



## 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** Downtown Manhattan Heliport FreightNYC Project

**3. Reference Numbers**

CEQR REFERENCE NUMBER (to be assigned by lead agency)

22SBS006M

BSA REFERENCE NUMBER (if applicable)

ULURP REFERENCE NUMBER (if applicable)

OTHER REFERENCE NUMBER(S) (if applicable)

(e.g., legislative intro, CAPA)

**4a. Lead Agency Information**

NAME OF LEAD AGENCY

New York City Department of Small Business Services (SBS)

**4b. Applicant Information**

NAME OF APPLICANT

New York City Economic Development Corporation (NYCEDC)

NAME OF LEAD AGENCY CONTACT PERSON

Anthony Dell’Olio  
General Counsel

NAME OF APPLICANT’S REPRESENTATIVE OR CONTACT PERSON

Rebecca Gafvert,  
Senior Vice President, Planning

ADDRESS 1 Liberty Plaza, 11th Floor

ADDRESS 1 Liberty Plaza, 14<sup>th</sup> Floor

CITY New York

STATE NY

ZIP 10006

CITY New York

STATE NY

ZIP 10006

TELEPHONE 212-513-6428

EMAIL ADellolio@sbs.nyc.gov

TELEPHONE 212-618-  
5763

EMAIL RGafvert@edc.nyc

**5. Project Description**

The New York City Economic Development Corporation (NYCEDC) and the New York City Department of Small Business Services (SBS) (collectively the “City”) are undergoing a public procurement to select a new operator (the “Concessionaire”) of the Downtown Manhattan Heliport (DMH) at Pier 6, in Lower Manhattan (Block 2, Lot 23). The Concessionaire will go through the Franchise and Concession Review Committee (FCRC) process to operate the Heliport (the “Proposed Action”), which is a discretionary action subject to the City Environmental Quality Review (CEQR).

The City proposes to establish a last-mile delivery operation on the existing Heliport pier as part of the Concessionaire agreement, as well as renew the existing heliport operations, which would continue to operate as they are currently with no change to the volume or timing of the helicopter operations. The Proposed Project would establish a floating freight barge landing for docking the marine vessel, as well as a gangway to connect the Heliport pier and the barge landing that would be able to rise and fall with the tides. The last-mile operations would utilize marine vessels to transport pre-loaded zero-emission vehicles (cargo bicycles) to a new permanent floating barge to be installed on the north side of the Heliport pier. The last-mile delivery facility may also use cargo vans, which would wait on the pier for the arrival of the marine vessel in the morning, be loaded with packages transferred from the vessel, and proceed on delivery routes in Lower Manhattan. It is assumed that 80 percent (or more) of the deliveries would be by electric cargo bikes, and approximately 20 percent of deliveries would be made by electric or traditional cargo vans. The operations would be limited to up to three marine vessel deliveries per day, tentatively at 7 AM, 12 PM, and 3 PM. The Concessionaire agreement would seek to renew the existing Heliport operations would ensure it is not to be affected by the addition of a last-mile delivery operation and would continue as at present, with uninterrupted use for its primary aviation operations. The Proposed Project is a key initiative for Freight NYC to shift freight from truck deliveries to the City’s waterways and bike facilities to improve street user safety, reduce truck traffic congestion, improve air quality, and fight climate change.

Since the Concessionaire has not been selected at the time of finalizing the EAS, conservative assumptions have been made to capture a reasonable worst case regarding the freight operations. Once the Concessionaire is selected, they would be responsible for ensuring that the freight operations are aligned with the assumptions presented in this EAS. If any new elements are proposed that are out of scope with the EAS assumptions, then they would be subject to additional environmental review and approval pursuant to CEQR.

See Page 1a for the full Project Description.

## Project Description

---

### A. INTRODUCTION

The New York City Economic Development Corporation (NYCEDC) and the New York City Department of Small Business Services (SBS) (collectively the “City”) are undergoing a public procurement to select a new operator (the “Concessionaire”) of the Downtown Manhattan Heliport (DMH) at Pier 6, in Lower Manhattan (Block 2, Lot 23) (see **Figures 1 and 2**). The Concessionaire will go through the Franchise and Concession Review Committee (FCRC) process to operate the Heliport (the “Proposed Action”), which is a discretionary action subject to the City Environmental Quality Review (CEQR). SBS will act as Lead Agency.

As part of the Freight NYC initiative, the City proposes to establish a last-mile delivery operation on the existing Heliport pier as part of the Concessionaire agreement. The last-mile operations would utilize marine vessels to transport pre-loaded zero-emission vehicles (“cargo bicycles”) to a new floating barge landing to be installed on the north side of the Heliport pier. A gangway would be connected to the Heliport pier and the barge landing and would be able to rise and fall with the tides. The cargo bikes would then depart from the barge landing and perform deliveries along routes throughout Lower Manhattan, before returning at shift end to the barge landing. Following the completion of deliveries and the return of the bicycles to the pier, the marine vessel would transport them back to a freight warehouse at the end of the day. The last-mile delivery facility may also use cargo vans, which would wait on the pier for the arrival of the marine vessel in the morning, be loaded with packages transferred from the vessel, and proceed on delivery routes in Lower Manhattan.

Since the Concessionaire has not been selected at the time of finalizing the EAS, conservative assumptions have been made to capture a reasonable worst case regarding the freight operations. Once the Concessionaire is selected, they would be responsible for ensuring that the freight operations are aligned with the assumptions presented in this EAS. If any new elements are proposed that are out of scope with the EAS assumptions, then they would be subject to additional environmental review and approval pursuant to CEQR.

To give flexibility to the future operator of the freight operation (referred to as the “Freight Operator,” to be determined by the selected Concessionaire and NYCEDC), it is assumed that 80 percent (or more) of the deliveries would be by electric cargo bikes, and approximately 20 percent of deliveries would be made by electric or traditional cargo vans. The operations would be limited to one marine vessel delivery up to three times per day. The Concessionaire is expected to make cosmetic improvements to the interior of the building at the heliport and replace mechanical in-kind. The envelope of the building will not change. Additionally, the eventual freight operator will explore the feasibility of electric vehicle (“EV”) battery charging on the pier, in order to support the freight operation. The concessionaire agreement would ensure that the existing Heliport operations would not be affected by the addition of a last-mile delivery operation and would continue as at present, with uninterrupted use for its primary aviation operations.

The freight operation is assumed to be operational by 2023.

Shifting these freight deliveries to Lower Manhattan via marine vessel rather than the street network is intended to ultimately help reduce traffic congestion and associated pollution. The Proposed Project is a key initiative for Freight NYC to shift freight from truck deliveries to the City’s waterways and bike facilities to improve street user safety, reduce truck traffic congestion, improve air quality, and fight climate change.

## B. PROJECT DESCRIPTION

### DESCRIPTION OF THE PROJECT SITE

The DMH is located on the East River in the Financial District between Pier 11 and the Battery Maritime Building and is zoned as a C4-6 district (see **Figure 3**). It was established as the City's second public-use heliport, after the West 30th Street heliport, in 1960, and is considered a transportation and utility use (see **Figure 4**). DMH operations were transferred from the Port Authority of New York and New Jersey to NYCEDC in 2005. The facility can accommodate 12 helicopters; it comprises a pier, a permanent two-story terminal building with a customer lounge, operator offices, control tower a 12-space parking lot, and a fueling station. DMH's operating hours are Monday through Friday from 7am to 10pm; Saturdays from 7am to 7pm; and Sundays from 7am to 5pm. Tourist or sightseeing flights are only permitted from 9am to 7pm Monday through Saturday and are not allowed on Sundays. The pier is accessed from the East River Greenway and street network via two greenway crossings and two curb cuts onto South Street, which lead to the Heliport's active 12-space parking lot. East River Greenway bike users and esplanade foot traffic cross these two access points currently. **Figure 5** presents existing conditions and views along the Project Site from nearby vantage points.

### DESCRIPTION OF THE SURROUNDING AREA

The Proposed Project is located in downtown Manhattan near the Financial District. Given the Project Site location on Pier 6, the 400-foot surrounding area primarily consists of the East River, however there are commercial office, mixed use residential buildings and open space located within the nearby vicinity. Transportation and utility uses are located on neighboring piers.

The study area is well-served by various modes of transportation, with Whitehall Terminal located just southwest of the study area, with subway access to the 1, E, R, and W subway lines, as well as numerous ferry terminals. Five additional ferry lines are situated northeast of the study area at Pier 11/Wall Street. The East River Greenway traverses the study area, connecting pedestrians and cyclists in the area. The FDR Drive runs parallel to the Greenway within the study area, and serves as a major arterial roadway in Manhattan providing vehicular access from the southern tip of Manhattan, in the Battery, to the Triboro Bridge at the northern end of the island.

### DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action would enable a green last-mile facility use to be established as part of the Concessionaire agreement to operate the Heliport with NYCEDC. Specifically, the Concessionaire who is undergoing the "Franchise and Concession Review Committee (FCRC) process to operate the Heliport, which is a discretionary action subject to CEQR, will work with a logistics and freight partner ("Freight Operator") to implement the freight plan. The new agreement would allow for pre-loaded cargo bikes to be delivered to the permanent floating freight barge landing staging area via one waterborne vessel up to three times a day to the Heliport pier. Within approximately one hour after arrival at the pier, all cargo bikes would exit the Heliport pier to make deliveries throughout Lower Manhattan and return to the barge landing at shift end, which would be distributed throughout the afternoon hours. Therefore, the additional freight activity crossing or entering the East River Greenway would peak in the weekday AM period. To give flexibility to EDC and the future operator of the freight facility (to be determined through a concessioner selection process), it is assumed that the 80% (or more) of the deliveries would be by electric cargo bikes, and up to approximately 20% (or less) by electric or traditional cargo vans. A preliminary estimate of bike and vehicle trips during the peak hour of freight departure from the pier is 48 cargo bikes and 6 vans. Other hours during the day, there would be no van activity and smaller numbers of cargo bike activity when drivers return to the freight barge landing.

This initiative is anticipated to displace up to 30 cargo vans driving around Lower Manhattan each weekday. There would be no change to the existing operations of the Heliport facility. Further information is provided below regarding the anticipated delivery logistics and the analysis assumptions for the Proposed Project.

### *FREIGHT LOGISTICS*

Since the operational freight logistics plan will be further refined closer to commencement of operations, several conservative assumptions have been built into the analysis, as well as flexibility regarding delivery transportation mode type.

A vessel would arrive in the morning loaded with freight and moor at the barge that is connected to the pier via a gangway. The barge would be secured to piles to always remain at the pier during the duration of the Freight Operator license agreement, and would be dedicated to the storage, staging, and unloading of freight from the vessel. There would be approximately 60 cargo bikes dedicated to delivering 3,600 cubic feet of small packages and parcels per day. The number of 60 cargo bikes is based on a medium-sized cargo bike, an example of which is the Trike Legacy (Rytley) which has a cargo capacity of 60 cubic feet and occupies an area of 35 square feet.

Local deliveries would occur during daytime hours, potentially seven days a week. It is unknown at this time if any cargo vans would supplement the cargo bike operation. For assumption purposes, EDC provided a list of cargo vans<sup>1</sup>, and the vehicle model able to carry the smallest cargo capacity (123 cubic feet) was selected to be conservative, since more vehicle trips would be generated by the smallest cargo capacity vehicle. The 3,600 cubic feet of cargo, if entirely delivered by the 123 cubic foot cargo van, would require the equivalent of 30 vans. It is unlikely that 30 vans would arrive and depart at once, as is described further in Section E “Transportation.” See **Figure 6** for the proposed Site Plan illustrating the cargo bike freight logistics for accessing the barge and entering and exiting the site.

### C. ANALYSIS YEAR

Construction under the Proposed Action would include the development of a permanent floating freight barge landing and attached gangway to the Heliport pier. Once the Freight Operator is selected and specifics of the construction design are known, the operator would be responsible for obtaining the required NYSDEC and USACE permits, and updating any CEQR assumptions or determinations to secure such permits. The proposed construction activities would proceed in a single phase and are not anticipated to take longer than 6 months. Based on this assumption, construction under the Proposed Action is anticipated to be complete in late-2023 and therefore 2023 has been identified as the analysis year.

### D. PURPOSE AND NEED FOR THE PROPOSED ACTION

The Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight for local delivery at a new permanent floating barge landing off the existing Heliport at Pier 6. Shifting these freight deliveries to Lower Manhattan via marine vessel rather than the street network is intended to ultimately help reduce truck traffic congestion and associated pollution. The Proposed Action is a key initiative for Freight NYC to shift freight from truck deliveries to the City’s waterways and bike facilities to improve street user safety, reduce truck traffic congestion, improve air quality, and fight climate change.

The Proposed Action requires that the Concessionaire go through the Franchise and Concession Review Committee (FCRC) process to operate the Heliport, which is a discretionary action subject to CEQR. Absent the Proposed Project, the FCRC process would be limited to renewing the existing Concessionaire operations at the Heliport, which would be considered a Type II action and not subject to CEQR.

### E. ANALYSIS FRAMEWORK

This document has been prepared in accordance with the guidelines presented in the 2021 *City Environmental Quality Review (CEQR) Technical Manual*. A description of existing conditions in the future without the proposed action (the “No Action” condition) are provided below and for each technical area the future with the proposed action (the “With Action” condition) is considered. The differences between the No Action and With Action conditions are then assessed to determine whether the proposed action would result in any significant adverse environmental impacts.

#### EXISTING CONDITIONS

The analysis framework begins with an assessment of the existing conditions of the project site and in the relevant study area surrounding the project site, as these areas can be the most directly measured and observed. The assessment of existing conditions does not represent the condition against which the proposed action is measured, but generally serves as a starting point for the projection of future conditions with and without the proposed action.

---

<sup>1</sup> <https://www.merchantsfleet.com/industry-insights/best-cargo-vans-for-business/>



The DMH facility provides charter helicopter service to nearby airports, as well as public sight-seeing tours and private flights. The facility can accommodate up to 12 helicopters. It comprises a pier, a permanent two-story terminal building with a customer lounge, operator offices, control tower, a parking lot, and a fueling station. DMH's operating hours are Monday through Friday from 7am to 10pm; Saturdays from 7am to 7pm; and Sundays from 7am to 5pm. Tourist or sightseeing flights are only permitted from 9am to 7pm Monday through Saturday and are not allowed on Sundays. During non-aviation hours, the facility is infrequently used for pop-up events including film shoots or market events.

The pier is accessed from the East River Greenway and street network via two greenway crossings and two curb cuts onto South Street, which lead to the Heliport's active 12-space parking lot. East River Greenway bike users and esplanade foot traffic cross these two access points currently.

## **FUTURE WITHOUT THE PROPOSED ACTION**

In the future without the Proposed Action (the "No Action" condition), it is assumed that the proposed floating barge landing and gangway would not be developed at the Heliport pier. Absent the Proposed Project, the Concessionaire agreement would be renewed, and the existing heliport operations would continue to operate as they are currently with no change to the volume or timing of the helicopter operations, which would be considered a Type II action under CEQR.

Since the demand for last mile delivery of small packages and parcels is not new to the area near the Pier 6 Downtown Manhattan Heliport, the delivery of those same goods is made via vans and trucks to the same nearby destinations and would continue in the future without the Proposed Action. Hence, the overall No Action condition is assumed to be equivalent to the existing condition.

## **FUTURE WITH THE PROPOSED ACTION**

In the future with the Proposed Action (the "With Action" condition), the Proposed Action would allow for a last-mile delivery operation on the existing Heliport pier as part of the Concessionaire agreement.

The last-mile operations would utilize marine vessels to transport pre-loaded zero-emission vehicles (cargo bicycles) to a new floating barge landing to be installed on the north side of the Heliport pier (see **Figure 1**). A gangway would be connected to the Heliport pier and the barge landing and would be able to rise and fall with the tides. While less likely, the last-mile delivery facility may also use electric cargo vans, which would wait on the pier for the arrival of the marine vessel in the morning, be loaded with packages transferred from the vessel, and proceed on delivery routes in Lower Manhattan.

For analysis purposes, the EAS outlines three different potential scenarios to capture the mix of transportation modes (i.e., cargo bike and electric vans) that may be proposed by the Freight Operator: an all-bike scenario, a hybrid bike/van scenario and an all-van scenario, described further below, and further analyzed in Section E, "Transportation."

### *All-Bike Scenario*

Although NYCEDC does not know what the eventual Freight Operator will propose, the entire premise of the Proposed Project is to switch modes from traditional combustion-engine freight trucking to marine vessels pre-loaded with zero-emission vehicles (cargo bicycles) for last-mile deliveries in Lower Manhattan. Therefore, an all-bike scenario is the most likely scenario to be implemented as NYCEDC would look favorably on any Freight Operator proposal that includes all-bike freight operations, shown as Scenario1 in **Table 1**, below. In addition to the single waterside vessel delivery option, it is possible for the all-bike scenario that there could be up to three deliveries per day, tentatively at 7 AM, 12 PM, and 3 PM. It is assumed that the same 60 cargo bikes would be used for all three deliveries, and that returning cargo bike trips would not overlap with the departing cargo bike trips during the same peak hour. The first freight delivery would use all 60 cargo bikes, and the second and third deliveries would use 15 of the 60 bikes each. Therefore, the highest single peak hour of activity would consist of 60 cargo bike trip ends whether there was one freight delivery per day or three per day.

Bikes would be stored overnight on the barge or roll off the vessel, pre-loaded prior to arrival, and riders would arrive landside to meet the vessel. The riders would return their bikes to the barge after deliveries, which would not overlap with the freight delivery departure peak hour of activity and be spread evenly throughout the day. Then the bikes would be loaded onto the vessel and leave for the homeport or stored on the barge overnight.

### *Bike/Van Hybrid Scenario*

Since it is unknown what the eventual Freight Operator will propose, this EAS conservatively studies a second scenario – 80 percent of freight would be delivered by cargo bike and 20 percent by cargo van. A potential logistical scenario would be that freight is offloaded from the vessel via pallets onto the barge for distribution onto cargo bikes, cargo vans, or a mix. This would take longer than the all-bike scenario but would occur within a single peak hour of activity.

### *All-Van Scenario*

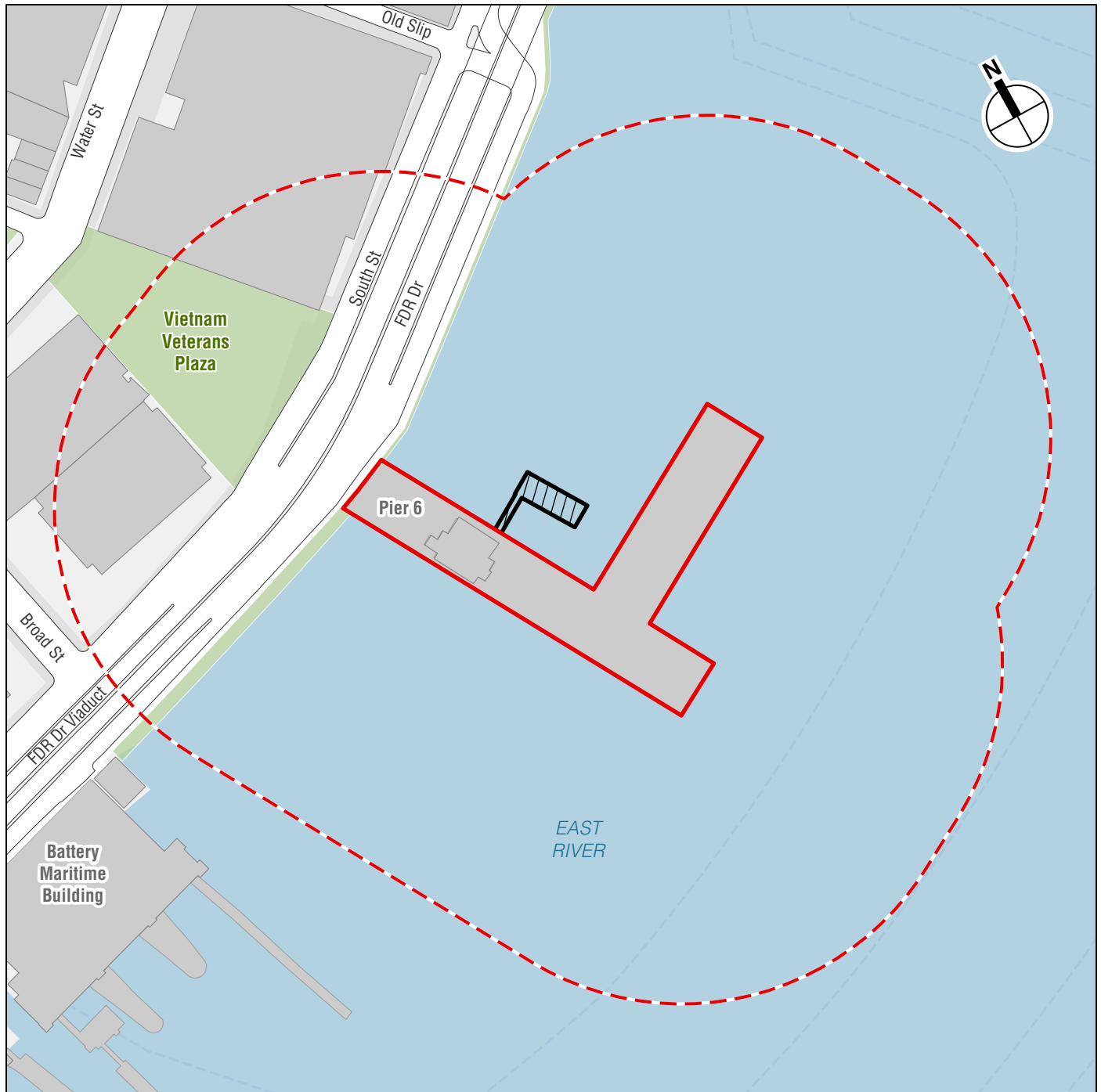
A third scenario for transportation analysis screening purposes is that all freight delivery from the vessel is delivered via cargo vans, shown as Scenario 3 in **Table 1**. This is unlikely, but to provide flexibility for the eventual Freight Operator, it is described here. Vans would arrive at the Project Site from an off-site location, and stage in designated parking spaces on the pier to be loaded with freight. The vans would not return to the pier later that day. Since there is not enough storage room on the pier for 30 vans, it is assumed that an all-van operation would take longer than one hour, and be staged by the Freight Operator, dividing the 30 inbound and 30 outbound van trips into two hours of 15 inbound vans and 15 outbound vans each. NYCEDC can condition the Freight Operator to work within such hours, should this scenario be confirmed.

The assumptions of the three scenarios outlined above are shown in Table 1, below, which compares the Existing/No Action Condition and the Future With Action Condition. These scenarios are analyzed further in Section E, “Transportation.”


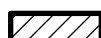

**Table 1**  
**Comparison of No Action and With Action Freight Operations—Daily**

Delivery Scenario for 3,600 cubic feet of freight	Existing/No Action	With Action	Increment
Scenario 1—100 percent bikes	30 cargo vans	0 cargo vans	-30 cargo vans
	0 cargo bikes	60 cargo bikes	+60 cargo bikes
Scenario 2—80 percent bikes/20 percent vans (hybrid)	30 cargo vans	6 cargo vans	-24 cargo vans
	0 cargo bikes	48 cargo bikes	+48 cargo bikes
Scenario 3—100 percent vans	30 cargo vans	30 cargo vans	0 cargo vans
	0 cargo bikes	0 cargo bikes	0 cargo bikes
Note: Vehicles and bicycles are shown above, not trip ends. Each With Action vehicle or bicycle would result in two daily trip ends at Pier 6, some of which would overlap in the peak hour of activity, as described further below.			

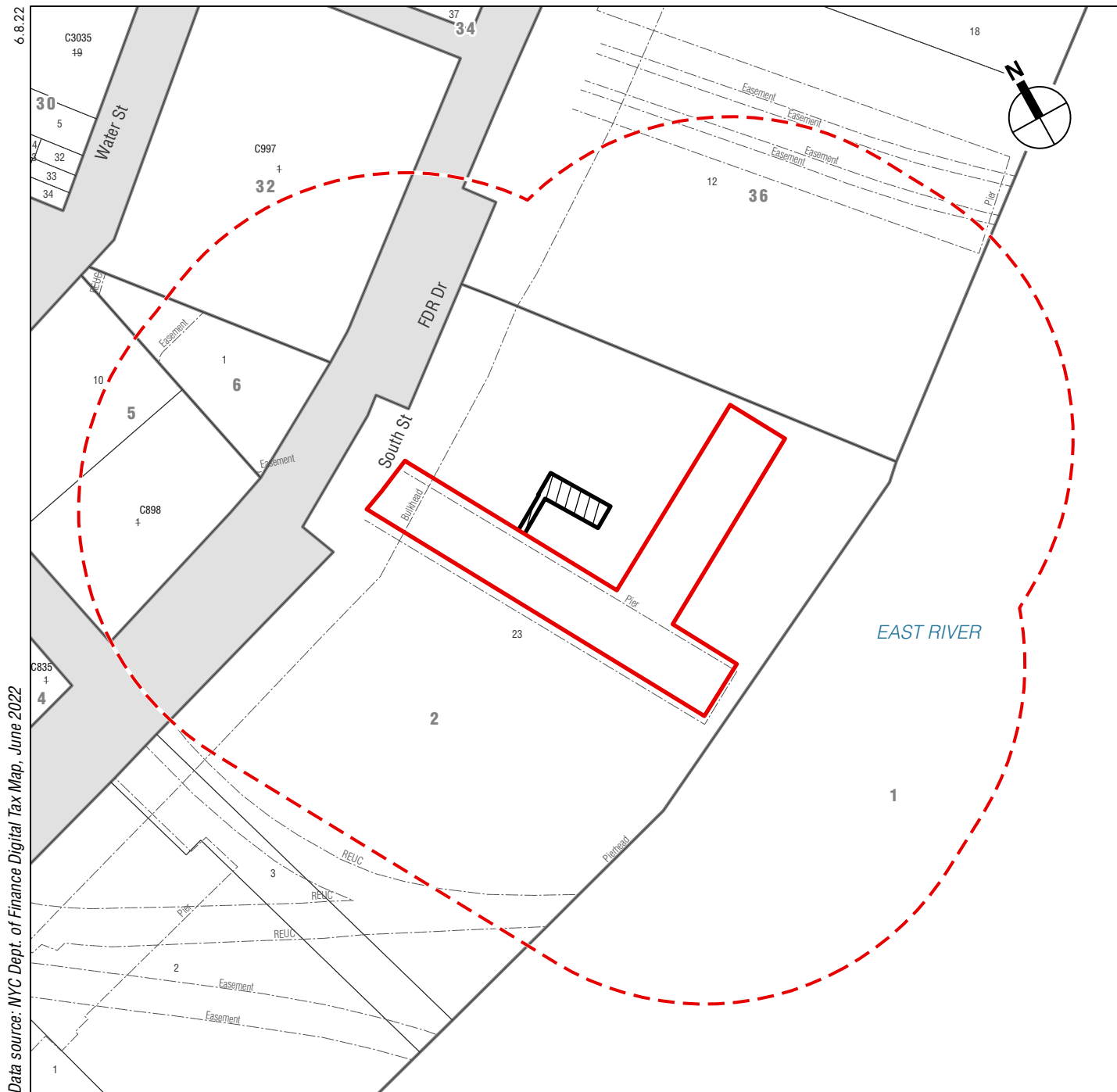
<b>Project Location</b>		
BOROUGH MN 1	COMMUNITY DISTRICT(S) Manhattan CD 1	STREET ADDRESS 1 Pier 6
TAX BLOCK(S) AND LOT(S) Manhattan: Block 2, Lot 23		ZIP CODE 10004
DESCRIPTION OF PROPERTY BY BOUNDING OR CROSS STREETS Pier offshoot from South Street		
EXISTING ZONING DISTRICT, INCLUDING SPECIAL ZONING DISTRICT DESIGNATION, IF ANY C4-6 & LM		ZONING SECTIONAL MAP NUMBER 12b
<b>6. Required Actions or Approvals</b> (check all that apply)		
<b>City Planning Commission:</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> UNIFORM LAND USE REVIEW PROCEDURE (ULURP)		
<input type="checkbox"/> CITY MAP AMENDMENT	<input type="checkbox"/> ZONING CERTIFICATION	<input type="checkbox"/> CONCESSION
<input type="checkbox"/> ZONING MAP AMENDMENT	<input type="checkbox"/> ZONING AUTHORIZATION	<input type="checkbox"/> UDAAP
<input type="checkbox"/> ZONING TEXT AMENDMENT	<input type="checkbox"/> ACQUISITION—REAL PROPERTY	<input type="checkbox"/> REVOCABLE CONSENT
<input type="checkbox"/> SITE SELECTION—PUBLIC FACILITY	<input type="checkbox"/> DISPOSITION—REAL PROPERTY	<input type="checkbox"/> FRANCHISE
<input type="checkbox"/> HOUSING PLAN & PROJECT	<input type="checkbox"/> OTHER, explain:	
<input type="checkbox"/> SPECIAL PERMIT (if appropriate, specify type: <input type="checkbox"/> modification; <input type="checkbox"/> renewal; <input type="checkbox"/> other); EXPIRATION DATE:		
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION		
<b>Board of Standards and Appeals:</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
<input type="checkbox"/> VARIANCE (use)		
<input type="checkbox"/> VARIANCE (bulk)		
<input type="checkbox"/> SPECIAL PERMIT (if appropriate, specify type: <input type="checkbox"/> modification; <input type="checkbox"/> renewal; <input type="checkbox"/> other); EXPIRATION DATE:		
SPECIFY AFFECTED SECTIONS OF THE ZONING RESOLUTION		
<b>Department of Environmental Protection:</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Cogeneration Facility <input type="checkbox"/> Title V Permit		
<b>Other City Approvals Subject to CEQR</b> (check all that apply)		
<input type="checkbox"/> LEGISLATION	<input type="checkbox"/> FUNDING OF CONSTRUCTION, specify:	
<input type="checkbox"/> RULEMAKING	<input type="checkbox"/> POLICY OR PLAN, specify:	
<input type="checkbox"/> CONSTRUCTION OF PUBLIC FACILITIES	<input type="checkbox"/> FUNDING OF PROGRAMS, specify:	
<input type="checkbox"/> 384(b)(4) APPROVAL	<input type="checkbox"/> PERMITS, specify:	
<input checked="" type="checkbox"/> OTHER, explain: New York City Franchise and Concession Review Committee (not subject to ULURP)		
<b>Other City Approvals Not Subject to CEQR</b> (check all that apply)		
<input type="checkbox"/> PERMITS FROM DOT'S OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION (OCMC)	<input type="checkbox"/> LANDMARKS PRESERVATION COMMISSION APPROVAL	
<input type="checkbox"/> OTHER, explain:		
<b>State or Federal Actions/Approvals/Funding:</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If "yes," specify: DEC/USACE in-water work permit		
<b>7. Site Description:</b> 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.		
<b>Graphics:</b> 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.		
<input checked="" type="checkbox"/> SITE LOCATION MAP	<input checked="" type="checkbox"/> ZONING MAP	<input checked="" type="checkbox"/> SANBORN OR OTHER LAND USE MAP
<input checked="" type="checkbox"/> TAX MAP	<input type="checkbox"/> FOR LARGE AREAS OR MULTIPLE SITES, A GIS SHAPE FILE THAT DEFINES THE PROJECT SITE(S)	
<input checked="" type="checkbox"/> PHOTOGRAPHS OF THE PROJECT SITE TAKEN WITHIN 6 MONTHS OF EAS SUBMISSION AND KEYED TO THE SITE LOCATION MAP		
<b>Physical Setting</b> (both developed and undeveloped areas)		
Total directly affected area (sq. ft.): 3,150 sf floating barge landing (90'x35') and associated gangway (60'x10'), as well as approximately 4,500 sf of the existing Pier 6		Waterbody area (sq. ft) and type: 3,150 sf equivalent of floating barge and gangway
Roads, buildings, and other paved surfaces (sq. ft.): 0		Other, describe (sq. ft.): 0
<b>8. Physical Dimensions and Scale of Project</b> (if the project affects multiple sites, provide the total development facilitated by the action)		
SIZE OF PROJECT TO BE DEVELOPED (gross square feet): 3,150 sf -		
Project Site includes 90'x35' barge landing and 60'x10' gangway		



