Environmental Assessment

Tompkinsville Esplanade and NYCDOT Dockbuilders Pier

Staten Island, Richmond County, NY

4085-DR-NY

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U.S. Department of Homeland Security
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TABLE OF CONTENTS

APPENDICES

Appendix A: Figures

Figure 1 – Project Site Location Map
Figure 2 – USDA NRCS Soils Map
Figure 3 – USGS Topographic Map
Figure 4 – USFWS NWI Wetlands Map
Figure 5 – NYSDEC Tidal Wetlands Map
Figure 6 – FEMA Preliminary FIRM Map
Figure 7 – Coastal Zone Map
Figure 8 – Tompkinsville Esplanade and Pier Renderings

Appendix B: Aesthetics Study Area and Photograph Key Map

Appendix C: Agency Coordination

Appendix C1 – NOAA Fisheries Section 7 [ESA]
Appendix C2 – NOAA Fisheries EFH [MSA]
Appendix C3 - USFWS Section 7 [ESA]
Appendix C4 – NYSDOS CZMA
Appendix C5 – NYSHPO Section 106

Appendix D: Executive Order (EO) 11988 8-Step Process

Appendix E: Project Drawings

LIST OF ACRONYMS

APE – Area of Potential Effects
BMP – Best Management Practices
CAA – Clean Air Act
CBRA – Coastal Barrier Resources Act
CEQ – Council on Environmental Quality
CEQR – City Environmental Quality Review
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CFR – Code of Federal Regulations
CO – Carbon Monoxide
CRIS – Cultural Resources Information System
CWA – Clean Water Act
CZMA – Coastal Zone Management Act
CZMP – Coastal Zone Management Plan
dBA – A-weighted decibel
EA – Environmental Assessment
ECL – Environmental Conservation Law
EFH – Essential Fish Habitat
EMDP – Excess Materials Disposal Plan
EO – Executive Order
ESA – Endangered Species Act
ESI – Environmental Site Investigation
FDNY – Fire Department of the City of New York
FEMA – Federal Emergency Management Agency
FIRM – Flood Insurance Rate Map
HASP – Health and Safety Plan
IPaC – Information for Planning and Conservation
Ldn – Day Night Noise Level
Leq – Equivalent noise level
LWRP – Local Waterfront Revitalization Program
MHHW – Mean higher high water
NAAQS – National Ambient Air Quality Standards
TMDL – Total Maximum Daily Load
NHPA – National Historic Preservation Act
NMFS – National Marine Fisheries Service
NO_2 – Nitrogen Dioxide
NOAA – National Oceanic and Atmospheric Administration
NPDES – National Pollution Discharge Elimination System

NRCS – Natural Resources Conservation Service
NRHP – National Register of Historic Places
NWI – National Wetland Inventory
NYCDCP – New York City Department of City Planning
NYCDEP – New York City Department of Environmental Protection
NYCDOT – New York City Department of Transportation
NYCEDC – New York City Economic Development Corporation
NYCRR – New York Codes, Rules, and Regulations
NYS OPRHP – New York State Office of Parks, Recreation and Historic Preservation
NYSDEC – New York State Department of Environmental Conservation
NYSDOS – New York State Department of State
NYSHPO – New York State Historic Preservation Office
NYSM – New York State Museum
NYTOGS – New York Technical and Operational Guidance Series
O_3 – Ozone
OPA – Otherwise Protected Areas
PAHs – Polyaromatic Hydrocarbons
Pb – Lead
PCBs – Polychlorinated Biphenyls
PFIRM – Preliminary Flood Insurance Rate Map
PM_{10} – Particulate matter [less than 10 micrometers in diameter]
$PM_{2.5}$ – Particulate matter [less than 2.5 micrometers in diameter]
RAP – Remedial Action Plan
RCRA – Resource Conservation and Recovery Act
RRSCO – Restricted Residential Soil Cleanup Objectives
SO_2 – Sulfur Dioxide
SPDES – State Pollution Discharge Elimination System
SPL – Sound Pressure Level
SPP – Spill Prevention Plan
SVOC - Semi-Volatile Organic Compounds
SWPPP – Stormwater Pollution Prevention Plan
USACE – U.S. Army Corps of Engineers
USDA – U.S. Department of Agriculture
USEPA – U.S. Environmental Protection Agency
USFWS – U.S. Fish and Wildlife Service
VOC – Volatile Organic Compounds

1.0 INTRODUCTION

On October 29, 2012, Hurricane Sandy caused considerable storm damage to areas of New York State, including the Tompkinsville waterfront on Staten Island, Richmond County, NY. President Barack Obama declared Hurricane Sandy a major disaster on October 30, 2012. The declaration authorized the Federal Emergency Management Agency (FEMA) to provide assistance to the State of New York per federal disaster declaration DR-4085-NY in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) of 1974, as amended, (42 United States Code [U.S.C.] Sections 5121-5207), the Sandy Recovery Improvement Act of 2013, and the accompanying Disaster Relief Appropriations Act of 2013. The New York State Division of Homeland Security and Emergency Services (DHSES) is the recipient partner.

The New York City Economic Development Corporation (NYCEDC) under the New York City Mayor's Office of Management and Budget (NYCOMB) has applied for FEMA Public Assistance funding to repair damages to the Tompkinsville waterfront infrastructure caused by Hurricane Sandy. Additionally, they have proposed to construct measures to increase the waterfront's resistance to impacts from future storm events.

FEMA prepared this Environmental Assessment (EA) in accordance with Section 102 of the National Environmental Policy Act (NEPA) of 1969, as amended; and the Regulations for Implementation of NEPA (40 Code of Federal Regulations [CFR] Parts 1500 to 1508). The purpose of the EA is to analyze the potential environmental impacts of the proposed action, and alternative actions, including a No Action Alternative, and to determine whether preparation of an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI) is warranted. In accordance with the above referenced regulations and FEMA guidance for NEPA compliance, Directive 108-1, and FEMA Instruction 108-1-1, during decision making, FEMA is required to fully evaluate and consider the environmental consequences of major federal actions it funds or undertakes.

2.0 PURPOSE AND NEED

FEMA's Public Assistance Program fosters the protection of health, safety, and welfare of citizens, assists communities in recovering from damages caused by disasters and reduces future losses resulting from disasters through mitigative measures. The purpose of the Tompkinsville Esplanade and Dockbuilders Pier Project is to rehabilitate portions of the waterfront and waterfront infrastructure within the project area by repairing damage caused by Hurricane Sandy and providing improved flood protection measures; thereby, reducing impacts from tidal and storm surge flooding caused by storms such as nor'easters, tropical storms, and hurricanes. The primary need is to provide protections against flooding for residents, including infrastructure and property, address damage that the area sustained during Hurricane Sandy and, therefore, improve resiliency of the adjacent community to withstand future flooding and coastal storms. The secondary need via the Dockbuilders Pier is to provide a protected, fortified, and strategically located pier that

enables the New York City Department of Transportation (NYCDOT) Dockbuilders to conduct operations more effectively and efficiently with adjacency to the Staten Island Ferry St. George Ferry Terminal. The tertiary need via the esplanade is to provide a critical, walkable/bikeable link along the waterfront that would connect activity nodes including to that of the St. George Ferry Terminal and generally increase waterfront accessibility.

3.0 BACKGROUND

The northeastern shoreline of Staten Island is proximate to Manhattan and is Staten Island's most densely populated region with over 40,000 residents. The vicinity of the proposed action includes a walkable urban area with connection to the Staten Island Ferry St. George Terminal. The ferry carries over 70,000 passengers per day on an average weekday, making the terminal and surrounding area a high-activity node.

In 2012, the waterfront infrastructure of northeastern Staten Island was heavily affected when Hurricane Sandy swept through the region. The storm severely damaged the Staten Island waterfront within the project area, including the existing steel bulkhead, wooden piers, a community recreation center, and utility infrastructure. Hurricane Sandy illustrated the vulnerability of the infrastructure within the project area to storm surge and flooding. The substantial damage caused by Hurricane Sandy highlighted the critical need to incorporate shoreline hardening and other protection measures into the design of future waterfront developments.

Hurricane Sandy also destroyed the NYCDOT Dockbuilders pier previously located just south of Hannah Street. Since Hurricane Sandy, the Dockbuilders have been temporarily located north of the Homeport Pier within the New Stapleton Waterfront Redevelopment Project area located to the south of the project area. However, under the New Stapleton Waterfront Redevelopment Project, the current Dockbuilders interim site will be redeveloped requiring relocation of the Dockbuilder's operations to a new location. As part of the project proposal the NYCDOT Dockbuilders operations would move to a new and permanent pier located proximate to the Staten Island Ferry, since the Dockbuilders provide repair and maintenance services to the Ferry.

The project area, depicted in **Appendix A, Figure 1, *Project Site Location Map***, (Project Area) extends in a southerly direction along the northeast coastline of Staten Island from the National Lighthouse Museum located at 200 Promenade at Lighthouse Point, Staten Island. From north to south, the Project Area includes Bay Street Landing, Victory Peninsula, a segment of Murray Hulbert Avenue, and Miller's Launch. The Project Area's southern terminus is at the northern-most extent of the New Stapleton Waterfront Redevelopment Project.

4.0 ALTERNATIVES

FEMA and NYCEDC (Subrecipient) have evaluated alternatives to provide flood protection measures to the Project Area along with improved functionality of Dockbuilders operations. These alternatives were evaluated based on engineering constraints, environmental impacts, and the purpose and need of the project. Budgetary constraints were also considered in the feasibility evaluation of alternatives, but are not a primary determining factor. In addition to considering various Build Alternatives, a No Action Alternative is included in this analysis as required by NEPA. This section reviews the No Action Alternative, feasible alternatives, as well as alternatives considered and dismissed, which do not meet the project purpose and need.

4.1 Alternative 1: No Action Alternative

Under the No Action Alternative, no federal funds would be provided to rehabilitate and protect the Project Area from flooding and coastal storm surge damages. The deteriorated steel bulkhead, wooden piers, and other derelict infrastructure and debris in the Project Area would remain in-place. Critically needed shoreline hardening and other protection measures would not be constructed leaving the Project Area susceptible to future storms and flooding events. Additionally, the shoreline would continue to remain closed due to safety concerns and be inaccessible to the public. This would also leave no direct, safe, or convenient access route along the shoreline for pedestrians and bicyclists to travel between areas to the south including the New Stapleton Waterfront and those further to the north including the St. George Ferry Terminal along with other amenities and activity nodes.

The NYCDOT Dockbuilders operation would continue to remain temporarily located within the New Stapleton Waterfront Redevelopment area. This location is not ideal given the distance from the ferry terminal and the maritime role/function the workers perform. The No Action Alternative would also cause issue as the temporary site is proposed to be redeveloped under the New Stapleton Waterfront Redevelopment Project and would require relocation of the Dockbuilders operations as redevelopment of the area continues. Moreover, the Project Site and greater Tompkinsville waterfront would remain vulnerable to storm surge and flooding. Thus, over time, waterfront deterioration would likely be inevitable under the No Action Alternative, and could potentially further damage critical infrastructure.

4.2 Alternative 2 (Proposed Action): Esplanade and Pier Construction

Alternative 2, the Proposed Action, involves the rehabilitation, fortification, and overall improved protection of the waterfront by demolishing and removing storm debris, damaged bulkheads, and derelict structures such as damaged platforms and pier remnants and constructing a new 2,100 linear-foot (LF) waterfront esplanade as well as a new pier proposed to serve the NYCDOT Dockbuilders operations. The esplanade and pier together comprise the Proposed Action being undertaken by NYCEDC. Details relative to these two project components are described separately below.

4.2.1 Esplanade

The 2,100 LF waterfront esplanade would extend along Bay Street Landing, Victory Peninsula, a segment of Murray Hulbert Avenue, and then through Miller's Launch and past the proposed location of the new NYCDOT Dockbuilders Pier to the continuation of Swan Street, where the esplanade's southern terminus would link with the northern-most extent of the New Stapleton Waterfront Redevelopment Project. Each of the notable esplanade segments (Bay Street Landing, Victory Peninsula, Murray Hulbert Avenue, and Miller's Launch) are described in more detail below. Once site demolition and clearing activities are complete, construction of the new esplanade and associated improvements will commence. The esplanade would promote public access to the waterfront by including bike lanes, pedestrian paths, furnishings/seating areas, lighting, tree and plant beds, and other landscape beautification elements, as well as interpretive signage to illustrate the site's history as a working waterfront.

The structural design of the esplanade was developed using the following environmental design considerations:

- Maximum water level elevation: +14.0 feet North American Vertical Datum of 1998 (NAVD88)
- Significant wave height: 6.89 feet
- Peak wave period: 6.01 seconds
- Current velocity: 3.36 feet/second
- National Fire Protection Association (NFPA) Section 303 & 307 requirements

The new esplanade would provide critical shoreline hardening and improvements throughout the Project Area and would be completely constructed to an elevation above the existing 2020 mean higher high water (MHHW) elevation of +2.4 feet (NAVD88). Specifically, the overall height of the proposed waterfront esplanade would vary and range from approximately +5.5 feet (NAVD88) along its southern sections near New Stapleton Waterfront and through the Miller's Launch and Murray Hulbert Avenue segments, to approximately +7.0 feet at Victory Peninsula and +6.5 feet (NAVD88) at the Bay Street Landing High-Level Platform section. The 100-year, 50-year, and 10-year return flood event elevations in the Project Area are +11.4 feet, +10.0 feet and +7.1 feet (NAVD88), respectively. Although the esplanade itself would not function as a floodwall or barrier protecting inland areas from potential flooding events, it would include shoreline hardening features such as a new revetment at Victory Peninsula, and new steel sheet pile bulkheads throughout the Project Area, that would increase shoreline protections and allow for development of topside public amenities associated with the esplanade.

The specific sustainability goals of the Tompkinsville Esplanade and Pier Project are:

- Enhancement of existing habitat through restoration of the waterfront/maritime ecologies
- Use of native plantings
- Incorporation of green infrastructure to manage site runoff and improve stormwater quality

Bay Street Landing Segment: The new esplanade in the Bay Street Landing area would extend southerly approximately 710 feet along Bay Street Landing to Victory Peninsula from the project's northern-most terminus at the National Lighthouse Museum. A ten-foot-wide asphalt bikeway with two five-foot wide travel lanes demarcated with striping would be constructed shoreward of the existing bulkhead, and a new high-level platform would be constructed to replace the existing deteriorated high-level platform. A concrete wall and landscaped/planting area will separate the bikeway from a variable width (minimum eight-feet wide) pedestrian walkway and observation area located on the proposed replacement high-level platform. The pedestrian surface will consist of asphalt block pavers. Handrails matching those at the National Lighthouse Museum would be installed at the waterward edge of the proposed replacement high-level platform.

The proposed high-level platform at Bay Street Landing is designed to replace the existing deteriorated high-level platform that was damaged by Hurricane Sandy. The existing platform would be demolished and replaced with a 710-foot long, 30- to 33-foot-wide platform whose limits are designed to be entirely within city easement boundaries. All timber piles supporting the existing dilapidated platform would be cut off at the mudline, and the old piles, platform deck materials/concrete debris would be hauled off-site and disposed following all local, state, and federal guidelines. The piles supporting the proposed replacement high-level platform are 30-inches in diameter and would be installed in the spaces between the cut existing piles. A total of 40 piles will be driven to uphold the proposed replacement platform, with pile bent spacing at 25-28 feet on center (O.C.) and pile row spacing at 20 feet O.C.

An existing concrete gravity seawall located behind the existing high-level platform would remain in place, but a new steel sheet pile bulkhead would be installed in front of ("over-sheeting") the existing concrete seawall. The proposed replacement high-level platform would be anchored to the substrate with two-inch diameter thread bar ground anchors.

Moreover, the top of the proposed replacement high-level platform will be at elevation +6.5 feet (NAVD88) which is +4.1 feet higher than the Year 2020 MHHW elevation of +2.4 feet (NAVD88). Thus, the esplanade and proposed replacement high-level platform through this area fortifies the shoreline, providing protections against future storms and flooding.

Victory Peninsula: The peninsula at the eastern end of Victory Boulevard would be completely revamped under the Proposed Action. Demolition of the existing severely deteriorated Pier 5A, debris removal at Pier 5, and earth fill excavation and installation of a riprap revetment (described in more detail below) would allow the peninsula to be rebuilt to support a broad, park-like section of the esplanade.

An emergency and maintenance access gate will be installed across existing Victory Boulevard at the location of Murray Hulbert Avenue to keep vehicular traffic separate from the proposed bike path and esplanade. The 10-foot-wide asphalt paved bike path described earlier in the Bay Street Landing segment would continue through Victory Peninsula, curving west and then south along the eastern side of Murray Hulbert Avenue. Pedestrian walkways (constructed with asphalt block

pavers) would be interspersed with landscaped islands throughout Victory Peninsula. The landscaped islands will be created within either precast concrete planter walls or steel sheet pile planter walls and would be planted with a variety of trees and salt resistant shrubs. The pedestrian walkways, landscaped areas, benches, lighting, and other aesthetic amenities would create a passive recreational setting affording a variety of water and urban views to the east, south, and north from the Project Area.

Shoreline hardening and improvements would be achieved with the construction of a riprap revetment and over-build crest around the perimeter of the peninsula. The revetment has been designed with the goal of adding net zero in-water fill after considering both the volume of fill demolished and volume added. The revetment crest would be constructed at an approximate elevation of +7.0 feet.

Lastly, the presence of an existing New York City Department of Environmental Protection (NYCDEP) stormwater drainage vault and conduit within Victory Boulevard would require modification of the drainage conduit that discharges from the vault. The conduit would be shortened, and a new outfall and headwall would be constructed within the riprap revetment. This work is being coordinated with the NYCDEP.

Murray Hulbert Avenue Segment: Due to the presence of vehicular traffic along Murray Hulbert Avenue, for safety reasons, this section of the esplanade design includes a landscaped (tree-planted) median located between the roadway traffic and the proposed 10-foot-wide bike path to the east. The typical cross section for the project through this area is from west (inland) to east (waterfront): two 11-foot vehicle travel lanes along Murray Hulbert Avenue, an eight-foot shoulder, a one-foot concrete curb, a variable-width landscaped (tree-planted) median, another one-foot concrete curb, the 10-foot-wide-bike path, a second variable-width green infrastructure area, and then an 8-foot-wide pedestrian walkway.

To construct the esplanade segment through this area, existing storm debris, concrete, and fencing would need to be removed, and existing marine structures, e.g. piers and platforms, timber piles, etc., would be demolished and removed. Additionally, milling and resurfacing of the existing asphalt pavement along Murray Hulbert Avenue would be required. A new steel sheet pile bulkhead with concrete pile cap would be driven into the substrate in front of (over-sheeting) the existing bulkhead to a top elevation of +6.7 feet (NAVD88), which is more than two-feet higher than the top elevation of the existing bulkhead.

Miller's Launch Segment: Miller's Launch, Inc. is an active marine services business with an operations building at the intersection of Murray Hulbert Avenue and Hannah Street. The company's fleet of tugboats, barges, and other marine vessels are docked at, and operate from a gangway and pier located at the foot of Hannah Street. Due to the nature and extent of daily activity at Miller's Launch, which includes truck access/egress to/from the gangway and pier, the design of the esplanade and bike path through this area requires extensive and continued coordination with Miller's Launch owners so that potential conflicts can be avoided and/or minimized to the

greatest extent possible while also ensuring the safety of esplanade and bike path users. For these reasons, several alternative alignments of the esplanade through Miller's Launch were considered (as described in Section 4.3 below). The preferred alignment of the esplanade and bike path would be to the east of the Miller's Launch operations building, but not directly along the waterfront as in other sections of the esplanade within the Project Area. Through the alternative alignment studies, it was determined that truck and vehicular access to/from the gangway and pier at Miller's Launch would be more efficient if directed along the immediate waterfront with clearly marked access-controlled crossings of the esplanade and bike path alignment.

