicted surrounding the subject property.
1956, 1966, 1979, 1997	Subject Property:	The subject property is depicted with a rectangular structure, similar to the present-day building footprint.
	Surrounding Area:	Red shading is used to depict development in the north, south and east surrounding areas. Schools, churches, fire stations, and parks are depicted in the surrounding area.
2013, 2016, 2019	Subject Property:	Developed areas are shaded white, including the subject property.
	Surrounding Area:	With the exception of schools, firehouses, hospitals, police stations, and cemeteries, buildings are not depicted on the 2013, 2016 and 2019 topographic maps.

Copies of the historical topographic maps are included as **Appendix H**.

4.4.4 Aerial Photography

Aerial photos were obtained from EDR for the subject property and vicinity and were reviewed. In addition, aerial and street view photographs from Google (Google.com) and NearMap (view.nearmap.com) were also reviewed. Relevant information obtained from these photographs is detailed below.

Summary of Aerial Photographs

Year(s)		Description
1924	Subject Property:	The subject property appears undeveloped.
	Surrounding Area:	The east adjacent property appears depicted with its present-day "Riverside Park". Development is visible surrounding the subject property. The "Hudson River" is visible adjacent to the west of the subject property.
1951, 1954, 1961, 1966	Subject Property:	The subject property appears developed with its present-day structure.
	Surrounding Area:	The surrounding areas appear heavily developed with structures and the present-day MTA transit rail line is visible adjacent west of the subject property.
1976, 1984, 1991, 1995, 2008, 2011, 2015, 2019	Subject Property:	The subject property appears similar to the 1966 aerial photograph.
	Surrounding Area:	The northwest nearby property appears to have a pier with structures developed on the Hudson River. The remaining surrounding properties appear similar to the 1966 aerial photograph.

Copies of the aerial photographs are included as **Appendix I**.

4.5 Site History Overview

Based on a review of historical records, dating back to approximately 1893, the subject property was originally developed with one rectangular structure by at least 1928 and identified as "New York Central Freight Station" from 1939 through at least 1976, "Water Pollution Control Office" from 1979 through at least 2005. Subject property use has varied from fright station, offices, restaurant, dance club, and lock smith.

4.6 Vapor Encroachment

As part of this Phase I ESA, VHB conducted an Evaluation of Potential Vapor Encroachment (EPVE) in order to determine whether or not a Vapor Encroachment Condition (VEC) exists at the Site. A VEC is the presence or likely presence of Chemical(s) of Concern (COC) vapors in the vadose zone of the subject property caused by the release of vapors from contaminated soil and/or groundwater either on or near the subject property. This EPVE consisted of the review of information presented in previous or subsequent sections of this document such as:

- The Site's physical setting and features that may impact vapor migration;
- Documented storage and releases of volatile COCs at the Site and/or nearby properties; and
- Potential preferential pathways for vapor migration such as subsurface utility corridors.

Based upon a review of historic resources and observations made during the subject property reconnaissance, VHB has considered the following:

- According to the historical data review, Clean Tex Dry Cleaning (2335 12th Avenue) was located approximately 0.09 miles southeast and upgradient of the subject property and is listed in the EDR US Historical Dry Cleaners database as a "carpet and upholstery cleaning plant" from 1969 through 2014. Based on the lack of database cross-listings indicative of a historical release or generation of hazardous wastes, this listing is not considered a REC. However, unreported releases of hazardous substances related to former dry-cleaning operations have the potential to adversely impact groundwater and/or soil vapor at the subject property and may be a potential VEC.
- The subject property is unlikely to be impacted by vapor migration from the remaining off-site adjoining sources, as no releases of hazardous substances or petroleum products were documented to date, hydrologic barriers separate subject property from adjoining properties, perceived groundwater flow is away from the subject property, and/or documented releases received closure from regulatory agencies. However, the potential for vapor migration may exist from unknown or unclassified sources on site and/or upgradient or side-gradient of the subject property.

5

Subject Property Reconnaissance

5.1 Methodology and Limiting Conditions

The site reconnaissance was conducted on August 4, 2023, by VHB representative Chris Linkletter. VHB was accompanied by Ms. Rosario Ruiz (site representative) who provided access during the subject property reconnaissance. VHB staff observed reasonably accessible areas of the subject property and structure located on the subject property to identify any indications of RECs as defined by ASTM E 1527-21.