0 200 FEET

-  Project Site
-  Proposed Barge and Gangway
-  Study Area (400-foot perimeter)



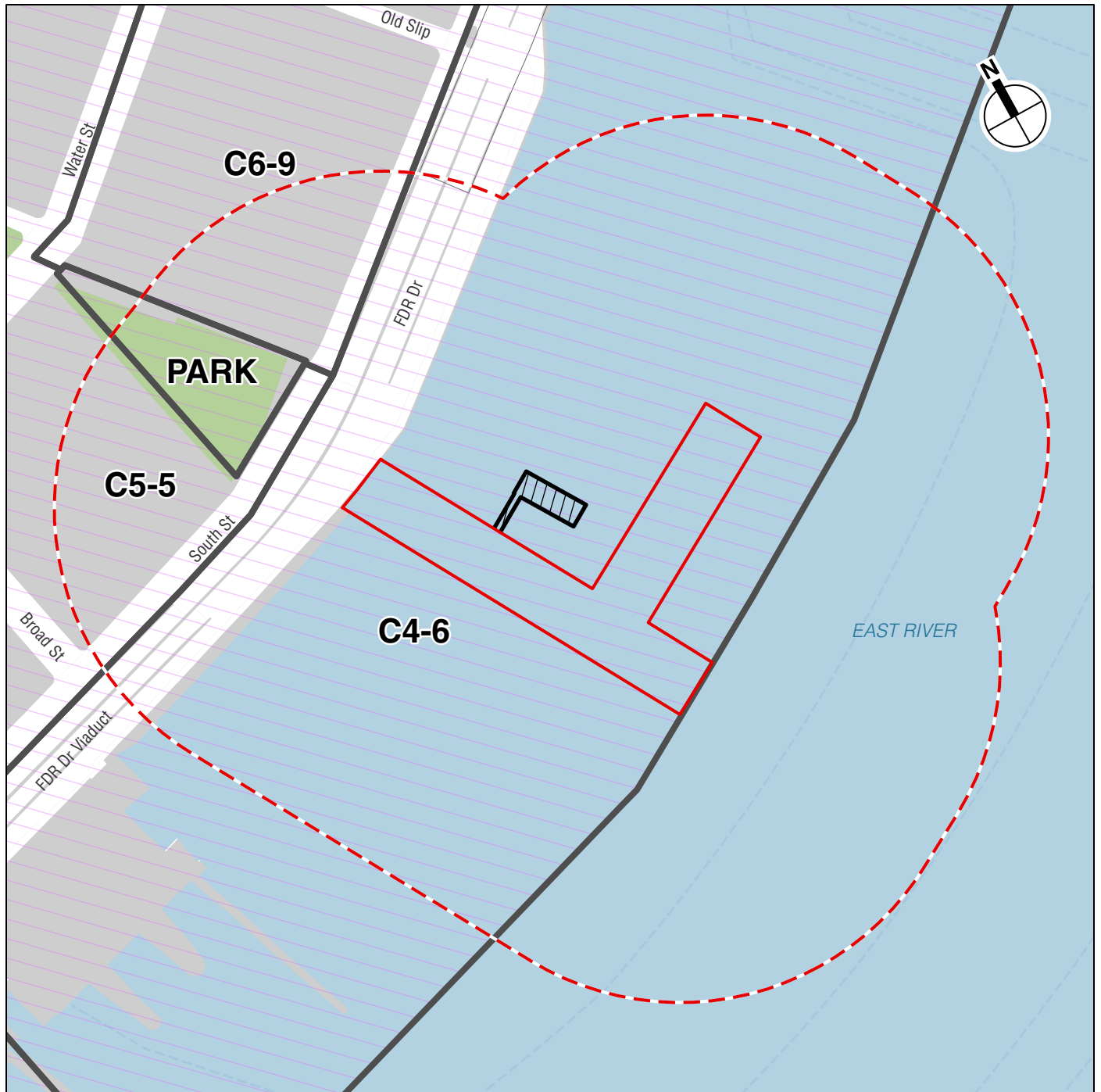








Data source: NYC Dept. of Finance Digital Tax Map, June 2022

- Project Site
- Proposed Barge and Gangway
- Study Area (400-foot perimeter)
- Tax Lot Boundary
- Tax Block Boundary
- Other Boundary

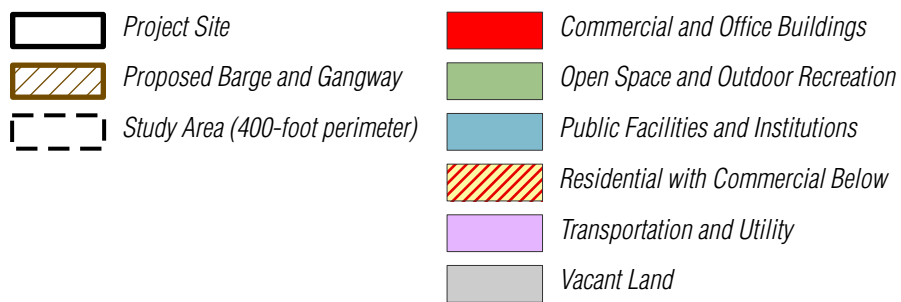
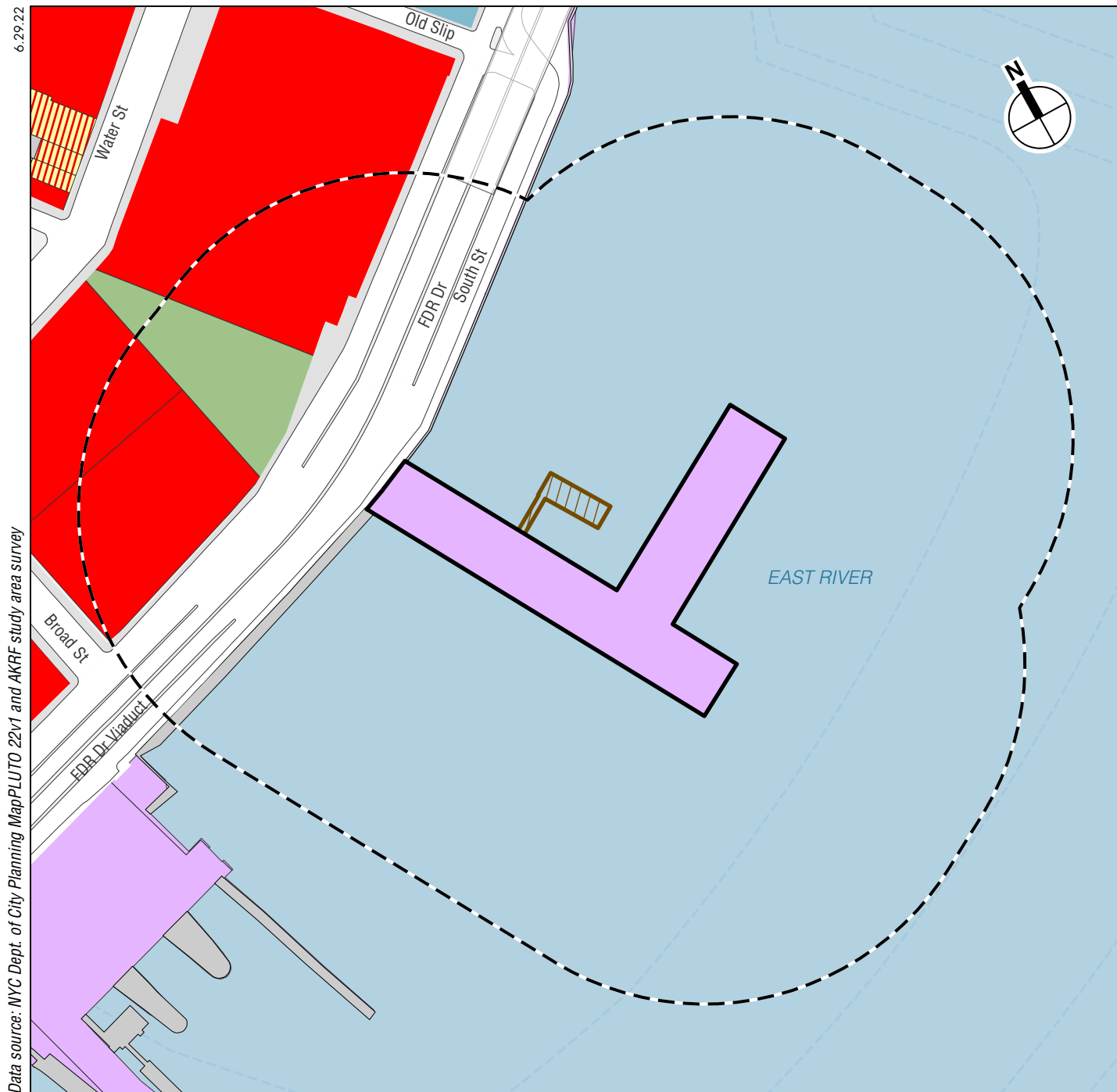
0 200 FEET





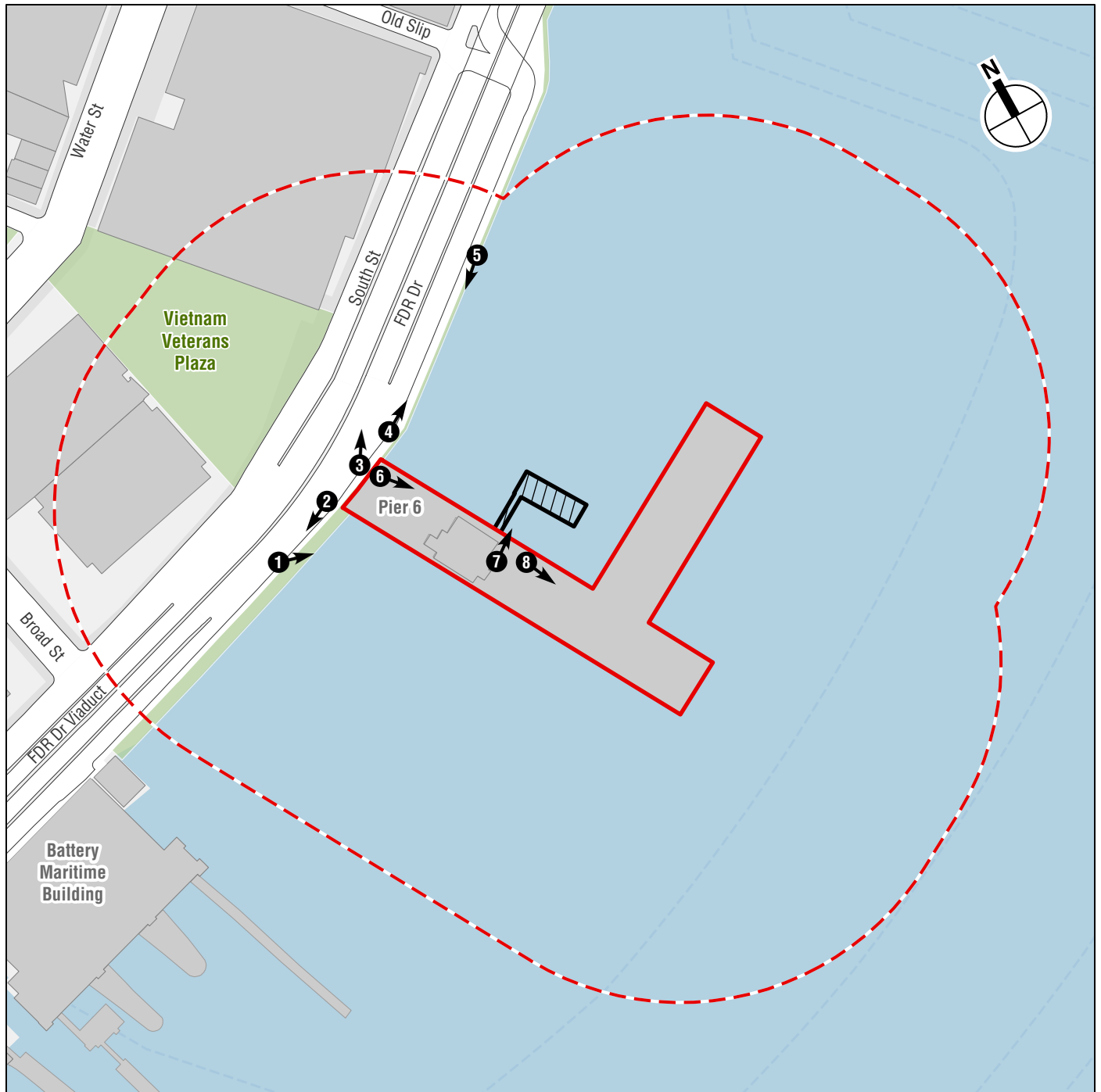
- |   |  |
|---|--|
|  Project Site                    |  Zoning District Boundary         |
|  Proposed Barge and Gangway      |  Special Lower Manhattan District |
|  Study Area (400-foot perimeter) |  Park Boundary                    |

0 200 FEET



0 200 FEET

Existing Land Use  
Figure 4



- Project Site*
- Proposed Barge and Gangway*
- Study Area (400-foot perimeter)*
- 1** *Photograph View Direction and Reference Number*

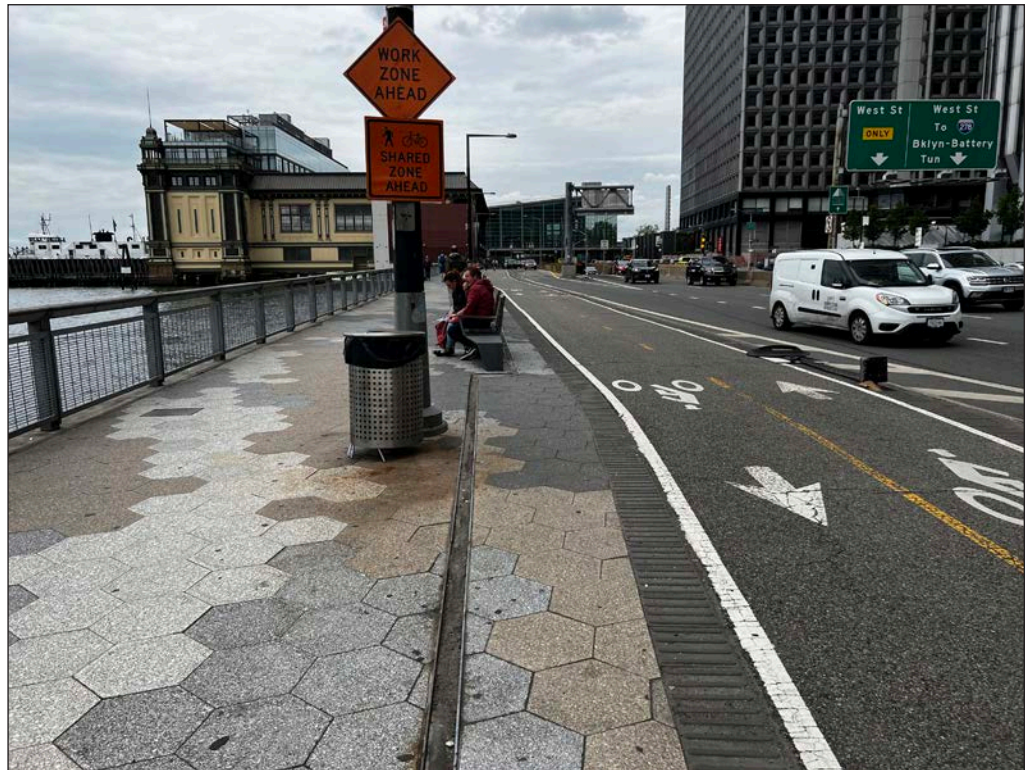
0 200 FEET

Key to Photographs  
Figure 5a



View of the existing Pier 6 parking area and Heliport Building, facing east

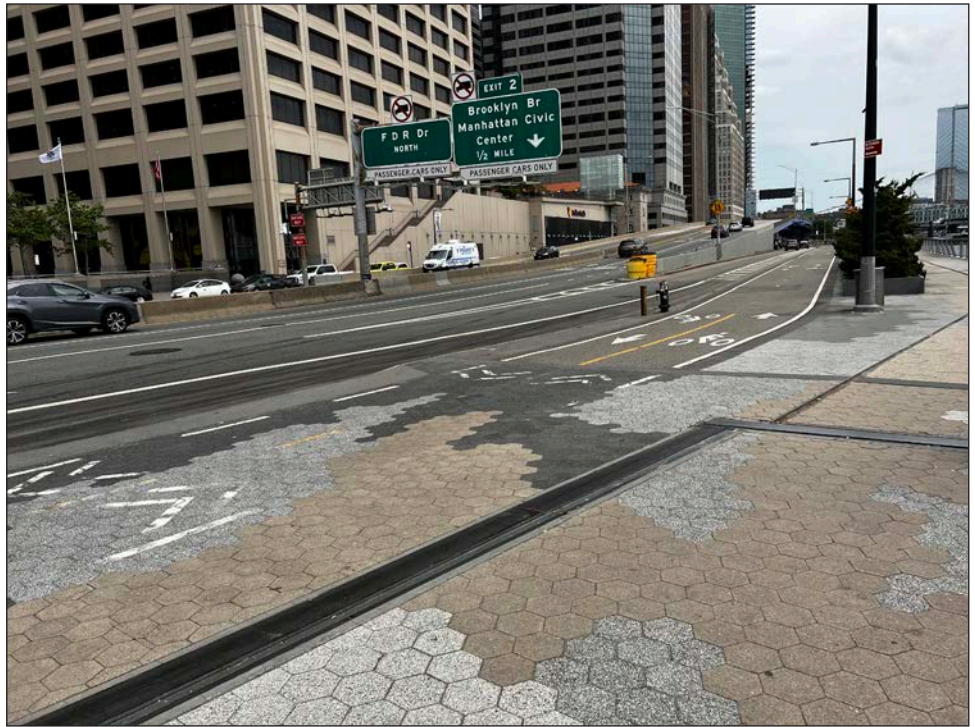
1



View looking southwest of the East River Greenway and FDR Drive northbound lanes from the corner of the project site's west entrance

2





View from the entrance of Pier 6 looking northeast towards the East River Greenway and FDR Drive exit 2

3



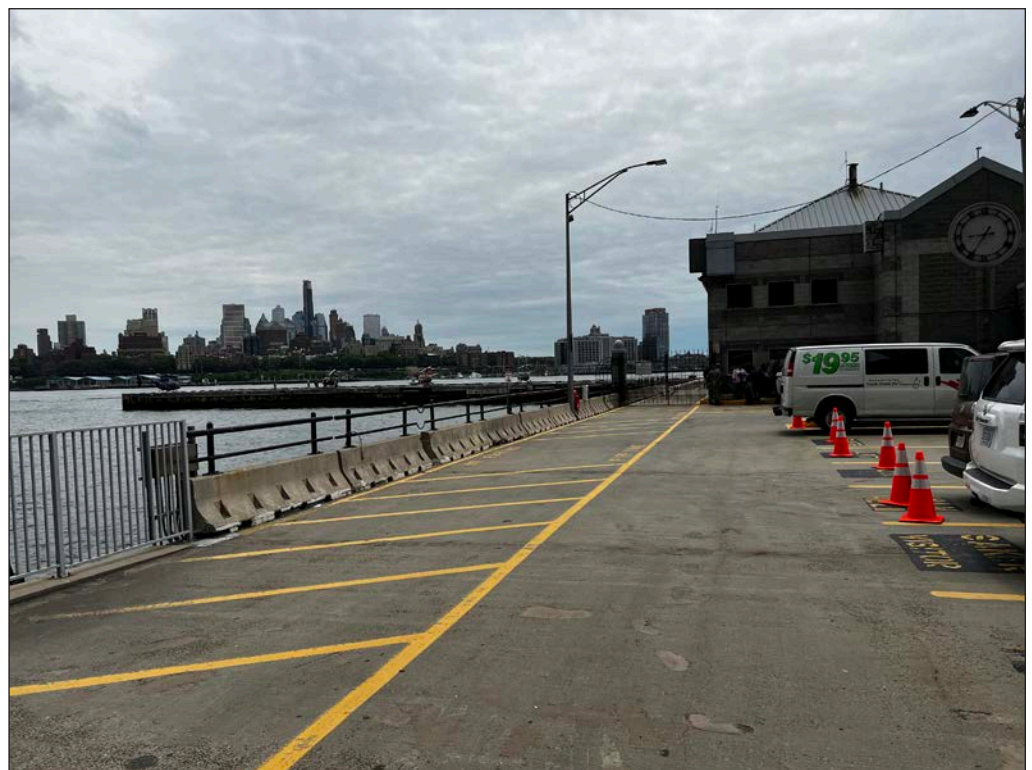
View looking east along the East River Greenway from the east entrance of Pier 6

4





View of Pier 6 and the East River Greenway from the north side, facing southwest **5**

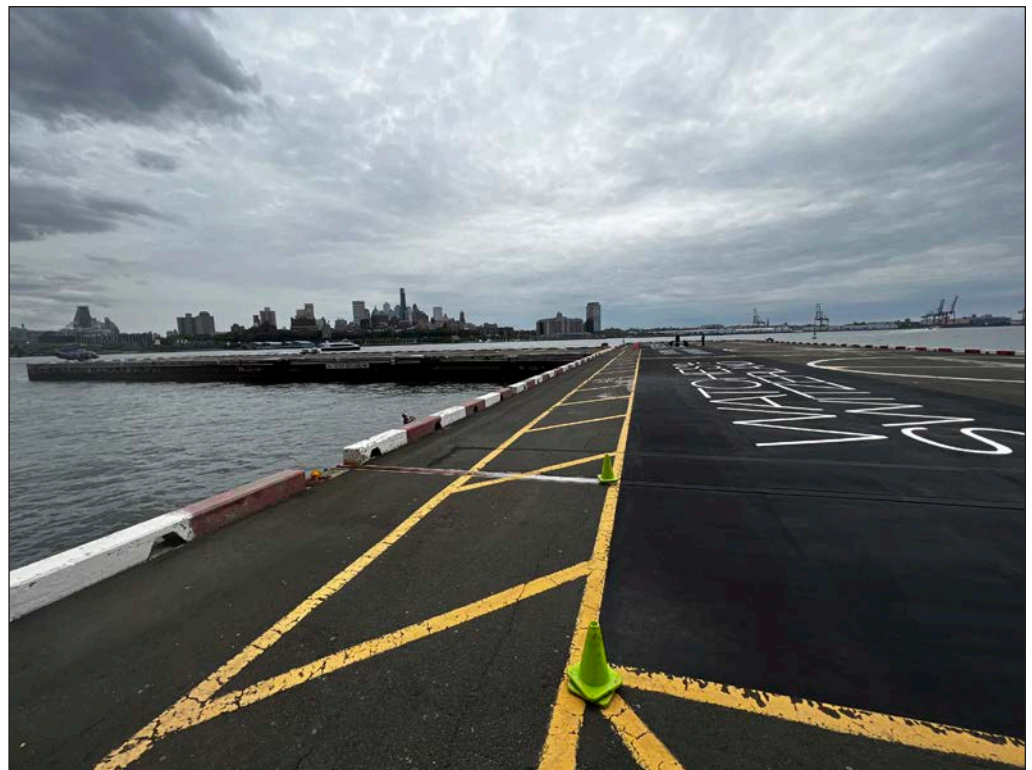


View from the east entrance of Pier 6 looking southeast at the parking lot, fire lane, and helipad facilities **6**



View from the project site, facing east towards the proposed gangway and spud barge location

7



View from the project site facing southeast towards the helipad launch pads

8





NOTE: This figure is for illustrative purposes only. The Freight Operator will confirm the final onsite circulation plan.

NUMBER OF BUILDINGS: N/a GROSS FLOOR AREA OF EACH BUILDING (sq. ft.): N/a  
 HEIGHT OF EACH BUILDING (ft.): N/a NUMBER OF STORIES OF EACH BUILDING: N/a

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

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

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

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

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

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

VOLUME OF DISTURBANCE: TBD cubic ft. (width x length x depth)

AREA OF PERMANENT DISTURBANCE: Approx. 56.6 sf (four 36-in diameter steel pipe anchor piles with two 36-in monopiles)  
 sq. ft. (width x length)

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

	<b>Residential</b>	<b>Commercial</b>	<b>Community Facility</b>	<b>Industrial/Manufacturing</b>
<b>Size</b> (in gross sq. ft.)	N/A	N/A	N/A	3,105
<b>Type</b> (e.g., retail, office, school)	N/A units	N/A	N/A	Transportation and warehousing use (freight)

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

If "yes," please specify:

NUMBER OF ADDITIONAL RESIDENTS: 0

NUMBER OF ADDITIONAL WORKERS: 5

Provide a brief explanation of how these numbers were determined: Assume 20 total new FTE related to freight use with no more than 5 FTE onsite at DME

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): 2023

ANTICIPATED PERIOD OF CONSTRUCTION IN MONTHS: No more than 6 months

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

BRIEFLY DESCRIBE PHASES AND CONSTRUCTION SCHEDULE: The construction of pier upgrades is not anticipated to exceed 6 months and is anticipated for operation in mid- to late-2023. Construction will include pilings to support the gangway and floating freight barge landing extending from the existing pier.