4.2.2 NYCDOT Dockbuilders Pier

A new pier is proposed to serve NYCDOT Dockbuilders operations and would provide key infrastructure for Dockbuilders to effectively conduct routine water dependent activities including maintenance and repair of NYCDOT's maritime assets, particularly maintenance of the St. George and Whitehall ferry terminals and associated vessels that comprise the Staten Island Ferry system. NYCDOT Dockbuilders operations include, among other responsibilities, the receipt and placement of timber piles and fenders, and 'Greenheart' lumber and other general maintenance lumber, with typical construction equipment (heavy-duty forklifts, cranes, etc.), and transportation and advancement of these materials upon City-owned waterfront facilities to maintain the City's entire ferry system. The Dockbuilders facility also performs emergency repair and maintenance services as needed. The Staten Island Ferry, which runs between these two terminals (i.e., the St. George and Whitehall ferry terminals), carries approximately 70,000 passengers per average weekday. However, in anticipation of increased ridership and an aging ferry fleet, the need to service this maritime link is critical. Not only has annual ridership increased by roughly 20% since the year 2000, the NYCDOT Dockbuilders repair unit is actively doubling its staffing and replacing aging essential equipment to support increasing workloads, requiring a new and permanent waterfront location to advance these activities.

The new pier would be at the southern terminus of the proposed esplanade just south of Miller's Launch. Presently, NYCDOT Dockbuilders operate out of a landside, waterfront dock building (with barging) south of the Project Area within the New Stapleton Waterfront. The proposed new pier would effectively relocate these water-dependent operations to a more efficient purpose-built pier along the waterfront in the Project Area.

As designed, the pier would consist of a 502-foot-long by 80-foot-wide initial section extending outward from the shoreline followed by a 240-foot-long by 120-foot-wide section extending to the easternmost (waterward) limit of the pier for a total overall pier length of 742 feet. The pier would be supported by steel pipe piles. At the southern and eastern faces of the pier, a fender system would be constructed to withstand the berthing forces of the design marine vessels. The fender system would mainly consist of timber fender piles, timber shocks and timber wales.

A new two-story, 30-foot-wide by 90-foot-long NYCDOT Dockbuilders building would be constructed on the pier approximately 22.6 feet east (waterward) of the new sheet pile bulkhead

and NYCDOT Pier Gate that would be installed to deter pedestrian access from the new esplanade to the pier. The new building would be designed with various environmental and protective measures including a south-facing sloped rooftop with solar panels (per NYC Local Law 94), elevated second-story administrative suite, and insulated first-floor staging area. A Design Flood Elevation (DFE) of +21 feet (NAVD88) was used to design the new pier and associated building. The Base Flood Elevation (BFE) is +17 feet (NAVD88). New mechanized garage doors would also be installed on the first floor of the building. The new pier would be constructed at a height of +12 feet 3 inches at deck level, and +30 feet 11 inches (NAVD88) to the second story of the building.

The new pier would have material storage space for timbers, piles, and other material stacks that are frequently used by the NYCDOT Dockbuilders. These material storage areas would be established along the northern side of the new pier as well as its southern side adjacent to an area designated for barge mooring. Materials would be delivered to the pier via tractor trailers and flatbed trucks which are anticipated to arrive and be received by NYCDOT Dockbuilders every two to three days. The pier is currently designed to manage stormwater using scuppers. NYCDOT operationally has all best management practices in place for any storage of materials on the pier and has standard operational practices to secure any equipment or other materials in the event of a pending storm event.

The pier would be accessible to both passenger and commercial (e.g., tractor trailers) vehicles via a proposed vehicular ramp that would transition from a 2.0% shoreline gradient at the bulkhead to a 5% gradient on the pier. The gradient of the ramp on the pier would gradually decrease to 2% until it meets the grade of the top of the pier deck as one progresses further waterward to the east. The new esplanade at the location of the pier would include pavement markings to alert esplanade pedestrians and bicyclists of the presence of an active vehicle crossing.

Permit drawings for the esplanade and new NYCDOT Dockbuilders Pier are provided in **Appendix E**.

4.3 Alternatives Considered and Dismissed

This section presents alternative alignments of portions of the esplanade through Miller's Launch as well as alternative locations for the NYC Dockbuilders Pier. These alternatives were considered during the planning phase of the project, but were ultimately dismissed in favor of the Proposed Action that is described in Section 4.2, which is the subject of this EA.

4.3.1 Esplanade Alignments Through Miller's Launch

Miller's Launch is the most active waterfront location along the entire length of the proposed Tompkinsville esplanade. As such, three alternative alignments were considered to carry the esplanade through Miller's Launch:

1. An esplanade alignment west of (behind) the Miller's Launch Operations Building

2. An esplanade alignment that passes immediately east (in front) of the Miller's Launch Operations Building, and
3. An esplanade alignment that passes east (in front) of the Miller's Launch Operations Building but traverses immediately along the waterfront.

Of these three alternative alignments, alternatives 1 and 3 were dismissed. Alternative 1 was dismissed due to space constraints, safety concerns, usability, and structural integrity concerns in relation to the neighboring retaining wall that is not part of the project. Specifically, there was limited space between the building and Murray Hulbert Avenue, and this also encompasses one aspect of the safety concerns. Additionally, the incline that would need to be included for pedestrians inhibits use, adding usability and another element of safety concern when combined with the space constraint. Lastly, concerns of structural integrity and associated safety for the retaining wall and neighboring esplanade construction made this option unappealing as a viable option. Alternative 3 was dismissed for reasons of safety and operational usability. Miller's Launch personnel utilize the adjacent driveway off Murray Hulbert Avenue for vehicular traffic. Due to reasons of pedestrian safety, and the need and desire for continued use of the adjacent driveway for Miller's Launch, this option was eliminated. Alternative 2 was chosen because it minimized the concerns discussed above relative to access and safety.

4.3.2 NYCDOT Dockbuilders Pier Alternatives

A total of nine alternative sites to the NYCDOT Dockbuilders Pier were considered and dismissed because they would not satisfy the purpose and need of the Project. These alternatives are summarized below.

1: Piers B-1, B-2, St. George Ferry Terminal (St. George, Staten Island): This alternative proposed the combined use of the St. George Ferry Terminal, which is prohibited due to the continuous use of docking areas by Staten Island Ferries. Use of this facility by NYCDOT Dockbuilders would have a significant impact on both ferry and Dockbuilders operations. Therefore, this alternative was dismissed.

2: Rossville Municipal Site (West Shore, Staten Island): This alternative site would require the full reconstruction of a waterfront site including new bulkheading and wharf infrastructure, in addition to the removal of existing open space areas for parking and NYCDOT Dockbuilders' operational activities. While located on Staten Island, this site would require circumnavigating the island and would add significant travel time to work sites and increased fuel costs. Therefore, this alternative was dismissed.

3: Fresh Kills (West Shore, Staten Island): This alternative site is currently utilized by the New York City Department of Parks and Recreation, and the New York City Department of Sanitation. Utilization of this alternative site would also result in the alienation of existing parkland resources. Moreover, this alternative site is roughly 13 miles from the Whitehall and St. George ferry terminals, respectively, and would add significant travel time to work sites and increased fuel costs. Therefore, this alternative was dismissed.

4: NYCDEP Port Richmond WWTP (West Brighton, Staten Island): Utilization of this alternative site would disrupt the activities of sludge barges such that combined use of the area would be difficult. Nearshore areas would also be disturbed during reconstruction of the waterfront, and shallow waters would require significant dredging to access the wharf. Therefore, this alternative was dismissed.

5: Bush Terminal, Pier 6 (Sunset Park, Brooklyn): This alternative site would require NYCEDC to significantly modify their Made in NY Campus at Bush Terminal Project and would be not a cost-efficient alternative. Therefore, this alternative was dismissed.

6: Brooklyn Navy Yard (Brooklyn): Although wharf access may be available at this existing waterfront facility, it is anticipated that there is not enough available upland space for NYCDOT Dockbuilders activities in proximity to the required length of wharf. There are also many conflicting uses that would make both upland and in-water NYCDOT Dockbuilders' operations complicated. Therefore, this alternative was dismissed.

7: NYCDOT Hamilton Asphalt Plant (Red Hook, Brooklyn): This alternative site is located at an active NYCDOT facility that is almost entirely occupied by sand and gravel barges. NYCDOT Dockbuilders would not be able to share space due to existing operational uses onsite and would be further limited in meeting required upland area. Therefore, this alternative was dismissed.

8: Wards Island Fire Department of New York (FDNY) Marine Unit Pier: This alternative site houses the facilities of the FDNY Marine Unit and does not provide enough upland area required for NYCDOT Dockbuilders use. This alternative site is also almost 10 miles and 14 miles from the Whitehall and St. George ferry terminals, respectively, and would add significant travel time to work sites and increased fuel costs. Therefore, this alternative was dismissed.

9: Department of Correction Hart Island Ferry Pier (City Island, Bronx): This alternative site is almost 20 miles from the Whitehall and St. George ferry terminals, respectively, and is not geographically viable. Utilization of this alternative site by the NYCDOT Dockbuilders would also require significant in-water and upland reconstruction, and is dependent on currents and tides, such that it would unacceptably limit overall productively. Therefore, this alternative was dismissed.

4.4 Summary of Alternatives

Of the 12 alternatives considered for the alignment of the esplanade and the location of the NYCDOT Dockbuilders Pier, 11 were dismissed as they did not meet the purpose and need for the project. The dismissed alternatives are detailed in Section 4.3.1 Esplanade Alignment Through Miller's Launch and Section 4.3.2 NYC Dockbuilders Pier Alternatives. The following are the remaining alternatives considered for analysis:

1) Alternative 1: No Action Alternative
2) Alternative 2 (Proposed Action): Esplanade and Pier Construction

Section 5.0 evaluates the potential impacts of the No Action Alternative and the Proposed Action.

Section 8.0 of this document contains a summary table of the potential impacts of the No Action Alternative and the Proposed Action.

5.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

This section discusses the potential impacts of the No Action Alternative and the Proposed Action on environmental resources. Impacts include ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative of the reasonably foreseeable actions. Potential cumulative environmental impacts are discussed in Section 5.14. Where possible, quantitative information is provided to establish potential impacts, and the potential impacts are evaluated qualitatively based on the criteria listed in the table below.

Table 5-1: Impact Significance and Context Evaluation Criteria for Potential Impacts

Impact Scale	Criteria
No Impact	The resource area would not be affected and there would be no impact.
Negligible	Changes would either be non-detectable or, if detected, would have effects that would be slight and local. Adverse impacts would be well below regulatory standards, as applicable.
Minor	Changes to the resource would be measurable, but the changes would be small and localized. Adverse impacts would be within or below regulatory standards, as applicable. Mitigation measures would reduce any potential adverse effects.
Moderate	Changes to the resource would be measurable and have either localized or regional scale impacts. Adverse impacts would be within or below regulatory standards, but historical conditions would be altered on a short-term basis. Mitigation measures would be necessary, and the measures would reduce any potential adverse effects.
Major	Changes to the resource would be readily measurable and would have substantial consequences on regional levels. Adverse impacts would exceed regulatory standards. Mitigation measures to offset the adverse effects would be required to reduce impacts, though long-term changes to the resource would be expected.

5.1 Resource Topics Dismissed from Detailed Analysis

In accordance with Council of Environmental Quality (CEQ) regulations, an environmental analysis should focus on significant environmental impacts (40 CFR 1501.5(c)(1). FEMA considered all CEQ resource topics in the preparation of this EA, but eliminated the following because they were not applicable to this project or would result in no substantive impacts on those resources. The eliminated resource topics are as follows.

Table 5-2: Resource Topics Dismissed from Detailed Analysis

Resource Area or Regulation Eliminated	Rationale
Farmland Protection and Policy Act	FEMA does not anticipate impacts to prime, unique, or farmland of statewide or local importance from actions evaluated in this EA. FEMA anticipates actions evaluated in this EA will occur at locations commensurate with the risk, within urbanized areas, not subject to the Farmland Protection and Policy Act.
Bald and Golden Eagle Protection Act	FEMA does not anticipate impacts to Bald or Golden Eagles from actions evaluated in this EA. Bald and Golden Eagles are not found in the Project Area.
Migratory Bird Treaty Act	FEMA does not anticipate impacts to Migratory Birds from actions evaluated in this EA. The Proposed Action is localized to the existing Tompkinsville neighborhood, which is largely impervious and exists in an urbanized area.
Wild and Scenic Rivers Act	FEMA does not anticipate impacts to Wild and Scenic Rivers from actions evaluated in this EA. Designated rivers are not found in the Project Area.
Land Use and Planning	FEMA does not anticipate impacts to Land Use and Planning from actions evaluated in this EA. The Proposed Action would not change land use or prevent future actions of local planning.
Public Health and Safety	FEMA does not anticipate impacts to Public Health and Safety from actions evaluated in this EA. The Proposed Action would not affect public health and safety and would provide a safer pedestrian and bicycle linkage along the Tompkinsville shoreline.
Public Services and Utilities	FEMA does not anticipate impacts to Public Services and Utilities from actions evaluated in this EA. The Proposed Action would not alter the capacity of existing services.
Transportation	FEMA does not anticipate impacts to Transportation from actions evaluated in this EA. Current linkages would not be affected by the proposed action

5.2 Geology, Topography, and Soils

5.2.1 Existing Conditions

According to the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, soil classifications within the Project Site include Laguardia-Urban Land Complex (0 to 3 percent slopes), Urban Land-Laguardia Complex (0 to 3 percent slopes, low permeability), and Urban Land (0 to 3 percent slopes, reclaimed substratum) (**Appendix A, Figure 2, *USDA NRCS Soils Map***). Much of the Project Site is developed with paved impervious surfaces and structures. The shoreline is hardened with steel sheet pile bulkhead, concrete structures, and wooden pilings consistent with the area's historic industrial maritime use.

Staten Island Serpentinite bedrock – waxy, greenish-brown ultramafic crystalline rock – underlies the Project Site at depths no less than 50 feet below mean sea level. Topography at the Project Site is relatively level with a gentle downward slope from west to east towards the shoreline. Elevations range from four feet below mean sea level on the eastern edge of the Project Site to 14 feet above mean sea level on the western side of the Project Site (**Appendix A, Figure 3, *USGS Topographic***

Map).

5.2.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

Under the No Action Alternative, the Project Site's shoreline would continue to be at risk from storm surge flooding. While flood events are likely to be temporary and generally would not last long enough to alter soil properties, floodwaters would continue to cause soil erosion and the deposition of manmade and natural debris and sediments on the ground surface that could damage existing soils. Existing contaminated fill soils in the Project Area could also have the potential to leach into surrounding ground surfaces and waterbodies as a result of soil erosion and disposition caused by floodwaters. Thus, the No Action Alternative would result in no impacts on geology, but potential short-term minor and long-term moderate adverse impacts on topography and soils.

Alternative 2: Proposed Action

Under the Proposed Action, there would be short-term minor adverse impacts on soils during construction of new shoreline hardening infrastructure from equipment and machinery, e.g. trucks, earthmovers, etc., and the potential use of unpaved staging areas along the waterfront. In these areas, soil disturbance from construction activities has the potential to result in erosion and sedimentation. Long-term minor adverse impacts may occur at the Project Site due to any clearing, grubbing, grading, or excavation required for construction that would permanently alter the characteristics of the soils. Construction activities would also potentially alter existing soils due to new impervious surfaces on the Project Site. However, because the Project Site is within a highly urbanized area, these effects would be minor and localized.

A Phase II Environmental Site Investigation (Phase II) was completed to characterize soils in the Project Area and ensure proper handling and/or disposal during construction activities. The Phase II noted that construction activities at the Project Site would include imported clean fill and creation of impervious surfaces to limit exposure to existing contaminated fill soils proximate to sensitive receptors. Where a vegetated or soil completed surface is proposed, a one-foot minimum clean cap would be placed atop the existing soil, in accordance with the recommendations of the Phase II. Further, a demarcation layer (e.g., orange snow fence or geotextile fabric) would be placed between any clean fill and contaminated soils to remain. Soils and fill derived from the Project Area that meet all soil cleanup objectives provided in the Remedial Action Plan (RAP) would be reused on site. (Section 5.12.2 of this EA provides analysis regarding potential adverse impacts and proposed mitigation of contaminated materials on the Project Site.)

For non-contaminated portions of the Project Site, erosion and sedimentation impacts would be minimized through implementation of an approved erosion and sediment control plan for construction activities. Location appropriate best management practices (BMPs) would be used and may include, but are not limited to, installation of perimeter silt fences to control the migration

of silt from the Project Site, revegetation of bare soils to minimize erosion, installation of silt/sediment filters at catch basin inlets to keep sediments from entering the drainage system during construction, and use of antitracking pads at construction site access/egress locations to keep sediments adhered to construction vehicle tires from being transported offsite. The nature of the shoreline work at the Project Site under this alternative would also serve to bolster protective measures through man-made structures (i.e., sheet pile bulkheading and revetments) to limit wave energy that causes erosion. Overall, the Proposed Action would result in no impacts on geology, and short- and long-term moderate beneficial impacts on topography and soils in the Project Site.

5.3 Air Quality

The United States Environmental Protection Agency (USEPA) has established primary and secondary National Ambient Air Quality Standards (NAAQS) under the provisions of the Clean Air Act (CAA) of 1970 (42 U.S.C. Part 7401 et seq.). Primary air quality standards define levels of air quality necessary to protect public health with an adequate margin of safety. Secondary air quality standards protect the public's welfare by promoting ecosystem health, preventing decreased visibility, and reducing impacts to vegetation and wildlife. Federal NAAQS are currently established for the following six criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2), lead (Pb), particulate matter equal to or less than 10 micrograms per cubic meter of air (PM_{10}), and PM equal to or less than 2.5 micrometers in aerodynamic diameter ($PM_{2.5}$). New York State monitors and regulates emissions for these pollutants to meet NAAQS requirements.

Federally funded actions in nonattainment and maintenance areas are subject to USEPA General Conformity regulations, 40 CFR Part 51 and 93. The air conformity analysis process ensures that emissions of air pollutants from planned federally funded activities would not affect the state's ability to achieve the CAA goal of meeting the NAAQS. Section 176(c) of the CAA requires that federally funded projects must not cause any violations of the NAAQS, increase the frequency or severity of NAAQS violations, or delay timely attainment of the NAAQS or any interim milestone. The emissions from construction activities are subject to air conformity review.

Under the general conformity regulations, a determination for federal actions is required for each criteria pollutant or precursor in non-attainment or maintenance areas where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates equal to or exceeding the prescribed *de minimis* rates for that pollutant. For this project, the prescribed annual rates are 50 tons of volatile organic compounds and 100 tons of nitrogen oxides (NO_x) (ozone precursors), 100 tons of CO (in a CO maintenance area), and 100 tons of $PM_{2.5}$, SO_2, or NO_x ($PM_{2.5}$ and precursors in $PM_{2.5}$ attainment area). Areas where a criteria pollutant level exceeds the applicable NAAQS are designated as being in non-attainment of the standards. A non-attainment area may be re-designated to attainment, based on monitoring data demonstrating attainment of the applicable standard and implementation of a maintenance plan to assure continued attainment.

5.3.1 Existing Conditions

The CAA requires States to submit a State Implementation Plan (SIP) to the USEPA for attainment of the NAAQS. The Proposed Action is located in Richmond County within the New York Metropolitan Air Quality Control Region and is part of the New York State Department of Environmental Conservation (NYSDEC) Region 2. Richmond County is in attainment of the NAAQS for Pb, NO_2, PM_{10} and SO_2 and serious nonattainment for ozone (eight-hour). After many years of demonstrating CO and $PM_{2.5}$ attainment, Richmond County, along with the New York portion of the NY-north NJ-Long Island, NY-NJ-CT nonattainment area, was re-designated by the USEPA to attainment status. Richmond County is therefore subject to Maintenance Plans, which outlines continuing steps to lower CO and $PM_{2.5}$ levels and provides a Contingency Plan should a violation of the standards occur.

Each of the criteria pollutants for which ambient air quality standards have been set is monitored on a continuous basis throughout New York State by the NYSDEC. The major objectives of monitoring air quality are to provide an early warning system for pollutant concentrations, assess air quality with regards to public health and welfare standards, as well as track trends or changes in these pollutant levels. Not all pollutants are monitored at each NYSDEC monitoring location. NYSDEC monitored data is available in the annual report *New York State Ambient Air Quality Report*.

5.3.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

The No Action Alternative would not impact the existing air quality of the project area or, generally, Richmond County. Ambient air quality would remain similar to existing conditions.