Observations and information obtained at the time of the field reconnaissance are presented in the following sections. Photographs taken during the field reconnaissance are provided in **Appendix J** and relevant features of the subject property are depicted on **Figure 5**.

The subject property is rectangular in shape and 0.27-acres in size. The subject property consists of a unoccupied three-story 19,186 gross square-foot building with a partial cellar located in the southern portion of the building. The southern portion of the building, closest to West 135th Street, is two-stories and the northern portion of the building, along 12th Avenue, is three-stories.

The building is constructed of stone masonry sub-grade, brick masonry façade, and a combination of cast iron, steel, and wood joists throughout. Ms. Ruiz indicated the building has been unoccupied since at least 2018 and was formerly occupied by a restaurant on the first floor and a nightclub on the second and third floors. According to Ms. Ruiz, the building is not currently heated; however, formerly utilized natural gas for heating.

Observation	Observed or Suspected
Areas of petroleum product storage and use / Drums / Hazardous Substance and Petroleum Products Containers	Areas of petroleum use and/or drums were not observed during the subject property inspection.
Above Ground Storage Tanks (ASTs)	Not observed.
Underground Storage Tanks (USTs)	Not observed.
Odors	Musty odors were observed in the partial cellar.
Pools of liquid	Damp and wet surfaces were observed throughout the partial cellar level.
Unidentified Substance Containers	Several 5-gallon containers of paint, floor cleaner, primer, joint compound, dry cement, grout, and mortar we observed on the first floor.
Transformers and any identified PCB-containing equipment	Not observed.
Heating/Cooling systems	The building was not heated or cooled at the time of the reconnaissance. Ceiling-mounted heating units were observed on the first floor. The building reportedly was formerly heated with natural gas. The building was formerly cooled with electric AC cooling units located on the roof of the building. A water heater was observed on the first floor of the building.
Interior stains or corrosion	Not observed.
Interior drains, sumps, and below grade conveyances	Floor drains were observed on the first floor of the building. One in-service sewage ejector pump was observed under the stairs leading to the cellar level. Two cylindrical structures were located in the cellar level and are reportedly associated with the sewage ejector pump.
Exterior pits/ponds/lagoons	Not observed.
Pesticide use	Not observed.
Stained soil or pavement	Not observed.
Stressed vegetation	Not observed.
Evidence of solid waste disposal on the Site	Not observed. Ms. Ruiz indicated the building utilizes the New York City curbside trash pickup when needed.
Evidence of fill materials	Not observed.
Wastewater discharges	Sanitary wastes generated at the subject property are reportedly discharged to the municipal sewer system.
Potable water supply and on-site wells	Potable water is currently provided to the subject property by the NYCDEP. No on-site supply or monitoring wells were observed at the subject property during the visual inspection.
Septic systems	Not observed.
Monitoring wells	Not observed.
Evidence of capping, slurry walls, etc.	Not observed.
Evidence of spills/releases	Not observed.
Adjacent properties	The subject property is bounded to the north and to the west by elevated railroad tracks. The subject property is bound to the east by 12th Avenue followed by a retaining wall and elevated Riverside Park. The subject property is bounded to the south by West 135th Street followed by a NYC Transit vehicle yard.

Observation	Observed or Suspected
Oil-water separators or drywells on site	Not observed.
Other	A sinkhole was observed along 12th Avenue and within the concrete sidewalk on the southeast portion of the subject property. Ms. Ruiz indicated the sinkhole formed approximately five years ago (circa 2018). Construction fencing was observed surrounding the sinkhole area and eastern portion of the subject property to limit pedestrian access.

5.2 Heating, Water, and Sewer Systems

The building was not heated or cooled at the time of the reconnaissance. Ceiling-mounted heating units were observed on the first floor. The building was reportedly formerly heated with natural gas. The building was cooled with electric AC cooling units located on the roof of the building. A water heater was observed on the first of the building. Potable water is currently provided to the subject property by the NYCDEP. No on-site supply or monitoring wells were observed at the Subject Property. Sanitary waste generated at the subject property is reportedly discharged to the municipal sewer system.

5.3 Exterior Observations and Surface Conditions

According to historical records, the building was constructed by at least 1928. A sinkhole was observed along 12th Avenue and within the concrete sidewalk along the southeastern portion of the subject property. Ms. Ruiz indicated the sinkhole formed approximately five years ago (circa 2018). Construction fencing was observed surrounding the sinkhole area and the eastern portion of the subject property.