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

☒ RESIDENTIAL ☒ MANUFACTURING ☒ COMMERCIAL ☒ PARK/FOREST/OPEN SPACE ☒ OTHER, specify:  
 Transportation infrastructure and other land uses identified in the Land Use figure



**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
<b>1. LAND USE, ZONING, AND PUBLIC POLICY:</b> <a href="#">CEQR Technical Manual Chapter 4</a>		
(a) Would the proposed project result in a change in land use different from surrounding land uses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project result in a change in zoning different from surrounding zoning?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Is there the potential to affect an applicable public policy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) If "yes," to (a), (b), and/or (c), complete a preliminary assessment and attach.		
(e) Is the project a large, publicly sponsored project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," complete a PlanYC assessment and attach.		
(f) Is any part of the directly affected area within the City's <a href="#">Waterfront Revitalization Program boundaries</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," complete the <a href="#">Consistency Assessment Form</a> . See attached.		
<b>2. SOCIOECONOMIC CONDITIONS:</b> <a href="#">CEQR Technical Manual Chapter 5</a>		
(a) Would the proposed project:		
o Generate a net increase of 200 or more residential units?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Generate a net increase of 200,000 or more square feet of commercial space?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Directly displace more than 500 residents?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Directly displace more than 100 employees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Affect conditions in a specific industry?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>3. COMMUNITY FACILITIES:</b> <a href="#">CEQR Technical Manual Chapter 6</a>		
(a) Direct Effects		
o Would the project directly eliminate, displace, or alter public or publicly funded community facilities such as educational facilities, libraries, hospitals and other health care facilities, day care centers, police stations, or fire stations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Indirect Effects		
o <b>Early Childhood Programs:</b> 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 <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o <b>Public Schools:</b> 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 <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o <b>Libraries:</b> 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 <a href="#">Chapter 6</a> )	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o <b>Health Care Facilities and Fire/Police Protection:</b> Would the project result in the introduction of a sizeable new neighborhood?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>4. OPEN SPACE:</b> <a href="#">CEQR Technical Manual Chapter 7</a>		
(a) Would the project change or eliminate existing open space?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the project generate more than 200 additional residents or 500 additional employees?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>5. SHADOWS:</b> <a href="#">CEQR Technical Manual Chapter 8</a>		
(a) Would the proposed project result in a net height increase of any structure of 50 feet or more?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project result in any increase in structure height and be located adjacent to or across the street from a sunlight-sensitive resource?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>6. HISTORIC AND CULTURAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 9</a>		



	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 <a href="#">GIS System for Archaeology and National Register</a> to confirm)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project involve construction resulting in in-ground disturbance to an area not previously excavated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If "yes" to either of the above, list any identified architectural and/or archaeological resources and attach supporting information on whether the proposed project would potentially affect any architectural or archeological resources. FDR Drive and East River Bulkhead are NR eligible; see attached		
<b>7. URBAN DESIGN AND VISUAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 10</a>		
(a) Would the proposed project introduce a new building, a new building height, or result in any substantial physical alteration to the streetscape or public space in the vicinity of the proposed project that is not currently allowed by existing zoning?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the proposed project result in obstruction of publicly accessible views to visual resources not currently allowed by existing zoning?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>8. NATURAL RESOURCES:</b> <a href="#">CEQR Technical Manual Chapter 11</a>		
(a) Does the proposed project site or a site adjacent to the project contain natural resources as defined in Section 100 of <a href="#">Chapter 11</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," list the resources and attach supporting information on whether the proposed project would affect any of these resources.		
(b) Is any part of the directly affected area within the <a href="#">Jamaica Bay Watershed</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," complete the Jamaica Bay Watershed Protection Plan <a href="#">Project Tracking Form</a> , and submit according to its <a href="#">instructions</a> .		
<b>9. HAZARDOUS MATERIALS:</b> <a href="#">CEQR Technical Manual Chapter 12</a>		
(a) Would the proposed project allow commercial or residential uses in an area that is currently, or was historically, a manufacturing area that involved hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project introduce new activities or processes using hazardous materials and increase the risk of human or environmental exposure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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 <a href="#">Hazardous Materials Appendix</a> (including nonconforming uses)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Has a Phase I Environmental Site Assessment been performed for the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o If "yes," were Recognized Environmental Conditions (RECs) identified? Briefly identify: See attached and part II	<input type="checkbox"/>	<input type="checkbox"/>
(j) Based on the Phase I Assessment, is a Phase II Investigation needed? TBD	<input type="checkbox"/>	<input type="checkbox"/>
<b>10. WATER AND SEWER INFRASTRUCTURE:</b> <a href="#">CEQR Technical Manual Chapter 13</a>		
(a) Would the project result in water demand of more than one million gallons per day?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If the proposed project located in a combined sewer area, would it result in at least 1,000 residential units or 250,000 square feet or more of commercial space in Manhattan, or at least 400 residential units or 150,000 square feet or more of commercial space in the Bronx, Brooklyn, Staten Island, or Queens?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If the proposed project located in a <a href="#">separately sewered area</a> , would it result in the same or greater development than the amounts listed in Table 13-1 in <a href="#">Chapter 13</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Would the proposed project involve development on a site that is 5 acres or larger where the amount of impervious surface would increase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) If the project is located within the <a href="#">Jamaica Bay Watershed</a> or in certain <a href="#">specific drainage areas</a> , including Bronx River, Coney Island Creek, Flushing Bay and Creek, Gowanus Canal, Hutchinson River, Newtown Creek, or Westchester Creek, would it involve development on a site that is 1 acre or larger where the amount of impervious surface would increase?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Would the proposed project be located in an area that is partially sewered or currently unsewered?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	YES	NO
(g) Is the project proposing an industrial facility or activity that would contribute industrial discharges to a Wastewater Treatment Plant and/or generate contaminated stormwater in a separate storm sewer system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Would the project involve construction of a new stormwater outfall that requires federal and/or state permits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>11. SOLID WASTE AND SANITATION SERVICES:</b> <a href="#">CEQR Technical Manual Chapter 14</a>		
(a) Using Table 14-1 in <a href="#">Chapter 14</a> , the project's projected operational solid waste generation is estimated to be (pounds per week): N/a; the proposed project would construct a new barge that would produce a negligible amount of solid waste		
o Would the proposed project have the potential to generate 100,000 pounds (50 tons) or more of solid waste per week?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project involve a reduction in capacity at a solid waste management facility used for refuse or recyclables generated within the City?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>12. ENERGY:</b> <a href="#">CEQR Technical Manual Chapter 15</a>		
(a) Using energy modeling or Table 15-1 in <a href="#">Chapter 15</a> , the project's projected energy use is estimated to be (annual BTUs): N/A		
(b) Would the proposed project affect the transmission or generation of energy?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>13. TRANSPORTATION:</b> <a href="#">CEQR Technical Manual Chapter 16</a>		
(a) Would the proposed project exceed any threshold identified in Table 16-1 in <a href="#">Chapter 16</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If "yes," conduct the screening analyses, attach appropriate back up data as needed for each stage and answer the following questions:		
o Would the proposed project result in 50 or more Passenger Car Equivalents (PCEs) per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If "yes," would the proposed project result in 50 or more vehicle trips per project peak hour at any given intersection? <i>**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 <a href="#">Chapter 16</a> for more information.</i>	<input type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 subway/rail, bus trips, or 50 Citywide Ferry Service ferry trips per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If "yes," would the proposed project result, per project peak hour, in 50 or more bus trips on a single line (in one direction), 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?	<input type="checkbox"/>	<input type="checkbox"/>
o Would the proposed project result in more than 200 pedestrian trips per project peak hour?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If "yes," would the proposed project result in more than 200 pedestrian trips per project peak hour to any given pedestrian or transit element, crosswalk, subway stair, or bus stop, or Citywide Ferry Service landing?	<input type="checkbox"/>	<input type="checkbox"/>
<b>14. AIR QUALITY:</b> <a href="#">CEQR Technical Manual Chapter 17</a>		
(a) <i>Mobile Sources:</i> Would the proposed project result in the conditions outlined in Section 210 in <a href="#">Chapter 17</a> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) <i>Stationary Sources:</i> Would the proposed project result in the conditions outlined in Section 220 in <a href="#">Chapter 17</a> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o If "yes," would the proposed project exceed the thresholds in Figure 17-3, Stationary Source Screen Graph in <a href="#">Chapter 17</a> ? (Attach graph as needed)	<input type="checkbox"/>	<input type="checkbox"/>
(c) Does the proposed project involve multiple buildings on the project site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Does the proposed project require federal approvals, support, licensing, or permits subject to conformity requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to air quality that preclude the potential for significant adverse impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>15. GREENHOUSE GAS EMISSIONS:</b> <a href="#">CEQR Technical Manual Chapter 18</a>		
(a) Is the proposed project a city capital project or a power generation plant?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project fundamentally change the City's solid waste management system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) If "yes" to any of the above, would the project require a GHG emissions assessment based on the guidance in <a href="#">Chapter 18</a> ?	<input type="checkbox"/>	<input type="checkbox"/>
<b>16. NOISE:</b> <a href="#">CEQR Technical Manual Chapter 19</a>		
(a) Would the proposed project generate or reroute vehicular traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Would the proposed project introduce new or additional receptors (see Section 114 in <a href="#">Chapter 19</a> ) near heavily trafficked roadways, within one horizontal mile of an existing or proposed flight path, or within 1,500 feet of an existing or proposed rail line with a direct line of site to that rail line?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Would the proposed project cause a stationary noise source to operate within 1,500 feet of a receptor with a direct line of sight to that receptor or introduce receptors into an area with high ambient stationary noise?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Does the proposed project site have existing institutional controls (e.g., (E) designation or Restrictive Declaration) relating to noise that preclude the potential for significant adverse impacts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>17. PUBLIC HEALTH:</b> <a href="#">CEQR Technical Manual Chapter 20</a>		

	YES	NO
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Air Quality; Hazardous Materials; Noise?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If "yes," explain why an assessment of public health is or is not warranted based on the guidance in <a href="#">Chapter 20</a> , "Public Health." Attach a preliminary analysis, if necessary. See attached		
<b>18. NEIGHBORHOOD CHARACTER:</b> <a href="#">CEQR Technical Manual Chapter 21</a>		
(a) Based upon the analyses conducted, do any of the following technical areas require a detailed analysis: Land Use, Zoning, and Public Policy; Socioeconomic Conditions; Open Space; Historic and Cultural Resources; Urban Design and Visual Resources; Shadows; Transportation; Noise?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) If "yes," explain why an assessment of neighborhood character is or is not warranted based on the guidance in <a href="#">Chapter 21</a> , "Neighborhood Character." Attach a preliminary analysis, if necessary. See attached		
<b>19. CONSTRUCTION:</b> <a href="#">CEQR Technical Manual Chapter 22</a>		
(a) Would the project's construction activities involve:		
o Construction activities lasting longer than two years?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Construction activities within a Central Business District or along an arterial highway or major thoroughfare?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Closing, narrowing, or otherwise impeding traffic, transit, or pedestrian elements (roadways, parking spaces, bicycle routes, sidewalks, crosswalks, corners, etc.)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Construction of multiple buildings where there is a potential for on-site receptors on buildings completed before the final build-out?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o The operation of several pieces of diesel equipment in a single location at peak construction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Closure of a community facility or disruption in its services?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
o Activities within 400 feet of a historic or cultural resource?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Disturbance of a site containing or adjacent to a site containing natural resources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
o Construction on multiple development sites in the same geographic area, such that there is the potential for several construction timelines to overlap or last for more than two years overall?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If any boxes are checked "yes," explain why a preliminary construction assessment is or is not warranted based on the guidance in <a href="#">Chapter 22</a> , "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		
<b>20. APPLICANT'S CERTIFICATION</b>		
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 Celeste Evans, AKRF Inc.	DATE February 6, 2023	
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.**

## **Additional Technical Information for EAS Part II**

---

### **A. HISTORIC AND CULTURAL RESOURCES**

Pursuant to CEQR, consultation was initiated with the New York City Landmarks Preservation Commission (LPC) regarding the Proposed Project. In a comment letter dated June 30, 2022 (see **Appendix D**), LPC confirmed that it does not comment on underwater sites and deferred to state and federal permitting authorities regarding the proposed undertaking.

Regarding architectural resources, there are only two known architectural resources located within 400 feet of the Project Site—the East River Bulkhead and the FDR Drive, both of which have been determined eligible for listing on the State and National Registers of Historic Places. Neither of these architectural resources would be affected by the Proposed Project. Therefore, the Proposed Actions would not result in significant adverse impacts with respect to architectural or archaeological resources and further analysis is not warranted.

### **B. NOISE**

Following *CEQR Technical Manual* guidelines, a noise analysis determines whether a proposed action would result in increases in noise levels that could have a significant adverse impact on nearby sensitive receptors and also considers potential impacts of ambient noise sources (e.g., vehicular traffic from adjacent roadways and surrounding playgrounds) on any noise-sensitive land uses that would be introduced by a proposed project (e.g., residential space).

The Proposed Project would not result in any changes to frequency or timing of aircraft operations at the Heliport, so there would not be the potential for increased noise levels from aircraft. As part of the Proposed Project, with the introduction of a last-mile distribution center, up to three waterborne vessels per day would access the Heliport, which would produce noise at landside noise-sensitive receptors from engine operation and mandatory warning horns on arrival and departure. However, the amount of noise that would be experienced at the nearest noise-sensitive area, i.e., the portion of the East River Greenway immediately adjacent to the Heliport pier, would be substantially less than that produced at adjacent portions of the Greenway by ferries currently accessing the immediately adjacent piers (i.e., Battery Maritime Building and Pier 11). Further, noise associated with these vessels, as experienced at the Greenway and other landside noise-sensitive receptors, would be substantially less than what is generated by other existing noise sources (e.g., the FDR Drive, existing helicopter operations at the pier, etc.). Consequently, the waterborne vessels associated with the Proposed Project would not have the potential to result in significant increases in noise.

The number of incremental vehicle trips generated by the Proposed Project at intersections adjacent to noise-sensitive land uses (e.g., residential, school, open space, commercial office, etc.) would be lower than the threshold that would require any detailed analysis. Consequently, with the relatively moderate to high numbers of vehicles in the immediate area of noise sensitive receptors, it is not expected that the Proposed Project would result in sufficient traffic to have the potential to cause a significant adverse noise impact (i.e., it would not result in a doubling of noise passenger car equivalents [Noise PCEs], which would be necessary to cause a 3 dBA increase in noise levels). Therefore, significant adverse mobile source noise impacts would not be expected, and further assessment is not warranted.

The green last-mile facility use is not considered a noise-sensitive land use under CEQR guidelines. In addition, there would be no new mechanical systems (i.e., heating, ventilation, and air conditioning systems) that would result in any significant increase in ambient noise levels. Therefore, significant adverse stationary source noise impacts would not be expected, and further assessment is not warranted.

## C. PUBLIC HEALTH

According to the guidelines of the *CEQR Technical Manual*, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise. As discussed throughout this EAS, the Proposed Actions would not result in any significant adverse impacts in these areas (see also Attachment C, “Natural Resources”; Attachment D, “Hazardous Materials”; and Attachment F, “Air Quality”). Therefore, the Proposed Actions would not result in any significant adverse impacts to public health, and further assessment is not warranted.

## D. NEIGHBORHOOD CHARACTER

According to the *CEQR Technical Manual*, an analysis of neighborhood character is warranted when a proposed project has the potential to alter certain elements contributing to the affected area’s neighborhood character. The elements that define neighborhood character are described in other technical analysis areas—land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; and noise. Following *CEQR Technical Manual* guidance, a preliminary assessment of neighborhood character may be appropriate if the analysis finds that the project would have the potential to result in any significant adverse impacts in these technical areas.

As discussed throughout this EAS, the Proposed Project would not have the potential to result in any significant adverse impacts in the areas that contribute to neighborhood character. Based on the nature, scope and location of the Proposed Project, detailed analyses were not required and there would be no potential for significant adverse impacts in the following areas that make up neighborhood character: socioeconomic conditions; open space; historic and cultural resources; and shadows. Further analyses were conducted for land use, zoning and public policy, urban design and visual resources, transportation and noise, however these would not result in either significant adverse impacts nor the potential for moderate effects on neighborhood character as described below.

The Project Site is located in the East River in lower Manhattan in an area characterized by a mix of uses. Other land uses in the immediately surrounding area include transportation, utility and commercial uses. The Proposed Project would not represent a significant new development on the Project Site that would have the potential to negatively affect land uses in the study area. The proposed floating barge landing would be attached to the existing Pier 6 via a gangway, ultimately creating a small extension of an existing facility, and thus would not result in a significant change to the urban design of the area, and would not have the potential to affect views or have other potential impacts on visual resources.

As discussed in this EAS, the Proposed Project would not result in an incremental increase in vehicle trips that exceeds the *CEQR Technical Manual* threshold of 50 vehicle trips per hour. Similarly, as discussed above under “Noise,” the number of incremental vehicle trips generated by the Proposed Project would be lower than the threshold that would require any detailed analysis. Therefore, the Proposed Project would not result in any significant adverse traffic or noise impacts that would have the potential to negatively affect neighborhood character.

Overall, the Proposed Project would result in limited changes to the Project Site and would not result in any potential for the combination of moderate effects or result in significant adverse impacts in the areas that contribute to neighborhood character. Therefore, the Proposed Project would not have the potential to result in a significant adverse impact to neighborhood character, and further assessment is not warranted.

## E. CONSTRUCTION

As described on Page 1a, Project Description, absent the Proposed Actions, there would not be any physical changes to the Heliport pier or facilities. It is expected that development would occur in a single phase in approximately 6 months. Assuming approval of the Proposed Actions as well as approval of the USACE/NYSDEC wetland permit required for the project, which would be sought by the Freight Operator—the anticipated completion date is 2023.

In-water construction activities associated with the Proposed Project must comply with federal and state legislation and regulatory programs that pertain to activities in coastal areas, surface waters, floodplains, wetlands, and the protection of species of special concern. Installation of the barge landing would require authorization under several federal and state regulatory programs, as discussed below. The Freight Operator would be responsible for obtaining the required permits



from USACE and NYSDEC. All construction activities would be completed in accordance with the conditions of permits issued by USACE under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and by NYSDEC under Section 401 of the Clean Water Act and Article 15 for Protection of Waters.

The details of the in-water construction required for the Proposed Project are not known at the time of Concessionaire approval. Once the Freight Operator is selected, the operator would be responsible for obtaining the required New York State Department of Environmental Conservation (NYSDEC) and U.S. Army Corps of Engineers (USACE) permits, and updating any CEQR assumptions or determinations to secure such permits, at which time the scope of in-water construction will be confirmed. Therefore, the assessment of in-water construction is based on conservative estimates that will be revisited and refined during the permitting process.

Construction activities associated with the Proposed Project would be expected to result in conditions typical of construction projects in New York City. Construction activities would be carried out in accordance with New York City laws and regulations, which allow construction activities between 7:00 AM and 6:00 PM on weekdays. If work is required outside of normal hours, necessary approvals would be obtained from the appropriate agencies (i.e., the New York City Department of Buildings (DOB) and New York City Department of Environmental Protection (DEP)). All necessary measures would be implemented to ensure adherence to the New York City Air Pollution Control Code regulating construction-related dust emissions and the New York City Noise Control Code regulating construction noise. If needed, Maintenance and Protection of Traffic (MPT) plans would be developed for any curb-lane and/or sidewalk closures. Approval of these plans and implementation of all temporary closures during construction would be coordinated with the New York City Department of Transportation's (DOT) Office of Construction Mitigation and Coordination (OCMC).

Construction activities would not occur within 90 feet of a historic or cultural resource. Therefore, it is not expected that construction of the Proposed Project would have the potential to result in construction-related impacts to any historic resources.

Overall, through implementation of the measures described above, adverse effects associated with the construction activities would be minimized. Accordingly, the Proposed Project would not result in significant adverse construction impacts, and no further analysis is required.

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

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

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

**Potentially  
Significant  
Adverse Impact**

**IMPACT CATEGORY**

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?

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 General Counsel

LEAD AGENCY New York City Department of Small Business Services

NAME Anthony Dell'Olio

DATE February 6, 2023

SIGNATURE





## NEGATIVE DECLARATION

Kevin D. Kim  
Commissioner

1 Liberty Plaza  
New York, NY 10006  
212-513-6300 tel  
212-618-8865 fax

**CEQR NUMBER:** 22SBS006M

**DATE ISSUED:** February 6, 2023

**NAME:** Downtown Manhattan Heliport FreightNYC Project

**CEQR CLASSIFICATION:** Unlisted

**LOCATION:** 1 Pier 6  
Manhattan  
Community District 1  
Block 2, Lot 23

### DESCRIPTION:

The Applicants, the New York City Economic Development Corporation (NYCEDC) and the New York City Department of Small Business Services (SBS) (collectively the “City”), are undergoing a public procurement to select a new operator (the “Concessionaire”) of the Downtown Manhattan Heliport (DMH) at Pier 6, in Lower Manhattan (Block 2, Lot 23). The Concessionaire will go through the Franchise and Concession Review Committee (FCRC) process to operate the Heliport (the “Proposed Action”), which is a discretionary action subject to the City Environmental Quality Review (CEQR).

The City proposes to establish a last-mile delivery operation on the existing Heliport pier as part of the Concessionaire Agreement, as well as renew the existing heliport operations, which would continue to operate as they are currently with no change to the volume or timing of the helicopter operations. The Proposed Action would establish a floating freight barge landing for docking the marine vessel, as well as a gangway to connect the Heliport pier and the barge landing that would be able to rise and fall with the tides. The last-mile operations would utilize marine vessels to transport pre-loaded zero-emission vehicles (cargo bicycles) to a new permanent floating barge to be installed on the north side of the Heliport pier. The last-mile delivery facility may also use cargo vans, which would wait on the pier for the arrival of the marine vessel in the morning, be loaded with packages transferred from the vessel, and proceed on delivery routes in Lower Manhattan. It is assumed that 80 percent (or more) of the deliveries would be by electric cargo bikes, and approximately 20 percent of deliveries would be made by electric or traditional cargo vans. The operations would be limited to up to three marine vessel deliveries per day, tentatively at 7 AM, 12 PM, and 3 PM. The Concessionaire Agreement would seek to renew the existing Heliport operations and would ensure that it would not be affected by the addition of a last-mile delivery operation; therefore, the Heliport would continue to operate as at present, with uninterrupted use for its primary aviation operations. The freight operation is assumed to be operational by 2023.

The Concessionaire is expected to make cosmetic improvements to the interior of the building at the heliport and replace mechanical in-kind. The envelope of the building will not change. Additionally, the eventual freight operator will explore the feasibility of electric vehicle (“EV”) battery charging on the pier, in order to support the freight operation.

Since the Concessionaire has not been selected at the time of finalizing the Environmental Assessment Statement (EAS), conservative assumptions have been made to capture a reasonable worst case regarding the freight operations. Once the Concessionaire is selected, they would be responsible for ensuring that the freight operations are aligned with the assumptions presented in the EAS. If any new elements are proposed that are out of scope with the EAS assumptions, then they would be subject to additional environmental review and approval pursuant to CEQR.

### **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 6NYCRR, Part 617, State Environmental Quality Review, the New York City Department of Small Business Services assumed the role of lead agency for the environmental review of the Proposed Action. Based on a review of information about the project contained in an Environmental Assessment Statement (EAS) dated February 6, 2023, the New York City Department of Small Business Services has determined that the Proposed Action would not have a significant adverse impact on the environment.

### **Reasons Supporting this Determination**

The above determination is based on information contained in the EAS dated February 6, 2023 and incorporated by reference herein. The EAS finds that the Proposed Action would not have a significant adverse impact on the environment. The following areas screened out of CEQR analyses based on the scope of the Proposed Action and were found not to have a significant adverse impact: Socioeconomic Conditions, Community Facilities, Shadows, Historic and Cultural Resources, Water and Sewer Infrastructure, Solid Waste and Sanitation Services, Energy, Greenhouse Gas Emissions, Noise, Neighborhood Character, and Construction. Reasons supporting the determination of no significant adverse impact on the areas of Land Use, Urban Design, Natural Resources, Hazardous Materials, Transportation and Air Quality are provided below.

Land Use: A detailed analysis related to land use is included in this EAS. In the With Action scenario, the Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight for local delivery at a new permanent floating barge landing off the existing Heliport at Pier 6. The Proposed Action would not displace any land uses from the Project Site. The existing heliport uses on the Project Site would remain in place, and there would be no change to the existing heliport operations. The Proposed Action would require minimal modification to the East River to install piles needed to secure the new floating barge landing and associated gangway. The proposed spud barge landing and gangway would comprise an estimated 3,805 square feet (sf) of overwater coverage in the East River. Given the minor scope of the realignment of the parking lot and pier, the creation of the new last-mile delivery facility would not substantially affect land use patterns. The Proposed Action would not affect the existing zoning of the Project Site or study area. Therefore, the Proposed Action would not result



in any significant adverse impacts to land use or zoning. With respect to public policy, the Proposed Action would be consistent with the policies of the City's Waterfront Revitalization Program (WRP), ONENYC, Delivering Green, and the Vision 2030 Comprehensive Waterfront Plan.

**Urban Design:** An analysis related to urban design and visual resources is included in this EAS. The urban design study concludes that the Proposed Action would not result in any significant adverse impacts to the urban design and visual resources of the Project Site or study area. The proposed delivery operation would use the existing curb cuts at the entrance off South Street. The proposed barge landing and gangway would be additional maritime features of the existing L-shaped pier that contains landing pads for helicopters and a two-story terminal building. There would be no changes to the existing terminal building or the pier, other than having the gangway attach to the pier by the north side of the building. Additionally, Pier 6 and the DMH terminal building are not considered to be visual resources.

**Natural Resources:** An analysis of natural resources is included in this EAS. Given that the Proposed Action would involve installation of piles and fenders or dolphins to support a floating freight barge landing facilitating the mooring of marine vessels for a green last-mile delivery operation, the natural resources study assessed the potential impacts of the proposed installation on the floodplain, water quality, and natural resources. The Proposed Action would be resistant to 1 percent annual chance storm events and would not affect flood levels, flood risk, or the flow of flood waters within the Project Site or the surrounding area. The Proposed Action would not have direct impacts on New York State Department of Environmental Conservation (NYSDEC) wetlands, as the piles and barge landing would be installed in waters deeper than 6 feet at mean low water (MLW). In-water construction activities would be completed over approximately 8 to 12 weeks and would be conducted in accordance with any restricted periods established to protect spawning winter flounder (January 15 through May 31) and/or migrating anadromous species (March 1 through June 30).

Construction and operation of the Proposed Action would not result in impacts to the limited vegetation adjacent to Pier 6 along the Greenway. There is no terrestrial habitat on the pier itself, and the addition of a gangway to connect the pier to the barge landing would not result in loss of habitat. The Proposed Action would not result in impacts to water quality, aquatic habitat, or aquatic biota, and therefore would not have adverse impacts on the essential fish habitat. Additionally, the construction and operation of the Proposed Action would not have the potential to result in significant adverse impacts to federally protected species.

Once the Freight Operator is selected, the operator would be responsible for obtaining the required NYSDEC and U.S. Army Corps of Engineers (USACE) permits and updating any CEQR assumptions or determinations to secure such permits, at which time the scope of in-water construction will be confirmed. Therefore, the assessment of in-water construction presented in the EAS is based on conservative estimates that will be revisited and refined during the permitting process.

**Hazardous Materials:** An analysis related to hazardous materials is included in this EAS. Construction of the Proposed Action includes in-water pile installation for the barge landing and would result in an increase in temporary, localized suspended sediment that would dissipate shortly after sediment disturbing activities. The installation of the barge

landing would require authorization/permitting by USACE under Section 404 of the Clean Water Act, as well as permitting in accordance with NYSDEC under Article 15 Protection of Waters Act. Appropriate NYSDEC permitting would be obtained which would demonstrate compliance of Section 401 of the Clean Water Act.

With these measures included as part of the Proposed Action, no significant adverse impacts related to hazardous materials would occur.

**Transportation:** A screening assessment for transportation is included in this EAS. Under the hybrid, all-bike, and all-van scenarios, the incremental trips generated would not exceed the *2021 CEQR Technical Manual* analysis threshold of 50 or more peak hour vehicle trips at a single intersection in any peak hour. In addition, the effect on street user safety will be managed by NYCEDC and the Freight Operator through an operational and physical layout plan which is currently being developed. Therefore, there would be no significant adverse transportation impacts with the Proposed Action.

**Air Quality:** A preliminary analysis related to air quality is included in this EAS. As detailed in the transportation screening, the Proposed Action would not significantly alter traffic conditions. Additionally, the Proposed Action would not involve the addition of any new stationary emission sources. Therefore, there is no potential for mobile- or stationary-source impacts from the Proposed Action. The analysis of potential air quality impacts focuses on the nitrogen dioxide (NO<sub>2</sub>) and particulate matter (PM) emissions from the proposed marine freight service itself, including the effect of marine vessel engines on pollutant concentrations near the existing Heliport at Pier 6 (microscale analysis). The results of the EPA AERMOD analysis concludes that there are no exceedances of the NO<sub>2</sub> 1-hour National Ambient Air Quality Standard (NAAQS) and the maximum predicted incremental concentrations of PM<sub>2.5</sub> are not predicted to exceed the CEQR *de minimis* criteria. Therefore, based on the results of the analysis, the Proposed Action would not have the potential to result in any significant adverse air quality impacts.

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).

*Anthony Dellolio*

---

Anthony Dell'Olio, General Counsel

February 6, 2023

---

Date

## **A. INTRODUCTION**

This attachment examines the potential effects of the Proposed Action on land use, zoning, and public policy within a 400-foot study area, in accordance with the *CEQR Technical Manual*. The analysis characterizes the existing conditions, evaluates changes in the land use and zoning that are expected to occur independent of the Proposed Action, and identifies any potential impacts to land use, zoning, and public policy associated with the Proposed Action.

As detailed on Page 1a, “Project Description,” as part of the process to select a new operator of the Downtown Manhattan Heliport (DMH) by the New York City Economic Development Corporation (NYCEDC) and the New York City Department of Small Business Services (SBS), the Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight for local delivery at a new permanent floating barge landing extending from the existing Heliport at Pier 6. Shifting these freight deliveries to Lower Manhattan via marine vessel rather than the street network is intended to ultimately help reduce traffic congestion and associated pollution. The Proposed Project is a key initiative for Freight NYC to shift freight from truck deliveries to the City’s waterways and bike facilities to improve street user safety, reduce truck traffic congestion, improve air quality, and fight climate change.