Alternative 2: Proposed Action

Construction activities under the Proposed Action (i.e., site preparation, land clearing, material handling and demolition, etc.) may result in temporary increases in emissions from on-site equipment and machinery, including both road and non-road, light and heavy, gasoline and diesel-powered equipment and fugitive dust. Fugitive dust or airborne dust is typically generated during groundbreaking and excavation activities.

$PM_{2.5}$ and PM_{10} levels would likely increase during excavation and disturbance of soils. Emissions from construction vehicles, generators, and equipment could temporarily increase the levels of some of the criteria pollutants, including CO, NO_2, O_3, PM_{10}, and non-criteria pollutants such as VOCs. Temporary impacts associated with construction emissions would be mitigated through the implementation of air quality BMPs. All equipment and machinery would comply with applicable USEPA standards. As required by the Clean Air Nonroad Diesel Rule, ultra-low sulfur diesel fuel would be used for all diesel-powered construction equipment, limiting Sulphur Oxides emissions. Additionally, running times for fuel-burning equipment would be kept to a minimum, and engines

would be properly maintained. Idling times for heavy construction equipment shall comply with heavy duty vehicle Idling Law (6 New York Codes, Rules, and Regulations [NYCRR] Subpart 217-3) which prohibits heavy duty vehicles, including non-diesel and diesel trucks with a gross vehicle weight rating (GVWR) of more than 8,500 pounds, from idling for more than five minutes at a time. Fugitive dust control measures such as speed limit reductions, sprayed water or other dust suppressant application, and regular vehicle rinsing would be managed according to proper standards and procedures.

Upon completion, the Tompkinsville Esplanade and Dockbuilders Pier Project would not be an emissions generator. Therefore, FEMA anticipates short-term minor adverse air quality impacts as construction activity would be temporary and BMPs are implemented, and no long-term adverse impacts as a result of the Proposed Action as there would be no new emission sources associated with the Tompkinsville Esplanade and Dockbuilders Pier Project upon completion.

5.4 Water Quality

The Clean Water Act (CWA) [33 U.S.C. Section 1251 et seq. (1972)] regulates discharge of pollutants into Waters of the United States. Section 404 of the CWA establishes the U.S. Army Corps of Engineers (USACE) permit requirements for discharging dredged or fill materials into waters of the United States and traditional navigable waterways. USACE regulation of activities within navigable waters is authorized under the 1899 Rivers and Harbors Act (See 33 U.S.C. § 407). Under Section 402 of the CWA, the National Pollution Discharge Elimination System (NPDES) [40 CFR Part 122], USEPA regulates both point and non-point pollutant sources including stormwater and stormwater runoff. In New York State, USEPA has delegated the authority to NYSDEC to administer the NPDES program, referred to as the State Pollution Discharge Elimination System (SPDES). Activities that disturb one acre of ground or more require a SPDES permit. The SPDES permit requires applicants to prepare a Stormwater Pollution Prevention Plan (SWPPP).

Section 1412(e) of the Safe Drinking Water Act of 1974 [42 U.S.C. § 300g(1)(e), and 40 CFR 141], authorizes USEPA to designate an aquifer for special protection under the sole source aquifer program. USEPA can make this designation if the aquifer is the sole or principal drinking water resource for an area (i.e., it supplies 50 percent or more of the drinking water in a particular area) and if its contamination would create a significant hazard to public health. No commitment for federal financial assistance may be provided for any project that USEPA determines may contaminate a sole source aquifer.

5.4.1 Existing Conditions

The Project Site is situated in the Sandy Hook – Staten Island Watershed (HUC02030104) within the Lower Hudson Watershed (HUC020301). The Upper New York Bay which surrounds the Project Site is a tidally influenced estuary, with freshwater mainly from the Hudson River mixing with saltwater from the Atlantic Ocean. Staten Island is separated from Brooklyn and New York City by The Narrows, a tidal strait connecting the Upper New York Bay and Lower New York Bay. NYSDEC classifies the Upper New York Bay as a Class I saline surface waterbody, assessed for general recreation use, and support of aquatic life, but not for shell fishing or for public bathing use. The Project Site does not contain any mapped freshwater habitats such as streams or lakes.

The Final 2018 New York State 303(d) List of Impaired Waters Requiring a Total Maximum Daily Load (TMDL)/Other Strategy (June 2020) includes the waters of Richmond County, NY, as impaired due to oxygen demand, phosphorus, Polychlorinated Biphenyls (PCBs) and other toxics, dioxin, pathogens, and unknown (biologic impacts). The New York/New Jersey Harbor & Estuary Program's *Harbor-Wide Water Quality Monitoring Report 2021* for the Upper New York Bay listed the overall status of the waterbody as impaired due to chlordane, copper, PCBs, Benzo[a]pyrene (PAHs), DDT, dieldrin, dioxin (including 2,3,7,8-TCDD), heptachlor epoxide, hexachlorobenzene, and mercury. TMDLs have been established for copper in New York and mercury found in fish in the New Jersey portion of the waterway. Probable sources of EPA listed pollutants of the Upper New York Bay include combined sewer overflows, contaminated sediments, industrial point source discharge, municipal discharges/sewage, and urban runoff. In addition, the EPA issued a fish consumption advisory including the waters surrounding the Project Site.

5.4.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

The No Action Alternative would not directly impact water quality. However, storm surge flooding and floodwaters would continue to cause erosion that could potentially pollute surface waters with sediments and debris, absent of the Proposed Action. Therefore, the No Action Alternative would potentially have minor short- and long-term adverse impacts on water quality depending on the duration and scale of future storms and coastal flood events.

Alternative 2: Proposed Action

The Proposed Action may result in short-term, negligible adverse impacts on water quality from construction activities. However, all work would be performed in accordance with prevailing federal, state, and local codes and regulations. Most importantly, a SWPPP would be established prior to construction that would detail the BMPs and other measures that would be implemented and maintained over the duration of construction to protect the quality of receiving waters. Section 5.2.2, Geology, Topography and Soils, Potential Impacts and Mitigation, of this EA details BMPs that would be implemented to maintain existing water quality during construction activities to the

maximum extent practicable.

Construction of the Proposed Action is not anticipated to discharge pollutants, toxic material, solid waste, or hazardous substances at concentrations above regulated levels into coastal waters. BMPs, including general or special conditions prescribed by the USACE or NYSDEC permits and SWPPP, shall be implemented to avoid discharge of pollutants into coastal waters. A USACE Individual Permit under Section 404 of the CWA shall also be obtained for all fill material proposed within the waterway pursuant to the USACE Joint Application for Permits and will also be submitted to NYSDEC. Further, the construction contractor would be required to develop a site-specific Health and Safety Plan (HASP), including Excess Materials Disposal Plan (EMDP) and Spill Prevention Plan (SPP) prior to implementing site work. All soils and associated liquids (such as contaminated groundwater) on-site would be excavated/collected, stored, and transported in accordance with applicable local, state, and federal laws. Additionally, all contaminated soil and liquid waste generated by the proposed activities would be disposed of in appropriate facilities off-site.

Construction activities associated with the Proposed Action are expected to generate waste common to construction (e.g., hydrocarbon-based fuels, lubricants, oils, paints, and cleaning solvents for the construction equipment). These materials would be handled and stored in accordance with applicable local, state, and federal regulations, and the site-specific HASP, EMDP and SPP. All necessary precautions would be taken to prevent any potential spills, leaching, or emission of contaminated substances into surface waters or onto adjacent properties. In case of an unintentional release of petroleum, such as an accidental spill during refueling, any discharge would be cleaned up and removed in accordance with the guidelines contained in the NYSDEC Spill Response Guidance Manual.

Once constructed, the new waterfront esplanade and NYCDOT Dockbuilders Pier would introduce new impervious surfaces to the Project Site that would contribute to an increased release of freshwater runoff into the Upper New York Bay from rain events; however, it is not anticipated that the additional freshwater (rainwater) runoff would result in a measurable impact given the vast size of the receiving waterbody. Moreover, the new esplanade has been designed to incorporate sustainable stormwater management strategies. The green infrastructure design includes vegetated islands, medians, and an enhanced waterfront planted with native, salt-resistant shrubs. Collectively, these measures would help minimize the impact of non-point discharge to the Upper New York Bay.

Furthermore, as part of the Proposed Action, an existing NYCDEP stormwater drainage vault and conduit within Victory Boulevard would be updated and improved by modifying the drainage conduit that discharges from the vault. The conduit would be shortened, and a new outfall and headwall would be constructed within a new riprap revetment that would fortify and protect the shoreline surrounding Victory Peninsula.

The proposed NYCDOT Dockbuilders Pier has been designed to manage stormwater using

scuppers. NYCDOT would have all BMPs in place for any storage of materials on the pier and has standard operational practices to secure any equipment or other materials in the event of a storm resulting in storm surge flooding. Moreover, the discharge of wastewaters by vessels mooring at the new pier would be performed in accordance with prevailing local, state, and federal regulations and would be treated prior to discharge, if any. Therefore, FEMA anticipates that the Proposed Action would result in short- and long-term negligible adverse impacts on water quality in the Upper New York Bay.

5.5 Wetlands

Wetlands are areas where surface or groundwater inundates or saturates with a frequency and duration sufficient to support and, under normal hydrological conditions, do support a prevalence of vegetation typically adapted for life in saturated soil conditions (see 40 CFR 230.41(a)(1)). Actions that may impact wetlands require review under federal and state regulatory programs, including Section 404 of the CWA (33 U.S.C. 1344), the New York State Freshwater Wetlands Act (Article 24, Title 23 of Article 71 of the Environmental Conservation Law), and the Tidal Wetlands Act (Article 25 of the Environmental Conservation Law). The Executive Order (EO) 11990, Protection of Wetlands, requires Federal agencies to avoid funding activities that directly or indirectly support occupancy, modification, or development of wetlands, whenever there are practicable alternatives, and that the Proposed Action includes all practicable measures to minimize harm to wetlands that may result from such use.

FEMA implements EO 11990 through 44 CFR Part 9 concurrently with EO 11988 Floodplain Management (see Section 5.6) and uses the 8-step decision making process to evaluate potential effects on, and mitigate impacts to, wetlands and floodplains. NYSDEC administers and regulates wetlands under the Freshwater Wetlands Act (Article 24 of Environmental Conservation Law) and the Tidal Wetlands Act (Article 25 of Environmental Conservation Law – 6 New York Codes, Rules, and Regulations Part 661). The United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) map is considered the best available information for wetland mapping.

5.5.1 Existing Conditions

Based on a review of the USFWS NWI map and in-person site observations, in-water portions of the Project Site contain Estuarine and Marine Deepwater habitat classified as estuarine (E), subtidal (1), unconsolidated bottom (UB), and subtidal (L), or E1UBL (**Appendix A, Figure 4, *USFWS NWI Map***). The 1974 NYSDEC Tidal Wetlands Map identifies tidal wetlands within and in the vicinity of the in-water portions of the Project Site as littoral zone (LZ) (**Appendix A, Figure 5, *NYSDEC Tidal Wetlands Map***).

5.5.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

The No Action Alternative would not alter existing wetlands and there would be no change in

acreage of wetlands in or adjacent to the Project Site. Storm surge flooding would continue to inundate existing wetlands, but because the No Action Alternative would not alter the existing flood regime, there would be no impacts to existing wetlands within the Project Site.

Alternative 2: Proposed Action

FEMA conducted the 8-step decision-making process for the Proposed Action (**Appendix D**). Construction activities associated with the Proposed Action have the potential to generate pollutants and increase the amounts of suspended sediments in stormwater runoff that could temporarily affect the quality and hydrology of tidal wetlands. As discussed in Section 5.4.2, Water Quality, Potential Impacts and Mitigation, the SPDES Construction Permit and SWPPP would define requirements for erosion and sediment control practices and BMPs that would help prevent construction-related pollutants from discharging offsite via stormwater runoff and degrading water and tidal wetland quality. Additionally, any tidal wetlands temporarily disturbed due to construction activities would be restored to their pre-construction condition.

The Proposed Action would result in the removal of mud, sand, and clay from the bay. Fill materials including new steel sheet pile bulkhead, steel pipe piles, timber fender piles, timber shocks and wales, and associated riprap would be placed below MHHW in these tidal wetland areas. While the Proposed Action would result in a direct loss of approximately 20,150 cubic yards (CY) of littoral zone tidal wetland habitat, including 17,116 CY for placing piles and bulkheading at the proposed esplanade and 3,034 CY for the NYCDOT Dockbuilders Pier, approximately 31,296 CY of littoral zone wetland habitat would be created as a result of the Proposed Action for an overall net increase of 11,146 CY of littoral zone tidal wetland habitat.

FEMA anticipates short-term negligible adverse impacts to wetlands with the implementation of construction BMPs and adherence to Joint Application for Permits requirements that would limit disturbances to the tidal wetlands. Once constructed, FEMA anticipates long-term moderate beneficial impacts to the area's tidal wetlands, as it would diffuse and minimize the impact of future storm events and would enhance and support native in-water and terrestrial wildlife.

5.6 Floodplain

Executive Order 11988, Floodplain Management, requires federal agencies to avoid potential adverse impacts associated with the occupancy and modification of floodplains, and to avoid floodplain development whenever there are practicable alternatives. If no practicable alternatives exist within or affecting the floodplain, federal agencies then seek to minimize the adverse impacts. Regulations interpreting EO 11988 are detailed in 44 CFR Part 9.

FEMA uses best available data to identify floodplains, which are documented on Flood Insurance Rate Maps (FIRMs). FIRMs depict calculated locations of the 1% annual chance and the 0.2 percent annual chance floodplains, coastal high hazard areas, and base flood elevation levels. FEMA develops FIRMs through a mapping process that accounts for topography and history of

flooding in the region. Federal actions within the 0.2 percent annual chance floodplain require the federal agency to conduct an 8-step review process to evaluate alternatives within the floodplain. For projects located within the floodplain, any potential adverse impacts must be mitigated when there are no practicable alternatives. In January 2015, FEMA released Preliminary FIRMs for New York City, which FEMA considers to be the best available data for actions within the Five Boroughs.

5.6.1 Existing Conditions

Based on a review of FEMA's Preliminary FIRM (PFIRM panel #3604970189G) dated January 30, 2015, the Project Site is primarily in the 1% annual chance floodplain (Zone AE Elevation 10 and Zone VE Elevation 12), with few upland areas in the 0.2 percent annual chance floodplain) (**Appendix A, Figure 6, *FEMA Preliminary FIRM Map***).

5.6.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

Under the No Action Alternative, shoreline hardening, and other protective measures would not be constructed. The Project Site and surrounding waterfront would remain vulnerable to storm surge. In addition to flooding, the existing waterfront is almost entirely within the Limit of Moderate Wave Action (LiMWA) The LiMWA is an informational line on flood maps to show areas where wave heights are between 1.5 and 3 feet. According to FEMA research, decades of post-storm observations have shown that waves as small as 1.5 feet can significantly damage buildings and, therefore, any associative infrastructure would also be susceptible to damage from wave action and flood events. Thus, over time, waterfront deterioration would likely occur under the No Action Alternative and could potentially further damage immediate and surrounding critical infrastructure. The No Action Alternative is therefore anticipated to result in short- and long-term moderate adverse impacts on floodplains and those areas in the vicinity of the Proposed Action that have the potential to be affected by storm surge flooding.

Alternative 2: Proposed Action

FEMA conducted the 8-step decision-making process for the Proposed Action (**Appendix D**). The Proposed Action has been designed to improve the long-term protection of the shoreline in the Project Area and to reduce impacts from storm surge flooding.

The proposed esplanade would provide critical shoreline hardening and improvements throughout the Project Area and would be completely constructed to an elevation above the existing 2020 MHHW elevation of +2.4 feet (NAVD88). Additionally, the NYCDOT Dockbuilders Pier was designed with a DFE of +20 feet 4 inches (NAVD88). The BFE is +17 feet (NAVD88).

Based on the information above, FEMA anticipates short-term negligible adverse impacts during construction and long-term moderate beneficial impacts to existing floodplain resources or within

the Project Area under the Proposed Action.

5.7 Coastal Resources

The Coastal Zone Management Act (CZMA) [16 U.S.C. Section 1451 et seq.] encourages states with coastal shorelines to develop and implement Coastal Zone Management Plan (CZMP) with the aim of preserving, protecting, developing, and restoring the coastal zone and coastal resources. Projects receiving federal assistance must follow the procedures outlined in 15 CFR 930.90 – 930.101 for federal coastal zone consistency determinations to ensure they are consistent with a state's CZMP. The New York State Department of State (NYSDOS) and NYSDEC have identified and promulgated substantive policies for guiding development and resource management in New York State's coastal area. The CZMP's coastal management policies seek to promote the beneficial use of coastal resources; prevent their impairment; and manage major activities that may substantially affect resources. The Coastal Erosion Hazard Law (Environmental Conservation Law 34) empowers NYSDEC to identify and map coastal erosion hazard areas and to adopt regulations (6 NYCRR Part 505). The Coastal Erosion Hazard Area Permit Program manages regulated activities or land disturbance to properties within coastal erosion hazard areas.

The Coastal Barrier Resources Act (CBRA) of 1982 (Public Law 97-348; 16 U.S.C. 3501 et seq.) designated relatively undeveloped coastal barriers along the Atlantic and Gulf coasts of the United States as part of the John H. Chafee Coastal Barrier Resources System and made these areas ineligible for most new federal expenditures and financial assistance. CBRA was amended by the Coastal Barrier Improvement Act of 1990, which added the new designation Otherwise Protected Areas (OPAs). OPAs are mapped areas where only federal flood insurance is restricted.

5.7.1 Existing Conditions

The Project Site is located in the coastal zone (**Appendix A, Figure 7, *Coastal Zone Map***); therefore, the Proposed Action must comply with the forty-four policies established in the NYS CZMP (NYSDOS 2017). New York City is a Local Waterfront Revitalization Program (LWRP) Community. The LWRP is a planning and regulatory tool that allows a community to define statewide coastal policies to apply to local conditions. The Tompkinsville neighborhood is not within the Coastal Barrier Resource Zone or an OPA covered under the CBRA. Tompkinsville is also not within the NYSDEC Coastal Erosion Hazard Area and is not required to obtain a NYSDEC issued Coastal Erosion Management Permit.

5.7.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

Under the No Action Alternative, no shoreline hardening, or other protective measures would be constructed. However, coupled with vulnerabilities to storm surge and flooding, coastal resources within the Project Site would experience minor adverse impacts as a result of continued coastal erosion under the No Action Alternative.

Alternative 2: Proposed Action

In accordance with the requirements of the CZMA, FEMA consulted with NYSDOS on June 27, 2022, for determination of Coastal Consistency Conformance. FEMA determined that the Proposed Action would have a negligible effect on the Coastal Zone. On September 13, 2022, NYSDOS requested additional information to adequately assess the consistency of the Proposed Action with the CZMP, which NYCEDC responded to on October 11, 2022, on behalf of FEMA. FEMA received a general concurrence ("No Objection to Funding") determination from NYSDOS on November 10, 2022. NYCEDC received "Concurrence with Consistency Certification" on April 12, 2023, pertaining to their USACE Joint Permit Application submission (**Appendix C4**).

Work at the Project Site would have short-term minor adverse impacts during construction; long-term moderate beneficial impacts on the coastal zone and would have no negative impacts on scenic resources. Long-term moderate beneficial impacts would include providing waterfront recreation and working waterfront uses and increasing coastal protections consistent with CZMA (and the LWRP). As the Proposed Action includes activities affecting coastal areas, a Joint Application for Permits has been prepared and is currently being reviewed by the NYSDEC and USACE pending completion of the EA analysis and review.

5.8 Biological Resources

Federal agencies are required to consider the potential effects of federally authorized actions on certain plants, animals, and their habitats. Sensitive biological resources are protected under federal laws including the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation Act (MSA)

5.8.1 Endangered Species Act

The ESA of 1973 provides for the conservation of threatened and endangered plants and animals and the habitats in which they are found. USFWS and the U.S. National Oceanic and Atmospheric Administration's (NOAA) (under the National Marine Fisheries Service (NMFS) program) are the lead federal agencies for implementing ESA. The law requires federal agencies to ensure that the actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat

of such species. The law also prohibits any action that causes a "taking" of any listed endangered fish or wildlife species (see Section 9 of the ESA).