5.4 Interior Conditions

During the subject property reconnaissance, VHB was provided access to the interior portions of the building. The building reportedly has been unoccupied since at least 2018 and was formerly occupied by a restaurant on the first floor and a nightclub on the second and third floors. Musty odors were observed in the partial cellar.

6

Conclusions and Opinions

The purpose of the Phase I ESA is to identify, to the extent feasible pursuant to the processes prescribed in the Standard, RECs in connection with the subject property. This section identifies known or suspected RECs, Historical RECs, Controlled RECs and additional environmental considerations. During the Phase I ESA, VHB identified one RECs in connection with the subject property. VHB's opinion is limited by the conditions prevailing at the time the work was performed and the applicable regulatory requirements in effect.

6.1 RECs

VHB performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 for 701 West 135th Street, Manhattan, New York, the subject property. Any exceptions to, or deletions from, this practice are described in Section 7 of this report.

This assessment has revealed evidence of the following RECs:

- **REC #1 – Former Heating Oil UST or AST**

  The subject property was developed as early as 1928 pursuant to the historic records reviewed. Although no evidence of USTs or ASTs was observed during the site reconnaissance, according to the NYCDOB action records, the subject property was issued permit number FO2674-49 for an oil burner application on January 14, 1949. The NYSDEC PBS did not provide records on the removal of an UST or AST. Therefore, the potential exists for a UST or AST to be present at the subject property.

6.2 HREC

This assessment has revealed no evidence of HRECs in connection with the subject property.

6.3 CREC

This assessment has revealed no evidence of CRECs in connection with the subject property.

6.4 VECs

A VEC is the presence or likely presence of COC vapors in the vadose zone of the subject property caused by the release of vapors from contaminated soil or groundwater either on or near the target property. Based on the information reviewed in the EDR and historical records, VHB has concluded that the following VEC has potential to exist at the subject property.

- **VEC #1 – Nearby Property at 2335 12th Avenue**

  Clean Tex Dry Cleaning was located approximately 0.09 miles southeast and upgradient of the subject property and is listed in the EDR US Historical Dry Cleaners database as a "carpet and upholstery cleaning plant" from 1969 through 2014. Based on the lack of database cross-listings indicative of a historical release or generation of hazardous wastes, this listing is not considered a REC. However, unreported releases of hazardous substances related to former dry-cleaning operations have the potential to adversely impact groundwater and/or soil vapor at the subject property and may be a potential VEC.

6.5 Business Environmental Risks

The following business environmental risks represent conditions at the subject property that may have an environmentally driven impact on the current or planned use of the subject property, but do not constitute RECs or *de minimis* conditions as defined in the Standard. However, the Environmental Professional views these as potential risks that should be considered when making decisions regarding the subject property.

- **BER #1 – Historical Operations**

  According to historical records, the subject property was utilized as a freight station from at least 1928 through at least 1978. Documentation of the materials stored and transported to and from the subject property was not identified. Although there is no documentation identified for releases or discharges, the historic operations at the subject property may represent a potential source of on-site impact.

- **BER #2 – Historic Fill Material**

  Based upon the soil classification for the subject property, the potential exists for urban historic fill to be present beneath the subject property. Urban historic fill is commonly found throughout the New York City metropolitan area and can contain contaminants such as heavy metals and semi-volatile organic compounds. If identified, and required to be removed from the subject property, appropriate transportation and disposal/recycling procedures should be followed.

- **BER #3 – Upgradient Dry Cleaning Facility**

  Clean Tex Dry Cleaning was located approximately 0.09 miles southeast and upgradient of the subject property and is listed in the EDR US Historical Dry Cleaners database as a "carpet and upholstery cleaning plant" from 1969 through 2014. Based on the lack of database cross-listings indicative of a historical release or generation of hazardous wastes, this listing is not considered a REC. However, unreported releases of hazardous substances related to former dry-cleaning operations have the potential to adversely impact groundwater and/or soil vapor at the subject property.

7

Data Gaps and Limitations

Other than those limitations expressly provided in **Appendix A** and/or specified herein, completion of this Phase I ESA was not subject to significant assumptions, limitations, or exceptions to the Standard.

7.1 Significant Assumptions, Limitations, Exceptions and Data Gaps.

VHB identified the following data gap during the preparation of this Phase I ESA. The Environmental Professional's assessment as to whether this data gap is considered significant is outlined below.