## **B. METHODOLOGY**

The analysis methodology is based on the guidance of the *CEQR Technical Manual*. The analysis examines the effects of the Proposed Project on land use, zoning, and public policy, and determines the potential for the Proposed Action to result in significant adverse impacts in these areas. The study area for the analysis is the area within a 400-foot radius of the Project Site: the study area generally includes the portions of the East River to the west, east, and south of the pier, as well as the upland area along the East River Greenway and FDR Drive to the north, between Broad Street and Old Slip (see **Figure 1** of the EAS). As noted on Page 1a, “Project Description,” the Proposed Project would be operational by 2023. Absent the Proposed Project, the Project Site would remain the same as in existing conditions.

This analysis begins with a description of existing conditions in the study area with respect to land use, zoning, and public policy. The analysis then projects land use, zoning, and public policy conditions in the future without the Proposed Project (the “No Action” condition) by identifying developments and potential zoning and policy changes expected to occur within that time frame. The potential impacts of the Proposed Project are then assessed by comparing conditions with the Proposed Project (the “With Action” condition) to the No Action condition. This analysis determines whether the Proposed Project is compatible with land use conditions in the study area or has an adverse impact on them. Similarly, the analysis considers the Proposed Project’s compliance with, and effect on, the area’s zoning and other applicable public policies.

## **C. EXISTING CONDITIONS**

### **LAND USE**

#### *PROJECT SITE*

The Downtown Manhattan Heliport (DMH) is located on Pier 6 on the East River in the Financial District; the pier is located between Pier 11 and the Battery Maritime Building. The DMH was established in 1960 as the City's second public-use heliport, after the West 30th Street heliport. DMH operations were transferred from the Port Authority of New York and New Jersey (PANYNJ) to NYCEDC in 2005. The facility comprises landing pads on the pier that can accommodate 12 helicopters, with a permanent two-story terminal building that contains a customer lounge, operator offices, and control tower. The facility also includes a 12-space parking lot and a fueling station. DMH hosts a variety of helicopter services, including sightseeing tours. Operating hours are Monday through Friday from 7am to 10pm; Saturdays from 7am to 7pm; and Sundays from 7am to 5pm. Tourist or sightseeing flights are only permitted from 9am to 7pm Monday through Saturday and are not allowed on Sundays. The pier is accessed from the East River Greenway and street network via two greenway crossings and two curb cuts onto South Street, which lead to the Heliport's 12-space parking lot. East River Greenway bike users and esplanade foot traffic cross these two access points currently.

#### *STUDY AREA*

The 400-foot study area is located in the Financial District and is generally bound by Water Street to the northwest, Broad Street to the west, Old Slip to the east and extends south into the East River. The majority of the study area contains the river; in the upland area northwest of the FDR Drive and East River Greenway, the study area contains large commercial office buildings (see **Figure 4** of the EAS). 55 Water Street, located to the north of the pier, is 53 stories tall and one of the largest office buildings by square footage in the city. The Vietnam Veterans Plaza, a public open space and memorial, is located in between 55 Water Street and the other large office buildings in the upland portion of the study area. Nearby neighboring piers primarily contain transportation and utility uses.

The study area is well-served by various modes of transportation, including the Whitehall Terminal subway station located just southwest of the study area, which provides access to the 1, E, R, and W subway lines. The area also contains several ferry terminals, including Pier 11/Wall Street, situated northeast of the study area. The East River Greenway traverses the study area, connecting pedestrians and cyclists in the area. The FDR Drive runs parallel to the Greenway within the study area, and serves as a major arterial roadway in Manhattan, providing vehicular access from the southern tip of Manhattan in the Battery, and the Brooklyn Battery Tunnel, to the Triboro Bridge at the northern end of the island.

### **ZONING**

#### *PROJECT SITE*

The Project Site is located in a C4-6 zoning district within the Special Lower Manhattan District (see **Figure 3** of the EAS). C4 districts permit high-density commercial uses and are reserved for regional commercial centers. C4-6 districts typically permit a base commercial floor area ratio



(FAR) of 3.4 and have a residential district equivalent of an R10 district. The C4-6 district does not require any accessory parking.

The Special Lower Manhattan District was established in 1998 and begins at Murray Street and City Hall Park and extends east to the Brooklyn Bridge and south to the Whitehall Terminal. The Special Lower Manhattan District excludes Battery Park City, along the western end of downtown Manhattan. The special district was established to preserve and enhance the architecture and uses of the oldest central business district in the city, while also growing a residential community. The Special Lower Manhattan District encourages new housing development by permitting the conversion of older commercial buildings into residential use, and applies special height and setback regulations and limitations on the dimensions of tall buildings. The district also includes special requirements for retail continuity, pedestrian circulation space and subway station improvements that are intended to enhance the pedestrian environment.

### *STUDY AREA*

Zoning designations in the 400-foot study area include C4-6, C5-5, and C6-9 districts, all within the Special Lower Manhattan District. The C4-6 zoning district, described above, encompasses the waterfront portion of the study area along FDR Drive (generally the piers) between the Battery Marine Terminal and the Brooklyn Bridge. Directly across from the Project Site, opposite the FDR Drive are the C5-5 and C6-9 zoning districts within the study area. The C5-5 district encompasses most of the financial district, while the C6-9 district is bound by Water Street to the northwest, South Street to the southeast, the Vietnam Veterans Plaza to the southwest, and Maiden Lane and Pine Street to the northeast.

The C5-5 district is a central commercial district that promotes mixed uses such as commercial offices, retail establishments and permits residential uses above. The maximum commercial FAR within C5-5 districts is 15.0 and the maximum residential FAR is 10.0. C6-9 districts have similar zoning regulations to C5-5 districts, with a maximum commercial FAR of 15.0 and residential FAR of 10.0. C6-9 districts are zoned for high-density, high-bulk commercial uses in central business locations. Permitted uses within C6 districts include large office buildings, high-rise mixed use buildings, hotels, and large department stores and entertainment centers. Both C5 and C6 districts are located near mass transit and generally do not require off-street parking.

The portion of the study area that is located within the C6-9 district is also located within the South Street Seaport Subdistrict of the Special Lower Manhattan District. This subarea was created to protect the design and integrity of the South Street Seaport district. The subarea allows for the transfer of development rights to designated receiving lots and prevents large-scale development that would be incompatible with the existing buildings along the waterfront district.

### *WATERFRONT ZONING*

Under Article VI, Chapter 2 of the New York City Zoning Resolution (“Waterfront Zoning”), properties on blocks adjacent to or intersected by the shoreline (defined as “waterfront blocks”), such as the Project Site, are subject to special zoning regulations, which, among other policy objectives, encourage active water dependent uses and assure access to the City’s waterfront. Waterfront Zoning include special bulk and use regulations to developments on piers, platforms and floating structures. Waterfront Zoning regulations mandate that most developments on waterfront zoning lots provide public open space along the water’s edge with pedestrian links to upland communities. However, the public access requirements are not applicable in certain circumstances, including heavy commercial and industrial uses in Use Groups 16, 17 and 18, and

certain city infrastructure facilities, such as airports, heliports, and seaplane bases. Water-dependent uses, such as docks for ferries and marinas, are also required to provide waterfront public access areas but are subject to a more flexible standard. Waterfront zoning also governs the location, minimum size, proportion, and type of design elements for waterfront public access areas. In addition, waterfront zoning regulations provide for visual corridors (unobstructed views of the shoreline from upland public areas) through special urban design rules.

In relation to the Waterfront Zoning regulations, a recent text amendment—Zoning for Coastal Flood Resiliency Text Amendment—was approved by the City Planning Commission on March 17, 2021 and was adopted by the City Council on May 12, 2021. This amendment to the Waterfront Zoning regulations improves upon the existing flood resilience zoning already in place in New York City’s waterfront areas (based off of 2013 Flood Resilience Zoning Text and 2015 Special Regulations for Neighborhood Recovery), and promotes resilient buildings and reduces flood risks in these most vulnerable areas now and in the future. Furthermore, the text includes special provisions to help facilitate the city’s long-term recovery from the COVID-19 pandemic and its associated economic effects by providing more time for existing nonconforming uses to reopen and for builders to undertake certain construction projects.

### **PUBLIC POLICY**

#### ***DELIVERING GREEN: A VISION FOR A SUSTAINABLE FREIGHT NETWORK SERVING NEW YORK CITY***

In December of 2021, the Mayor’s Office, the Department of Transportation (DOT), and NYCEDC released *Delivering Green: A vision for a sustainable freight network serving New York City*. The multi-agency effort seeks to provide more sustainable solutions for last mile deliveries by reducing the reliance on diesel trucks. The vision proposes five immediate and long-term solutions for changing the distribution network and promoting more resilient and environmentally friendly modes of transportation. Under the plan, a major component of creating a more sustainable distribution network includes utilizing waterways and reducing the number of delivery trucks on the main roadways. Shifting last mile deliveries from the City’s road network will require modernizing freight infrastructure and marine terminals. To further implement the goals outlined within *Delivering Green*, the City has developed a pilot program, Blue Highways, to facilitate freight activity and encourage waterborne transportation.

#### ***PLANYC/ONENYC***

In 2007, the City of New York released *PlaNYC – A Greener, Greater New York*, a groundbreaking policy framework that placed New York City at the forefront of sustainable cities. PlaNYC outlined 127 programs that focused on areas like housing and neighborhoods, parks and public spaces, brownfield redevelopment, clean waterways and water supply, transportation, energy, and climate change, and set milestones and objectives for each. In 2011, the Mayor’s Office of Long Term Planning and Sustainability released an update to the original PlaNYC that provided policies to address three key resiliency challenges that the City would face over the next twenty years: population growth, aging infrastructure, and global climate change.

PlaNYC was updated again in April 2015 and rebranded as OneNYC to serve as a comprehensive sustainability and resiliency plan to encompass issues related to social, economic, and environmental challenges facing the City. The newest feature incorporated into the 2015 version of the plan was the emphasis on equity as a guiding principle throughout all policies and

benchmarks. In April 2019, Mayor Bill de Blasio released *OneNYC 2050*, an updated comprehensive strategy with the intention of guiding the City against future social, economic, and challenges anticipated by 2050. In particular, one of the major goals of OneNYC 2050 relevant to the Proposed Project is the “Efficient Mobility” goal, which includes multiple initiatives that aim to promote reliable, safe, and sustainable transportation options in order to reduce transportation-related greenhouse gas emissions.

#### *VISION 2030: NEW YORK COMPREHENSIVE WATERFRONT PLAN*

As part of a multi-agency effort led by the Mayor’s Office, the Department of City Planning (DCP), and NYCEDC to update the city’s comprehensive waterfront plan, known as the Waterfront Vision and Enhancement Strategy (WAVES), DCP released *Vision 2020: New York City Comprehensive Waterfront Plan* in 2011. In 2021, an updated *Vision 2030: New York City Comprehensive Waterfront Plan* was released to outline the City’s plan for a more healthy, equitable, and resilient waterfront for the coming decade. Vision 2030 used extensive public outreach to provide programmatic, citywide, and site-specific recommendations for the waterfront throughout the city. The six main themes of the plan are climate resiliency and adaptation, waterfront public access, economic opportunity, water quality and natural resources, ferries, and governance. The visioning document identifies a need to expand access to diverse, well-paid jobs that promote a sustainable future through a green economy. The plan calls for improvements to waterfront infrastructure with green technology and sustainable solutions to help diversify the economy and spur new economic activity along the waterfront, as well as promote usage of the waterways.

#### *WATERFRONT REVITALIZATION PROGRAM (WRP)*

New York City’s 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. A local waterfront revitalization program, such as New York City’s, is subject to approval by the New York State Department of State with the concurrence of the United States Department of Commerce pursuant to applicable state and federal law, including the Waterfront Revitalization of Coastal Areas and Inland Waterways Act and the Federal Coastal Zone Management Act. The WRP was originally adopted by the City of New York in 1982, revised in 2002, and revised again in 2013. The revised WRP was approved by the New York State Secretary of State and the US Secretary of Commerce in 2016.

All Proposed Actions subject to CEQR, the Uniform Land Use Review Procedure (ULURP), or other local, state, or federal agency discretionary actions that are situated within New York City’s designated Coastal Zone boundary must be reviewed and assessed for their consistency with the WRP. The Proposed Project is located in a waterfront area that is located within the City- and State-designated coastal zone. Therefore, an assessment of the Proposed Project’s consistency with applicable WRP policies is warranted and is provided below.

## **D. THE FUTURE WITHOUT THE PROPOSED PROJECT**

### **LAND USE**

#### *PROJECT SITE*

Absent the Proposed Project, the Project Site would remain in its existing condition and no new spud barge landing and associated gangway would be developed. The Project Site would continue to operate under the jurisdiction of the NYCEDC and maintain its existing land use as a public-use heliport service operated by the DMH.

#### *STUDY AREA*

There are no planned development projects within the study area in the No Action Condition, and overall, development in the No Action condition would represent a continuation of existing land use patterns and trends in the study area. Since the demand for the goods delivered by the Proposed Action is not new to the area near the DMH, the delivery of those same goods will presumably continue to be made under the No Action condition via cars, vans, and trucks to the same nearby destinations.

### **ZONING AND PUBLIC POLICY**

No significant changes to zoning or public policy are anticipated in the study area in the No Action condition.

## **E. THE FUTURE WITH THE PROPOSED PROJECT**

### **LAND USE**

#### *PROJECT SITE*

As described on Page 1a, “Project Description,” the Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight for local delivery at a new permanent floating barge landing off the existing Heliport at Pier 6.

The Proposed Project would not displace any land uses from the Project Site. The existing heliport uses on the Project Site would remain in place, and there would be no change to the existing heliport operations. The Proposed Project would require minimal modification to the East River to install piles needed to secure the new floating barge landing and associated gangway. The proposed spud barge landing and gangway would comprise an estimated 3,805 sf of overwater coverage in the East River. Additionally, the existing firelane located alongside the heliport parking lot will be replaced with striping for the cargo bikes. Roughly half of the existing parking spaces would be temporarily used for loading of vans one hour each day. The cargo bikes would be preloaded on the marine vessel and temporarily staged on the floating spud barge landing, before moving off the pier onto the street network for deliveries. The associated infrastructure with the delivery operation would improve existing last mile solutions by creating a seamless distribution network that produces less greenhouse gas emissions. Given the minor scope of the realignment of the parking lot and pier, the creation of the new last-mile delivery facility would not substantially affect land use patterns.



### *STUDY AREA*

The Proposed Project would be limited to the DMH facility on Pier 6 and would not result in development on any other site. The area around the Project Site would remain primarily commercial and open space uses, with nearby transportation and utility facilities and marine terminal infrastructure. The Proposed Project would be compatible with and supportive of existing land uses in the study area. The Proposed Project would provide a greener alternative for last mile delivery and provide a safe connection from the floating spud barge landing at Pier 6 to the local downtown street network. It would also improve access between the distribution hubs and the neighborhood drop off locations. The new bikeway on the pier would not adversely affect land use conditions along the East River Greenway and would primarily serve as a means of connecting the floating barge landing to the downtown street network.

Overall, the Proposed Project would create a floating barge landing for stationing cargo bike deliveries to nearby businesses, entities, and residents of the neighborhood. The Proposed Project would provide a new access option for last mile operations in the study area, would be compatible with surrounding uses, and would not conflict with land uses at the street level on and around the Project Site. Therefore, the Proposed Project would not result in significant adverse impacts to land use on the Project Site or in the study area.

### **ZONING**

The Proposed Project would not affect the existing zoning of the Project Site or study area. The proposed last-mile delivery facility is a permitted use under the applicable zoning, and the Proposed Project would comply with all applicable zoning requirements. In particular, the Project Site contains a heliport, which is exempt from the Waterfront Zoning requirements for public access areas (see Zoning Resolution [ZR] sec. 62-52), and the Proposed Project would comply with the applicable Waterfront Zoning requirements. As discussed on Page 1a, “Project Description,” the Proposed Action is limited to a Concessionaire Agreement to establish a last-mile delivery operation on the existing Heliport pier, and no approvals related to zoning are required. The Concessionaire Agreement would ensure that the existing Heliport operations would not be affected by the addition of a last-mile delivery operation and would continue as at present, with uninterrupted use for its primary aviation operations. The Proposed Project would be consistent with and supportive of surrounding land uses and zoning. Therefore, the Proposed Project would not result in significant adverse impacts to zoning on the Project Site or in the study area.

### **PUBLIC POLICY**

The Proposed Project would not result in any changes to public policy on the Project Site or in the study area and would be consistent with the public policies that currently apply to the site and the surrounding area.

### *DELIVERING GREEN: A VISION FOR A SUSTAINABLE FREIGHT NETWORK SERVING NEW YORK CITY*

The Proposed Project would support the goals of *Delivering Green* given that it seeks to reduce the number of last mile deliveries made by diesel trucks on the existing street network. In particular, the Proposed Project encourages the use of a blue highway by developing a spud barge landing off Pier 6 for increased freight activity, as well as the last mile deliveries provided by

## **Downtown Manhattan Heliport FreightNYC Project**

---

cargo bikes and electric vans. The Proposed Project goals are in line with the overall vision of *Delivering Green*.

### ***PLANYC/ONENYC***

The Proposed Project would support the goals of OneNYC as it promotes a safe and sustainable transportation alternative. It aligns with OneNYC's goal of "Efficient Mobility" by supporting sustainable transportation alternatives by placing the emphasis of last mile deliveries on freight and cargo bikes.

### ***VISION 2030: NEW YORK COMPREHENSIVE WATERFRONT PLAN***

The Proposed Project would be consistent with the goals of Vision 2030 by encouraging economic activity through the creation of waterfront infrastructure. The waterfront investments in developing the permanent floating barge landing would spur employment opportunities within the local region and would encourage a more green economy. The Proposed Project would improve existing waterfront infrastructure and promote forward thinking solutions to last mile delivery operations. Overall, the Proposed Project advances the objectives of Vision 2030.

### ***WATERFRONT REVITALIZATION PROGRAM (WRP)***

In accordance with the City's WRP and the federal Coastal Zone Management Act, the Proposed Project was reviewed for its consistency with the City's WRP policies, and the section below summarizes the WRP consistency assessment.

## **F. WATERFRONT REVITALIZATION PROGRAM**

This section summarizes the WRP consistency assessment. **Appendix A** contains the WRP Consistency Assessment Form [CAF]) and the Flood Evaluation Worksheets, as appropriate. Additional information for several WRP policies, as identified by policy questions answered as "Promote" or "Hinder" in the CAF, is provided below (as shown on the CAF, certain WRP policies are not applicable or "N/A," and assessment of the Proposed Project's consistency with these policies is not warranted).

### **CONSISTENCY OF THE PROPOSED PROJECT WITH WATERFRONT REVITALIZATION PROGRAM POLICIES**

***Policy 2: Support water-dependent and industrial uses in New York City Coastal Areas that are well-suited to their continued operation.***

*Policy 2.4: Provide infrastructure improvements necessary to support working waterfront uses.*

The Proposed Project would introduce new infrastructure to support the marine transportation of cargo bikes to facilitate the last-mile delivery operation at the existing Heliport pier. This would include the permanent mooring of a single freight barge landing secured in place with four anchor piles and 2 guide piles to serve as a staging area for one delivery vessel per day. The barge landing would be connected to the Heliport pier by a gangway extending between the two structures. It would be positioned between the shoreline and the pier such that it would be a suitable distance from the navigation channel and would not interfere with existing vessel operations in the East

River. Overall, the Proposed Project would facilitate improvements to intermodal freight transportation in the waterfront area. Therefore, the Proposed Project would promote this policy.

*Policy 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.*

As described under Policy 6.2, the Proposed Project would minimize the impacts of current and future flooding with sea level rise and would promote Policy 6.2. Therefore, the Proposed Project would promote this policy.

**Policy 3: Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.**

*Policy 3.3: Minimize conflicts between recreational boating and commercial ship operations.*

The Proposed Project would introduce a new waterborne transportation use to the Heliport pier consisting of a permanently moored freight barge landing supporting one vessel delivery per day. The East River and New York Harbor around the Project Site are heavily used by both commercial and recreational boats. Design and operation of the Proposed Project would ensure navigational safety and minimize conflicts between commercial and recreational boating operations by locating the barge landing outside the navigational channel between the existing pier and the shoreline. All vessels that use the barge landing would be subject to U.S. Coast Guard Inland Navigation Rules at 33 CFR 83, which dictate basic rules for vessel operational procedures that ensure safety on the waterway. Through these measures to minimize conflicts between the delivery vessels and other users of the waterway, the Proposed Project would promote this policy.

*Policy 3.4: Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.*

The Proposed Project would provide a waterborne transportation use that is compatible with existing land uses. The barge landing and associated vessel delivery (one per day) would not result in significant changes to the vessel activity that already exists in the lower East River and along the Manhattan shoreline. Water depths at the Project Site are approximately 12 to 15 feet, which would be sufficient to allow clearance between the delivery vessel and the river bottom, limiting the potential for sediment resuspension and subsequent effects on the aquatic environment. The Project Site would not be used for vessel storage or refueling and would not support long-term mooring of the delivery vessels. The Proposed Project would not alter the existing Heliport pier and would not require installation of new waterfront infrastructure beyond the anchor piles for the barge landing, which would not result in significant adverse effects to aquatic resources. Therefore, the Proposed Project would promote this policy.

*Policy 3.5: In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.*

The Project Site is within a Priority Marine Activity Zone (PMAZ) that includes the Heliport pier and adjacent portions of the Manhattan shoreline. The Proposed Project would promote water dependent uses at this PMAZ by using existing infrastructure and installing new infrastructure to support the waterborne transportation of cargo bikes to facilitate last-mile delivery. The waterborne transportation facilitated by the Proposed Project would help to shift freight from truck deliveries to the City's waterways, limiting congestion on streets and providing a sustainable

method of delivery within the City. It would not interfere with existing vessel operations in the PMAZ. Therefore, the Proposed Project would promote this policy.

***Policy 4: Protect and restore the quality and function of ecological systems within the New York City Coastal Area.***

*Policy 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.*

Threatened or endangered species with the potential to occur at the Project Site in the East River include Atlantic sturgeon (*Acipenser oxyrinchus*; endangered), shortnose sturgeon (*Acipenser brevirostrum*; endangered), and green (*Chelonia mydas*; threatened), loggerhead (*Caretta caretta*; threatened), Kemp's ridley (*Lepidochelys kempii*; endangered), and leatherback (*Dermochelys coriacea*; endangered) sea turtles. Sturgeon can occur in the East River at any time of year. Sea turtles have the potential to occur within the Project Site only on rare occasions as transient individuals during summer and fall. The net loss of 56.5 square feet of bottom habitat in the footprint of the piles represents a minimal loss of potential foraging habitat for sturgeon and sea turtles when compared to the amount of similar habitat in the East River. Movement of these species through the Project Site would not be obstructed by pile installation, which would occur intermittently on weekdays over a short period of time. Sturgeon or sea turtles, upon detecting underwater noise levels above the relevant behavioral thresholds, would move away from the area of elevated underwater noise from pile driving during construction. The temporary loss of potential foraging habitat resulting from avoidance of construction areas may affect but would not adversely affect sturgeon or sea turtles in the vicinity of the Project Site. Freight vessels associated with operation of the barge landing would be similar to vessels that currently transit the East River and New York Harbor and would not significantly add to vessel traffic in the area. They would also be traveling at low speeds as they move into and out of the Project Site and would not increase the risk of vessel strikes in the area. Therefore, the Proposed Project would promote this policy.

*Policy 4.8: Maintain and protect living aquatic resources.*

Construction of the Proposed Project would result in temporary impacts to aquatic resources from sediment resuspension and underwater noise during pile driving. In general, pile installation does not result in significant levels of sediment disturbance, and the minimal resuspension of bottom material would not result in significant adverse impacts to water quality. Pile driving would be completed using a vibratory hammer to the extent possible. When use of an impact hammer is required, a soft start and cushion block would be employed, minimizing the effects of increased underwater noise on aquatic biota. The loss of 56.5 square feet of bottom habitat in the footprint of the piles represents a negligible reduction in the amount of similar habitat and benthic organisms in the East River and would not adversely affect populations of benthic fauna or their predators. The barge landing and delivery vessels would be in waters deep enough to allow clearance between the vessels and the river bottom, limiting the potential for resuspension of sediments during vessel movement. Because the East River and New York Harbor are heavily trafficked urban waterways, levels of vessel activity are high and the incremental increase of one incoming freight vessel per day for the Proposed Project would not affect aquatic biota. Therefore, the Proposed Project would promote this policy.



***Policy 5: Protect and improve water quality in the New York City coastal areas.***

*Policy 5.3: Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.*

The piles installed for the project may contain flowable concrete fill, if determined to be necessary as the design advances. If used, the concrete would be placed within the piles and would not come into contact with the water. The Proposed Project would not involve any other fill placement and would not require excavation. Temporary increases in sediment resuspension and turbidity during pile installation would be minimal and localized to the pile being driven, and no long-term impacts to water quality would be expected to result from the Proposed Project. Therefore, the Proposed Project would promote this policy.

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

*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.*

The Project Site is within the current 1 percent annual chance floodplain, in Zone VE with a base flood elevation (BFE) of +15 feet NAVD88 and would continue to be within the floodplain throughout the project's design life. As part of typical design practices for marine infrastructure, the Proposed Project would include measures to protect the barge landing from wind, waves, and other elements of storm events. In particular, the top of the anchor piles would be at an elevation of +25 feet NAVD88, which is about 10 feet higher than the current BFE. The barge itself would float at the water's surface, and the gangway between the barge and the Heliport pier would rise and fall with the tides. Emergency plans would be developed to ensure that the gangway and any other materials would be secured prior to a storm event. The Proposed Project would not introduce any substantial changes other than the new piles to secure the barge landing and waterborne delivery vessels and the gangway to connect it to the existing Heliport pier. Therefore, the Proposed Project would promote this policy.

*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.*

Guidance provided by DCP<sup>1</sup> recommends a detailed methodology to determine consistency with Policy 6.2 for a project that facilitates the development of transportation and marine infrastructure, like the Proposed Project.

*1. Identify vulnerabilities and consequences: assess the project's vulnerabilities to future coastal hazards and identify what the potential consequences may be.*

*a. Complete the Flood Evaluation Worksheet.*

The information in the following subsections is based on the results of the completed worksheet, which is attached to this document.

---

<sup>1</sup> DCP. *The New York City Waterfront Revitalization Program: Climate Change Adaptation Guidance*. November 2018.

- b. Identify any project features that may be located below the elevation of the 1% floodplain over the lifespan of the project under any sea level rise scenario.*

The design life of the in-water infrastructure is estimated to be about 30 years. The New York City Panel on Climate Change (NPCC) projects that sea levels are likely to increase by up to 30 inches by the 2050s, 50 inches by the 2080s, and up to 75 inches by the end of the century under the “High” scenario projections, relative to the 2000-2004 base period (the most recent projections from the NPCC were issued in 2015). The Project Site is located within the current 1 percent annual chance floodplain, Zone VE (an area of high flood risk subject to inundation by the 1 percent annual-chance flood event with additional hazards due to storm-induced velocity wave action), with a base flood elevation of +15 feet NAVD88. Based on the NPCC projections, the 1 percent annual chance flood elevation for the Project Site could increase to +17.5 feet NAVD88 by the 2050s, +19.8 feet by the 2080s, and +21.25 feet NAVD88 by the end of the century under the High Scenario. The tops of the guide piles will remain above the floodplain elevation throughout their design life.

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

Based on the range of sea level rise predictions described above, MHHW at the NOAA Station nearest the study area (+2.61 feet NAVD88 at the Battery Station #8518750) could increase to +5.11 feet NAVD88 in the 2050s, +7.44 feet in the 2080s, and up to +8.86 feet by the end of the century. Given these projections, the piles will remain above MHHW throughout their design life.

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

The Project Site is within Zone VE at the mouth of the East River and is therefore susceptible to coastal hazards such as waves, high winds, and debris under current and projected conditions. The Proposed Project would install guide piles designed for the marine environment and able to withstand these effects. The barge landing would float on the water’s surface anchored by the guide piles, and the gangway would extend between the landing and the existing pier. Neither would be overly susceptible to damage from coastal hazards as they are floating structures meant to be deployed in coastal waters.

- 2. Identify adaptive strategies: assess how the vulnerabilities and consequences identified in Step 1 are addressed through the project’s design and planning.*

- a. For any features identified in Step 1(b), describe how any flood damage reduction elements incorporated into the project, or any natural elevation on the site, provide any additional protection. Describe how would any planned adaptive measures protect the feature in the future from flooding?*

The Project Site is in the current 1 percent annual chance floodplain and would continue to be within the floodplain through the design life of the infrastructure. The elements of the freight barge landing would be designed for contact with coastal waters, as they are in-water structures (i.e., piles, barge landing, gangway). The anchor piles would have a top elevation of +25 feet NAVD88, which would ensure they remain above the projected floodplain elevations throughout their design life to the 2050s. The connected barge landing would float on the surface of the water while secured to the piles.

- b. *For any features identified in Step 1(c), describe how any flood damage reduction elements incorporated into the project, or any natural elevation on the site, provide any additional protection. Describe how would any planned adaptive measures protect the feature in the future from flooding?*

The piles would be above the MHHW elevation under all projected sea level rise scenarios and the other structures would float on the surface of the water.

- c. *Describe any additional measures being taken to protect the project from additional coastal hazards such as waves, high winds, or debris.*

The Project Site is in Zone VE which indicates risk of additional coastal hazards from wave action. The anchor piles would be properly seated at appropriate depths within the sediment such that they would not be susceptible to movement or failure from waves, high winds, or debris. The top elevation of the piles would limit the potential for the floating barge landings to come loose during a storm event.