5.8.2 Existing Conditions

The USFWS Information for Planning and Consultation (IPaC) system was utilized to identify terrestrial species in the Project Area. IPaC identified two federally threatened or endangered terrestrial species as potentially present in the Project Area: piping plover (*Charadrius melodus,* threatened) and roseate tern (*Sterna dougallii*, endangered). USFWS has not designated any critical habitat for these species within the Project Area.

Piping plover is a bird that uses open, sandy beaches close to the primary dune of barrier islands and Atlantic coastlines for breeding. They prefer sparsely vegetated open sand, gravel, or cobble for a nest site. They forage along the wrack line where the tide washes up onto the beach. USFWS has not designated any critical habitat for piping plover within the Project Area.

Roseate tern is a bird that breeds in colonies almost exclusively on small offshore islands and only rarely on large islands. The northeastern colonies are on rocky offshore islands, barrier beaches, or salt marsh islands. Colonies are found close to shallow water fishing sites with sandy bottoms, bars, or shoals. USFWS has not designated any critical habitat for roseate tern within the Project Area.

NOAA's Greater Atlantic Region ESA Section 7 Mapper system was utilized to identify aquatic species in the Project Area. The Section 7 Mapper identified two threatened or endangered fish and four sea turtle species as potentially present in the Project Area: Atlantic sturgeon (*Acipenser oxyrinchus*, threatened); shortnose sturgeon (*Acipenser brevirostrum*, endangered); the Northwest Atlantic Ocean DPS of loggerhead sea turtle (*Caretta caretta*, threatened); the North Atlantic DPS of green sea turtle (*Chelonia mydas*, threatened); the Kemp's ridley sea turtle (*Lepidochelys kempii*, endangered); and the leatherback sea turtle (*Dermochelys coricea*, endangered). There is no critical habitat for any of these species in the Project Area.

5.8.3 Magnuson-Stevens Fishery Conservation Act & Essential Fish Habitat

Federal agencies are required to assess the potential impacts that proposed actions and alternatives may have on NOAA Fisheries-regulated Essential Fish Habitat (EFH), in accordance with the Magnuson-Stevens Fishery Conservation and Management Act.

5.8.4 Existing Conditions

The presence or absence of federally listed species within or adjacent to the Project Area would be largely determined by the presence of suitable habitat, which is primarily a product of salinity, temperature, water depth, vegetation, and the extent of human disturbance. The NOAA EFH Mapper was used to identify EFH within the Project Area. The EFH mapper identified 11 species with EFH that may occur within the bodies of water surrounding the Tompkinsville area. They

include bluefish (*Pomatomus saltatrix*), winter flounder (*Pseudopleuronectes americanus*), summer flounder (*Paralichthys dentatus*), windowpane flounder (*Scophthalmus aquosus*), Atlantic herring (*Clupea harengus*), Atlantic butterfish (*Peprilus triacanthus*), clearnose skate (*Raja eglanteria*), little skate (*Leucoraja erinacea*), red hake (*Urophycis chuss*), winter skate (*Leucoraja ocellata*), and longfin inshore squid (*Doryteuthis pealeii*). In addition, Habitat Areas of Particular Concern were identified for the Summer Flounder. Together, the water bodies surrounding the Tompkinsville waterfront form part of the New York-New Jersey Estuary, which supports a wide variety of marine life, including arthropods such as the American lobster, and several species of crab, marine mammals such as the bottlenose dolphin, grey seal, harbor seal, and North American river otter, and a variety of fish and bird life.

The Project Area is developed with paved impervious surfaces and structures, and damaged steel bulkhead, wooden piers, and utility infrastructure on the north side at the east end of Victory Boulevard and along the waterfront of the Bay Street Landing area. The waterfront portion of the Project Site is confined to existing road rights-of-way and predominantly comprises deteriorated steel bulkhead, wooden piers, and utility infrastructure. Terrestrial species in the Project Site are highly tolerant of human disturbances typically found in urban settings such as birds, mammals, amphibians, reptiles, and insects. Previously undisturbed habitats are not present, and most of the available habitat to these urban adapted wildlife species is limited to highly disturbed waterfront areas.

5.8.5 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

Under the No Action Alternative, storm surge flooding and erosion would continue to damage the existing shoreline and shoreline infrastructure causing sedimentation and debris accretion landward, as well as potential for runoff into adjacent waters. This may have short- and long-term minor adverse impacts on threatened and endangered species (terrestrial and aquatic) and EFH.

Alternative 2: Proposed Action

Construction activities from the Proposed Action would have no impact on state or federally listed terrestrial species and potential minor adverse impacts to aquatic species. The landward project area is a developed urban setting with shorelines that are not suitable for terrestrial habitats or nesting. Landward construction and staging sites would be of limited value to any native wildlife and would be subject to high levels of noise and activity under existing conditions. In-water construction activities may have the potential to impact aquatic species. However, potential aquatic impacts would be mitigated through the SWPPP and associated BMPs during construction.

FEMA determined that the Proposed Action would have "no effect, no suitable habitat" for any listed terrestrial species or critical habitat under USFWS jurisdiction and initiated consultation with USFWS on July 15, 2022 (**Appendix C3**). As of the date of this EA, USFWS has not provided

any objection or comments for FEMA's no effect determination. FEMA determined that the Proposed Action "may affect, but is not likely to adversely affect" for any NOAA Fisheries-regulated species including EFH. FEMA consulted with NOAA Fisheries under ESA on October 17, 2022, and received concurrence on November 9, 2022, and for EFH on October 14, 2022, and received concurrence on November 15, 2023 (**Appendix C1/C2**). On September 25, 2024, FEMA re- consulted with NOAA Fisheries on behalf of the Subrecipient requesting to waive time-of-year restrictions for certain in-water activities including debris removal, replacement of the existing bulkhead, installation of steep piles, construction of the elevated esplanade platform and replenishment of riprap and placement of armor stone. The time of year restriction was previously recommended by NOAA Fisheries for the winter flounder early life-stage protective window from January 15 to May 31. The Subrecipient provided additional information concerning on-site EFH characteristics for the subject species and the potential for the Proposed Action to impact EFH, On October 31, 2024, NOAA Fisheries indicated that they were amenable to the time of year restriction revision request to waive the previously recommended restrictions for in-water activities (**Appendix C2**).

Overall, FEMA has concluded that there would be no short- or long-term adverse impacts to USFWS-listed species or critical habitat; and negligible to minor, short- and long-term adverse impacts to NOAA-listed species or critical habitat.

5.9 Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA; 54 U.S.C. Section 306108), of 1966, as amended and implemented by 36 CFR Part 800, requires federal agencies to consider potential effects of actions on cultural resources prior to commencement of work (an "undertaking"). The NHPA defines a historic property as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register of Historic Places (NRHP). Only those cultural resources determined to be potentially significant under NHPA are subject to avoidance or minimization measures for adverse impacts resulting from an undertaking. To be considered significant, a cultural resource must meet one or more of the criteria established by the National Park Service that would make that resource eligible for inclusion on the NRHP, as found in 36 CFR Part 60. The term "eligible for inclusion on the NRHP" includes all properties that meet the NRHP listing criteria. Sites not yet evaluated may be considered potentially eligible for inclusion on the NRHP and, as such, are afforded the same consideration as listed properties.

Pursuant to 36 CFR 800.4(a)(1), and as defined in 36 CFR 800.16(d), the Area of Potential Effects (APE) is defined as the geographic area(s) within which an undertaking may directly or indirectly affect cultural resources. FEMA determines an APE based on completed research identifying potential and NRHP-listed properties. Within the APE, FEMA evaluates impacts on identified cultural resources for above ground resources and below ground prehistoric or historic archaeological resources.

5.9.1 Existing Conditions

The New York State Historic Preservation Office (NYSHPO) maintains a regularly updated list of New York State's historic properties that are subject to NYSHPO and federal agency review. This list is accessible through the NYSHPO-maintained Cultural Resource Information System (CRIS). FEMA evaluated the Proposed Action's (undertaking's) potential effects on cultural resources using CRIS and in consultation with NYSHPO.

NYCEDC initiated consultation with NYSHPO on January 27, 2020. On February 5, 2020, NYSHPO recommended that a Phase IA Archaeological Assessment be completed to assess archaeological sensitivity in the Project Area and make recommendations regarding the potential for a Phase IB Assessment. On February 19, 2020, NYSHPO responded noting that there are two properties eligible for the State and National Register of Historic Places adjacent to the Project Area. Additionally, NYSHPO requested contact information for the Lead Federal Agency (FEMA) for the purposes of Section 106 under the NHPA. On August 26, 2022, FEMA initiated Section 106 consultation with NYSHPO. The Phase IA Archaeological Assessment completed in July 2022 was submitted as part of this consultation package. On September 14, 2022, NYSHPO concurred with FEMA's determination of No Adverse Effect to Historic Properties that are either on, or eligible for inclusion on the NRHP.

5.9.1.1. Architectural Resources

Based on the proposed scope of work, FEMA determined that the APE for this undertaking would be limited to the site as defined by the Lot and/or Block (Block 1, Lots 65, 70, 210, 260, 7503; Block 487, Lot 100) from the NYCity Map (DoITT Map) containing the Lyons Recreation Center, the Bay Street Landing, the National Lighthouse Museum structures, and the waterfront structures including: ruins from deteriorated docks and piers, a steel bulkhead and additional shoreline material, and the proposed location of the new Dockbuilders Pier.

Properties adjacent to the APE include the U.S. Coast Guard Station and the Tompkinsville Play Center (Joseph H. Lyons Pool & Interior (NYSHPO Unique Site Number [USN] 08501.002388, NRHP #94NR0727, also designated New York City Landmark 2234)) (Lyons Pool). As noted in CRIS, the U.S. Lighthouse Depot Foundry (National Lighthouse Museum) (USN: 08501.001052) and the U.S. Lighthouse Depot Lamp Shop (USN: 08501.001050) are listed as NRHP-eligible properties.

5.9.1.2. Archeological Resources

The APE for potential archaeological resources is limited to those areas where the proposed project is expected to directly impact or disturb ground surface due to excavation or other construction activities. The APE limits the potential to affect archaeological resources of the waterfront (including bulkheads, extant dock, and pier structures), and maritime facilities fronting the northeast corner of Staten Island just south of the Staten Island Ferry Terminal. A review of CRIS shows the entire APE is within an archaeologically sensitive mapped area. However, the sensitivity appears to be tied primarily to the myriad listed historic structures and districts that comprise the bulk of the

terrestrial side of the Maritime Cultural Landscape features of this section of Staten Island. CRIS indicates there is one nearby mapped archaeological site outside of the APE and no known sites within the APE.

The Phase IA Archaeological Assessment focused on a literature review and pedestrian survey in an APE the consultant defined as a 400-foot buffer around the proposed esplanade segment and the new Dockbuilders Pier and a 1/4-mile context area to augment the buffer information. The review also included CRIS and New York City Landmarks Preservation Commission records search to augment the documented context in the Project Area. The Phase IA Archaeological Assessment conclusions summarized that there were repeated cycles of development and demolition both above and below the ground surface that would limit the potential for existing resources *in situ*.

5.9.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

The No Action alternative would have no above-ground or below-ground disturbance and therefore would have no impact to historic or archaeological resources.

Alternative 2: Proposed Action

Through completed consultation initiated on August 25, 2022, with NYSHPO, FEMA determined, with NYSHPO concurrence received on September 14, 2022, that the Proposed Action would have No Adverse Effect to Historic Properties. The impact on historic resources would be minimal and the historic character of the waterfront preserved. The Dockbuilders Pier and associated structure to be built on the pier, will have minimal impact on any historic viewsheds. It will be visible from the Miller's Launch area, but the slight elevation of Murray Hubert Avenue will minimize visibility from the Lyons Recreation Center. The updates to the Victory Boulevard Peninsula will be visible from the U.S. Lighthouse Museum but have minimal overall impact. The character defining feature of the viewsheds for the Tompkinsville waterfront is the maritime context and docks. Both features will be retained within the proposed undertaking. Additionally, the significant ground disturbance due to repeated cycles of development and demolition have limited the potential for archaeological deposits within the APE. Based on this research documented via the NYSHPO consultation, FEMA determined that the potential to encounter *in situ* Prehistoric and/or Historic archaeological resources is assessed as low. Therefore, the Proposed Action (undertaking) would have negligible short-term or long-term adverse impacts to cultural resources within the APE (**Appendix C5**).

5.10 Aesthetic Resources

Aesthetic resources, or viewsheds, are areas of land, water, or other environmental elements that are visible to the human eye from a fixed vantage point. Viewsheds are areas of particular scenic or historic value that have been deemed worthy of preservation against development or other change and include spaces that are readily visible from public areas and thoroughfares, such as from public

roadways, public parks, or high-rise buildings. If a viewshed is integral to the setting of a natural or historic resource or part of the NHPA Evaluation Criterion for a resource's NRHP eligibility, it must be considered in any new development or renovation proposal.

The aesthetics and visual quality study area for the Proposed Action is defined as a 400-foot radius around the Project Site (the "Aesthetics Study Area"). The Aesthetics Study Area is generally bounded by the Upper New York Bay to the east, the Staten Island Ferry Terminal to the north, Bay Street to the west, and the intersection of Front Street and Murray Hulbert Avenue to the south. Photographs of the Aesthetics Study Area and a photograph key map are included in **Appendix B**.

5.10.1 Existing Conditions

Current aesthetic and visual quality conditions within the Project Site are generally characterized by degraded, deteriorated, and vacant waterfront infrastructure (**Appendix B**). In the northern portion of the Project Site (between its northern terminus and Victory Boulevard), the bulkhead infrastructure is severely degraded, overgrown with vegetation, and fenced from public access with a chain link fence. Bay Street Landing runs north-south through this section of the Project Site and includes a paved pedestrian walkway adjacent to the fenced dilapidated waterfront. The Bay Steet Landing segment of the Project Site terminates in a rectangular paved area at Victory Boulevard that is used informally for vehicle parking.

The central portion of the Project Site, which extends from the eastern terminus of Victory Boulevard south to Hannah Street, is similarly characterized by vacant and decayed waterfront infrastructure with overgrown vegetation fenced from public access.

The most notable feature along this section of the Project Site is Miller's Launch, which is located at the waterfront near the intersection of Hannah Street and Murray Hulbert Avenue. Miller's Launch is a commercial maritime facility featuring a two-story operations/office building and multiple active pier structures extending into the Upper New York Bay.

The southern portion of the Project Site extends from Miller's Launch south along Murray Hulbert Avenue to the New Stapleton Waterfront. It is also characterized by deteriorated and decayed waterfront infrastructure and bulkheads with overgrown vegetation. Murray Hulbert Avenue accommodates two-way traffic through the area.

Overall, aesthetic and visual quality of the area is defined by the Upper New York Bay to the east of the Project Site and various waterfront-related developments to the north, west, and south of the site. Views to the east from the Project Site include pier structures extending waterward from the existing bulkheaded shoreline and remnants of former pier structures, as well as the open waters of Upper New York Bay. Distal views include Manhattan to the northeast and Brooklyn to the east. The Verrazano Narrows Bridge can be seen to the southeast. The western portion of the area includes residential towers and NYCDEP facilities abutting the Project Site. Transit infrastructure

related to the Metropolitan Transportation Authority Staten Island Railway and commercial and retail developments exist beyond and along Bay Street.

As noted in Section 5.9, the area also contains historic and cultural resources, particularly in the northern portions of the Project Site, which contribute to and help define the aesthetic and visual quality of the area.

5.10.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

Under the No Action Alternative, rehabilitation and enhancement of the severely damaged shoreline and associated infrastructure would not occur and the aesthetic character of the Project Site would remain unchanged from its current state. Therefore, there would be no impact to aesthetic resources as the Project Area would remain in its existing condition.

Alternative 2: Proposed Action

Under the Proposed Action, rehabilitation, fortification, and overall enhancement of the waterfront by demolishing and removing storm debris, damaged bulkheads, and derelict structures such as damaged platforms and pier remnants would occur along with constructing a new 2,100 LF waterfront esplanade and pier proposed to serve the NYCDOT Dockbuilders operations.

The esplanade and pier development would improve the overall aesthetic character of the Project Site with a publicly accessible waterfront amenity featuring a variety of passive recreation features. These would include a walking path, bike lanes, benches/seating, and landscaping. The proposed esplanade would connect an existing walking path from the St. George Ferry terminal to the north with a future esplanade project to the south being undertaken as part of the New Stapleton Waterfront Redevelopment project (not associated with the review and analysis of this EA). This would help complete and provide a continuous waterfront pathway along the northeastern Staten Island waterfront, activating this presently inaccessible environment to local residents as well as to Staten Island Ferry and Railway commuters.

The proposed NYCDOT Dockbuilders pier would be situated in a location already characterized by waterfront or near waterfront commercial and public utility uses, including Miller's Launch, a marine services operation featuring piers and maritime infrastructure, to the north and NYCDEP facilities (including a pump house and salt shed) immediately adjacent to the Project Site to the west. Thus, the proposed NYCDOT Dockbuilders pier would complement the utility and commercial urban design character of this area of the Project Site.

Views of the Project Site would improve from landward locations including the nearby Lyons Pool, the U.S. Lighthouse Depot: Lamp Shop and Foundry buildings, and the Office Building and U.S. Light-House Depot Complex, as well as from nearby views in the Upper New York Bay. The new esplanade would replace vacant and decayed waterfront infrastructure that is largely fenced,

giving pedestrians, bicyclists, and adjacent resident's views of inviting publicly accessible waterfront amenities and infrastructure. Additionally, existing view from the Project Site of the Upper New York Bay and beyond including views of the Manhattan skyline, Brooklyn and Queen waterfronts, and Verrazano Bridge would be significantly improved as well, through removal of fencing and provision of new and expanded access to the waterfront via the new esplanade.

During the period of active construction, which is anticipated to span approximately 24-months, local residents, as well as those frequenting commercial establishments within the Project Area would be exposed to views of heavy construction equipment, including but not limited to dump trucks, loaders, cranes, and barges. Views of material stockpile areas and temporary construction fencing would also be present. Upon completion of the Proposed Action, aesthetic views would change dramatically with landscaped plantings, decorative lighting, railings, and other aesthetically pleasing elements. Therefore, there would be short-term minor adverse impacts and long-term moderate beneficial impacts on the overall aesthetics of the Project Site.

5.11 Noise

Sound pressure level (SPL) is used to measure the magnitude (intensity) of sound and is expressed in decibels (dB). Noise levels are often given in dBA (A-weighted sound levels) instead of dB, with the threshold of human hearing defined as 0 dBA. A dBA is a weighted scale for judging loudness that corresponds to the hearing threshold of the human ear. The SPL increases logarithmically, so that when the intensity of a sound is increased by a factor of 10, its SPL rises by 10 dB, while a 100-fold increase in the intensity of a sound increases the SPL by 20 dB. Equivalent noise level (Leq) is the average of sound energy over time, so that one sound occurring for 2 minutes would have the same Leq of a sound twice as loud occurring for 1 minute. The day night noise level (Ldn) is based on the Leq and is used to measure the average sound impacts for the purpose of guidance for compatible land use. It weighs the impact of sound as it is perceived at night against the impact of the same sound heard during the day. This is done by adding 10 dBA to all noise levels measured between 10:00 pm and 7:00 am. For instance, the sound of a car on a rural highway may have an SPL of 50 dBA when measured from the front porch of a house. If the measurement were taken at night, a value of 60 dBA would be recorded and incorporated into the 24-hour Ldn.

Leq and Ldn are useful measures when used to determine levels of constant or regular sounds, such as road traffic or noise from a ventilation system. However, neither represents the sound level as it is perceived during discrete events, such as emergency sirens and other impulse noises. They are averages that express the equivalent SPL over a given period of time. Because the decibel scale is logarithmic, louder sounds reflected by higher SPL are weighted more heavily; however, loud infrequent noises, such as emergency sirens with short durations would not significantly increase Leq or Ldn over the course of a day. The Noise Control Act of 1972 required USEPA to create a set of noise criteria. In response, USEPA published Information On Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, in 1974, which

explains the impact of noise on humans. The USEPA report found that keeping the maximum 24-hour Ldn value below 70 dBA would protect the majority of people from hearing loss. USEPA recommends an outdoor Ldn of 55 dBA. According to published lists of noise sources, sound levels, and their effects, sound causes pain starting at approximately 120 to 125 dBA (depending on the individual) and can cause immediate irreparable damage at 140 dBA. OSHA has adopted a standard of 140 dBA for maximum impulse noise exposure.