Data Gap	***Assessment***
FOIL responses are pending from the New York City Fire Department, and New York City Department of Environmental Protection at the issuance of this Phase I ESA.	Based upon the information available regarding the Subject Property history, this is not considered a significant data gap.

As described above and when appropriate, these data gaps have been conservatively incorporated into the findings of this report.

8

References/Informational Sources

Environmental Data Resource, Inc. Aerial Photo Decade Package, dated August 3, 2023.

Environmental Data Resource, Inc. Radius Map™ Report with GeoCheck®, dated August 2, 2023.

Environmental Data Resources, Inc. Certified Sanborn® Map Report, dated August 3, 2023.

Environmental Data Resources, Inc. City Directory Image Report, dated August 2, 2023.

Environmental Data Resources, Inc. Historical Topo Map Report, dated August 2, 2023.

Freedom of Information Request, New York City Department of Environmental Protection, August 2, 2023.

Freedom of Information Request, New York City Department of Health and Mental Hygiene, August 2, 2023.

Freedom of Information Request, New York City Fire Department, August 2, 2023.

Freedom of Information Request, New York State Department of Environmental Conservation, August 2, 2023.

9

Signature and Qualifications of Environmental Professional

Chris Linkletter conducted the subject property reconnaissance; Rachael Barr, Project Manager, conducted the research for this Phase I ESA; and Professional Engineer, George Lester, oversaw the completion of this Phase I ESA. Resumes for the environmental professionals are provided in **Appendix K**.

To the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 and also meet the specific qualifications based upon education, training, and experience to assess a property as to its nature, history, and setting. We developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

This report was prepared using information available through government agencies and private contacts at the time of the investigation. Should VHB receive additional information which may alter the characteristics enumerated within this report, VHB reserves the right to revise this report or issue an addendum statement.



August 25, 2023

Rachael Barr
Project Manager

Date



August 25, 2023

George Lester
Professional Engineer

Date

10

List of Acronyms

AAI	All Appropriate Inquires
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
COC	Contaminant of Concern
CORRACTS	Corrective Action
EDR	Environmental Data Resources
EPVE	Evaluation of Potential Vapor Encroachment
ESA	Environmental Site Assessment
FINDS	Facility Indexing System
FOIL	Freedom of Information Law
LLP	Landowner Liability Protections
LUST	Leaking UST
NPL	National Priorities List
PCB	Polychlorinated Biphenyl
PFAS	Per- Polyfluoroalkyl Substances
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
SMP	Site Management Plan
TRIS	Toxic Chemical Release Inventory System
USGS	United States Geological Survey
UST	Underground Storage Tank
VEC	Vapor Encroachment Screening

Figures

Figure 1 - Site Location Map

26364.00 | Manhattan, New York

August 09, 2023



701 135th Street
Block 2101, Lot 58
Manhattan, New York

Path: \\vhb.com\gis\proj\NewYorkCity\26364.00 701 W. 135th St\fig 1 - site location map.aprx (jnappi, 8/9/2023)

Figure 2 - Aerial Photograph

26364.00 | Manhattan, New York

August 09, 2023



701 135th Street
Block 2101, Lot 58
Manhattan, New York

Path: \\vhb.com\gis\proj\NewYorkCity\26364.00 701 W. 135th St\fig 2 - aerial photograph.aprx (jnappi, 8/9/2023)

Figure 3 - Excerpt of New York City Tax Map

26364.00 | Manhattan, New York

August 09, 2023



701 135th Street
Block 2101, Lot 58
Manhattan, New York

Path: \\vhb.com\gis\proj\NewYorkCity\26364.00 701 W. 135th St\fig 3 - excerpt of new york city tax map.aprx (jnappi, 8/9/2023)

Figure 4 - Topographic Map

26364.00 | Manhattan, New York

August 09, 2023



N

0 400 800 1,200 Feet

701 135th Street
Block 2101, Lot 58
Manhattan, New York

Path: \\vhb.com\gis\proj\NewYorkCity\26364.00 701 W. 135th St\gis\Project\fig 4 - topographic map.aprx (jnappi, 8/9/2023)

Figure 5 - Site Features Map
26364.00 | Manhattan, New York

August 22, 2023



701 135th Street
Block 2101, Lot 58
Manhattan, New York

Path: \\vhb.com\gis\proj\NewYorkCity\26364.00 701 W. 135th St\fig 5 - site features map.aprx (jnappi, 8/22/2023)