- d. *Describe how the project would affect the flood protection of adjacent sites, if relevant.*

Because the floodplain within New York City is controlled by astronomic tide and meteorological forces (e.g., nor'easters and hurricanes) and not by fluvial flooding, the Proposed Project would not have to potential to adversely affect the floodplain or result in increased coastal flooding at adjacent sites or within the study area. The Proposed Project would not alter the existing site elevations, would not alter existing in-water infrastructure, and would not encroach into adjacent areas.

3. *Assess policy consistency: conclude whether the project is consistent with Policy 6.2 of the Waterfront Revitalization Program.*

The Proposed Project comprises new in-water infrastructure to support Freight NYC's initiative to shift truck delivery to waterborne vessel transportation as a sustainable method for last-mile deliveries. While the Proposed Project Site is located within the current 1 percent annual chance floodplain, the barge landing is a floating structure and would not introduce any vulnerable, critical, or potentially hazardous features. The barge would be secured to anchor piles installed at depths sufficient to prevent movement or damage from waves, wind, or debris. The gangway and any other materials would be secured prior to a known storm event. Under sea level rise projections, the barge landing would continue to float at the water's surface while secured to the anchor piles, the top of which would be located at +25 NAVD88, above the projected flood elevation. Should sea level rise and flood elevation projections change significantly, the piles could be modified and lengthened as necessary in the future. The Proposed Project would be designed with measures that would allow the delivery service to resume operations quickly following a storm event. Therefore, the Proposed Project would promote Policy 6.2.

**Policy 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.*

*Policy 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.*

As detailed in Attachment E, “Hazardous Materials,” a Phase I Environmental Site Assessment (ESA) was prepared for the Project Site to evaluate for the potential presence of hazardous materials and contamination. The Phase I ESA identified recognized environmental conditions (RECs) associated with the Project Site. The potential for contaminated sediments at the bottom of the East River was identified due to historic heavy transportation/shipping uses, as well as the historic uses of properties adjoining the Project Site.

The Proposed Project would not require any on-land soil disturbance for installation of the new floating barge. However, disturbance of riverbed sediments resulting from in-water pile installation would be required. As discussed in Attachment C, “Natural Resources,” the increase in suspended sediment resulting from in-water pile installation for the barge landing would be temporary, localized and would dissipate shortly after the completion of sediment disturbing activities, which would not result in adverse impacts to water quality. Further, the installation of the barge landing would be in accordance with applicable permit conditions issued by the US Army Corps of Engineers and/or the New York State Department of Environmental Conservation.

With these measures, the Proposed Project would not result in any significant adverse impacts related to hazardous materials and would be consistent with Policy 7.

***Policy 9: Protect scenic resources that contribute to the visual quality of the New York City Coastal Area.***

*Policy 9.1: Protect and improve visual quality associated with New York City’s urban context and the historic and working waterfront.*

The proposed barge landing would be consistent with existing waterfront structures in the East River and would not obstruct views of significant visual resources such as nearby bridges or the Manhattan skyline. The project would be located along an extended area of developed shoreline that provides numerous points with similar views that would not be obstructed by a new barge landing at the water level. Therefore, the Proposed Project would have minimal effect on the visual quality of the coastal area and would promote this policy. \*

## **A. INTRODUCTION**

In accordance with the 2021 *City Environmental Quality Review (CEQR) Technical Manual*, this chapter considers the potential for the Proposed Action to affect the urban design and visual resources of the Project Site and the surrounding study area. As described below under Section B, “Methodology,” urban design, or the built and natural environments of the study area, is collectively formed by the following components: streets, buildings, open space, natural features, and visual resources. Visual resources are those connections from the public realm to significant natural or built features, including views of the waterfront, public parks, public art, statues or sculptures, landmark structures or districts, otherwise distinct buildings or groups of buildings that may be iconic or historic, and natural resources.

As detailed on Page 1a, “Project Description,” the Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight for local delivery at a new permanent floating barge off the existing Downtown Manhattan Heliport (DMH) at Pier 6. The preliminary analysis conducted based on the methodology set forth in the *CEQR Technical Manual* determined that the Proposed Action would not result in a significant adverse impact related to urban design and visual resources.

## **B. METHODOLOGY**

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 without the proposed project.

The Proposed Action would facilitate construction of the barge landing and establishing the green last-mile delivery use on the Heliport pier, where currently it is not permitted by the existing Concessionaire agreement. Therefore, as the Proposed Action would result in physical alterations beyond that which is currently permitted, they would meet the threshold for a preliminary assessment of urban design and visual resources.

The *CEQR Technical Manual* guidelines state that if the preliminary assessment shows that changes to the pedestrian environment are sufficiently significant to require greater explanation and further study, then a detailed analysis is appropriate. Examples include projects that would potentially obstruct view corridors, compete with icons in the skyline, or make substantial alterations to the streetscape of a neighborhood by noticeably changing the scale of buildings. Detailed analyses also are generally appropriate for area-wide rezonings that include an increase in permitted floor area or changes in height and setback requirements, general large-scale developments, or projects that would result in substantial changes to a historic district or building.



Conditions that merit consideration for further analysis of visual resources include when the project partially or totally blocks a view corridor or a natural or built visual resource and that resource is rare in the area or considered a defining feature of the neighborhood; or when the project changes urban design features so that the context of a natural or built visual resource is altered (i.e., if the project alters the street grid so that the approach to the resource changes; if the project changes the scale of surrounding buildings so that the context changes; or if the project removes lawns or other open areas that serve as a setting for the resource).

The Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight for local delivery at a new permanent floating barge landing off the existing DMH at Pier 6. As the new barge landing would be attached to an existing pier in a densely developed area where there are other active pier operations that include the NYC Ferry at Wall Street and the Governors Island Ferry at the Battery Maritime Building, the Proposed Action, therefore, is not expected to meet the above-referenced thresholds for a detailed assessment of urban design and visual resources. The preliminary analysis is provided below.

According to the *CEQR Technical Manual*, the study area for urban design is the area where the project may influence land use patterns, the built environment, and pedestrian's experiences in the public realm surrounding the project area and is generally consistent with that used for the land use analysis. For visual resources, the view corridors within the study area from which such resources are publicly viewable should be identified. The study area for the urban design and visual resources analysis has been defined as the area within 400 feet of the Project Site (see **Figure B-1**).

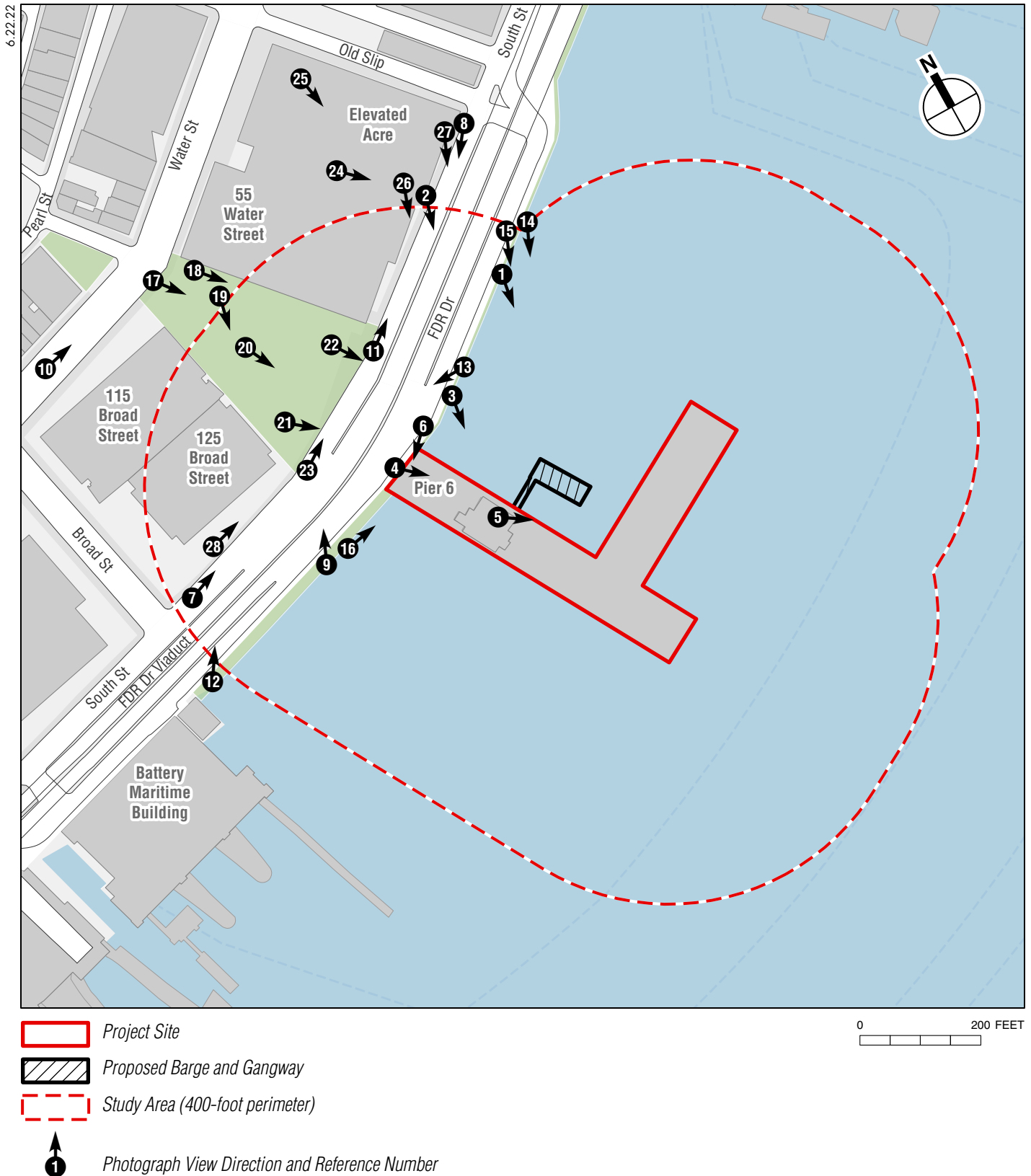
Per Section 230 of the *CEQR Technical Manual's* Urban Design and Visual Resources chapter, an analysis of pedestrian wind conditions may be warranted for projects that result in the construction of multiple, tall buildings at or in close proximity to waterfront sites, as they may result in an exacerbation of wind conditions that may affect pedestrian comfort and safety. The Proposed Action would not result in the construction of multiple tall buildings at locations on or in proximity to the waterfront that experience high wind conditions; thus, a pedestrian wind condition analysis is not warranted.

## **C. EXISTING CONDITIONS**

### **PROJECT SITE**

#### *URBAN DESIGN*

The Project Site, which is occupied by the DMH, is located on the East River in the Financial District between Pier 11 and the Battery Maritime Building. The DMH facility can accommodate 12 helicopters, and it comprises a pier (Pier 6), a two-story terminal building with a customer lounge, operator offices, and control tower, a 12-space parking lot, and a fueling station. Pier 6 is roughly L-shaped, extending approximately 530 feet into the East River, with a shorter, approximately 300-foot-long leg attached to the north side, about two-thirds of the way to the end of the pier. The pier is accessed from the East River Greenway and street network via two East River Greenway crossings and two curb cuts onto South Street, which lead to the Heliport's active 12-space parking lot. A tall metal fence with two swing gates encloses the pier entrance. Tall letters reading "Pier 6" are applied to the central section of the fence, and they partially obscure some electrical boxes and mechanical equipment located behind the fence. The terminal building is located approximately 115 feet out on the pier. It is a two-story stone-clad structure with bands



Urban Design and Visual Resources  
Project Location

of square windows, a hipped roof, and a two-story pedimented entrance bay with a clock and a one-story pedimented port-cochere. A metal gate is located on the north side of the building restricting access to the Heliport. Three cobra-head streetlights are located in front of the terminal building within the parking lot. See **Figures B-2 through B-6** for photographs of the Project Site.

### *VISUAL RESOURCES*

Pier 6 and the DMH terminal building are not considered to be visual resources.

From the parking lot portion of the Project Site, which is publicly accessible, and the portion of the East River Greenway adjacent to the Project Site, there are views of the East River and broader East River vista that includes the Brooklyn Bridge, Brooklyn Heights, and Brooklyn Bridge Park and more distantly the New York Harbor and Governors Island. The parking lot on Pier 6 and the adjacent section of the East River Greenway also provide views of the Battery Maritime Building and Lower Manhattan skyline, both of which are located beyond the 400-foot study area.

### **STUDY AREA**

The 400-foot study area is located at the southeast edge of the Financial District and is roughly bounded by Water Street to the northwest, Broad Street to the west, and Old Slip to the east, and it extends south into the East River. The study area primarily contains the East River, but it also includes a public park and three office buildings, two of which have elevated, publicly accessible plazas. Both the East River Greenway and FDR Drive traverse the study area. The discussion below focuses first on the area's urban design—its basic layout and structures—and then describes its visual resources. See **Figures B-7 through B-15** for photographs of the study area.

### *URBAN DESIGN*

#### *Streets*

Located at the edge of the Financial District, the study area is mostly outside of the Lower Manhattan street plan. The only streets in the study area are South Street and the FDR Drive, which traverse it. (See view 2 of **Figure B-2** and **Figure B-5** for photographs of South Street and the FDR Drive.) The southwest-bound and northeast-bound lanes of South Street are separated by the FDR Drive. Just outside the study area, the southwest-bound lanes of South Street connect to the street plan at Broad Street and Old Slip, and there is a sidewalk along the north side of South Street. That sidewalk widens into a plaza in front of Vietnam Veterans Plaza.

The FDR Drive is 9.44 miles long, beginning at the end of the Battery Park underpass just west of the study area and running north along the East River to the 125th Street/Triborough Bridge exit. In front of the Project Site, the FDR Drive runs at grade with a concrete median separating the north-bound and south-bound lanes. North of the Project Site, the FDR Drive transitions to a ramp with concrete walls and then to an elevated, metal viaduct near Old Slip. In the vicinity of Old Slip, there is a concrete building located beneath a section of the viaduct.

Street furniture in the study area includes streetlights, parking signage and parking meters, large metal signage supported on poles over the FDR Drive, a Citi Bike station in South Street at Broad Street, some street trees along the South Street sidewalk in front of Vietnam Veterans Plaza (described below), and planters and benches within the East River Greenway.



View south from Greenway 1



View south from Elevated Acre 2





View south from Greenway 3



View southeast from Greenway 4





View east on Pier 6 5



View southwest of site entrance from Greenway 6



View northeast on South Street adjacent to 125 Broad Street 7



View southwest on South Street from Old Slip 8





55 Water Street, view north from Greenway 9

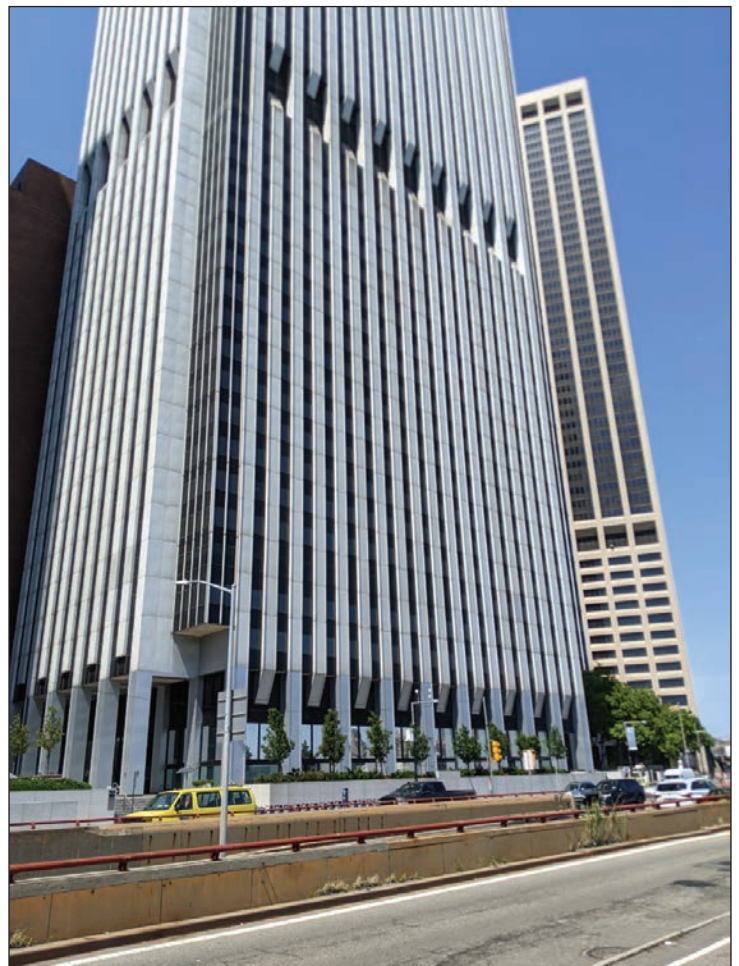


115 Broad Street and 55 Water Street, view northeast on Water Street 10



55 Water Street, South Street frontage and stairs to Elevated Acre, view north

11



125 Broad Street, view north from Greenway

12

Urban Design and Visual Resources  
Study Area  
Figure B-7



125 Broad Street and 115 Broad Street,  
view southwest from Greenway

13



Greenway, view southwest toward Project Site

14

Urban Design and Visual Resources  
Study Area  
Figure B-8





Greenway, view southwest toward Project Site 15



Greenway, view northeast toward Project Site 16



Vietnam Veterans Plaza, view southeast at Water Street entrance 17



Vietnam Veterans Plaza, view southeast adjacent to 55 Water Street 18





Vietnam Veterans Plaza, view south toward 125 Broad Street 19



Vietnam Veterans Plaza, view southeast of fountain 20





Vietnam Veterans Plaza, view east from southwest corner near 125 Broad Street 21



Vietnam Veterans Plaza, view southeast from southeast corner near 55 Water Street 22





Vietnam Veterans Plaza, view north on South Street 23



Elevated Acre, view southeast within landscaped area 24





Elevated Acre, view south from lawn 25



Elevated Acre, view south from east edge of landscaped area 26



Elevated Acre, view south from edge 27



125 Broad Street plaza, view northeast 28



Source: Ricardo Zurita Architecture & Planning



### Existing Condition

Project Site, view southwest from the East River Greenway

Source: Ricardo Zurita Architecture & Planning



### With Action

Rendering of the proposed barge and gangway with a marine vessel

Source: Ricardo Zurita Architecture & Planning



### Existing Condition

Project Site, view southwest from the 55 Water Street stairs connecting South Street to the Elevated Acre

Source: Ricardo Zurita Architecture & Planning



### With Action

Rendering of the proposed barge and gangway with a marine vessel

### *Buildings*

As the Project Site is located on the waterfront across South Street and the FDR Drive from the Financial District, there are only three buildings located within the study area. They each have frontage along Vietnam Veterans Plaza, which is located directly across South Street and the FDR Drive from the Project Site.

The office building at 55 Water Street consists of two concrete-clad sections that form an L around an attached parking garage topped by a public plaza approximately two-stories above grade (see **Figure B-6**). The primary section of 55 Water Street is a 56-story building with a rectangular footprint that extends from Water Street to South Street, with the long, south façade fronting Vietnam Veterans Plaza. A 15-story wing with sloped walls is set perpendicularly along Water Street. The parking garage and plaza front on South Street and Old Slip. The 15-story base of the taller building is articulated as a grid, a design that is repeated on the facades of the shorter wing, and the upper floors are articulated as glazed window columns separated by thin concrete piers. Fronting Vietnam Veterans Plaza and Water Street, the ground floor of the 56-story building is recessed behind concrete columns. At the southwest corner, there is tall staircase from South Street to the elevated plaza (see view 11 of **Figure B-7**). The street frontage of the staircase is a mostly blank wall surface, and the Water Street frontage of the parking garage is louvered and has a vehicular entrance.

The office building at 125 Broad Street is a 40-story structure with frontage on Broad Street, South Street, and Vietnam Veterans Plaza. It sets back from Broad and Water Streets behind an elevated plaza. The façade is articulated with alternating wide, vertical marble piers and thin, glazed window columns (see view 12 of **Figure B-7** and view 13 of **Figure B-8**). Every other marble pier ends around the second floor with the alternating ones continuing to plaza level as columns, which frame recessed windows and entrances. Along South Street, there are two stairs to the elevated plaza and a vehicular opening to a below-grade parking garage. The adjacent 115 Broad Street fronts on Broad Street, Water Street, and Vietnam Veterans Plaza. It is a 22-story brick-clad building with narrow windows arranged in different groupings (see view 10 of **Figure B-6** and view 13 of **Figure B-8**). The ground floor along Vietnam Veterans Plaza is unfenestrated.

### *Natural Features and Open Space*

Most of the 400-foot study area is occupied by a natural feature, the East River. Public open spaces in the study area include the East River Greenway, Vietnam Veterans Plaza, the Elevated Acre at 55 Water Street, and the elevated plaza at 125 Broad Street.

The East River Greenway traverses the study area and includes pedestrian and bike paths. North of the Project Site, planters and benches separate the pedestrian waterfront esplanade from the bike lanes (see view 14 of **Figure B-8** and view 15 of **Figure B-9**). Between the Project Site and the Battery Maritime Building, which is located southwest of the study area, benches and a low, perforated metal wall separate the pedestrian and bike paths (see view 16 of **Figure B-9**). The pedestrian path is surfaced with hexagonal pavers, and a metal fence with a wood railing borders the waterfront edge of the East River Greenway. A rounded curb runs along the East River Greenway's edge with South Street and the FDR Drive. As noted above, there are two curb cuts in front of the Project Site that enable vehicular access to the DMH across the East River Greenway (see view 6 of **Figure B-4**). In addition, there is no barrier between the pedestrian and bike paths in front of the Project Site.

Vietnam Veterans Plaza is an 0.73-acre triangular-shaped park located between 55 Water Street and 115 Broad Street and 125 Broad Street with frontage on Water and South Streets. At Water

Street, the plaza is at-grade, but at South Street it is elevated. Vietnam Veterans Plaza is a multi-level park with north and south parcels divided by a memorial in the form of a glass-block wall with textual engravings. On the south side of the memorial is a round, granite fountain and amphitheater. Stairs and ramps connect the various levels. The south parcel contains multiple planting beds, and the eastern end contains three levels with benches and trees. The north parcel is mostly a paved plaza along the frontage with 55 Water Street, but the elevated eastern end contains trees and benches. There are three staircases from the park down to South Street. See **Figures B-10 through B-12** and view 23 of **Figure B-13** for photographs of Vietnam Veterans Plaza.

The publicly accessible Elevated Acre is located above the 55 Water Street parking garage. It is accessed from Water Street via escalators and stairs and from South Street by a tall staircase with four landings. It is a multi-level plaza with a boardwalk overlook along the South Street frontage, a large lawn, and a landscaped area with paths and seating nooks (see view 24 of **Figure B-13**, **Figure B-14**, and view 27 of **Figure B-15** for photographs of the Elevated Acre). The lawn occupies the lowest elevated in the plaza, and the landscaped area rises in grade from the Water Street stairs and escalators to the boardwalk overlook. The landscaped area is planted with flowers, shrubbery, and trees.

The L-shaped elevated plaza at 125 Broad Street fronts both South and Broad Streets. The section along Water Street is a wide, paved plaza with movable tables and chairs and small planters (see view 28 of **Figure B-15**). The edge along the street is formed by a raised planting bed with flowers, shrubbery, and trees. There are two stairs down to Water Street and one stair on Broad Street in front of the main building entrance.

#### *VISUAL RESOURCES*

The one visual resource in the study area is the East River. It is prominently visible from the East River Greenway (see view 1 **Figure B-2** and view 14 of **Figure B-8**), the elevated plaza at 125 Broad Street (see view 28 of **Figure B-15**), the boardwalk overlook and portions of the planted area at the Elevated Acre (see view 2 of **Figure B-2**, view 24 of **Figure B-13**, and view 27 of **Figure B-15**), and the elevated eastern end of Vietnam Veterans Plaza (see view 20 of **Figure B-11** and **Figure B-12**). Views of the river are less pronounced from the sidewalk along South Street. Views of the river are not visible from the lower levels of Vietnam Veterans Plaza and the Elevated Acre due to the grade changes within those open spaces and intervening open space features and plantings.

The study area also includes views of the broader East River vista that encompasses views of the Brooklyn Bridge, Brooklyn Bridge Park and Brooklyn Heights, Governors Island, and the New York Harbor. Those vistas are visible from all the locations that provide views of the East River, while buildings in Brooklyn Heights are visible from additional locations in Vietnam Veterans Plaza and the Elevated Acre (see **Figure B-10** and view 24 of **Figure B-13**).

The Project Site is visible for long distances along the East River Greenway (see view 14 of **Figure B-8** and view 16 of **Figure B-9**). From the South Street sidewalk, the Project Site is visible across the FDR Drive (see view 7 of **Figure B-5**). The Project Site is also visible from the elevated eastern end of Vietnam Veterans Plaza, the elevated plaza at 125 Broad Street, and the boardwalk overlook at the Elevated Acre (see **Figure B-12**, view 28 of **Figure B-15**, view 2 of **Figure B-2**, and view 27 of **Figure B-15**).



## **D. FUTURE WITHOUT THE PROPOSED ACTION**

Absent the Proposed Action, the Project Site would remain in its existing condition and no new floating barge and associated gangway would be developed. The Project Site would continue to operate under the jurisdiction of NYCEDC and function primarily as a public-use heliport service operated by the DMH. In addition, there are no planned development projects within the study area.

## **E. FUTURE WITH THE PROPOSED ACTION**

### **PROJECT SITE**

#### *URBAN DESIGN*

As described on Page 1a, “Project Description,” the Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight via cargo bikes for local delivery at a new permanent floating barge off the existing Heliport at Pier 6. The proposed barge would be located in the crook of the L-shaped pier, and it would connect to the pier via a gangway located next to the terminal building. The proposed delivery operation would use the existing curb cuts at the entrance off South Street. There would be no changes to the exterior of the existing terminal building or the pier, other than having the gangway attach to the pier by the north side of the building.

#### *VISUAL RESOURCES*

Pier 6 and the DMH terminal building are not considered to be visual resources. Therefore, the Proposed Action would not result in adverse impacts to visual resources located on the Project Site.

### **STUDY AREA**

#### *URBAN DESIGN*

As a barge landing for delivery operations would be attached to an existing pier that serves as a public-use heliport and which is located along a section of the East River waterfront where there are existing ferry operations at Pier 11 and at the Battery Maritime Building, the Proposed Action would not change the context of any natural or built resources and would, therefore, not result in adverse impacts to the urban design of the study area. The proposed barge landing and gangway would be additional maritime features of the existing L-shaped pier that contains landing pads for helicopters and a two-story terminal building.

The Proposed Action would not affect the East River Greenway or the streets in the study area, as the proposed delivery operations would use the existing curb cuts at the Project Site to connect with the street system. The Proposed Action would not affect the urban design context of building or the other open spaces in the study area. While the Proposed Action would affect the East River natural resource, the proposed floating barge would be attached to the existing Pier 6, ultimately creating a small extension of an existing facility, and thus would not result in a significant adverse urban design impact to the East River.

*VISUAL RESOURCES*

The Proposed Action would not result in adverse impacts to visual resources in the study area. The proposed floating barge and gangway would be visible from the locations in the study area that afford existing views of the Project Site, but as those proposed structures would be located in the crook of the L formed by the existing pier, they would not obstruct views of the East River and East River vista not already partially obscured by the existing pier and terminal building. From the East River Greenway, views of Brooklyn Heights, the New York Harbor, and Governors Island in the distance beyond the Project Site would remain mostly unaffected. From elevated vantage points in Vietnam Veterans Plaza, the Elevated Acre, and the plaza at 125 Broad Street, compared to views from the East River Greenway and South Street sidewalk, the presence of the proposed floating barge landing and gangway would be less pronounced in the sweeping vistas of the East River and New York Harbor, appearing in the foreground of the existing pier and terminal building. See **Figure B-16** for comparative views of the Existing and With Action Conditions.

In summary, the Proposed Action would not result in significant adverse impacts to urban design and visual resources. \*

## **A. INTRODUCTION**

This attachment examines the Proposed Action's potential impacts on floodplains, wetlands, and aquatic natural resources<sup>1</sup> near the Project Site, which is located at the existing Pier 6 Heliport in Manhattan at the mouth of the East River. As described on Page 1a, "Project Description," the Proposed Project would involve installation of piles and fenders or dolphins to support a floating freight barge landing facilitating the mooring of marine vessels for a green last-mile delivery operation. The Proposed Project is a key initiative for Freight NYC to shift freight from truck deliveries to the City's waterways to improve street user safety, reduce truck traffic congestion, improve air quality, and fight climate change.

The details of the in-water construction required for the Proposed Project are not known at the time of Concessionaire approval. Once the Freight Operator is selected, the operator would be responsible for obtaining the required New York State Department of Environmental Conservation (NYSDEC) and U.S. Army Corps of Engineers (USACE) permits, and updating any CEQR assumptions or determinations to secure such permits, at which time the scope of in-water construction will be confirmed. Therefore, the assessment of in-water construction presented in this attachment is based on conservative estimates that will be revisited and refined during the permitting process.

This attachment will cover:

- The regulatory programs that protect floodplains, wildlife, threatened or endangered species, aquatic resources, or other natural resources within the Project Site;
- The current condition of the floodplain and natural resources within the study area, including water and sediment quality, and biological resources, including aquatic biota and threatened or endangered species and species of special concern;
- The floodplain, water quality, and natural resources conditions in the future without the proposed installation (the No Action Condition); and
- The potential impacts of the proposed installation on the floodplain, water quality, and natural resources (the With Action Condition).