5.11.1 Existing Conditions

Existing noise exposure within the Project Area includes noise generated from waterfront activity, commercial businesses, residential areas, and active recreation. This includes pier and dock operations such as those from Miller's Launch and vehicular traffic along Murray Hulbert Avenue and other nearby/connecting intersections and roads. Noise associated with nearby public transportation (Staten Island Ferry and Staten Island Railway system) and infrastructure (e.g., pump station, etc.) also contribute to the ambient noise environment at the Project Site.

The area proximate to the Project Site contains sensitive noise receptors including multi-family residential, mixed-use developments (residential and commercial) and open space and outdoor recreation. However, there are no schools, hospitals, or houses of worship in the surrounding area.

5.11.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

Under the No Action Alternative, construction activities and site preparation would not occur. As such, there would be no short- or long-term noise impacts under the No Action Alternative.

Alternative 2: Proposed Action

Construction Impacts

Under the Proposed Action, there would be limited temporary and localized effects on ambient noise levels during project construction. Sound levels during construction would be intermittent, as well as variable depending on the type of work being completed and equipment utilized during construction activities. Pile driving to set pier piles and bulkhead sheet piles, as well as excavation work would generate the greatest noise impact during the construction phase. Additionally, heavy equipment would be utilized during construction such as piling hammers/drivers, drilling equipment and cranes, which would contribute to the temporary noise impacts.

Construction noise would be audible in the immediate vicinity of the Project Site. However, BMPs including limiting construction activity hours to between 7:00 a.m. and 6:00 p.m. on weekdays, in accordance with the New York City Noise Code ("City Noise Code"). Additionally, as required by the City Noise Code, a Noise Mitigation Plan would be developed prior to construction of the Proposed Action. Should construction be necessary outside the prescribed construction hours, an after-hours permit would need to be obtained in conformance with the City Noise Code.

Although construction-related noise associated with the Proposed Action would cause noise impacts, the noise would be temporary and minimized using BMPs to be defined in the project Noise Mitigation Plan. Therefore, the Proposed Action's construction activities are anticipated to have temporary, short-term minor adverse impacts on ambient noise levels in the immediate vicinity of the Project Area.

Operational Impacts

Post-construction noise levels in the Project Area would be similar to existing conditions. The esplanade and associated infrastructure would increase pedestrian circulation and public access to the waterfront resulting in minor increases in ambient noise due to travel demands (e.g., people travelling by car or taxi to utilize the esplanade), as well as general activity, which is discussed in the Transportation Planning Factors & Travel Demand Forecast Technical Memo ("Transportation Memo").

Typical Dockbuilders Pier operations would require between three to 12 full-time employees at the pier daily. The Transportation Memo estimates 100 percent of NYCDOT Dockbuilders employees would travel during the AM and PM commuter hours. However, no new workers would be introduced to the area from the new Dockbuilders Pier, as current NYCDOT Dockbuilder operations and staff would be relocated to the proposed pier from the landside dock building at the Homeport Pier within the New Stapleton Waterfront. As such, noise impacts associated with employee transportation is not anticipated.

During operations at the Dockbuilders Pier, materials would be delivered via tractor trailers and flatbed trucks every two to three days with an average of two truck deliveries per week. Similar to current conditions, normal business hours for the facility would be from 6:00 AM to 2:00 PM. However, these hours may be adjusted based on tides or emergency work, as needed. According to the Transportation Memo, truck delivery patterns would be similar to that of construction deliveries, where 25 percent of truck deliveries would occur in the early hours of the morning and decrease throughout the day (weekdays and Saturdays). Since truck deliveries would not occur daily and would be dispersed throughout the delivery day, associated noise would be nominal and would not have an adverse impact on the surrounding area. Operations at the Dockbuilders Pier would also include the receipt and placement of timber and lumber with the use of typical construction equipment such as forklifts and cranes. All loading and unloading of truck deliveries would occur on-site and there would be loading or unloading of materials on-street. Although new noise sources would be introduced at the location of the Dockbuilders Pier, it is not anticipated that the character of the noise environment would drastically change from existing. The proposed Dockbuilders Pier would be a replacement of the landside dock building at the Homeport Pier within the New Stapleton Waterfront, less than a half-mile south of the Project Site. Therefore, operations would not generate any new marine vessels traveling to the area and would be similar in nature to existing operations at the Homeport Pier. Noise related to traffic and operations at the Dockbuilders Pier would be attenuated with background noise levels associated with the utility infrastructure to the west and nearby transportation uses to the north and south. Additionally, there

are no sensitive receptors within the immediate vicinity of the proposed Dockbuilders Pier.

Overall, the Proposed Action would result in short-term minor adverse impacts during construction and long-term negligible adverse impacts mainly due to the Dockbuilders Pier operations, which would move from their current location outside of the Project Area to the Project Area itself.

5.12 Hazardous Materials

USEPA defines hazardous waste as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes that pose a substantial present or potential hazard to human health and the environment (see 40 CFR Part 261). Review of potential hazardous materials on and in the vicinity of the Project Site was conducted in coordination with the methodologies of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 USC Section 9601 et seq.); Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC Section 6901 et seq.); Occupational Safety and Health Act (OSHA) of 1970 (29 USC Section 651 et seq.); and Toxic Substances Control Act (TSCA) of 1976 (15 USC Section 2601 et seq.). Additionally, the New York State Hazardous Waste Management Program (state implementation of the Federal RCRA program) codified at 6 NYCRR Parts 370, 371, 372, 373, 374, and 376 (the "Part 370 Series") was consulted.

Evaluations of hazardous substances and wastes must consider whether any hazardous material would be generated by the proposed activity, or whether such hazards already exist at, or in the general vicinity of the site (40 CFR 312.10). If hazardous materials are discovered, they must be handled by properly permitted entities. The New York Department of Labor permits entities for asbestos waste abatement, and NYSDEC issues permits for transportation and disposal of hazardous waste.

5.12.1 Existing Conditions

A Phase I Environmental Site Assessment (Phase I) was prepared for the Proposed Action in January 2019 and identified potential or existing environmental contamination liabilities within the Project Site. Sites near the Project Site that have hazardous materials, contamination, toxic chemicals, gases, and radioactive substances were identified through review of NEPAssist. The NEPAssist review included an examination of the USEPA's Superfund Enterprise Management System, an examination of the Toxics Release Inventory; a review of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo) database; and a review of the brownfields Assessment, Cleanup and Redevelopment Exchange System (ACRES).

RCRAInfo identified two locations within the Project Site for hazardous waste; Hannah Street located at 1 Murray Hulbert Avenue and owned by the NYCDEP (in compliance with RCRA and currently inactive), and the Murray Hulbert Avenue Storage Facility located at 45 Murray Hulbert Avenue and owned by NYCDOT (no violations of RCRA identified or currently active).

Recognized environmental conditions is a term used to identify potential hazardous materials, petroleum products, substances or impairments on a property that have the potential to be released into the ground, groundwater, or surface water of the property. The Phase I identified six recognized environmental conditions within the Project Site limits. These recognized environmental conditions included improperly stored petroleum products at Miller's Launch within the floating dock and storage area; staining of asphalt at Miller's Launch from a lift leaking red liquid; a historic coal yard at the intersection of Bay Street Landing, Victory Boulevard, and Murray Hulbert Avenue; non-indigenous fill placed for land reclamation in the southern region of the Project Site; historic trolley tracks along Bay Street Landing, which may contain contaminants associated with rail lines (e.g., herbicides, creosote, organic and inorganic contamination from lubricating oils, etc.); and a potential Vapor Encroachment Condition (VEC) at the Project Site, which is defined as the presence or likely presence of vapors from contaminants of concern in below ground locations in the Project Area caused by the release of vapors from contaminated soil and/or groundwater either on or near the Project Area.

The fill placed for land reclamation may contain typical fill material contamination (e.g., polyaromatic hydrocarbons [PAHs], polychlorinated biphenyls [PCBs], and metals) as fill placed in New York City in the early 1900s typically contained cinders, ash, and demolition debris. Additionally, 131 facilities were identified within the minimum search distance (1/10-mile radius for petroleum contaminated sites; 1/3-mile radius for other non-petroleum contaminated sites) of the Project Site location which have the potential to present a Vapor Encroachment Condition to the Project Site.

Controlled recognized environmental conditions and historic recognized environmental conditions were not identified during preparation of the Phase I. Additionally, no other notable findings were identified based on historical records review and site reconnaissance.

As six recognized environmental conditions were identified in the Phase I, further investigation of hazardous materials was performed through preparation of a Phase II Environmental Site Investigation (Phase II) in September 2019. The Phase II was conducted to determine whether contaminated or hazardous materials requiring special handling and/or disposal during construction of the Proposed Action are present within the Project Site. Soil and groundwater sampling was conducted for the Phase II and tested for the presence of hazardous materials and substances.

The Phase II soil investigation did not indicate evidence of spills at the Project Site that would require spill reporting to NYSDEC. Analytical results along with observations during site reconnaissance indicated that historic fill is present throughout the Project Site with elevated semi-volatile organic compounds (SVOCs), volatile organic compound (VOC)/SVOC naphthalene, and metal concentrations above the NYSDEC Restricted Residential Soil Cleanup Objectives (RRSCOs). Additionally, pesticides and PCBs exceeding the NYSDEC Unrestricted Use Soil Cleanup Objectives were identified within the Project Site. The Phase II did not note any contaminants above the USEPA Toxic Characteristics Leachate Procedure (TCLP) standards within the Project Site. However, lead was detected at the maximum allowable concentration of 5 mg/L. Overall, soils within the Project Site would not be considered hazardous waste for disposal but are considered contaminated. Therefore, soils would not need to be disposed of at a hazardous waste facility. The Phase II groundwater testing results indicated SVOCs and metals above the NY Technical and Operational Guidance Series (NYTOGS) Class GA Groundwater Standard in all samples collected. These results are typical of historic fill sites. Additionally, naphthalene VOC/SVOC was detected above the NYTOGS Class GA Groundwater Standard in one sample, likely due to the presence of creosote observed in that area. The Phase II did not detect any groundwater contaminants above the NYCDEP Sewer Discharge parameters.

5.12.2 Potential Impacts and Proposed Mitigation

Alternative 1: No Action

Under the No Action Alternative, construction activities, site preparation, and any hazardous materials remediation would not occur. Contaminated soils, as detailed in the Phase II, would remain on-site and not be capped as recommended in the Phase II. Additionally, no clean fill would be brought to the Project Site for redevelopment purposes and any shoreline flooding could potentially erode contaminated soils. As such, there could be minor short- and long-term adverse impacts under the No Action Alternative.

Alternative 2: Proposed Action

Overall, analytical results presented in the Phase II did not indicate that soils within the Project Site would be considered hazardous waste for disposal and, therefore, soils would not need to be disposed of at a hazardous waste facility. However, soils within the Project Site are considered contaminated due to the presence of SVOCs, VOC/SVOC naphthalene, and metal concentrations above the NYSDEC RRSCOs. As recommended in the Phase II, redevelopment of the Project Site would include imported impervious surfaces and clean fill to limit exposure to existing fill soils proximate to sensitive receptors. Where a vegetative or soil completed surface is proposed, a one-foot minimum clean cap would be placed atop the existing soil, in accordance with the recommendations of the Phase II. Further, a demarcation layer (orange snow fence or geotextile fabric) would be placed between any clean fill and contaminated soils to remain. Soils and fill derived from the Project Site that meet all soil cleanup objectives provided in the RAP would be reused on site.

Should sludges, soils or sediments displaying evidence of potential contamination be encountered during excavation activities (e.g., discoloration, staining, or odors), procedures for handling contaminated soils outlined in Section 3.1.2 of the RAP would be implemented. Excavated soils to be temporarily stockpiled on-site, prior to either reuse on-site or carted off-site for disposal, would be stored and constantly covered by 30-mil plastic sheeting, in accordance with NYSDEC requirements. All stockpiling activities would comply with all applicable laws and regulations. Any excavated soils from suspected areas of contamination (e.g., hot spots, underground storage tanks, drains, etc.) would be stockpiled separately and would be segregated from clean soil and construction materials, as recommended in the RAP. While at the Project Site, stockpiles would be inspected daily, and before and after every storm event.

Excess soil to be removed from the Project Site during construction would be transported and disposed of in accordance with the RAP. All soils to be removed from the Project Site would be handled as solid waste and disposed of in accordance with applicable laws and regulations. Additional soil sampling may be required for disposal, as determined by the future receiving disposal facility.

The Phase II did not detect any groundwater contaminants above the NYCDEP Sewer Discharge parameters such that groundwater treatment would not be required prior to discharge. However, should dewatering be required at the Project Site during construction, a sewer discharge permit would be required from the NYCDEP. Dewatering fluid would be pretreated, as necessary, to meet the NYCDEP discharge criteria. If discharge to the city sewer system is not appropriate, dewatering fluids would be managed by transportation and disposed of at an off-site treatment facility.

As construction and disposal activities would occur in accordance with the recommendations of the Phase II and the RAP, no additional mitigation or remediation would be required. Therefore, the Proposed Action would have minor short-term adverse impacts related to hazardous materials

and long-term minor beneficial impacts.

5.13 Cumulative Impacts

This EA considers the overall cumulative impact of the proposed alternatives and other actions that are related in terms of time or proximity. According to CEQ regulations, cumulative impacts represent the impact to the environment which results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions regardless of what government agency (federal or non-federal) or private entity undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7). In addition to NEPA, other statutes require federal agencies to consider cumulative impacts. These include the CWA Section 404(b)(1) guidelines; the regulations implementing the conformity provisions of the CAA; the regulations implementing Section 106 of the NHPA; and the regulations implementing Section 7 of the ESA. If the alternative does not have direct or indirect effects for a particular resource, there can be no cumulative effects resulting from the project because there would be no impacts to add to past, present, or reasonably foreseeable actions.

FEMA broadly considers the potential for cumulative impacts based on the proposed action and experience with similar type projects. The Subrecipient is responsible for consulting with relevant federal, state, and local planning and regulatory agencies, and determining other actions that are underway or proposed, at or near, the project site that, in combination with the proposed project, could result in substantive cumulative impacts.

Independent of the Proposed Action, multiple projects are on-going, and/or planned within the general vicinity of the Proposed Action. These projects will serve to increase residential, commercial, and recreational facilities adjacent to the Project Area. Projects include:

Lighthouse Point (immediately adjacent to the St. George Ferry Terminal) – A 12-story, 94,000 square-foot residential development with a proposed 85,000 square feet of retail space. Construction was recently completed, and the site is operational.

New Stapleton Waterfront – A 35-acre mixed-use development that is currently underway to the south of the Tompkinsville Esplanade and Pier Project. The New Stapleton Waterfront Redevelopment Project includes creation of a continuous waterfront esplanade that would run generally between the extension of Greenfield Avenue to the south and the extension of Swan Street to the north and would connect to the southernmost section of the Tompkinsville Esplanade and Pier Project.

Mari Cali Dalton Recreation Center – A new recreation center that will also include expansion of an existing parking lot adjacent to Lyon's Pool. The project has completed NYC Environmental Quality Review Act (CEQR) Environmental Assessment Statement (EAS) lead by NYC Department of Parks and Recreation. Construction began at the end of February 2024. (The Mari Cali Dalton Recreation Center will replace the Tompkinsville Cromwell Recreation Center that

was demolished in 2013.)

The combination of all development projects, including those mentioned above, would have cumulative effects to the Tompkinsville Esplanade/Dockbuilders Pier Project Area, as specified in the previous paragraphs. However, FEMA does not anticipate substantive cumulative impacts on resources addressed in this EA due to construction of these projects. Implementation of BMPs and requirements identified through permitting are expected to limit individual and cumulative impacts for the Proposed Action. Mitigation measures to reduce impacts are addressed in each affected environment section and project conditions section.

6.0 PERMITS AND PROJECT CONDITIONS

The Subrecipient is responsible for obtaining and adhering to all applicable federal, state, and local permits and permit conditions, regulatory compliance, and other authorizations for project implementation prior to construction. Any substantive change to the approved scope of work will require re-evaluation by FEMA for compliance with NEPA and other environmental and historic preservation laws and EOs. The Subrecipient must also adhere to the following conditions during project implementation and consider the conservation recommendations. Failure to comply with grant conditions may jeopardize federal funds.

1. Any proposed construction in the floodplain must be coordinated with the local floodplain administrator and must comply with federal, state, and local floodplain laws and regulations.
2. Excavated soil and waste materials, including potentially hazardous wastes, must be managed and disposed of in accordance with applicable federal, state, and local regulations. Solid waste haulers will be required to have a NYSDEC waste hauler permit, and all waste will need to be disposed of or processed at a permitted facility.
3. If any threatened or endangered species are encountered in the project area, the Subrecipient must stop work and notify FEMA, and the agency will continue consultation with USFWS.
4. Preparation of a Stormwater Pollution Prevention Plan and adherence to the conditions of SPDES General Permit for Stormwater Discharges is required on project sites where the soil disturbance would be greater than or equal to one acre.
5. The Subrecipient and its contractors are required to use appropriate BMPs for construction not limited to sedimentation and erosion control measures, dust control, noise abatement and restriction of work areas to limit vegetation removal and habitat impacts.
6. In the event that unmarked graves, burials, human remains, or archaeological deposits are uncovered, the Subrecipient and its contractors will immediately halt construction activities in the vicinity of the discovery, secure the site, and take reasonable measures to avoid or minimize harm to the discovery. The Subrecipient will immediately inform DHSES and FEMA. Work in sensitive areas may not resume until consultations are completed or until an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards determines the extent and historic significance of the discovery.
7. Occupational Safety and Health Administration standards shall be followed during construction to avoid adverse impacts to worker health and safety.
8. BMPs will be used to limit NAAQS emissions during and after construction under USEPA guidelines.

The Proposed Action's adherence with all applicable federal, state, and local laws, regulations, and programs shall include the following permits, coordination and/or consultations, as required:

United States Army Corps of Engineers (USACE)

- Individual Permit under Section 10 of the Rivers and Harbors Act
- Individual Permit under Section 404 of the Clean Water Act

National Oceanic and Atmospheric Administration (NOAA) Fisheries

- Endangered Species Act, Section 7 Consultation

United States Fish and Wildlife Service (USFWS)

- Endangered Species Act, Section 7 Consultation

New York State Department of Environmental Conservation (NYSDEC)

- Water Quality Certification under Section 401 of the Clean Water Act

New York State Historic Preservation Office (NYSHPO)

- National Historic Preservation Act, Section 106 Consultation

Federal Emergency Management Agency (FEMA) Funding

- FEMA 428 Public Assistance grant program, which assists with funding for permanently restoring community infrastructure affected by federally declared emergency incidents

New York State Office of General Services (NYSOGS)

- Permits for State Owned Lands Under Water/Docks, Moorings or Platforms

New York State Department of Environmental Protection (NYSDEC)

- Article 25 Tidal Wetland Permit
- Article 15 Protection of Waters Permit: Excavation and Fill in Navigable Waters; Docks, Moorings or Platforms on, in or above navigable waters
- State Pollutant Discharge Elimination System (SPDES) Construction General Permit, Notice of Intent (NOI)
- Air Quality Permit

New York State Department of State (NYSDOS) Coastal Management Program (CMP)

- Coastal Consistency Review

New York City Department of City Planning (NYCDCP)

- City Environmental Quality Review (CEQR)
- Uniform Land Use Review Program (ULURP)
- New York City Map Amendments

New York City Waterfront Revitalization Program (WRP)

- Consistency Review

New York City Small Business Services (NYCSBS)

- Waterfront Construction Permit

New York City Public Design Commission (PDC)

- Review/Approval

New York City Capital Funding/New York City Neighborhood Defense Fund (NDF)

- Funding

New York City Department of Parks and Recreation (NYCDPR)

- Tree Permit and Construction Permit

New York City Department of Environmental Protection (NYCDEP)

- SWPPP and MS4 Construction Permit

New York City Department of Buildings (DOB)

- Building Code Variance

New York City Board of Standards and Appeals (BSA)

- Variances for Building, Energy, Plumbing, Fire and Mechanical Codes

7.0 AGENCY COORDINATION AND PUBLIC INVOLVEMENT

This EA will be available for agency and public review and comment for a period of 30 days. The public information process will include a public notice with information about the Proposed Action in the Staten Island Advance newspaper (print and online). The EA will also be available for review and download at https://www.fema.gov/emergency-managers/practitioners/environmental-historic/nepa-repository. Interested parties may request an electronic copy of the EA by emailing FEMA at FEMAR2COMMENT@fema.dhs.gov.

A hard copy of the EA will be available for review at the following location:

Stapleton Library
1322 Canal Street
Staten Island, NY 10304

This EA reflects the evaluation and assessment of the federal government, the decision maker for the federal action. FEMA will take into consideration any substantive comments received during the public review period to inform the final decision regarding grant approval and project implementation. The public is invited to submit written comments by emailing FEMAR2COMMENT@fema.dhs.gov or via mail to:

Federal Emergency Management Agency, Region 2 – DR-4085-NY
Attn: Environmental Planning and Historic Preservation
26 Federal Plaza
New York, NY 10278
RE: Tompkinsville Esplanade and Dockbuilders Pier Project

If FEMA receives no substantive comments from the public and/or agency reviewers, FEMA will adopt the EA as final, and FEMA will issue a Finding of No Significant Impact (FONSI). If FEMA receives substantive comments, it will evaluate and address comments and may consider whether changes to the grant or project implementation are appropriate.

8.0 SUMMARY OF IMPACTS

Section	Area of Evaluation	No Action Alternative	Proposed Action: Short-term / Temporary Impacts	Proposed Action: Long-term / Permanent Impacts
5.2	Geology	No Impact	No Impact	No Impact
5.2	Topography	Moderate Adverse	Moderate Beneficial	Moderate Beneficial
5.2	Soils	Moderate Adverse	Moderate Beneficial	Moderate Beneficial
5.3	Air Quality	No Impact	Minor Adverse	No Impact
5.4	Water Quality	Minor Adverse	Negligible Adverse	Negligible Adverse
5.5	Wetlands	No Impact	Negligible Adverse	Moderate Beneficial
5.6	Floodplains	Moderate Adverse	Negligible Adverse	Moderate Beneficial
5.7	Coastal Resources	Minor Adverse	Minor Adverse	Moderate Beneficial
5.8	Biological Resources-Threatened and Endangered Species (USFWS)	Minor Adverse	No Impact	No Impact
5.8	Biological Resources-Threatened and Endangered Species (NOAA)	Minor Adverse	Negligible to Minor Adverse	Negligible to Minor Adverse
5.8	Biological Resources-Essential Fish Habitat	Minor Adverse	Negligible to Minor Adverse	Negligible to Minor Adverse
5.9	Cultural Resources-Architectural	No Impact	Negligible Adverse	Negligible Adverse
5.9	Cultural Resources-Archaeological	No Impact	Negligible Adverse	Negligible Adverse
5.10	Aesthetics	No Impact	Minor Adverse	Moderate Beneficial
5.11	Noise	No Impact	Minor Adverse	Negligible Adverse
5.12	Hazardous Materials	Minor Adverse	Minor Adverse	Minor Beneficial

9.0 LIST OF PREPARERS

Federal Emergency Management Agency, Region 2
26 Federal Plaza
New York, NY 10278

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Appendix A: Figures

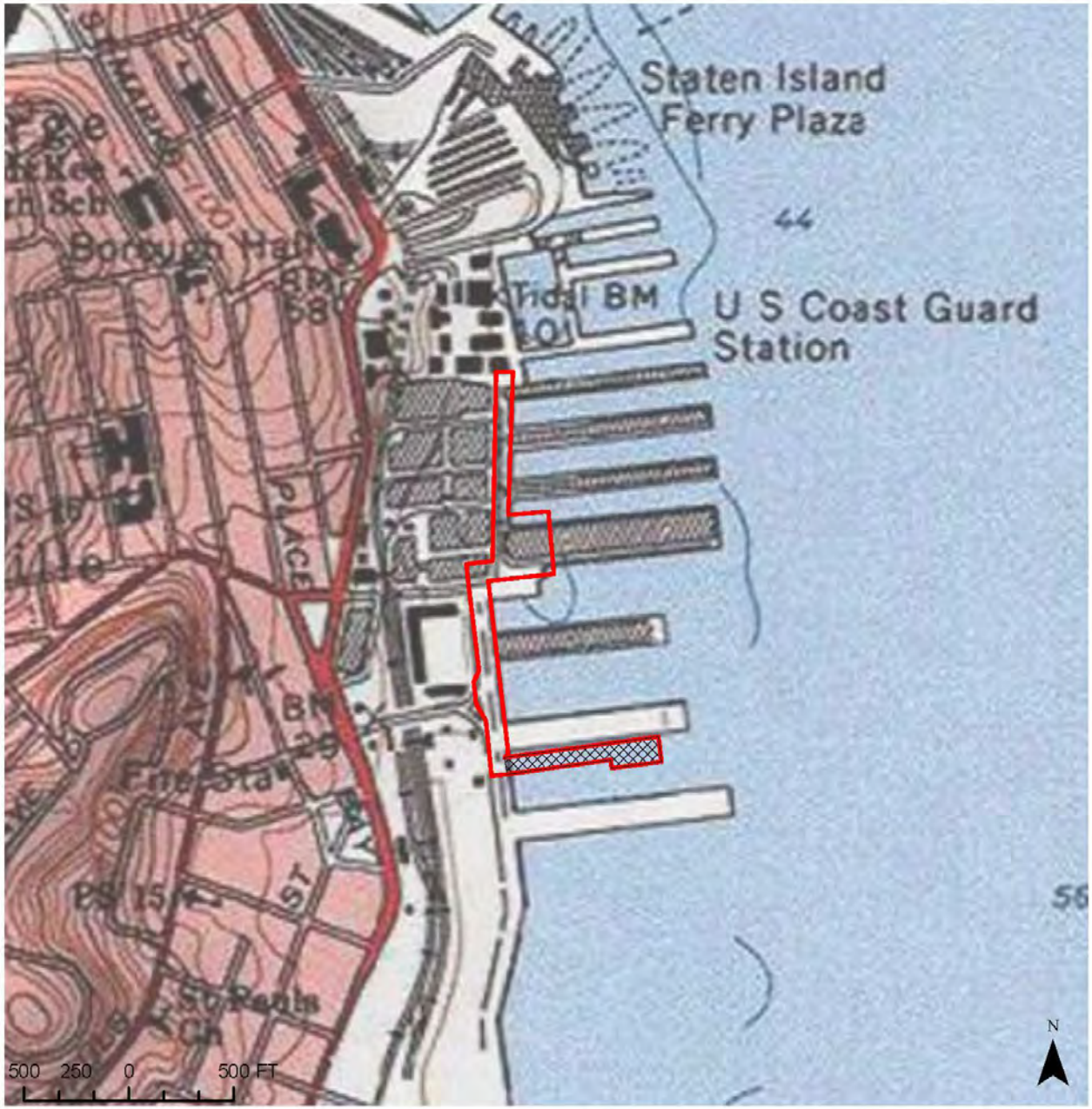
Figure 1, Project Site Location Map

Figure 2, USDA NRCS Soils Map

Figure 3, USGS Topographic Map

Project Site Boundary

Proposed DOT Dockbuilder's Pier

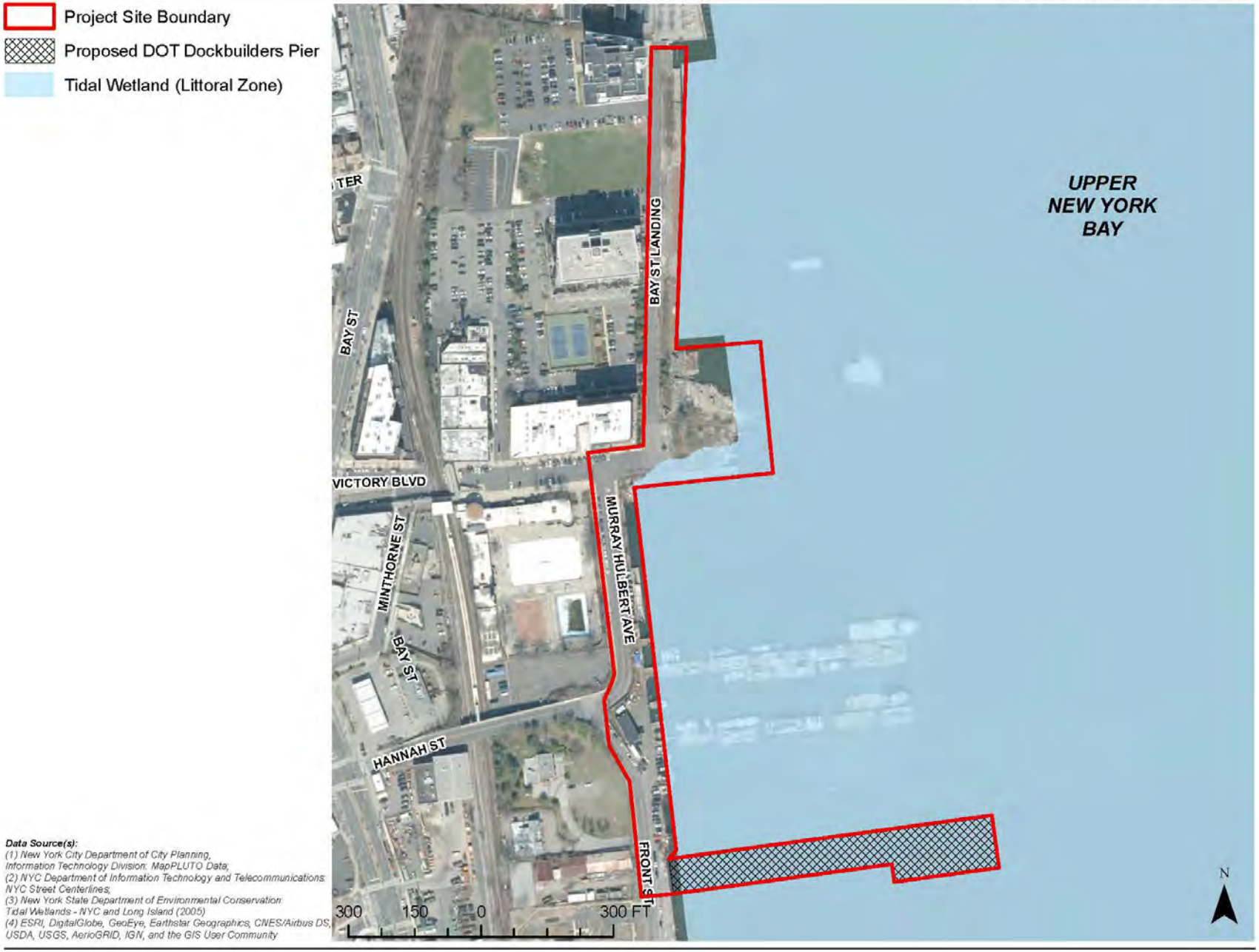


NOTES:
(1) The Project Site is located in the northeast quadrant of the Arthur Kill Quadrangle, NY-NJ.
(2) Approximate Project Site Coordinates: 40°38'16.57"N, 74° 4'23.91"W

Figure 4, USFWS NWI Wetlands Map

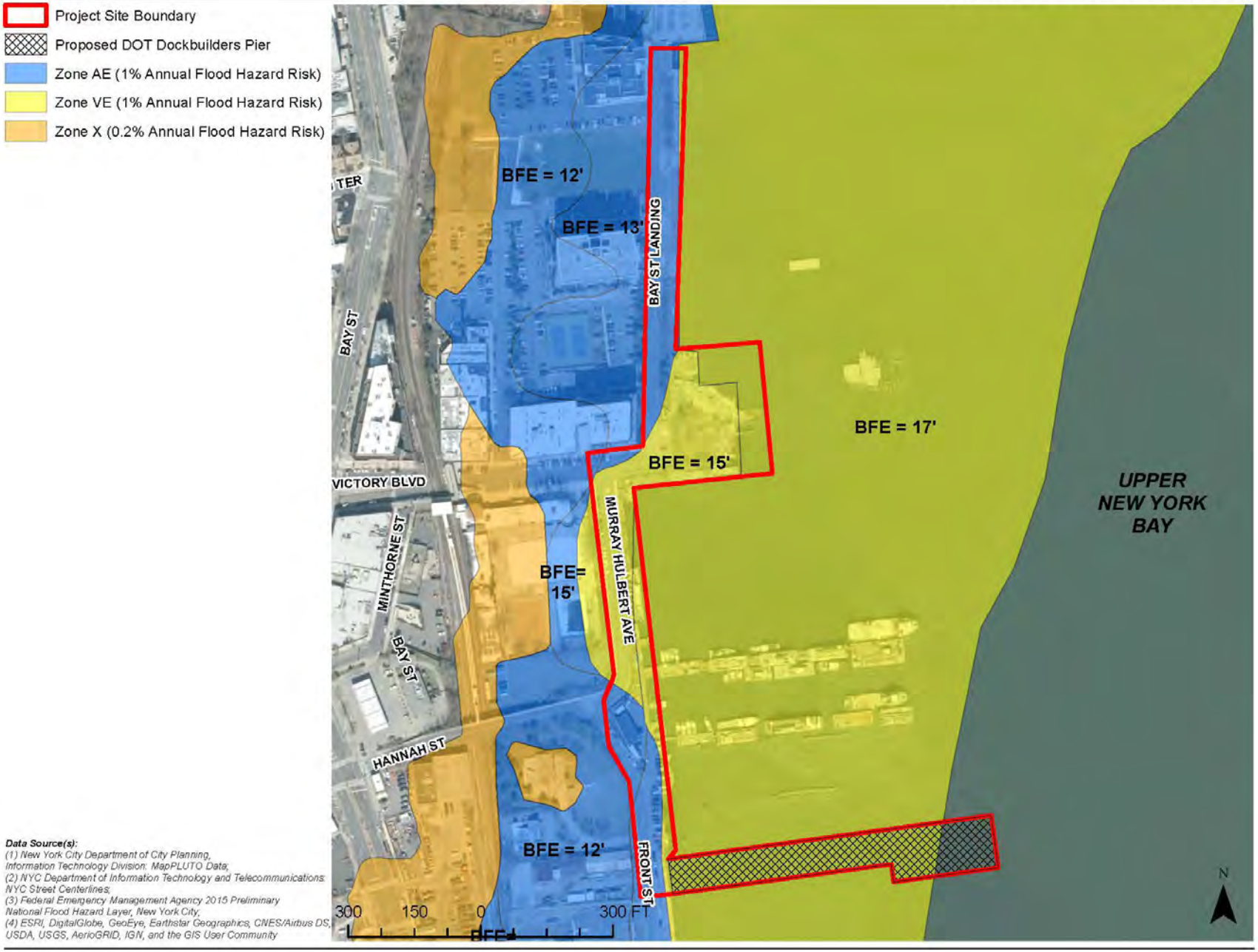
Data Source(s):
(1) New York City Department of City Planning, Information Technology Division: MapPLUTO Data;
(2) NYC Department of Information Technology and Telecommunications: NYC Street Centerlines;
(3) U.S Fish and Wildlife Service: USFWS National Wetlands Inventory (2021)
(4) ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 5, NYSDEC Tidal Wetlands Map



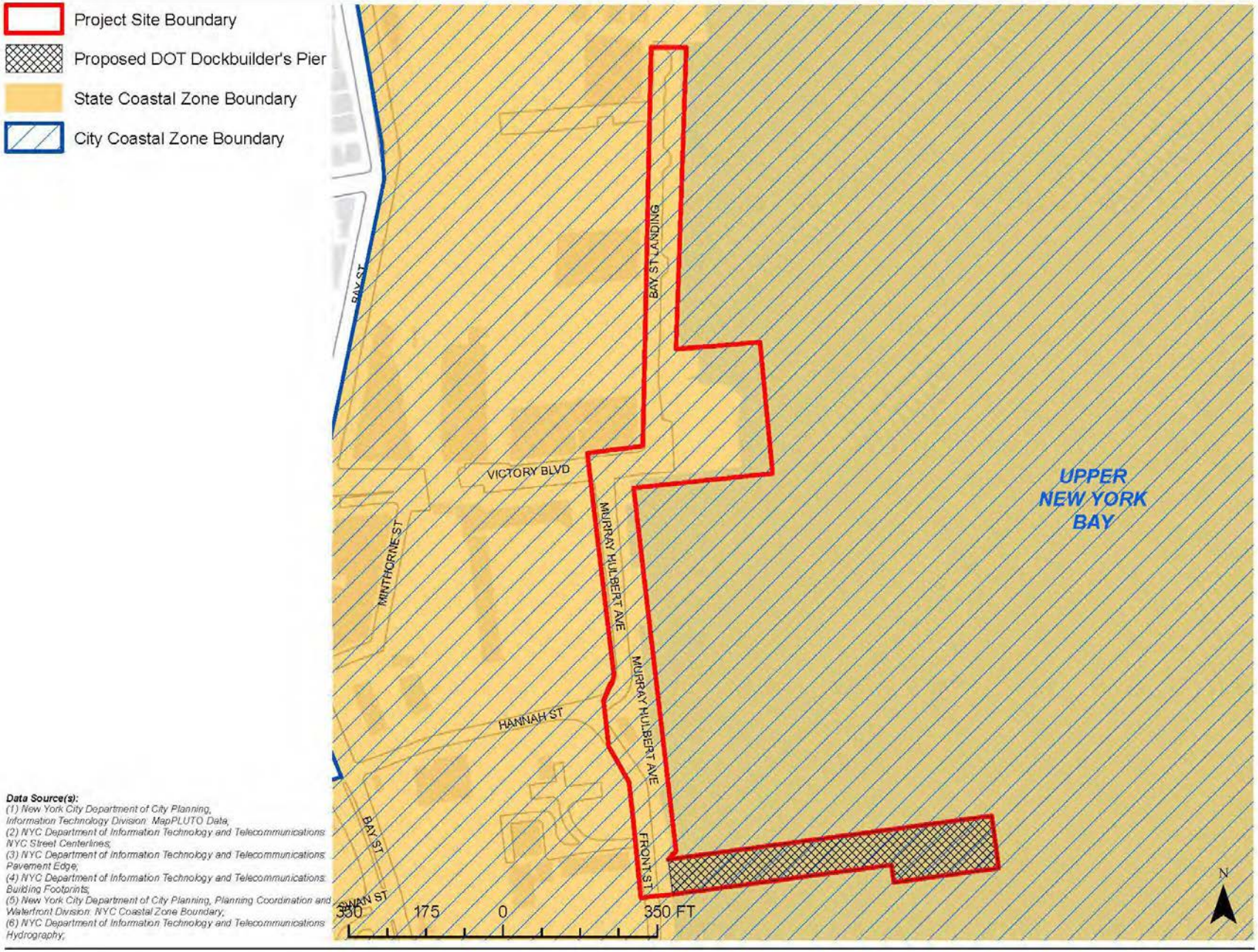
Data Source(s):
(1) New York City Department of City Planning, Information Technology Division: MapPLUTO Data;
(2) NYC Department of Information Technology and Telecommunications: NYC Street Centerlines;
(3) New York State Department of Environmental Conservation: Tidal Wetlands - NYC and Long Island (2005)
(4) ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 6, FEMA Preliminary FIRM Map



Data Source(s):
(1) New York City Department of City Planning, Information Technology Division: MapPLUTO Data;
(2) NYC Department of Information Technology and Telecommunications: NYC Street Centerlines;
(3) Federal Emergency Management Agency 2015 Preliminary National Flood Hazard Layer, New York City;
(4) ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 7, Coastal Zone Map