---

<sup>1</sup> The *City Environmental Quality Review (CEQR) Technical Manual* defines natural resources as "(1) the City's biodiversity (plants, wildlife, and other organisms); (2) any aquatic or terrestrial areas capable of providing suitable habitat to sustain the life processes of plants, wildlife, or other organisms; and (3) any areas capable of functioning in support of the ecological systems that maintain the City's environmental stability."

## **B. METHODOLOGY**

### **OVERVIEW**

Because the Proposed Action would not have the potential to affect the floodplain or wetlands beyond the Project Site, the study area for these resources is limited to the boundaries of the Proposed Project. Potential effects to threatened or endangered species were evaluated for a distance of at least one-half mile from the Project Site. The study area for water and sediment quality and aquatic resources includes the overall aquatic resources within the lower East River and Upper Bay of the New York Harbor and the waterfront portion of the Project Site. It is anticipated that construction would begin in 2023, with the project operational by late 2023.

### **EXISTING CONDITIONS**

The Project Site is at an existing pier on the southern shore of Manhattan at the mouth of the East River, directly across from New York Vietnam Veterans Memorial Plaza Square (see **Figure 1**). Existing conditions within the study area were summarized from: existing information identified in literature and obtained from governmental and nongovernmental agencies, such as the New York City Department of Environmental Protection (NYCDEP) Harbor Water Quality Survey; NYCDEP City-Wide Long Term Combined Sewer Overflow (CSO) Control Planning Project reports; U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory maps; information from USFWS, National Marine Fisheries Service (NMFS), and the New York State Department of Environmental Conservation (NYSDEC) Natural Heritage Program (NHP) databases regarding protected species studies conducted within the Hudson River Park; New York/New Jersey Harbor Estuary Program; Federal Emergency Management Agency (FEMA) flood insurance rate maps (FIRMs); United States Army Corps of Engineers (USACE) studies conducted as part of the New York and New Jersey Harbor Navigation Project; and aquatic surveys conducted by the NYC Economic Development Corporation (NYCEDC) in the vicinity of the Project Site.

### **FUTURE WITHOUT THE PROPOSED ACTION**

The future without the Proposed Project assumes that the barge landing would not be constructed, no in-water or upland work would occur, and there would be no effect on natural resources.

### **FUTURE WITH THE PROPOSED ACTION**

For the Proposed Project, the assessment of potential impacts on the floodplain, wetlands, terrestrial, and aquatic resources considers the following:

- The existing water quality and natural resources of the East River in the vicinity of the Project Site and in the No Action Condition.
- The potential for upland construction to result in temporary impacts to terrestrial and aquatic resources.
- The potential for in-water components of the Proposed Project to result in temporary or permanent impacts to water quality and aquatic organisms. These potential impacts may include:
  - Temporary increases in suspended sediment and release of contaminants during sediment disturbance during pile driving;
  - Temporary increase in underwater noise during pile driving;

- Temporary increase in shading during construction due to construction barges;
- Temporary loss of fish breeding, nursery, or foraging habitat, or EFH identified by NMFS, during in-water construction activities;
- Permanent shading of aquatic habitat due to the floating barge landing; and
- Permanent loss of habitat within the footprint of the piles.

The potential for operation of the Proposed Project to adversely affect water quality of the East River, when compared to the No Action Condition.

## **C. REGULATORY CONTEXT**

In-water activities associated with the Proposed Project must comply with federal and state legislation and regulatory programs that pertain to activities in coastal areas, surface waters, floodplains, wetlands, and the protection of species of special concern. Installation of the barge landing would require authorization under several federal and state regulatory programs, as discussed below. The Freight Operator would be responsible for obtaining the required permits from USACE and NYSDEC. All construction activities would be completed in accordance with the conditions of permits issued by USACE under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and by NYSDEC under Section 401 of the Clean Water Act and Article 15 for Protection of Waters.

### **FEDERAL REGULATIONS**

#### *RIVERS AND HARBORS ACT OF 1899*

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the Secretary of the Army, acting through USACE, for the construction of any structure in or over any navigable water of the United States, the excavation from or deposition of material in these waters, or any obstruction or alteration in navigable waters of the United States. The purpose of this Act is to protect navigation and navigable channels. Any structures placed in or over navigable waters, such as pilings, piers, or bridge abutments up to the mean high water (MHW) line, are regulated pursuant to this Act.

#### *CLEAN WATER ACT (33 USC §§ 1251-1387), SECTION 404*

The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States. It regulates point sources of water pollution, such as discharges of municipal sewage, industrial wastewater, and stormwater runoff; the discharge of dredged or fill material into navigable waters and other waters; and non-point source pollution (e.g., runoff from streets, construction sites, etc.) that enter waterbodies from sources other than the end of a pipe. Section 404 of the Act requires authorization from the Secretary of the Army, acting through USACE, for the discharge of dredged or fill material into waters of the United States. Under Section 401 of the Act, any applicant for a federal permit or license for an activity that may result in a discharge to navigable waters must provide to the federal agency issuing a certificate that the discharge would comply with other sections of the Clean Water Act. Applicants for discharges to navigable waters in New York must obtain Section 401 Water Quality Certification from NYSDEC.

*MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (16 USC §§ 1801 TO 1883)*

Section 305(b)(2)-(4) of the Magnuson-Stevens Fishery Conservation and Management Act outlines the process for the NMFS and the Regional Fishery Management Councils (in this case, the Mid-Atlantic Fishery Management Council) to comment on activities proposed by federal agencies (issuing permits or funding projects) that may adversely impact areas designated as EFH. EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 USC §1802(10)).

Adverse impacts on EFH, as defined in 50 CFR 600.910(A), include any impact that reduces the quality and/or quantity of EFH. Adverse impacts may include:

- Direct impacts, such as physical disruption or the release of contaminants;
- Indirect impacts, such as the loss of prey or reduction in the fecundity (number of offspring produced) of a managed species; and
- Site-specific or habitat-wide impacts that may include individual, cumulative, or synergetic consequences of a federal action.

*ENDANGERED SPECIES ACT OF 1973 (16 USC §§ 1531 TO 1544)*

The Endangered Species Act of 1973 recognizes that endangered species of wildlife and plants are of aesthetic, ecological, educational, recreational, and scientific value to the nation and its people. The Act prohibits the importation, exportation, taking, possession, and other activities involving illegally taken species covered under the Act, and interstate or foreign commercial activities. The Act also provides for the protection of critical habitats on which endangered or threatened species depend for survival.

*FISH AND WILDLIFE COORDINATION ACT (PL 85-624; 16 USC 661-667D)*

The Fish and Wildlife Coordination Act entrusts the Secretary of the Interior with providing assistance to, and cooperation with, federal, state, and public or private agencies and organizations to ensure that wildlife conservation receives equal consideration and coordination with other water-resource development programs. These programs can include the control (such as a diversion), modification (such as channel deepening), or impoundment (dam) of a body of water.

**NEW YORK STATE REGULATIONS**

*PROTECTION OF WATERS, ARTICLE 15, TITLE 5, ECL, IMPLEMENTING REGULATIONS  
6 NEW YORK CODE OF RULES AND REGULATIONS (NYCRR) PART 608*

NYSDEC is responsible for administering the Protection of Waters Act and regulations to govern activities on surface waters (rivers, streams, lakes, and ponds). The Protection of Waters Permit Program regulates five different categories of activities: disturbance of stream beds or banks of a protected stream or other watercourse; construction, reconstruction, or repair of dams and other impoundment structures; construction, reconstruction, or expansion of docking and mooring facilities; excavation or placement of fill in navigable waters and their adjacent and contiguous wetlands; and Water Quality Certification for placing fill or other activities that result in a discharge to waters of the United States in accordance with Section 401 of the Clean Water Act.



*ENDANGERED AND THREATENED SPECIES OF FISH AND WILDLIFE; SPECIES OF SPECIAL CONCERN (ECL, SECTIONS 11-0535[1]-[2], 11-0536[2], [4], IMPLEMENTING REGULATIONS 6 NYCRR PART 182)*

The Endangered and Threatened Species of Fish and Wildlife, Species of Special Concern Regulations prohibit the taking, import, transport, possession, or selling of any endangered or threatened species of fish or wildlife, or any hid, or other part of these species as listed in 6 NYCRR §182.6.

## **D. EXISTING CONDITIONS**

Per the 2021 *City Environmental Quality Review (CEQR) Technical Manual*, a natural resource is defined as (1) the City's biodiversity (plants, wildlife, and other organisms); (2) any aquatic or terrestrial areas capable of providing suitable habitat to sustain the life processes of plants, wildlife, and other organisms; and (3) any areas capable of functioning in support of the ecological systems that maintain the City's environmental stability. A natural resources assessment considers species in the context of the surrounding environment, habitat, or ecosystem, and examines a project's potential to impact those resources. Groundwater, soils, and geologic features; natural and human-created habitats; and any areas used by wildlife may be considered in a natural resources analysis. Stormwater runoff may also be considered in a natural resources assessment and evaluated in the context of its impact on local ecosystem functions and on the quality of adjacent waterbodies.

In accordance with the *CEQR Technical Manual*, this section describes existing natural resource conditions within the terrestrial and water quality and aquatic resources study areas.

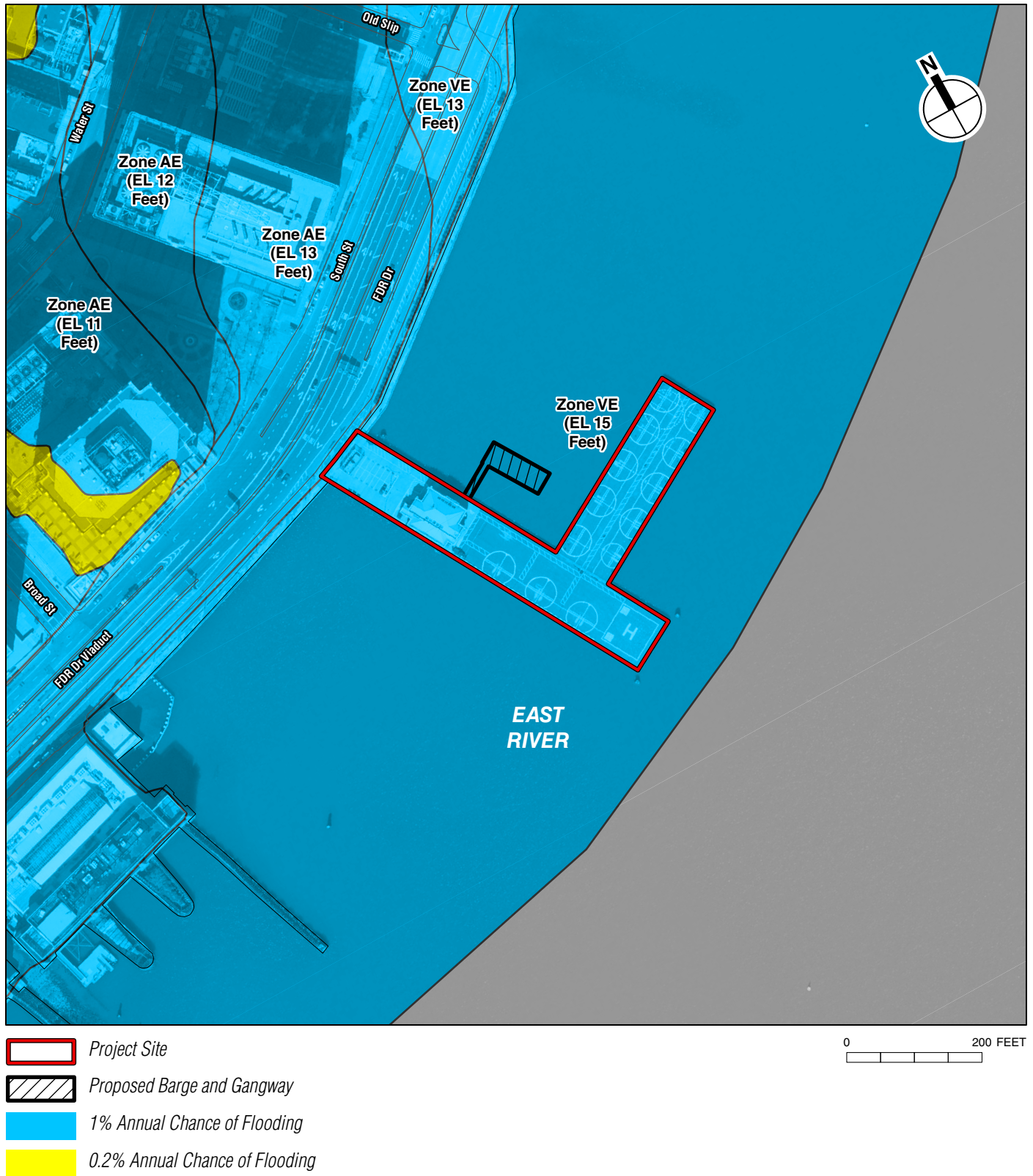
## **FLOODPLAINS AND WETLANDS**

**Figure C-1** presents the 1 percent annual chance floodplain boundary for the study area according to the FEMA preliminary FIRM for New York City released in 2013. The Project Site in the East River is in Zone VE (area of high flood risk subject to inundation by the 1 percent annual chance flood event with additional hazards due to storm-induced velocity wave action) and has a Base Flood Elevation (BFE) of +15 feet NAVD88. The shoreline in the vicinity of the Project Site is bulkheaded or otherwise engineered.

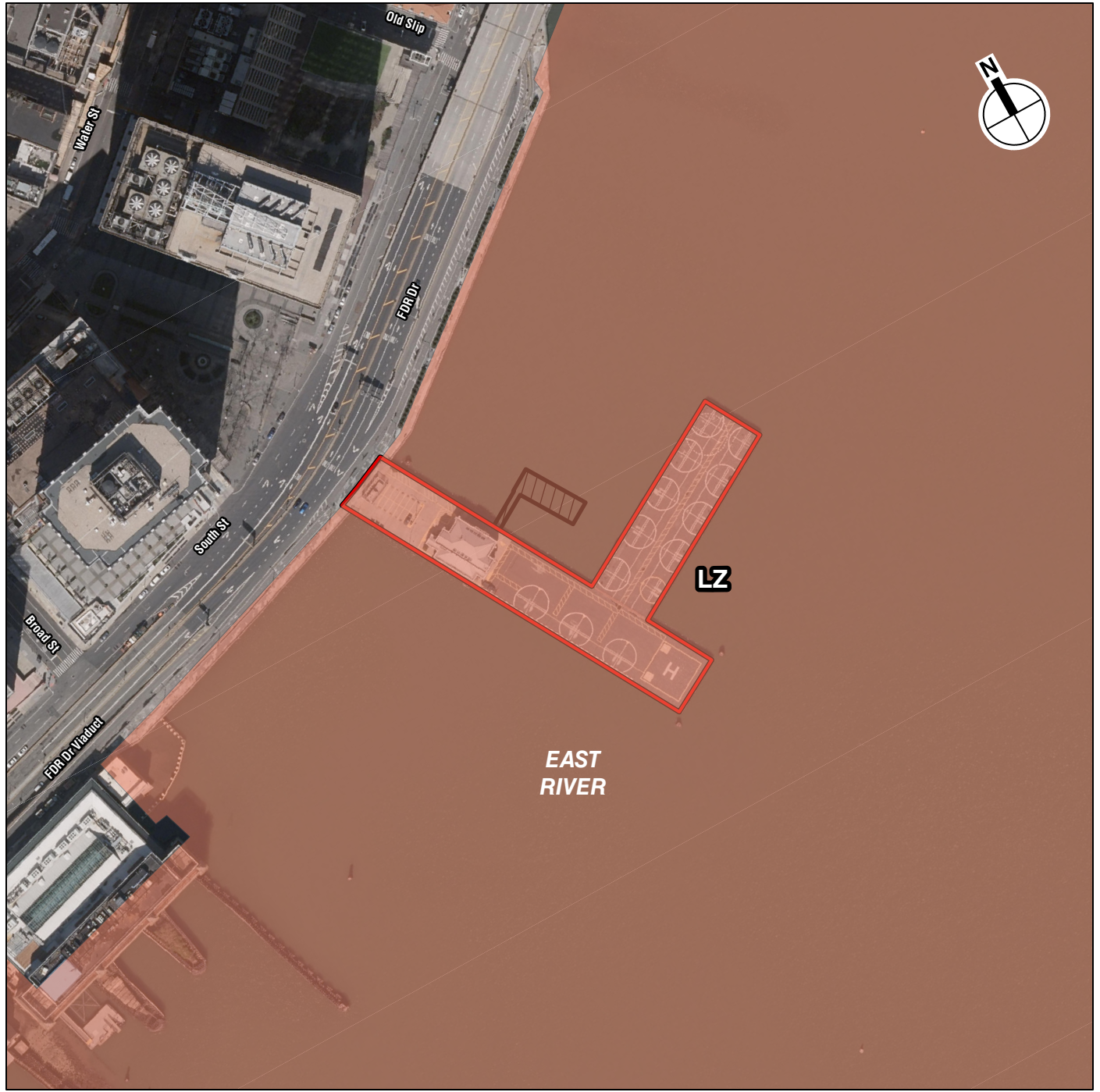
No vegetated tidal wetlands, and therefore no wetlands that would be regulated by USACE, are present within the vicinity of the Proposed Project. NYSDEC littoral zone tidal wetlands are mapped in the East River around the Project Site (**Figure C-2**); however, the project would be conducted in waters deeper than 6 feet deep at mean low water (MLW) and therefore would not be within NYSDEC littoral zone. As shown in **Figure C-3**, the USFWS National Wetland Inventory classifies the Project Site as E1UBL (estuarine subtidal unconsolidated bottom). Subtidal areas are continuously submerged substrates (below extreme low water). Unconsolidated bottoms have at least 25 percent cover of particles smaller than 2.5 or 2.8 inches, and less than 30 percent vegetative cover.

## **TERRESTRIAL RESOURCES**

The surrounding area is dominated by impervious surfaces, including the entire existing pier within the Project Site and the adjacent FDR Drive. Ecological communities present near the Project Site mainly include paved road/path and urban structure exterior (Edinger et al. 2014). Vegetation is limited to street trees along the East River Greenway bike path north of the Project







-  Project Site
-  Proposed Barge and Gangway
-  Littoral Zone

0 200 FEET







## Downtown Manhattan Heliport FreightNYC Project

Site and across the highway within New York Vietnam Veterans Memorial Plaza Square. The shoreline is bulkheaded and unvegetated. Further to the west on the Hudson River, Battery Park provides habitat for terrestrial species with landscaped grasses, shrubs, and trees within a large area. Given the extremely limited available habitat near Pier 6, only the most urban-adapted terrestrial wildlife species are expected to occur near the Project Site, including house sparrow (*Passer domesticus*), European starling (*Sternus vulgaris*), rock dove (*Columba livia*), Norway rat (*Rattus norvegicus*), and gulls.

## AQUATIC RESOURCES

### WATER AND SEDIMENT QUALITY

The East River is a tidal strait connecting western Long Island Sound with the upper New York Harbor. NYSDEC classifies the lower reach of the East River in the vicinity of the Project Site as Use Classification I. Recommended uses for Class I waters are secondary contact recreation and fishing, and water quality should be suitable for fish propagation and survival. The Project Site is within the Inner Harbor study area for the DEP Harbor Survey monitoring program. As in the rest of the Harbor, water quality in the Inner Harbor regions have improved since the 1970s because of measures undertaken by New York City (e.g., improvements to wastewater treatment plants and increased capture of stormwater runoff) and others (DEP 2013). Recent water quality data collected year-round (2000-2017) from DEP Harbor Survey station E2 are presented below in **Table C-1** to characterize existing water quality conditions in the East River. Station E2 is located downriver of Roosevelt Island and represents the main channel of the mid and lower East River.

**Table C-1**  
**DEP Water Quality Data for Sampling Station E2**  
**(2000 to 2017)**

Parameter [Use Class I Standard]	Surface Waters			Bottom Waters		
	Min	Max	Avg	Min	Max	Avg
Temperature (F) [No standard]	34.1	77.9	64.3	33.9	77.9	64.1
Salinity (psu) [No standard]	5.9	28.0	22.6	8.1	28.1	22.9
Dissolved oxygen (mg/L) [Never less than 4 mg/L]	1.1	16.4	6.1	0.9	15.4	5.9
Fecal coliform (colonies per 100 mL (Monthly geometric mean no more than 2,000 colonies/100mL) <sup>(1)</sup>	1	2,900	140.3	-	-	-
Enterococcus (cfu/100mL) (EPA standard = 35 cfu/100mL) <sup>(2)</sup>	1	2,000	37.4	-	-	-
Secchi transparency (ft) [No standard]	1.0	11.0	4.1	-	-	-
Total suspended solids (mg/L) (None from wastes that impair usage)	0.4	25.8	2.9	2.3	5.2	3.4
<b>Notes:</b> (1) Compliance with the fecal coliform standards is based on a monthly geometric mean comprising at least 5 measurements, for which data are not available to calculate, and not on the basis of the maximum fecal coliform value presented here. (2) NYSDEC does not identify a standard for enterococcus; however, USEPA provides a standard for bathing of 35 cfu/100mL. <b>Sources:</b> DEP Harbor Survey Water Quality Data 2000-2017; 6 NYCRR Part 703 Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations; EPA Recreational Water Quality Criteria (Office of Water 820-F-12-058)						

Between 2000 and 2017, surface water temperatures ranged from about 34°F to 78°F with an average of 64°F at Station E2. Salinity ranged from 5.9 psu to 28 psu with an average of about 23 psu. Average dissolved oxygen levels averaged around 6 mg/L in surface and bottom waters. Dissolved oxygen fell below the standard in 13.3 percent of samples in surface waters and 15.1 percent of samples in bottom waters. Average fecal coliform and enterococcus levels are comparable to those found in other open waters of the Harbor, and neither fecal coliform nor enterococcus levels have exceeded the requisite standards at any of the DEP Harbor Survey monitoring sites in recent years.

Near the Project Site in the lower East River, sediments comprise mainly silt with smaller areas of sand and clay. Sediments within the Harbor Estuary, including the East River, are contaminated with pollutants such as chlordane and DDT, metals such as mercury and copper, and various PAHs, but the levels of most sediment contaminants have decreased on average by an order of magnitude in recent decades (NYCEDC et al. 2022, Steinberg et al. 2004). Sediment contamination by PCBs remains widespread in the East River (DEP 2007).

#### *AQUATIC BIOTA*

The aquatic community of the East River is similar in composition to that found in other parts of the New York Harbor (DEP 2007). Diatoms, dinoflagellates, green algae, and blue-green algae are among the most dominant groups of phytoplankton throughout the Harbor (Brosnan and O'Shea 1995). In the East River specifically, the most frequently collected phytoplankton species were *Nannochloris atomus*, *Skeletonema costatum*, *Rhizosolenia delicatula*, and *Prorocentrum redfieldii* (DEP 2007). The swift currents, limited light penetration, and engineered shorelines of the East River severely limit SAV occurrence in most places, and SAV has not been observed at the Project Site. Benthic macroalgae like brown algae and sea lettuce occur in the shallower areas of the river (Perlmutter 1971). These species have a particular affinity for hard substrates within the photic zone (i.e., the uppermost portion of the water column that is exposed to sunlight), and are frequently found on pilings, rocks, bulkheads, and other structures. As in other portions of the Harbor Estuary, copepods, rotifers, barnacle larva, mysid shrimp, and amphipods are among the most common groups of zooplankton observed in the East River. Recent aquatic surveys (NYCEDC et al. 2022) in the vicinity of the Project Site found that zooplankton abundance was much higher in the deeper channel waters compared to shoreline sampling sites. The most abundant taxon was the copepod *Acartia* sp., and other groups commonly found in the lower East River included polychaete worms (Spionidae), the rotifer *Synchaeta* sp., and the ciliate *Favella ehrenbergii*. Benthic macroinvertebrates found in the East River are largely classified as pollution tolerant species (Adams et al. 1998). Benthic macroinvertebrates typically found in the study area include polychaete and oligochaete worms, amphipod and isopod crustaceans, bivalve clams and mussels, gastropod snails, and sea anemones (NYCEDC et al. 2022). The most commonly found and widely distributed species found in the lower East River near the Project Site were oligochaete worms and two polychaete worm species, *Streblospio benedicti* and *Mediomastus ambiseta* (NYCEDC et al. 2022).

The finfish community of the East River, like that of the New York Harbor on a whole, is typical of large coastal estuaries and inshore waterways along the Mid-Atlantic Bight. Hogchoker, tomcod, winter flounder, white perch, bay anchovy, Atlantic menhaden, and striped bass are commonly found within the East River during at least one life stage. Atlantic silverside, mummichog, northern pipefish, striped killifish, and three-spined stickleback are common to the East River year-round (NMFS 2001, NYSERDA 2011). American eel, blueback herring, alewife, American shad, hickory shad, striped bass, tomcod, and rainbow smelt are diadromous fish that

may pass through the East River during migration between the Atlantic Ocean and their spawning areas in the upper Hudson River and its tributaries (NMFS 2001, NYSERDA 2011). Recent sampling efforts in the lower East River commonly observed Atlantic silverside, alewife, Atlantic menhaden, bay anchovy, bluefish, striped bass, winter flounder, oyster toadfish and tautog in shoreline and nearshore portions of the East River. American eel, summer flounder, spotted hake, weakfish, and white perch were also found in shoreline samples (NYCEDC et al. 2022).

Harsh conditions within the East River, including swift currents and lack of shoals, embayments, and other sheltered habitat, limit its utility as spawning habitat, but several fish species are nevertheless able to breed in the area. Ichthyoplankton tow sampling in the upper East River (station ER5) documented eggs of 8 finfish species, including cunner, wrasses, tautog, fourbeard rockling, Atlantic menhaden, herring species, North American searobin species, and windowpane flounder (DEP 2007). The most abundant species found at the larval stage were winter flounder, true gobies, and herrings (DEP 2007).

### **ESSENTIAL FISH HABITAT**

Essential Fish Habitat (EFH) is defined by NMFS as waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. NMFS designates EFH within marine waters. **Table C-2** lists the species and life stages of fish NMFS has identified as having EFH in this portion of the East River and New York Harbor. **Appendix C** contains the EFH Assessment Worksheet which describes EFH in the vicinity of the Proposed Project.

**Table C-2**

**Essential Fish Habitat Designated Species in the Vicinity of the Project Site**

<b>Species</b>	<b>Eggs</b>	<b>Larvae</b>	<b>Juveniles</b>	<b>Adults</b>
Red hake ( <i>Urophycis chuss</i> )	X	X	X	X
Winter flounder ( <i>Pleuronectes americanus</i> )	X	X	X	X
Windowpane flounder ( <i>Scopthalmus aquosus</i> )	X	X	X	X
Atlantic herring ( <i>Clupea harengus</i> )		X	X	X
Bluefish ( <i>Pomatomus saltatrix</i> )			X	X
Longfin inshore squid ( <i>Loligo pealei</i> )	X			
Atlantic butterfish ( <i>Peprilus triacanthus</i> )		X		
Summer flounder ( <i>Paralichthys dentatus</i> )		X	X	X
Clearnose skate ( <i>Raja eglanteria</i> )			X	X
Little skate ( <i>Leucoraja erinacea</i> )			X	X
Winter skate ( <i>Leucoraja ocellata</i> )			X	X
<b>Sources:</b> NMFS EFH Mapper at <a href="https://www.habitat.noaa.gov/apps/efhmapper/">https://www.habitat.noaa.gov/apps/efhmapper/</a>				

### **THREATENED OR ENDANGERED AND SPECIAL CONCERN SPECIES**

No threatened or endangered terrestrial species are listed as having the potential to occur at the Project Site. Federally listed aquatic species that could occur in the waters of the Project Site include: Atlantic sturgeon (*Acipenser oxyrinchus*; endangered), shortnose sturgeon (*Acipenser brevirostrum*; endangered), and green (*Chelonia mydas*; threatened), loggerhead (*Caretta caretta*; threatened), Kemp's ridley (*Lepidochelys kempii*; endangered), and leatherback (*Dermochelys coriacea*; endangered) sea turtles.

### *ATLANTIC STURGEON*

Atlantic sturgeon spawn in freshwater sections of the Hudson River and overwinter throughout the New York Bight, off the south shore of Long Island, and throughout Long Island Sound (Waldman et al. 1996, Bain 1997, Savoy and Pacileo 2003). Atlantic sturgeon juveniles, sub-adults, and adults are expected to migrate and opportunistically forage in the waters near the Project Site year-round, as they connect the Hudson River to marine waters in the Atlantic Ocean and Long Island Sound (Savoy and Pacileo 2003, Tomichuk et al. 2014). They are most abundant in these waters from September to late March (Dunton et al. 2010). Non-spawning prefer deeper, open marine waters, and as such, do not overwinter or otherwise spend prolonged periods of time in the East River (Hatin et al. 2002, Hatin et al. 2007). Critical habitat for Atlantic sturgeon has been designated for the length of the tidal Hudson River from lower Manhattan to the Federal Dam at Troy. The Project Site does not fall within this critical habitat.