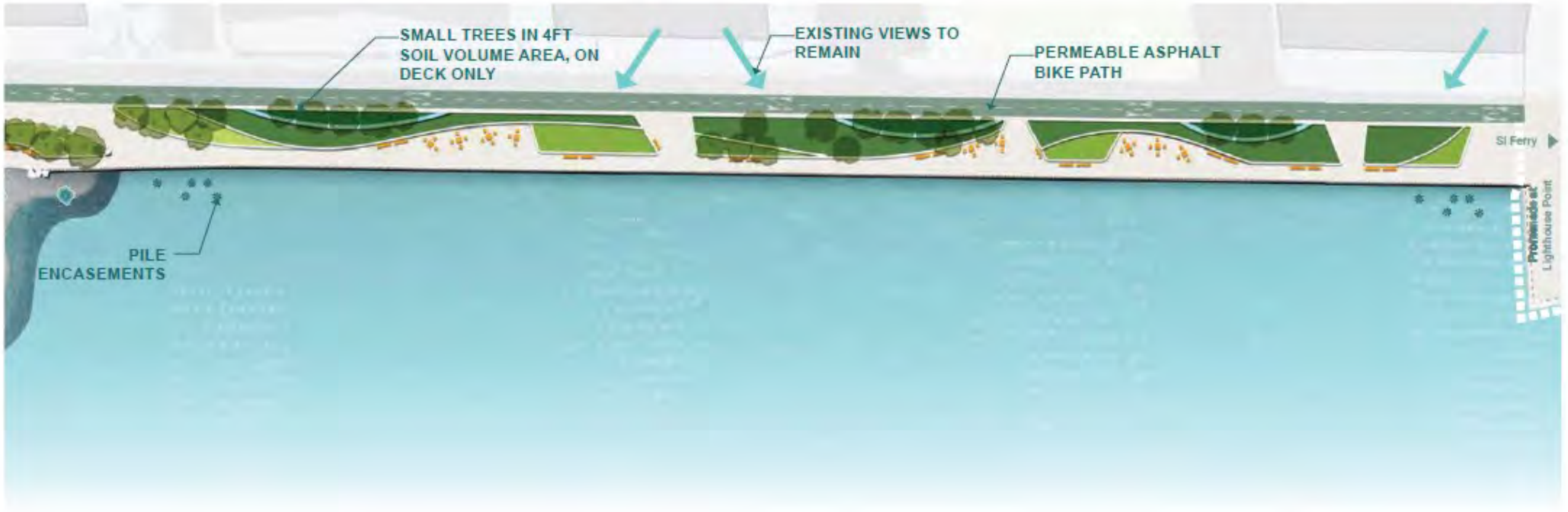


Data Source(s):
(1) New York City Department of City Planning, Information Technology Division: MapPLUTO Data;
(2) NYC Department of Information Technology and Telecommunications: NYC Street Centerlines;
(3) NYC Department of Information Technology and Telecommunications: Pavement Edge;
(4) NYC Department of Information Technology and Telecommunications: Building Footprints;
(5) New York City Department of City Planning, Planning Coordination and Waterfront Division: NYC Coastal Zone Boundary;
(6) NYC Department of Information Technology and Telecommunications: Hydrography;

ESPLANADE / Design Segments

NYC/EDC · NYC Parks · NEW YORK CITY DOT · Stantec · COWI · sagesandcoombearchitects

ESPLANADE / Enlargement at Bay Street Landing



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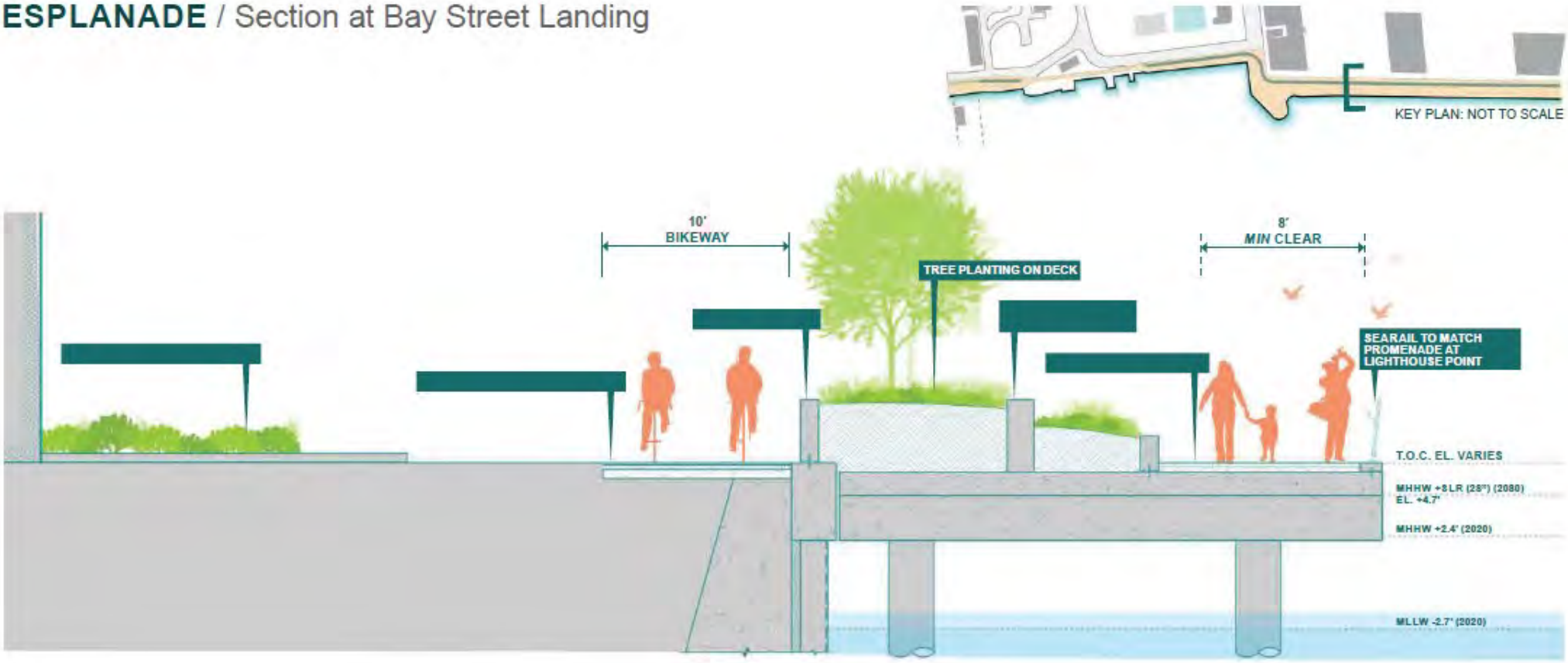
NYC/EDC NYC Parks NEW YORK CITY DOT Stantec COWI sageandcoombearchitects

ESPLANADE / Section at Bay Street Landing



ESPLANADE / View at Bay Street Landing

ESPLANADE / Enlargement at Victory Peninsula

ESPLANADE / Section at Victory Peninsula

ESPLANADE / View at Victory Peninsula

NYC/EDC NYC Parks NEW YORK CITY DOT Stantec COWI sageandcoombearchitects

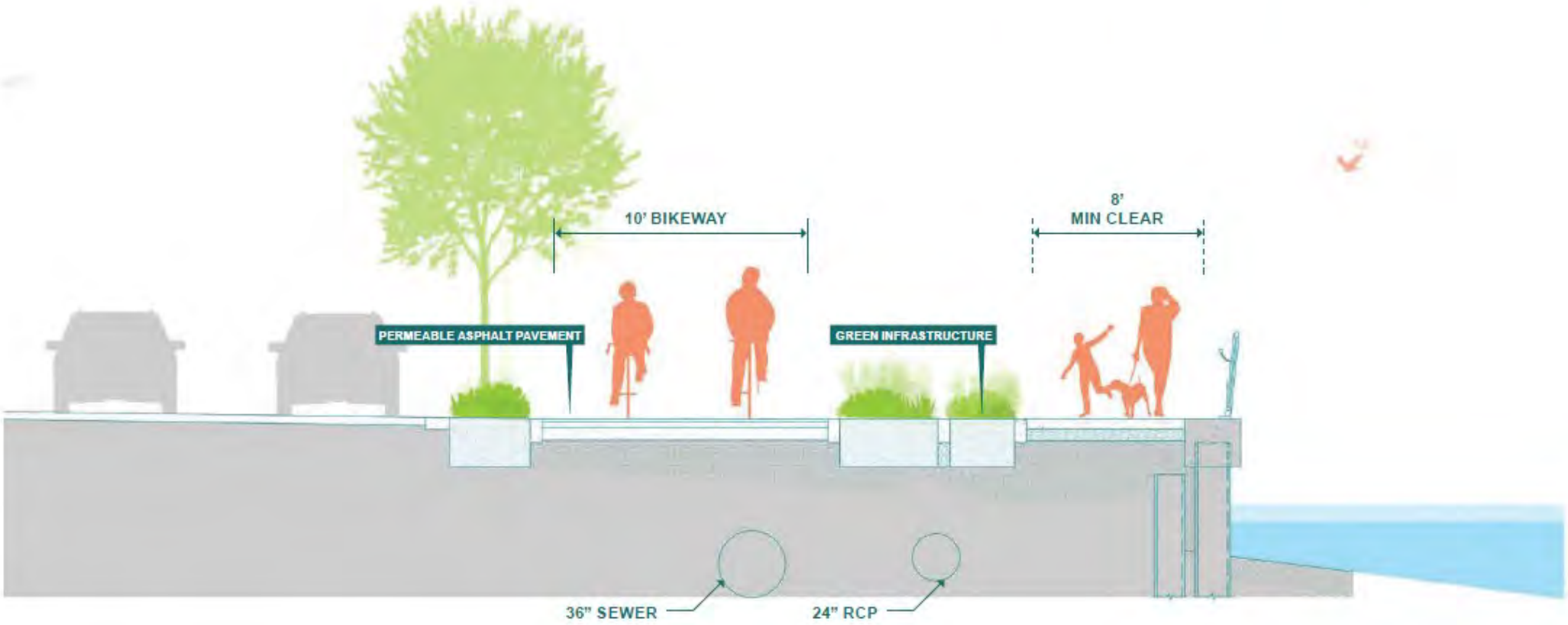
ESPLANADE / View 2 of Victory Peninsula

TOMPKINSVILLE ESPLANADE AND PIER | Figure 8.9

NYC/EDC NYC Parks NEW YORK CITY DOT Stantec COWI sageandcoombearchitects

ESPLANADE / Enlargement at Murray Hulbert Avenue

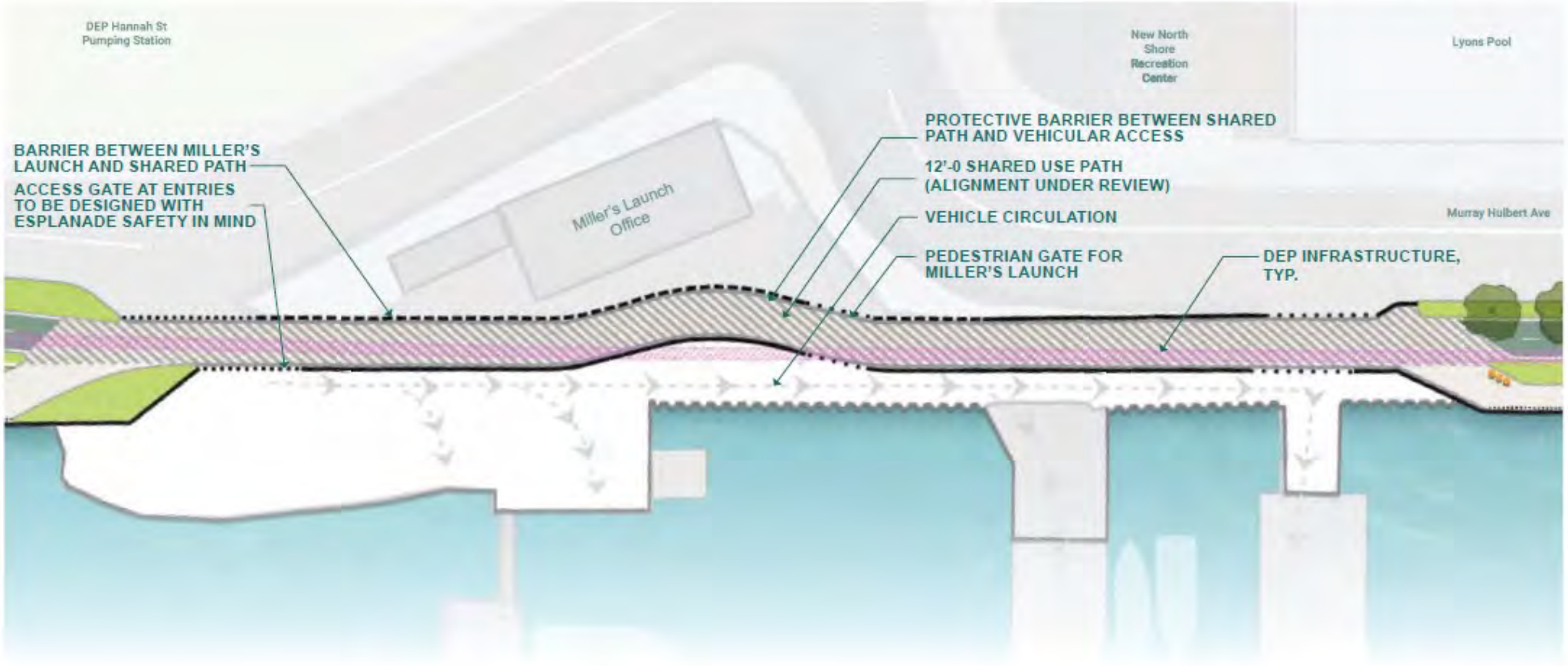
ESPLANADE / Section at Murray Hulbert Avenue



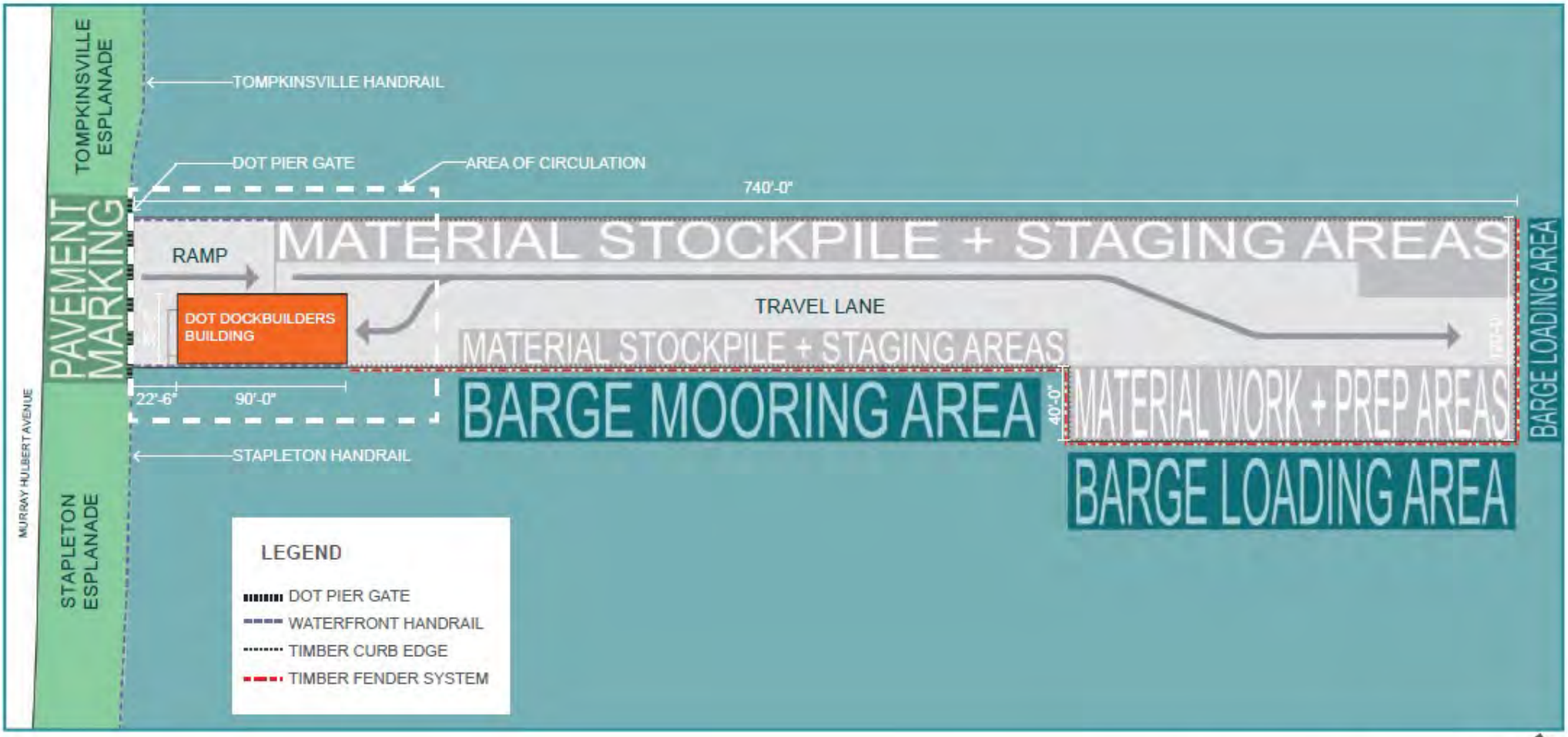
ESPLANADE / View at Murray Hulbert Avenue

NYC/EDC NYC Parks NEW YORK CITY DOT Stantec COWI sageandcoombearchitects

ESPLANADE / Enlargement at Miller's Launch



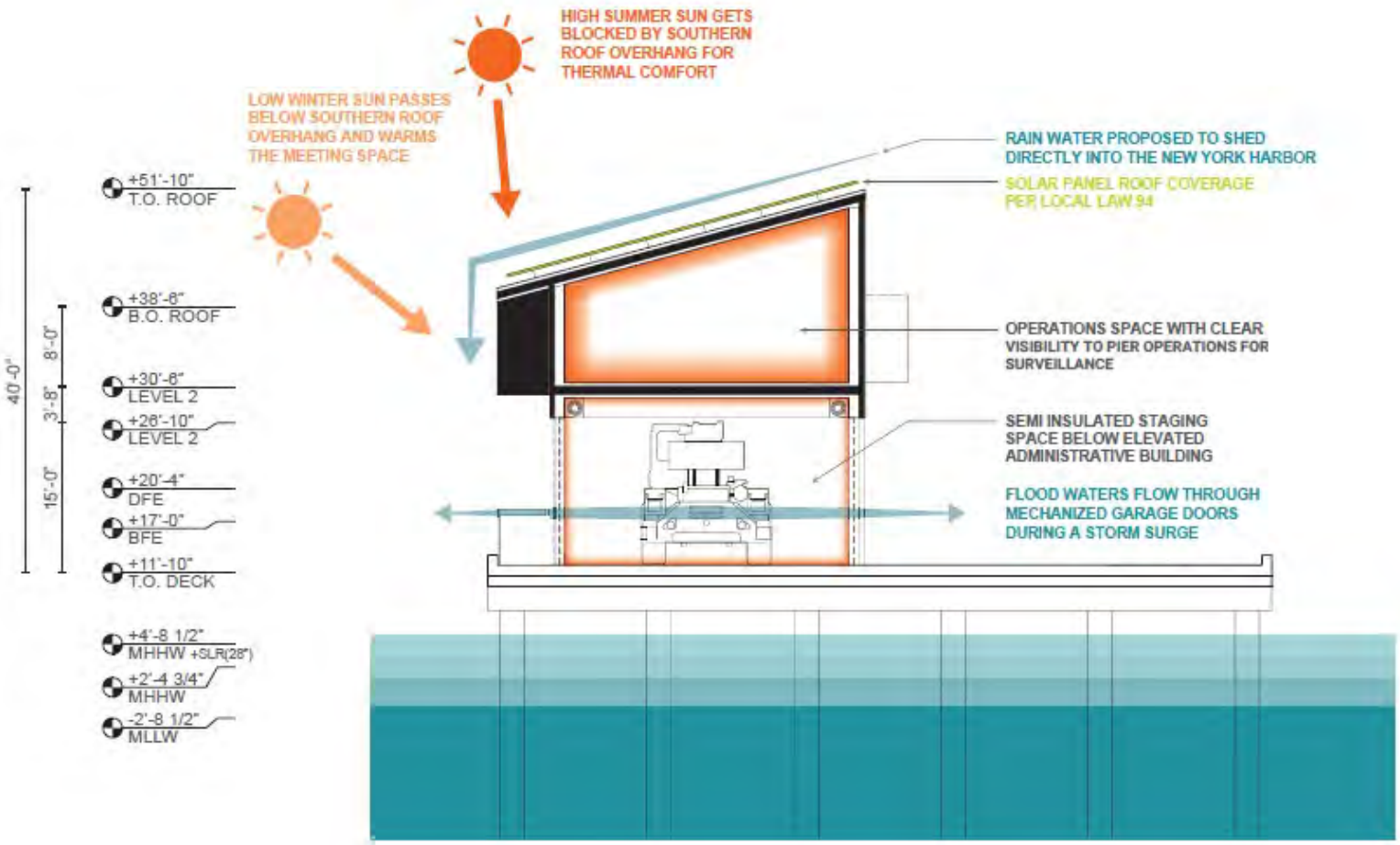
DOT PIER / Proposed Plan



DOT BUILDING / Environmental and Resiliency Section (Concept)