### *SHORTNOSE STURGEON*

Shortnose sturgeon is an anadromous fish that spawns, develops, and usually overwinters in the upper Hudson River. The New York Harbor, including the East River, is at the extreme southern limit of this population's overwintering range due to the intolerance of shortnose sturgeon to high salinity levels (Dadswell et al. 1984, Jenkins et al. 1993, NMFS 2014). While they are expected to only rarely occur as far south as the southern tip of Manhattan, transient shortnose sturgeon adults may travel through the East River between spawning and overwintering grounds in the Connecticut and Hudson Rivers. They are most likely to be found in the East River between April and November but can occur in the New York Harbor year-round (SSSRT 2010) and prefer deep waters like those offshore from the pier.

### *SEA TURTLES*

New York and New Jersey waters may be warm enough to support adult and juvenile green, loggerhead, Kemp's ridley, and leatherback sea turtles during May and November (NMFS 2022). Leatherback sea turtles tend to remain off the coast in deeper pelagic waters of the Atlantic Ocean and would be unlikely to occur in the East River at any time of year (USACE 2001, NYSDOS 2013). Loggerhead, Kemp's ridley, and green sea turtles can be found in the New York Bight and waters off Long Island during the warmer months of summer and fall and have the potential to occur in the East River at these times of year. However, these turtles show a strong preference for bays and other sheltered areas off eastern Long Island, which provide rich food sources (Standora et al. 1989, Morreale and Standora 1998). When leaving Long Island Sound for the Atlantic Ocean for winter, they usually do so by heading east rather than traveling west down the East River and through the New York Harbor (Standora et al. 1990). The New York Harbor is considered to be of marginal or lower quality sea turtle habitat, and evidence of sea turtles frequenting the area is scarce despite extensive monitoring and sampling efforts (Ruben and Morreale 1999, USACE 2001). Any occurrence of sea turtles near the Project Site would be limited to rare and brief explorations by transient juveniles. No sea turtles breed near the Project Site or reside there year-round.

## **E. FUTURE WITHOUT THE PROPOSED PROJECT**

Absent the Proposed Project in 2023, the existing conditions at the Project Site would continue. The Downtown Manhattan Heliport would remain in its existing condition without any added gangways, piles, or barge landing. With or without the Proposed Project, elements of the New



York/New Jersey Harbor Estuary Program and other programs such as the Hudson-Raritan Estuary (HRE) Restoration Project that are specifically directed at improving biological resources and habitats, would be expected to result in improvements to natural resources throughout the Harbor Estuary over time. Restoration opportunities pursued within the East River as part of the HRE would occur with or without the Proposed Project. Terrestrial resources near the Project Site are not anticipated to change in the future with or without the Proposed Project and will continue to be extremely limited due to the extensive urban development in lower Manhattan.

## **F. FUTURE WITH THE PROPOSED PROJECT**

The Freight Operator is anticipated to install a permanently moored freight barge landing measuring approximately 95 feet long by 35 feet wide (3,325 square feet) with a 60-foot long 8-foot wide (480- square foot) aluminum gangway. The barge landing would be secured by 4 36-inch diameter steel pipe anchor piles with 2 36-inch monopiles positioned on the pier-facing side of the barge landing, for a total benthic footprint of approximately 56.5 square feet. Pile installation would be completed using a vibratory hammer and piles may be seated with an impact hammer. If an impact hammer is required, it would be used in conjunction with a soft start and cushion block. The piles may contain flowable concrete fill and fenders or dolphins may also be installed, both of which will be determined as the design is refined. The gangway would rest between the barge landing and Pier 6 and would not require installation of an intermediate landing. No modifications would be made to the existing heliport pier or the shoreline. In-water construction activities would be completed over approximately 8 to 12 weeks and would be conducted in accordance with any restricted periods established to protect spawning winter flounder (January 15 through May 31) and/or migrating anadromous species (March 1 through June 30), and in compliance with any other time of year restrictions or permitting conditions from USACE and NYSDEC.

## **FLOODPLAINS AND WETLANDS**

The Project Site is within the 1 percent annual chance floodplain with a BFE of +15 feet NAVD88. The barge landing would float at the surface of the water, and the mooring piles would extend to an elevation of approximately +25 feet NAVD88, which would be above the current flood elevation. It would also account for higher future flood elevations based on the New York City Panel on Climate Change (NPCC) projected sea level rise of 11 to 24 inches by the middle of the century under the middle range projection and 31 inches under the high estimate projection. The build elevation of +25 feet NAVD88 would also account for the anticipated motion of the barges in storm waves and vessel wakes. The gangway would be connected to the Heliport pier and the barge landing and would be able to rise and fall with the tides. Overall, the Proposed Project would be resistant to 1 percent annual chance storm events and would not affect flood levels, flood risk, or the flow of flood waters within the Project Sites or their surrounding areas.

The Project Site is within NWI-mapped wetlands (**Figure C-3**) and adjacent to NYSDEC littoral zone tidal wetlands (**Figure C-2**). The Proposed Project would not have direct impacts on NYSDEC wetlands, as the piles and barge landing would be installed in waters deeper than 6 feet at MLW. Increases in suspended sediment related to pile installation would be temporary, localized, and would dissipate upon completion of sediment disturbing activities, and would not result in permanent impacts to wetlands. The loss of 56.5 square feet of bottom habitat within NWI-mapped wetlands would be small when considered in context of the unaffected deepwater estuarine wetlands within the East River and the New York Harbor.

## **TERRESTRIAL RESOURCES**

Construction and operation of the Proposed Project would not result in impacts to the limited vegetation adjacent to Pier 6 along the Greenway. There is no terrestrial habitat on the pier itself, and the addition of a gangway to connect the pier to the barge landing would not result in loss of habitat. The barge landing would be installed using barge-based equipment and would not require modification of the shoreline or the roadway nor would it involve tree removal. Freight operations at the barge landing and the movement of delivery vehicles off the pier into lower Manhattan also would not result in impacts to terrestrial resources, as they would use existing roadways for travel.

## **AQUATIC RESOURCES**

### *WATER AND SEDIMENT QUALITY*

#### *Construction*

In-water construction activities would be limited to pile installation and placement of the barge landing. In general, pile installation does not result in significant levels of sediment disturbance, with the greatest potential for increased turbidity limited to pile removal. Sediment disturbance associated with installation of the anchor piles, monopiles, and potential dolphin or fender piles would result in minor, short-term increases in suspended sediment and re-deposition of contaminants within the sediments. Sediments would dissipate quickly and settle over similar substrate at the Project Site, and resuspension of these materials would not result in significant adverse impacts to water or sediment quality in the East River.

#### *Operation*

Because the barge landing would be installed in waters approximately 12 to 15 feet at MLW, water depths at the Project Site would be sufficient to allow clearance between the incoming freight vessels and the river bottom, limiting the potential for resuspension of sediments during vessel movement. The shoreline is bulkheaded and would not be susceptible to erosion from boat wake energy. Therefore, operation of the Proposed Project would not result in impacts to water or sediment quality.

### *AQUATIC BIOTA*

#### *Construction*

All construction activities would be completed in accordance with permits issued by USACE and NYSDEC for the protection of waters. In-water construction activities would have potential temporary impacts to fishes and benthic macroinvertebrates at the Project Site due to temporary increases in suspended sediment and underwater noise. Shading by the construction barge would be minimal, as it would be small in comparison to the area of the river left unshaded and would be moored in place in relatively deep waters between the shoreline and the heliport during construction. As discussed above, any temporary increase in suspended sediment associated with pile driving would be localized and would dissipate shortly after completion. Life stages of estuarine and anadromous fish and macroinvertebrate species are generally tolerant of elevated suspended sediment concentrations and have evolved behavioral and physiological mechanisms to adapt to variable conditions (Birtwell et al. 1987, LaSalle et al. 1991, Nightingale and Simenstad 2001). Any sediment resuspension that occurs during in-water work would be temporary, minimal,

and localized, and would be well below physiological impact thresholds of adult and larval estuarine fish and benthic macroinvertebrates.

Installation of the anchor piles, monopiles, and potential dolphin and fender piles would result in a temporary increase in underwater noise during pile driving. As recommended by NMFS to minimize noise impacts, it is anticipated that piles would be installed to the extent possible using a vibratory hammer. An impact hammer, in conjunction with a soft start and cushion block, may be used to drive the piles the final few feet to their required depth. The projected noise for vibratory and impact hammering at the source and distance to relevant thresholds for species in the action area was determined based on the NMFS Greater Atlantic Regional Fisheries Office (GARFO) Acoustic Tool spreadsheet (version updated 9/14/2020).

Installation of the piles would result in temporary increased underwater noise levels that would not be expected to exceed the threshold for physiological injury to fishes. During vibratory hammering of 36-inch steel pipe piles, underwater noise levels would reach the behavioral threshold for fish at 164 feet (50 meters) from the pile and would not meet the behavioral threshold for sea turtles. During cushioned impact hammering, underwater noise would reach the behavioral threshold for fish at 384 feet (117 meters) and for sea turtles at 109 feet (33 meters) from the pile being installed. Any fish or sea turtle that enters the area within these respective distances would be expected to detect the elevated noise levels and move away. Because the East River at the Project Site is over 2,600 feet wide and the area affected by increased underwater noise levels would be small, it is unlikely that these avoidance behaviors would adversely affect fish spawning, foraging, resting, and migration, or sea turtle foraging or migration. Organisms that avoid the site during active construction would be expected to return once it is complete. For these reasons, the temporary increase in underwater noise during construction of the Proposed Project would not result in adverse effects on aquatic biota.

### *Operation*

Permanent loss of bottom habitat would comprise approximately 56.5 square feet in the footprint of the anchor piles and monopiles installed to secure the barge landing. If dolphin or fender piles are installed, they would also have a small footprint on the river bottom. This loss of benthic habitat represents a negligible reduction in the amount of similar habitat and benthic organisms in the East River and New York Harbor and would not significantly impact populations of benthic fauna or their predators.

Shading of approximately 3,325 square feet of water column due to the barge landing would not result in significant impacts to aquatic habitat. NYSDEC considers aquatic habitat under an overwater structure to be shade-impacted beyond 15 feet inward from the structure's edges (e.g., if a structure is 50 feet wide, shading impacts only affect the interior 20 feet [50 feet less 15 feet on each side]). This is consistent with recent studies that found shading from piers in the Hudson River to affect the behavior and abundance of fishes under the pier approximately 15 or more feet from the nearest pier edge (Able and Grothues 2011, Able et al. 2013, PANYNJ 2015). The barge landing would be approximately 35 feet by 95 feet, and the gangway would be 10 feet wide and elevated off the water's surface. Over the course of a day, aquatic habitat beneath these structures would neither be in permanent shade nor shaded to a degree that would impact aquatic biota during operation of the Proposed Project.

Because the East River and New York Harbor are heavily trafficked urban waterways, levels of vessel activity are currently high, and the incoming freight vessels supported by the Proposed Project would represent an incremental increase in boat traffic that would not affect aquatic biota.

One vessel up to three times per day would be expected to temporarily dock at the barge landing while offloading and onboarding delivery vehicles. This would occur up to 7 days per week. This is not expected to elevate boat activity near the Project Site to the extent that there would be significant increases in the levels of disturbance currently experienced by aquatic biota. No changes in the abundance of aquatic organisms or the composition of aquatic communities would be anticipated to result from additional vessel activity in the lower East River.

### **ESSENTIAL FISH HABITAT**

For the reasons identified above and described in detail in the EFH assessment included in **Appendix C**, the Proposed Project would not result in significant adverse impacts to water quality, aquatic habitat, or aquatic biota. Therefore, the Proposed Project would not result in significant adverse impacts to EFH in the study area.

### **THREATENED OR ENDANGERED AND SPECIAL CONCERN SPECIES**

Federally listed species with the potential to occur at the Project Site include Atlantic sturgeon, shortnose sturgeon, and sea turtles. Because shortnose and Atlantic sturgeon are more likely to occur in deeper waters of the East River during migration and foraging, it is unlikely that individuals of either species would occur in the shallower waters of the Project Site outside the navigation channel except as occasional transients. Similarly, sea turtles have the potential to occur within the Project Site on rare occasions, and only as transient individuals, rather than for long-term occupation for breeding, wintering, or growth and development. Migration of sturgeon and sea turtles through the East River during spring and early fall would not be obstructed by pile driving activities, which would only result in increased noise within a small area of the river centered near the Manhattan shoreline. Since impacts associated with the in-water construction activities would be localized, including resuspended sediments and elevated noise levels from pile driving as described above, the deeper channel habitat typically used by sturgeon would not be adversely impacted during construction of the Proposed Project. The temporary loss of potential foraging habitat due to avoidance of the Project Site would not result in significant adverse impacts to sturgeon or sea turtles, as similar suitable habitat would continue to be available nearby and they would be expected to return to the Project Site following construction. The footprint of the piles on the river bottom would result in minimal habitat loss for sturgeon or sea turtles that opportunistically forage near the Project Site. Freight vessels associated with operation of the barge landing would be similar to vessels that currently transit the East River and New York Harbor and would not significantly add to vessel traffic in the area. They would also be traveling at low speeds as they move into and out of the Project Site and would not increase the risk of vessel strikes in the area. Therefore, construction and operation of the Proposed Project would not have the potential to result in significant adverse impacts to federally protected species.

### **CONCLUSION**

As noted above, details of the in-water construction required for the Proposed Project are not known at the time of Concessionaire approval, and the selected Freight Operator would be responsible for obtaining the required NYSDEC and USACE permits, and updating any CEQR assumptions or determinations to secure such permits. At that time, the scope of in-water construction will be confirmed. Therefore, this assessment of in-water construction is based on conservative estimates that will be revisited and refined during the permitting process.



## **Downtown Manhattan Heliport FreightNYC Project**

---

The construction of the Proposed Project would not result in significant adverse impacts on natural resources. All construction activities would be completed in accordance with the conditions of permits issued by United State Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, and by the New York State Department of Environmental Conservation (NYSDEC) under Section 401 of the Clean Water Act and Article 15 for Protection of Waters. Increases in suspended sediment resulting from in-water construction activities would be temporary and localized and would dissipate quickly. Elevated underwater noise from pile driving would be intermittent, localized, and short in duration, and would not result in significant impacts to migratory, foraging, or spawning behaviors near the Project Site. As recommended by NMFS to minimize noise impacts, it is anticipated that piles would be installed to the extent possible using a vibratory hammer, and a soft start and cushion block would be used if impact hammering is required. Using these measures, aquatic organisms including federally threatened or endangered sturgeon and sea turtles would be unlikely to experience exposure to potentially injurious levels of underwater noise due to installation of piles. Additionally, the increase in underwater noise due to installation of piles for the Proposed Project would not obstruct the movement of these species through the East River or New York Harbor. In-water work would be completed outside the restricted periods for spawning winter flounder (January 15 through May 31) and anadromous species migration (March 1 through June 30).

The occupation of 56.5 square feet on the river bottom by the anchor piles and 3,805 square feet of shading by the freight barge landing and elevated gangway would result in a minimal change in foraging habitat for fish and would not adversely affect the suitability of this portion of the East River as spawning or migratory habitat. Because the East River and New York Harbor are heavily trafficked urban waterways, levels of vessel activity are currently high, and the incremental increase of one incoming freight vessel 3 times per day for the Proposed Project would not affect aquatic biota. The Proposed Project would not alter any existing infrastructure and does not have the potential to result in significant adverse impacts to terrestrial resources, floodplains, or wetlands.

## G. LITERATURE CITED

- Able, K.W., and T.M. Grothues. 2011. Behavior of Fishes Associated with Piers: Responses in the Lower Hudson River. Final Report submitted to the City of New York Department of Parks and Recreation. June 13, 2011.
- Able, K.W., T.M. Grothues, and I.M. Kemp. 2013. Fine-scale distribution of pelagic fishes relative to a large urban pier. *Marine Ecology Progress Series* 476: 185-198.
- Adams, D.A., J.S. O'Connor, and S.B. Weisberg. 1998. Final Report: Sediment Quality of the NY/NJ Harbor System. An Investigation Under the Regional Environmental Monitoring and Assessment Program (R-EMAP). EPA/902-R-98-001.
- Bain, M.B. 1997. Atlantic and shortnose sturgeons of the Hudson River: common and divergent life history attributes. *Environmental Biology of Fishes* 48:347-358.
- Birtwell, I.K., M.D. Nassichuk, H. Beune, and M. Gang. 1987. Deas Slough, Fraser River Estuary, British Columbia: General description and some aquatic characteristics. Canadian Fisheries Marine Service Manuscript Report No. 1464.
- Brosnan, T.M., and M.L. O'Shea. 1995. New York Harbor Water Quality Survey: 1994. New York City Department of Environmental Protection, Marine Sciences Section, Wards Island, NY.
- Dadswell, M.J., B.D. Taubert, T.S. Squiers, D. Marchette, and J. Buckley. 1984. Synopsis of biological data on shortnose sturgeon, *Acipenser brevirostrum* LeSueur 1818. NOAA/National Marine Fisheries Service, Technical Report NMFS 14.
- Dunton, K.J., A. Jordaan, K.A. McKown, D.O. Conover, and M.G. Frisk. 2010. Abundance and distribution of Atlantic sturgeon (*Acipenser oxyrinchus*) within the Northwest Atlantic Ocean, determined from five fishery-independent surveys. *Fisheries Bulletin* 108:450-465.
- Edinger, G.J., D.J. Evans, S. Gebauer, T.G. Howard, D.M. Hunt, and A.M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reschke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.
- Hatin, D., R. Fortin, and F. Caron. 2002. Movements and aggregation areas of adult Atlantic sturgeon (*Acipenser oxyrinchus*) in the St. Lawrence River estuary, Québec, Canada. *Journal of Applied Ichthyology* 18:586-594.
- Hatin, D., J. Munro, F. Caron, and R. D. Simons. 2007. Movements, home range size, and habitat use and selection of early juvenile Atlantic sturgeon in the St. Lawrence estuarine transition zone. *American Fisheries Society Symposium* 56:129-155.
- Jenkins, W.E., T.I. Smith, L.D. Heyward, and D.M. Knott. 1993. Tolerance of shortnose sturgeon juveniles to different salinity and dissolved oxygen concentrations. *Proceedings of the Annual Conference of the Southeast Association of Fish and Wildlife Agencies* 47:476-484.
- LaSalle, M.W., D.G. Clarke, J. Homziak, J.D. Lunz, and T.J. Fredette. 1991. A framework for assessing the need for seasonal restrictions on dredging and disposal operations.

## **Downtown Manhattan Heliport FreightNYC Project**

---

- Department of the Army, Environmental Laboratory, Waterways Experiment Station, Corps of Engineers, Vicksburg, MS.
- Morreale, S.J., and E.A. Standora. 1998. Early life stage ecology of sea turtles in northeastern US waters. NOAA Technical Memorandum NMFS-SEFSC-413.
- National Marine Fisheries Service (NMFS). 2001. Regional Council Approaches to the Identification and Protection of Habitat Areas of Particular Concern.
- National Marine Fisheries Service (NMFS). 2014. Personal communication between Mary A. Colligan, NMFS Northeast Region, and Chad L. Seewagen, AKRF Inc., May 6, 2014.
- National Marine Fisheries Service (NMFS). 2022. NOAA Fisheries Greater Atlantic Region, ESA Section 7 Mapper. Available <https://www.fisheries.noaa.gov/resource/map/greater-atlantic-region-esa-section-7-mapper>. Accessed May 16, 2022.
- New York City Department of Environmental Protection (DEP). 2007. East River and Open Waters Waterbody/Watershed Facility Plan Report. June 2007.
- New York City Department of Environmental Protection (DEP). 2017. 2017 New York Harbor Water Quality Report.
- New York City Department of Environmental Protection (DEP). 2013. The State of the Harbor 2012.
- New York City Economic Development Corporation (NYCEDC), AKRF Inc., and Normandeau Associates Inc. 2022. New York City Economic Development Corporation Financial District and Seaport Climate Resilience Plan. Biological and Habitat Sampling Program July through September 2021 Sampling Event and Year 1 Annual Report. January 2022.
- New York State Department of State (NYSDOS). 2013. Offshore Atlantic Ocean Study. February 2013.
- New York State Energy Research and Development Authority (NYSERDA). 2011. Roosevelt Island Tidal Energy Project Environmental Assessment. NYSERDA Final Report 11-04, Albany, NY
- Nightingale, B., and C.A. Simenstad. 2001. Dredging Activities: Marine Issues. White Paper, Research Project T1803, Task 35. Prepared by the Washington State Transportation Center (TRAC), University of Washington. Prepared for Washington State Transportation Commission, Department of Transportation, and in cooperation with the U.S. Department of Transportation, Federal Highway Administration.
- Perlmutter, A. 1971. Ecological Studies Related to the Proposed Increase in Generating Capacity at the Astoria Power Station of Consolidated Edison. Report prepared for the Consolidated Edison Company of New York, Inc.
- The Port Authority of NY & NJ (PANYNJ). 2015. Floating Structures Pilot Project: Fish Utilization & Responses and Hydrodynamics & Sediment Transport. Southwest Brooklyn Waterfront Study. Project Summary Report, July 2015.
- Ruben, H.J., and S.J. Morreale. 1999. Draft Biological Assessment for Sea Turtles in New York and New Jersey Harbor Complex. Unpublished Biological Assessment submitted to National Marine Fisheries Service.

- Savoy, T. and D. Pacileo. 2003. Movements and important habitats of subadult Atlantic sturgeon in Connecticut waters. *Transactions of the American Fisheries Society* 132:1-8.
- Shortnose Sturgeon Status Review Team (SSSRT). 2010. A Biological Assessment of shortnose sturgeon (*Acipenser brevirostrum*). Report to National Marine Fisheries Service, Northeast Regional Office. November 1, 2010.
- Standora, E.A., S.J. Morreale, E. Estes, R. Thompson, and M. Hilburger. 1989. Growth rates of Juvenile Kemp's ridleys and their movement in New York waters. *Proceedings of the Ninth Annual Workshop on Sea Turtle Conservation and Biology*.
- Standora, E.A., S.J. Morreale, R.D. Thompson, and Y.J. Burke. 1990. Telemetric monitoring of diving behavior and movements of juvenile Kemp's ridleys. *Proceedings of the Tenth Annual Workshop on Sea Turtle Conservation and Biology*.
- Steinberg, N., D.J. Suszkowski, L. Clark, and J. Way. 2004. Health of the Harbor: the first comprehensive look at the state of the NY/NJ Harbor Estuary. Prepared for the New York/New Jersey Harbor Estuary Program by the Hudson River Foundation, New York, NY.
- Tomichek, C., J. Colby, M.A. Adonizio, M. Frisk, K. Dunton, D. Fox, and A. Jordaan. 2014. Tagged species detection: approach to monitoring marine species at marine hydrokinetic projects. *Proceedings of the 2nd Marine Energy Technology Symposium*.
- United States Army Corps of Engineers (USACE), NY District. 2001. Beach Renourishment and Offshore Borrowing in the Raritan Bay Ecosystem: A Biological Assessment for Sea Turtles.
- Waldman, J.R., J.T. Hart, and I.I. Wirgin. 1996. Stock composition of the New York Bight Atlantic sturgeon fishery based on analysis of mitochondrial DNA. *Transactions of the American Fisheries Society* 125:364-371.

\*



## **A. INTRODUCTION**

This attachment addresses the potential for the presence of hazardous materials resulting from previous and existing uses at or near the Project Site and potential risks to the Proposed Action with respect to any such hazardous materials. The Project Site is the Downtown Manhattan Heliport (DMH) at Pier 6, in Lower Manhattan (Block 2, Lot 23), which is located on the East River in the Financial District between Pier 11 and the Battery Maritime Building. As indicated in Attachment A: Project Description, as part of the Freight NYC initiative, the City proposes to establish a last-mile delivery operation on the existing Heliport pier as part of a Concessionaire agreement, which would utilize marine vessels to transport pre-loaded zero-emission vehicles (cargo bicycles) to a new floating barge landing to be installed on the north side of the Heliport pier. The cargo bikes would then depart from the barge landing and perform deliveries along routes throughout Lower Manhattan. No on-land soil disturbance would be required for installation of the new floating barge landing. However, disturbance of riverbed sediments resulting from the installation of piles to support the new barge landing would be required.

This assessment is based on a June 2022 *Phase I Environmental Site Assessment* (ESA) prepared by Preferred Environmental Services (Preferred). The ESA included the findings of a reconnaissance of the Project Site, an evaluation of readily available historical information, and selected environmental databases and electronic records in accordance with American Society for Testing and Materials (ASTM) E1527-21.

## **B. EXISTING CONDITIONS**

### **SUBSURFACE CONDITIONS**

The Project Site is located within the East River and is at sea level. No soil or groundwater is present within the Project Site. As previously indicated, no on-land soil disturbance would be required for installation of the new floating barge. However, disturbance of riverbed sediments resulting from the installation of piles would be required.

### **PHASE I ESA**

As indicated in the Phase I ESA, the Project Site consists of an approximately 530-foot long concrete and asphalt-paved pier (Pier 6) that extends south into the East River. The Project Site is currently improved with a two-story terminal building improved with a customer lounge, operator offices and control tower. A parking lot is located on the landward side of the terminal building with an “L”-shaped helicopter landing area on the East River side. The Site is utilized as a public heliport operated by the New York City Economic Development Corporation (NYCEDC). Based upon a review of historic resources evaluated in the Phase I ESA, the Project Site was developed with multiple piers from at least 1894. By 1905, Pier 6 was reconstructed, consistent with its current location and identified as a canal barge pier. By the early 1920s, the pier was developed

## **Downtown Manhattan Heliport FreightNYC Project**

---

with an elongated building (office and freight house), identified as the NYS Barge Canal Terminal. By 1950 the building was occupied by Neptune Shipping, Inc., with the pier still identified as the NYS Barge Canal Terminal. By 1968, the pier was replaced/redeveloped and occupied by The Port Authority of NY Manhattan Heliport, and included a terminal building at the north-central portion. A small commercial building was added east of the terminal building by 1976. By 1985, all structures at the Project Site were razed. The existing Downtown Manhattan Heliport structure was built circa 1988, including the “L”-shaped pier and terminal building, with a parking lot north of the building and helicopter landing areas to the southeast.

The following environmental features were identified at the Project Site as part of the June 2022 Phase I ESA prepared by Preferred:

- One (1) 4,000-gallon Jet Fuel aboveground storage tank (AST) is located at the northernmost portion of the parking area at the point where the pier structure abuts South Street/FDR Drive. The tank is registered on the New York State Department of Environmental Conservation (NYSDEC) Petroleum Bulk Storage (PBS) database under ID No. 2-611403. Dispensing lines for the AST run below the pier structure to a refueling area situated on the barge structure. The majority of the lines were not visually observed. However, no evidence of Jet Fuel release was identified on surface waters near or surrounding the pier.
- Storm drains were observed within the asphalt -paved parking areas. Discharge points for the drains were not confirmed. No visual evidence of environmental impacts were noted in the Phase I ESA in association with the storm drains.
- Maintenance and cleaning products were stored in working quantities within the terminal building and were not considered an environmental concern.
- Based upon the age of the pier and building, it is unlikely that roofing, roof flashing and other inaccessible building materials contain asbestos.

The June 2022 Phase I ESA prepared by Preferred identified no Recognized Environmental Conditions (RECs) associated with the Project Site. However, the following Historic Recognized Environmental Condition (HREC) was identified for the Project Site:

- The Project Site was identified with one closed spill incident associated with a minor release of jet fuel from a helicopter fuel tank. The spill was contained to pavements and remediated by a third-party contractor, and subsequently closed by the NYSDEC on the same date. Based upon the nature of the release and closure status, the spill was considered an HREC that does not warrant further investigation.

In addition to the HREC above, the Phase I ESA further indicated the potential for contaminated sediments at the bottom of the East River due to historic heavy transportation/shipping uses, as well as the historic uses of properties adjoining the Project Site, which has the potential to generate regulated waste from spoil generation as part of any future development that requires disturbance of the riverbed.

## **C. THE FUTURE WITHOUT THE PROPOSED ACTION**

In the future without the Proposed Action (the “No Action” condition), the proposed floating barge landing and gangway would not be developed at the Heliport pier. Therefore, there would be no riverbed disturbance associated with pile installation activities for the proposed floating barge landing.

## **D. THE FUTURE WITH THE PROPOSED ACTION**

In the future with the Proposed Action (the With Action Condition), a new floating barge landing will be installed on the north side of the Heliport pier. Cargo bikes would then depart from the barge landing and perform deliveries along routes throughout Lower Manhattan. No on-land soil disturbance would be required for installation of the new floating barge. However, disturbance of riverbed sediments resulting from the installation of piles would be required.

Based upon the results of the Phase I ESA, river sediments at the Project Site may have been contaminated due to historic heavy transportation/shipping uses, as well as the historic uses of properties adjoining the Project Site. As discussed in Attachment C, "Natural Resources," increase in suspended sediment resulting from in-water pile installation for the barge landing would be temporary, localized, and would dissipate shortly after completion of sediment disturbing activities, which would not result in adverse impacts. Further, installation of the barge landing (or any structure) in or over any navigable water would require authorization/permitting by the US Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. Appropriate USACE permitting would be obtained which would demonstrate the disturbance of dredged material/river sediments disturbed as part of the installation of the barge landing would be in compliance with the Clean Water Act. In addition to USACE permitting, the barge landing installation would also require permitting in accordance with the New York State Department of Environmental Conservation (NYSDEC) under Article 15 Protection of Waters Act. The Protection of Waters Permit Program regulates disturbance of stream beds or banks and construction of mooring facilities. Appropriate NYSDEC permitting would be obtained which would demonstrate compliance of Section 401 of the Clean Water Act.

The details of the in-water construction required for the Proposed Project are not known at the time of Concessionaire approval. Once the Freight Operator is selected, the Operator would be responsible for obtaining the required New York State Department of Environmental Conservation (NYSDEC) and U.S. Army Corps of Engineers (USACE) permits as well as all related state and local requirements related to construction in-water, and updating any CEQR assumptions or determinations to secure such permits, at which time the scope of in-water construction will be confirmed. Therefore, the assessment of in-water construction presented in this attachment is based on conservative estimates that will be revisited and refined during the permitting process.

With these measures included as part of the Proposed Project, no significant adverse impacts related to hazardous materials would occur. \*

## **A. INTRODUCTION**

This attachment examines the potential effects of the Proposed Action on transportation systems. As detailed on Page 1a, “Project Description and Screening Analyses,” the Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight for local delivery at a new permanent floating barge off the existing Heliport at Pier 6. Shifting these freight deliveries to Lower Manhattan via marine vessel rather than the street network is intended to ultimately help reduce truck traffic congestion and associated pollution. In particular, each marine vessel freight delivery would increase deliveries by small, all-electric cargo bikes but reduce deliveries by large, combustion-engine trucks and vans in Lower Manhattan. The proposed project is a key initiative for Freight NYC to shift freight from truck deliveries to the City’s waterways and bike facilities to improve street user safety, reduce truck traffic congestion, improve air quality, and fight climate change.

## **B. TRANSPORTATION ASSESSMENTS**

### **FREIGHT LOGISTICS**

For transportation analysis screening purposes, NYCEDC has provided operating assumptions to guide the assessment of transportation in this EAS. Since the details of the operational freight logistics plan proposed by the Freight Operator are not known at the time of Concessionaire approval, and may be further refined closer to commencement of operations, several conservative assumptions have been built into the analysis, as well as flexibility regarding delivery transportation mode type. Once the Freight Operator is selected, the Operator would be responsible for ensuring their operations are aligned with the assumptions presented in this EAS. If any new elements are proposed that are out of scope with the EAS assumptions, then they would be subject to additional environmental review and approval pursuant to CEQR.

According to NYCEDC, a vessel would arrive in the morning loaded with freight and moor at the barge that is connected to the pier via a gangway. The permanent barge would be secured to piles and would be dedicated to the storage, staging, and unloading of freight from the vessel. There would be approximately 60 cargo bikes dedicated to delivering 3,600 cubic feet of small packages and parcels per day. The number of 60 cargo bikes is based on a medium-sized cargo bike, an example of which is the Trike Legacy (Rytley) which has a cargo capacity of 60 cubic feet and occupies an area of 35 square feet.

Local deliveries would occur during daytime hours, potentially seven days a week. It is unknown at this time if any cargo vans would supplement the cargo bike operation. For assumption purposes, NYCEDC provided a list of cargo vans,<sup>1</sup> and the vehicle model able to carry the smallest

---

<sup>1</sup> <https://www.merchantsfleet.com/industry-insights/best-cargo-vans-for-business/>

## **Downtown Manhattan Heliport FreightNYC Project**

---

cargo capacity (123 cubic feet) was selected to be conservative, since more vehicle trips would be generated by the smallest cargo capacity vehicle. The 3,600 cubic feet of cargo, if entirely delivered by the 123 cubic foot cargo van, would require the equivalent of 30 vans. It is unlikely that 30 vans would arrive and depart at once, as is described further below.

There are three scenarios for delivery transportation mode type presented: 1) an all-bike scenario; 2) a hybrid scenario of bikes and vans; and 3) an all-van scenario which is the least likely.

### ***ALL-BIKE SCENARIO***

The entire premise of the Proposed Project is to switch modes from traditional combustion-engine freight trucking to marine vessels pre-loaded with zero-emission vehicles (cargo bicycles) for last-mile deliveries in Lower Manhattan. Therefore, this all-bike scenario is the most likely scenario to be implemented as NYCEDC favors a Freight Operator proposal that includes all-bike freight operations. In addition to the single waterside vessel delivery option, it is possible for the all-bike scenario could feature up to three deliveries per day, tentatively at 7 AM, 12 PM, and 3 PM. It is assumed that the same 60 cargo bikes would be used for all three deliveries, and that returning cargo bike trips would not overlap with the departing cargo bike trips during the same peak hour. The first freight delivery would use all 60 cargo bikes, and the second and third deliveries would use 15 of the 60 bikes each. Therefore, the highest single peak hour of activity would consist of 60 cargo bike trip ends whether there was one freight delivery per day or three per day.

Bikes would be stored overnight on the barge or roll off the vessel, pre-loaded prior to arrival, and riders would arrive landside to meet the vessel. The riders would return their bikes to the barge after deliveries, which would not overlap with the freight delivery departure peak hour of activity and be spread evenly throughout the day. Then the bikes would be loaded onto the vessel and leave for the homeport or stored on the barge overnight. The all-cargo bike option with one delivery per day has been shown as Scenario 1 in **Table E-1**. If up to three deliveries per day were to occur for any scenario, the daily Existing/No Action cargo vans and hourly vehicle trips ends would increase commensurate with the increased With Action activity.

**Table E-1**  
**Comparison of No Action and With Action Freight Operations—Daily**

<b>Delivery Scenario for 3,600 cubic feet of freight</b>	<b>Existing/No Action</b>	<b>With Action</b>	<b>Increment</b>
Scenario 1—100 percent bikes	30 cargo vans	0 cargo vans	-30 cargo vans
	0 cargo bikes	60 cargo bikes	+60 cargo bikes
Scenario 2—80 percent bikes/20 percent vans (hybrid)	30 cargo vans	6 cargo vans	-24 cargo vans
	0 cargo bikes	48 cargo bikes	+48 cargo bikes
Scenario 3—100 percent vans	30 cargo vans	30 cargo vans	0 cargo vans
	0 cargo bikes	0 cargo bikes	0 cargo bikes
Note: Vehicles and bicycles are shown above, not trip ends. Each With Action vehicle or bicycle would result in two daily trip ends at Pier 6, some of which would overlap in the peak hour of activity, as described in this section.			

### ***BIKE/VAN HYBRID SCENARIO***

Since it is unknown what the eventual Freight Operator will propose, this EAS conservatively studies a second scenario – 80 percent of freight would be delivered by cargo bike and 20 percent by cargo van. A potential logistical scenario would be that freight is offloaded from the vessel via pallets onto the barge for distribution onto cargo bikes, cargo vans, or a mix. This would take longer than the all-bike scenario, but would occur within a single peak hour of activity. For



transportation analysis screening purposes, the bike/van hybrid is known as Scenario 2 (see **Table E-1**).

#### *ALL-VAN SCENARIO*

A third scenario for transportation analysis screening purposes is that all freight delivery from the vessel is delivered via cargo vans, shown as Scenario 3 in **Table E-1**. This is unlikely, but to provide flexibility for the eventual Freight Operator, it is described here. Vans would arrive at the Project Site from an off-site location, and stage in designated parking spaces on the pier to be loaded with freight. The vans would not return to the pier later that day. Since there is not enough storage room on the pier for 30 vans, it is assumed that an all-van operation would take longer than one hour, and be staged by the Freight Operator, dividing the 30 inbound and 30 outbound van trips into two hours of 15 inbound vans and 15 outbound vans each. NYCEDC can condition the Freight Operator to work within such hours, should this scenario be confirmed.

### **TRANSPORTATION SCREENING ASSESSMENT**

#### *INCREMENT*

Since the demand for the above goods is not new to the area near the Pier 6 Downtown Manhattan Heliport, the delivery of those same goods is presumably made currently via cars, vans, and trucks to the same nearby destinations. Hence, the overall Existing or No Action scenario is likely very similar and for purposes of comparison is assumed to be equivalent to the all-van scenario described above in the larger context of the Lower Manhattan street network on a daily basis. **Table E-1** provides a comparison of the freight operations between the No Action and With Action conditions for the three scenarios for a typical day with one delivery.

For transportation screening purposes, a cargo bike trip is assumed to equal a van trip since the largest cargo bikes used may be of equivalent size to a small van in terms of operational characteristics at signalized intersections. In Scenario 1, there would be a net increase of 30 trips in the peak hour of activity. In Scenario 2, there would be 6 daily vans with 6 inbound vans plus 6 outbound vans in the peak hour of activity, for a net increase of 30 incremental trips in the peak hour. In Scenario 3, there would be 30 daily vans or 15 inbound vans plus 15 outbound vans per peak hour of activity for a net difference of zero trips. There would also be up to 60 person trips generated by the cargo bikes and 5 person trips generated by the waterside freight operations staff, resulting in 65 person trips in the peak hour. These increments fall below the *CEQR Technical Manual* thresholds of 50 vehicles per hour and 200 pedestrians per hour. The cargo bike riders and waterside freight operations staff would not surpass the *CEQR Technical Manual* thresholds for transit (subway, rail, bus, or ferry).

Depending on the scenario, the Proposed Action would either reduce or not increase the overall truck and van traffic in Lower Manhattan, irrespective of there being one, two, or three daily deliveries. The Proposed Action would lead to benefits in the areas of street user safety, traffic congestion, air quality, and climate change. Therefore, detailed vehicular, transit, or pedestrian analysis are not warranted, and the Proposed Action would not have the potential to result in any significant adverse impacts on traffic, transit, or pedestrians.

#### *STREET USER SAFETY ASSESSMENT AND SITE ACCESS*

The *CEQR Technical Manual* prescribes that a detailed analysis of historic crash data is warranted if detailed traffic analysis at any intersection, or any pedestrian element at an intersection is

conducted. It also considers the presence of any identified Vision Zero intersections or corridors at the site or at detailed traffic and pedestrian analysis locations. No detailed analysis of traffic or pedestrian operations is warranted, no Vision Zero priority intersections or corridors are at Pier 6 or along South Street, and Pier 6 and South Street are not within any Vision Zero priority areas.<sup>2</sup>

There are two curb cuts along South Street at Pier 6, both of which are currently in use by heliport operators and customers. The street network at the Pier 6 curb cuts consists of two northbound through lanes at the transition from the Battery Park Underpass to the FDR Drive, one through lane at the transition from northbound South Street to the FDR Drive Exit 1: South Street off-ramp, a striped shoulder approximately 7 to 8 feet wide, the two-way bicycle known as the East River Greenway, and a waterfront esplanade for pedestrians. Each traffic, shoulder, and bicycle lane is clearly marked by pavement striping.

Pier 6 is accessed by vehicle from either the northbound Battery Park Underpass or South Street, and vehicles exiting Pier 6 can proceed northbound on the FDR Drive or use Exit 1: South Street to proceed northbound or southbound on South Street, or westbound on Old Slip. Taxis, for-hire vehicles, and private autos dropping off or picking up passengers at Pier 6 either use the striped shoulder or the curb cuts to access Pier 6. A 12-space accessory parking lot on Pier 6 is fully utilized during peak times, which is used to provide parking for heliport operator vehicles and deliveries.

Bicycles and pedestrians access Pier 6 via the East River Greenway and waterfront esplanade northbound or southbound. There are connections to the street grid for pedestrians at Whitehall Street approximately 750 feet away and at Old Slip approximately 650 feet away via the waterfront esplanade southbound and northbound, respectively. For cyclists, there is a Citibike Station at Whitehall Street and connections to the Battery Bikeway approximately 750 feet away via the East River Greenway southbound. A Citibike Station is located at Old Slip along with a shared bike route on westbound Old Slip and a grade-separated southbound bike lane along South Street approximately 650 feet away via the East River Greenway northbound.

The operation and physical layout of the Proposed Project is currently being developed and will be refined following selection of the Freight Operator and during implementation, but is envisioned to use the existing curb cuts to access Pier 6 and confine freight operations to Pier 6 and the freight barge. An illustrative site circulation plan showing the anticipated freight operations is showed on **Figure 6**. The number of daily and peak hour van/cargo bike movements across the East River Greenway/waterfront esplanade using the Pier 6 curb cuts would not exceed the estimates herein, and the Freight Operator would be restricted from using the striped shoulder or East River Greenway/waterfront esplanade for staging or parking vans/cargo bikes. NYCEDC and the Freight Operator will continue to develop the site access, operations, and site layout plan to prioritize the safety of pedestrians, cyclists, and drivers passing by Pier 6 and the Freight Operator staff. There are no anticipated changes to the curb cuts, striping, or street network as part of the Proposed Project. As the final freight plan is refined, the Concessionaire will work with DOT on any required permits, or approvals as needed.

## **C. CONCLUSION**

The above screening assessments show that the Proposed Action under the all-bike, hybrid, and all-van scenarios are all anticipated to generate incremental trips that would not exceed the *CEQR*

---

<sup>2</sup> <https://vzv.nyc/>, searched June 17, 2022 under “Street Design” menu, with data as of April 30, 2022.

*Technical Manual* analysis thresholds for traffic, transit, and pedestrian operations whether there would be one, two, or three daily freight deliveries made by marine vessels. Additionally, the effect on street user safety will be managed by NYCEDC and the Freight Operator through an operational and physical layout plan which will be developed by the Concessionaire and Freight Operator. As mentioned previously, the Operator would be responsible for ensuring their operations are aligned with the assumptions presented in this EAS. If any new elements are proposed that are out of scope with the EAS assumptions, then they would be subject to additional environmental review and approval pursuant to CEQR. Therefore, the Proposed Action would not have the potential to result in any significant adverse impacts on transportation. \*

## **A. INTRODUCTION**

The potential for air quality impacts from the Proposed Action is examined in this chapter. As detailed on Page 1a, “Project Description,” the Proposed Action would facilitate a green last-mile delivery operation for marine vessels to transport freight for local delivery at a new permanent floating barge landing off the existing Heliport at Pier 6. Shifting these freight deliveries to Lower Manhattan via marine vessel rather than the street network is intended to ultimately help reduce truck traffic congestion and associated pollution. The Proposed Project is a key initiative for Freight NYC to shift freight from truck deliveries to the City’s waterways and bike facilities to improve street user safety, reduce truck traffic congestion, improve air quality, and fight climate change.

The Proposed Action would not significantly alter traffic conditions. As demonstrated in Attachment E, “Transportation,” the maximum hourly incremental traffic from the Proposed Project would not exceed the *CEQR Technical Manual* carbon monoxide (CO) peak hour trip screening thresholds of 170 at any intersections affected by the Proposed Project, nor would it exceed the particulate matter (PM) emission screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Furthermore, there are no anticipated changes to the roadway geometry or street network, and as the final freight plan is refined, the Concessionaire will work with DOT on any required permits, approvals, etc. as needed. Therefore, there is no potential for mobile-source impacts from the Proposed Project, and a quantified assessment of mobile source emissions is not warranted.

The Proposed Project would not involve the addition of any new stationary emission sources such as heat and hot water systems since no new occupied structures are proposed. Therefore, no analysis of stationary sources would be required.

The analysis of potential air quality impacts focuses on the nitrogen dioxide (NO<sub>2</sub>) and PM emissions from the proposed marine freight service itself, including the effect of marine vessel engines on pollutant concentrations near the existing Heliport at Pier 6 (microscale analysis).

## **B. METHODOLOGY**

### **FREIGHT LOGISTICS**

NYCEDC has provided operating assumptions to guide the assessment of air quality in this EAS. Since the operational freight logistics plan to be proposed by the selected operator (“Freight Operator”) will not be known until late 2022, and may be further refined closer to commencement of operations, several conservative assumptions have been built into the analysis.

According to NYCEDC, a vessel would arrive in the morning loaded with freight and moor at the barge landing that is connected to the pier via a gangway. Approximately 3,600 cubic feet of small packages and parcels would be unloaded and delivered from each vessel delivery. To give

flexibility to the future operator of the freight operation (to be determined through the concessioner selection process), three scenarios for delivery transportation mode type are considered: 1) an all-bike scenario; 2) a hybrid scenario of bikes and vans assuming 80 percent (or more) of the deliveries would be by electric cargo bikes and the remaining 20 percent of deliveries would be made by electric or traditional cargo vans; and 3) an all-van scenario which is the least likely. As demonstrated in Attachment E, “Transportation,” none of the considered scenarios would result in maximum hourly incremental traffic that would exceed the *CEQR Technical Manual* carbon monoxide (CO) peak hour trip screening thresholds of 170 at any intersections, nor would it exceed the particulate matter (PM) emission screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*.

Marine vessel emissions during daily operation would include emissions occurring during time docked for freight to be unloaded or empty cargo bikes to be loaded, time spent accelerating/decelerating during vessel departure/approach, and time of high-speed travel to and from the pier. In addition to the single waterside vessel delivery option, it is possible under all of the considered scenarios that there could be up to three deliveries per day, tentatively at 7 AM, 12 PM, and 3 PM. While empty cargo bikes that arrive back after the 3 PM delivery may be stored overnight and loaded onto the 7 AM delivery vessel, it was conservatively assumed that an additional vessel trip would occur at an overnight hour of 11 PM.

## **ENGINE EMISSIONS**

In general, marine vessel operation can be divided into three modes of operation, each with a characteristic emissions profile. The “maneuver” mode accounts for the acceleration and deceleration of the proposed vessels as they depart and approach the pier. Due to the low weight of marine vessels relative to the power of the engines used, a short amount of time is required to bring vessels between a full stop and a vessel’s cruise speed. Vessels were assumed to spend 2 minutes during approach and an additional 2 minutes during departure in maneuver mode at the pier.

The second mode of operation would occur at the pier when the marine vessels would be required to operate engines to apply forward thrust (“push”) in order to maintain contact between the vessel and dock during loading and unloading. The amount of time spent in push mode would depend on the amount of freight. Due to the implementation of an advanced queuing strategy on the pier and barge in anticipation of vessel arrivals, a very brief period (equal to or less than 10 minutes) in anticipated to be required for both loading and unloading activities. Freight operators will be required to meet these conditions as part of the concessionaire/lease agreement. Therefore, marine vessels are conservatively assumed to require 10 minutes for every delivery in order to allow time for freight to be unloaded and empty cargo bikes loaded back onto the marine vessels.

“Cruise” mode is characterized by high-speed travel to and from the pier where the engine would be assumed to operate in a steady-state at high load. Since the operational freight logistics plan to be proposed by the selected operator (“Freight Operator”) is unknown, cruise emissions are not quantified at this time. However, the Proposed Project is a key initiative for Freight NYC to shift freight from truck deliveries to the City’s waterways and bike facilities to improve street user safety, reduce truck traffic congestion, improve air quality, and fight climate change. Marine transport of freight is a generally more fuel-efficient alternative to local trucking, with studies demonstrating a significant improvement to fuel consumption on a ton-mile basis with fuel



efficiencies more than four times higher for marine vessel when compared to trucking.<sup>1</sup> Consequently, regional emissions of criteria pollutants and greenhouse gases (GHG) are expected to decrease with the Proposed Action.

The Proposed Action will exclusively utilize marine vessels powered by engines meeting either EPA's marine diesel engine emissions standards for Tier 3 or Tier 4 engines. This requirement was selected in order to incorporate the cleanest engines currently available on the market for the required size category appropriate for the proposed vessel type. Engine criteria pollutant emission rates associated with the cruise mode of operation were developed by multiplying the average emissions factors per unit of energy (grams per kW-hour) for Tier 3 engines<sup>2</sup> an average engine power load (kW) during cruise operations of a representative marine vessel with two (2) 1,200 hp diesel engines, based on monitored engine data of existing vessels operating within the New York City Harbor, and typical marine vessel used for short-sea shipping operations.<sup>3</sup>

Maneuver and push mode operations occur at lower engine load. Engines operating at lower loads would have higher emission factors per unit of energy since they would not be operating as efficiently when operating under higher loads. The relative emissions profile for diesel engines as a function of percent load does not vary greatly.<sup>4</sup> Therefore, hourly emission rates during push and maneuver modes of operation were developed by multiplying the Tier 3 cruise emission rates described above by the ratio of emission rates by mode obtained from the monitored data of existing vessels.

**Table F-1** presents the worst-case Tier 3 criteria pollutant emission rates developed for each mode of operation.

**Table F-1**  
**Engine Criteria Pollutant Emission Rates**

Pollutant	Mode of Operation		
	Cruise	Maneuver	Push
NO <sub>x</sub> (kg/hr)	7.42	5.97	3.83
PM <sub>2.5</sub> (g/hr)	125.7	101.2	64.9
<b>Notes:</b> The air quality analysis conservatively assumes the marine vessel would be powered by engines meeting EPA's Tier 3 marine diesel engine emissions standards.			

<sup>1</sup> National Waterways Foundation. A Modal Comparison of Domestic Freight Transportation Effects on the General Public: 2001-2014. January 2017.

<sup>2</sup> EPA, Office of Transportation and Air Quality, Transportation and Climate Division. Port Emissions Inventory Guidance: Methodologies for Estimating Port-Related and Goods Movement Mobile Source Emissions (EPA-420-B-22-011), Table H.7. Average Harbor Craft Emission Factors by Engine Tier, April 2022.

<sup>3</sup> New York State Energy Research and Development Authority (NYSERDA). NYC Private Ferry Fleet Emissions Reduction Technology Study and Demonstration. September 2006.

<sup>4</sup> EPA, Office of Transportation and Air Quality. *Analysis of Commercial Marine Vessels Emissions and Fuel Consumption Data*. February 2000.  
<http://www3.epa.gov/otaq/models/nonrdmdl/c-marine/r00002.pdf>

Since the microscale model includes emissions within a 1,000-foot radius, all emissions within the model were in the push and maneuver modes. Cruise mode is not achieved within 1,000 feet of the pier.

### **DISPERSION MODEL**

The dispersion of pollutants and ensuing concentrations were analyzed using the EPA AERMOD model. AERMOD is a state-of-the-art dispersion model, applicable to rural and urban areas, flat and complex terrain, surface and elevated emissions, 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 the interaction between the plume and terrain.

The AERMOD model calculates pollutant dispersion from one or more sources (e.g., exhaust stacks) based on hourly meteorological data. The analyses assumed urban dispersion and surface roughness length, and elimination of calms.

### **METEOROLOGICAL DATA**

The meteorological data set consisted of five consecutive years of meteorological data: surface data collected at LaGuardia Airport (2015–2019)<sup>5</sup> and concurrent upper air data collected at Brookhaven, New York. The meteorological data provide wind speed and direction, parameters describing the profiles of vertical and horizontal turbulence, and the altitude of the temperature inversion for each hour over the five-year period. These data were processed using the EPA AERMET program to develop data in a format which can be readily processed by the AERMOD model. The land uses around the site where meteorological surface data were available were classified using categories defined in digital United States Geological Survey (USGS) maps to determine surface parameters used by the AERMET program.

### **MODELED EMISSION RATES AND STACK PARAMETERS**

Source parameters (i.e., area source width, point source exhaust flowrate, etc.) and emission rates for the Proposed Action are presented in **Table F-2**. The model for the pier was simulated using site-specific vessel approach and departure routes.

### **NITROGEN DIOXIDE CONVERSION**

EPA's AERMOD model is capable of producing detailed output data that can be analyzed at the hourly level required for the form of the 1-hour standards. 1-Hour average NO<sub>2</sub> concentration increments associated with vessel operation were estimated using AERMOD's Plume Volume Molar Ratio Method (PVMRM) module to analyze chemical transformation within the model. The PVMRM module incorporates hourly background ozone concentrations to estimate NO<sub>x</sub> transformation within the source plume. Ozone concentrations were taken from the DEC I.S. 52 monitoring station that is the nearest ozone monitoring station and had complete five years of hourly data available. An initial NO<sub>2</sub> to NO<sub>x</sub> ratio of 10 percent at the source exhaust was

---

<sup>5</sup> The 2020 meteorological and background pollutant concentration data was not used because of uncertainties in the representativeness of background concentrations in 2020 due to effects of COVID-19.

assumed.<sup>6</sup> Hourly seasonal background monitored concentrations from I.S 52 were used instead of a single background concentration.

**Table F-2**  
**Representative Model Parameters**

Parameter	Value
<i>Push (Horizontal Point Source)</i>	
Exhaust Temperature (K) <sup>(1)</sup>	560
Exhaust Airflow (acfm) <sup>(1)</sup>	1,720
Peak Hour NO <sub>x</sub> Emission Rate (g/s)	1.77•10 <sup>-1</sup>
Peak Hour PM <sub>2.5</sub> Emission Rate (g/s)	3.01•10 <sup>-3</sup>
<i>Approach (Area Source)</i>	
Length (m)	333.2
Width (m) <sup>(2)</sup>	13.62
Initial Vertical Dimension (m) <sup>(3)</sup>	4.25
Peak Hour NO <sub>2</sub> Emission Rate (g/s-m <sup>2</sup> )	1.22•10 <sup>-5</sup>
Peak Hour PM <sub>2.5</sub> Emission Rate (g/s-m <sup>2</sup> )	2.06•10 <sup>-7</sup>
<i>Departure (Area Source)</i>	
Length (m)	391.3
Width (m) <sup>(2)</sup>	13.62
Initial Vertical Dimension (m) <sup>(3)</sup>	4.25
Peak Hour NO <sub>2</sub> Emission Rate (g/s-m <sup>2</sup> )	1.04•10 <sup>-5</sup>
Peak Hour PM <sub>2.5</sub> Emission Rate (g/s-m <sup>2</sup> )	1.76•10 <sup>-7</sup>
<b>Notes:</b>	
1—From representative monitored engine data while operating in push mode.	
2—Source width represents vehicle width plus an additional 6 meters	
3—Initial vertical dimension represents vehicle height divided by 2.15	

The 1-hour NO<sub>2</sub> design concentrations for comparison with the NAAQS were calculated following EPA and City guidance,<sup>7</sup> by adding the monitored background to modeled concentrations, as follows:

1. Hourly modeled concentrations from simulated sources were first added to the seasonal hourly background monitored concentrations producing total concentrations;
2. The highest 1-hour total NO<sub>2</sub> concentration was then determined at each receptor location for each day of the year;
3. The 98th percentile daily 1-hour maximum concentration for each modeled year was calculated within the AERMOD model;
4. Finally, the 98th percentile concentrations were averaged over the latest five years.

## RECEPTOR LOCATIONS

Receptors were placed within nearby publicly-accessible open space locations including piers and waterfront parks/promenades. Additionally, receptors were placed on facades of nearby residential and

<sup>6</sup> This is a conservatively high assumption. Diesel NO<sub>2</sub> emissions generally range from 3 to 10 percent of total NO<sub>x</sub>. See—EPA. *NO<sub>2</sub>/NO<sub>x</sub> In-Stack Ratio (ISR) Database*. [http://www3.epa.gov/scram001/no2\\_isr\\_database.htm](http://www3.epa.gov/scram001/no2_isr_database.htm). Accessed 9/30/15.

<sup>7</sup> EPA. Memorandum: Clarification on the use of AERMOD Dispersion Modeling for Demonstrating Compliance with the NO<sub>2</sub> National Ambient Air Quality Standard. September 30, 2014.

other sensitive-use buildings. While ground level receptors would experience maximum concentrations, receptors were also placed at elevated locations on building facades up to an elevation of 150 feet above grade in 10-foot increments from an initial pedestrian level elevation of 6 feet above grade.

### C. PROBABLE IMPACTS OF THE PROPOSED PROJECT

The results of the AERMOD analysis for NO<sub>2</sub> and PM<sub>2.5</sub> are presented in **Table F-3**. As shown in the table, there are no exceedances of the NO<sub>2</sub> 1-hour NAAQS. In addition, the maximum predicted incremental concentrations of PM<sub>2.5</sub> are not predicted to exceed the CEQR *de minimis* criteria.

**Table F-3**  
**Maximum Modeled Pollutant Concentrations (µg/m<sup>3</sup>)**

Pollutant	Averaging Period	Maximum Modeled Impact	Background Concentration	Total Concentration	NAAQS / De Minimis Criteria
NO <sub>2</sub>	Annual <sup>(1)</sup>	0.6	37.8	38.5	100
	1-hour	144	N/A <sup>(2)</sup>	144	188
PM <sub>2.5</sub>	24-hour	0.2	N/A <sup>(3)</sup>	0.2	7.7 <sup>(3)</sup>
	Annual	0.01	N/A <sup>(4)</sup>	0.01	0.3 <sup>(4)</sup>
<b>Notes:</b> 1. Annual NO <sub>2</sub> concentrations were estimated full conversion to NO <sub>2</sub> , based on EPA modeling guidance. 2. The 1-hour average NO <sub>2</sub> concentration represents the maximum total 98th percentile 1-hour concentration predicted at any receptor using seasonal-hourly background concentrations. 3. PM <sub>2.5</sub> <i>de minimis</i> criteria— 24-hour average incremental concentrations are not to exceed more than half the difference between the background concentration (19.7 µg/m <sup>3</sup> as monitored at the Division Street monitoring station) and the 24-hour standard of 35 µg/m <sup>3</sup> . 4. PM <sub>2.5</sub> <i>de minimis</i> criteria—annual (discrete receptor) average incremental concentrations are not to exceed 0.3 µg/m <sup>3</sup> .					

Note that since the local (discrete receptor) PM<sub>2.5</sub> concentration increment, 0.01 µg/m<sup>3</sup>, is lower than the neighborhood-scale *de minimis* level of 0.1 µg/m<sup>3</sup>, no additional analysis of the area-wide average concentration increment is necessary.

Based on the results of the analysis, the Proposed Project would not have the potential to result in any significant adverse air quality impacts. \*