DFE CALCULATION

BFE (PFIRM V-ZONE)	+17'- 0"
FREEBOARD PER TABLE 4-1 APPENDIX G	+ 1'- 0"
SEA LEVEL RISE ADJUSTMENT (TABLE 3 MORR)	+ 28"
DFE (LOWEST SUPPORTING HORIZONTAL STRUCTURAL MEMBER OF THE LOWEST FLOOR)	+ 20'- 4"

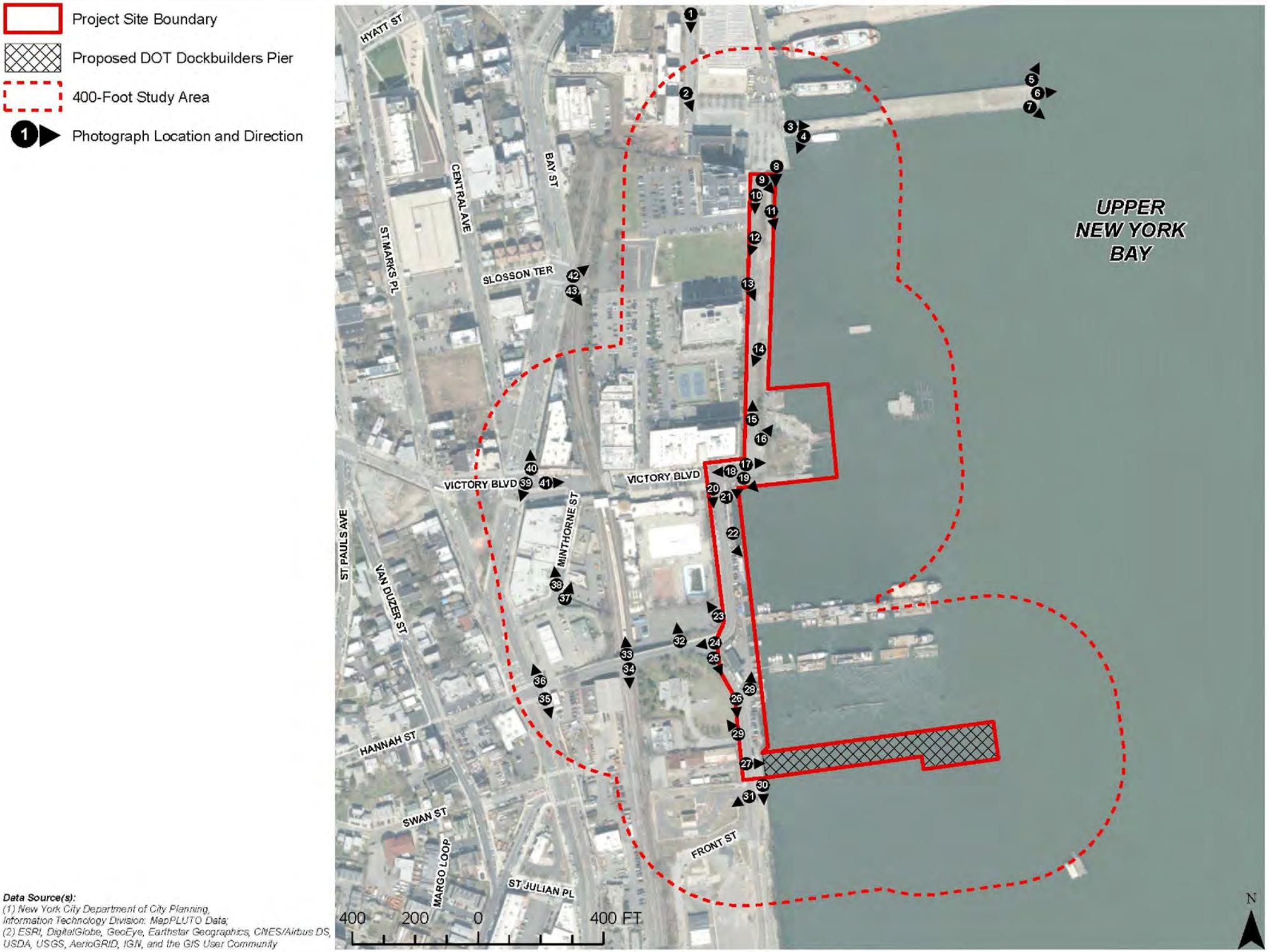


DOT BUILDING / Perspective View (Preliminary)

VIEW LOOKING SOUTHEAST

NYC/EDC NEW YORK CITY DOT Stantec COWI sageandcoombearchitects

Appendix B: Aesthetics Study Area and Photograph Key Map



Data Source(s):
(1) New York City Department of City Planning, Information Technology Division: MapPLUTO Data;
(2) ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

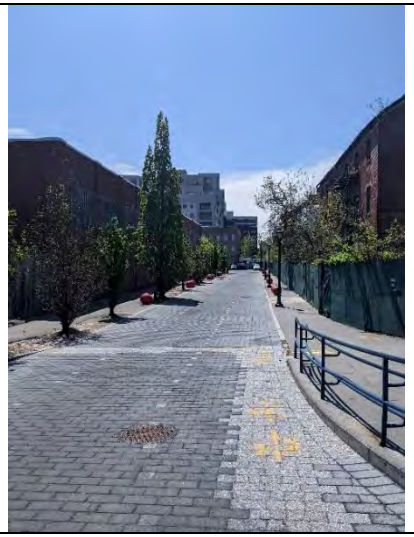


Photo No. 1: View looking south down the Promenade at Lighthouse Point in the northern Study Area.

Photo No. 2: View looking southeast toward the Lighthouse Museum at the Promenade at Lighthouse Point.

Photo No. 3: View looking east out onto the pier structure in the northern Study Area.

Photo No. 4: View looking at the northern Project Site from the pier structure, facing southwest.

Photographs taken May 12, 2022

Photo No. 5: View from the pier structure towards Manhattan and Brooklyn, facing northeast.

Photo No. 6: View from the pier structure towards Manhattan and Brooklyn, facing east.

Photo No. 7: View from the pier structure towards Brooklyn, Queens, and the Verrazano Bridge, facing southeast.

Photo No. 8: View of decayed and vacant pier infrastructure at the northern Project Site, facing south.

Photographs taken May 12, 2022

Photo No. 9: View of vacant and decayed waterfront infrastructure east of the Project Site at the northern Study Area, facing southeast.

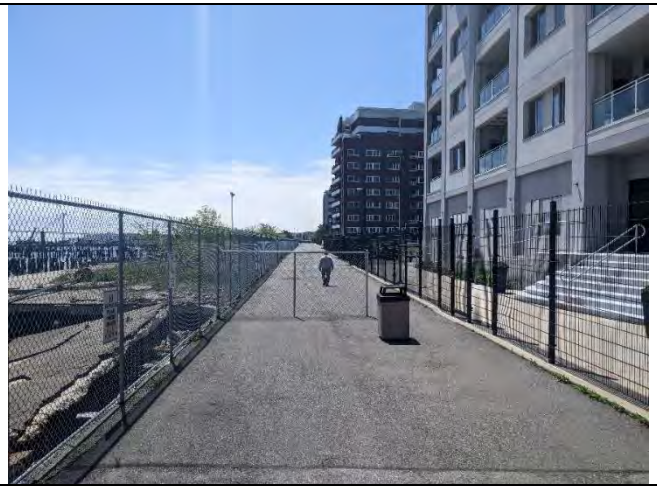


Photo No. 10: View looking south along the Promenade at Light House Point in the northern Project Site.

Photo No. 11: View of vacant and decayed infrastructure at the northern Project Site, facing southeast.

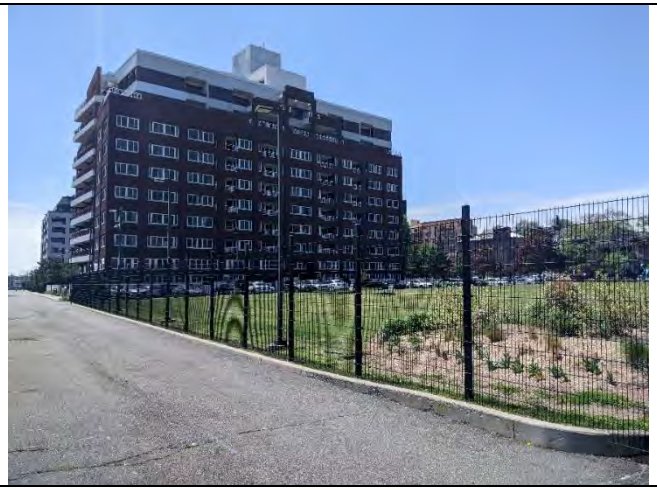


Photo No. 12: View of residential development west of the northern Project Site, facing southwest.

Photographs taken May 12, 2022

Photo No. 13: View of vacant and decayed infrastructure at the northern-central Project Site, facing southeast.

Photo No. 14: View of residential development west of the northern-central Project Site.

Photo No. 15: View looking north along the Promenade at Light House Point from the northern-central Project Site.

Photo No. 16: View of vacant and decayed infrastructure at the northern-central Project Site, facing northeast.

Photographs taken May 12, 2022

Photo No. 17: View of vacant and decayed infrastructure at the Victory Boulevard segment of the Project Site, facing east.

Photo No. 18: View along Victory Boulevard facing west from the Victory Boulevard segment of the Project Site.

Photo No. 19: View of vacant and decayed infrastructure at the Victory Boulevard segment of the Project Site, facing southeast.

Photo No. 20: View of the Project Site looking south along Murray Hulbert Avenue, from the Victory Boulevard segment of the Project Site.

Photographs taken May 12, 2022

Photo No. 21: View of vacant and decayed infrastructure at the Victory Boulevard segment of the Project Site, facing northeast.

Photo No. 22: View of vacant and decayed infrastructure east of the southern-central Project Site, facing southeast.

Photo No. 23: View of the Lyons Pool Recreation Center, facing northwest from the Project Site.

Photo No. 24: View looking west down Hannah Street from the southern-central Project Site.

Photographs taken May 12, 2022

Photo No. 25: View looking south down Murray Hulbert Avenue at Hannah Street from within the southern-central Project Site.

Photo No. 26: View looking south down Murray Hulbert Avenue in the southern Project Site.

Photo No. 27: View looking east from within the southern Project Site at the area of the proposed NYCDOT Dockbuilders Pier.

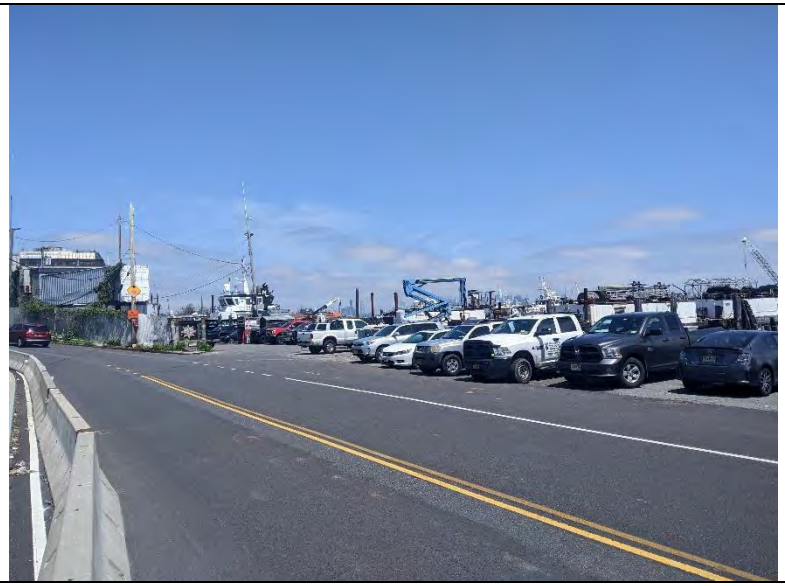


Photo No. 28: View looking north down Murray Hulbert Avenue at the Miller's Launch segment of the Project Site.

Photographs taken May 12, 2022

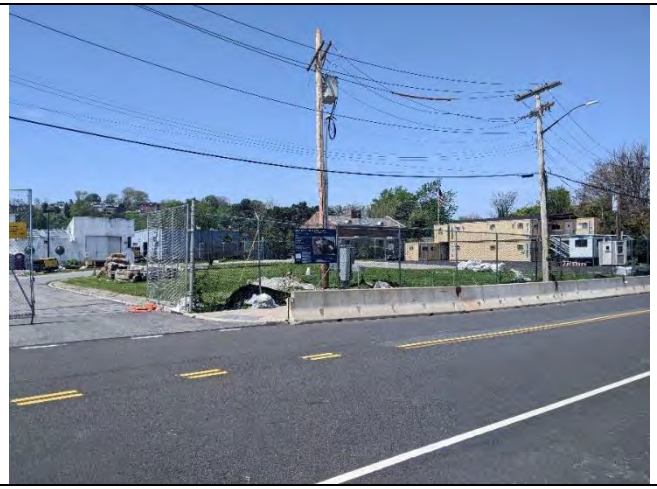


Photo No. 29: View of NYCDEP facilities adjacent to the southern Project Site, looking northwest from Murray Hulbert Avenue.

Photo No. 30: View of vacant and decayed waterfront infrastructure at the southern Project Site, looking southeast from Murray Hulbert Avenue.

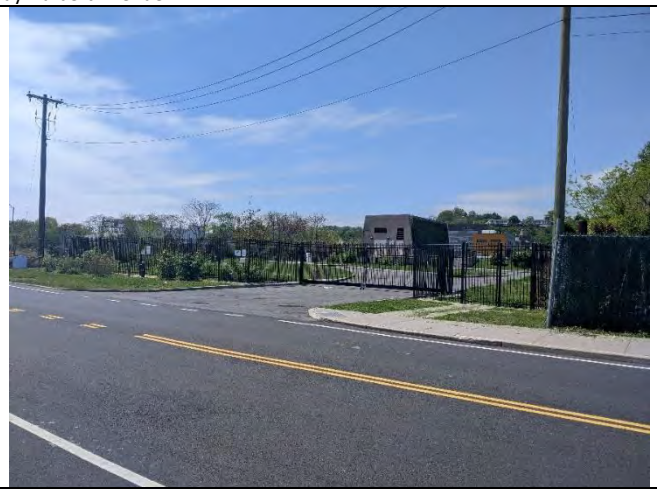


Photo No. 31: View of NYCDEP facilities adjacent to the southern Project Site, looking southwest from Murray Hulbert Avenue.

Photo No. 32: View of the Lyons Pool Recreation Center, looking north from the Hannah Street overpass with the Study Area.

Photographs taken May 12, 2022

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Photo No. 33: View of the Staten Island Railway track infrastructure west of the Project Site within the Study Area, looking north from the Hannah Street overpass.</td><td>Photo No. 34: View of the Staten Island Railway track infrastructure west of the Project Site within the Study Area, looking south from the Hannah Street overpass.</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Photo No. 35: View looking south down Bay Street from Hannah Street in the western Study Area.</td><td>Photo No. 36: View looking north down Bay Street from Hannah Street in the western Study Area.</td></tr>
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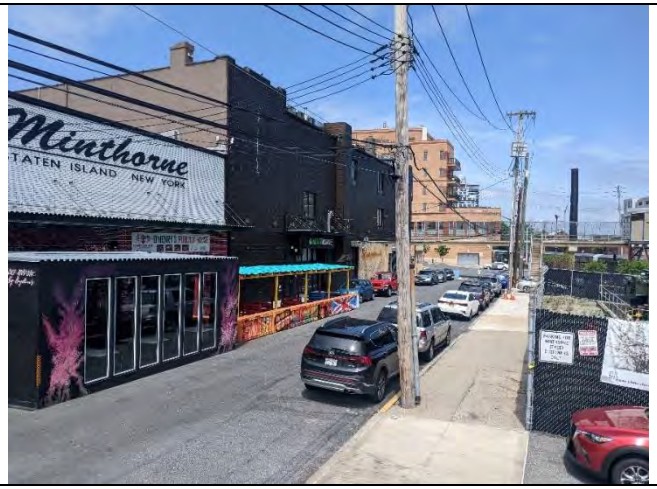
<tr><td>  </td><td> 
</td></tr>
<tr><td>Photo No. 37: View of the Staten Island Railway Tompkinsville Station, facing north along Minthorne Street in the western Study Area.</td><td>Photo No. 38: View of commercial development along Minthorne Street in the western Study Area.</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Photo No. 39: View of commercial development along Bay Street in the western Study Area, facing south from Victory Boulevard.</td><td>Photo No. 40: View of commercial development along Bay Street in the western Study Area, facing north from Victory Boulevard.</td></tr>
<tr><td colspan="2">Photographs taken May 12, 2022</td></tr>
</table>

Photo No. 41: View of Victory Boulevard in the western Study Area, facing east from Bay Street.

Photo No. 42: View of the northwestern Study Area from Bay Street, facing northeast from the western Study Area.

Photo No. 43: View of the northern central Study Area from Bay Street, facing northeast from the western Study Area.

Photographs taken May 12, 2022

Appendix C: Agency Coordination

NOAA Fisheries Section 7 [ESA]

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930

November 9, 2022

James Zwolak
EHP Advisor
U.S. Department of Homeland Security
Federal Emergency Management Agency
FEMA Region 2
26 Federal Plaza, Suite 1307
New York, New York 10007

Re: FEMA-4085-DR-NY Hurricane Sandy: PW4458 NYC EDC Dockbuilders Pier and Tompkinsville Esplanade

Dear Mr. Zwolak:

We have completed our consultation under section 7 of the Endangered Species Act (ESA) in response to your emails received on July 18, 2022, August 19, 2022, and October 18, 2022, regarding the above-referenced proposed project. We reviewed your consultation request document and related materials. Based on our knowledge, expertise, and your materials, we concur with your conclusion that the proposed action is not likely to adversely affect any National Marine Fisheries Service ESA-listed species or designated critical habitat. Therefore, no further consultation pursuant to section 7 of the ESA is required.

We would like to offer the following clarifications to complement your incoming request for consultation. Sea turtles could be in the action area during the warmer months of May through November. For the noise effects analysis, the distance to the sea turtle behavioral threshold (175 dB_{RMS}) when driving the 24" AZ Steel Sheet piles with an impact hammer is 40 meters and the injury threshold will not be exceeded. Therefore, we agree with your analysis that sea turtles are expected to modify their behavior at 40 meters and thus, the effects of noise to sea turtles are too small to be meaningfully measured or detected and are insignificant. In regards to the effects of entrapment, we expect sea turtles to be able to swim around the turbidity curtain and avoid any impacts from any in-water excavation work. Therefore, the effects of entrapment for sea turtles are extremely unlikely and are thus, discountable.

While dredging is not proposed as part of the project, we understand that that you included the Total Suspended Sediment levels for dredging as a proxy for the in-water excavation work. Therefore, we agree with your analysis and determination that the effects of turbidity from in-water excavation are too small to be measured or detected, and are thus, insignificant.

On July 5, 2022, the U.S. District Court for the Northern District of California issued an order vacating the 2019 regulations that were revised or added to 50 CFR part 402 in 2019 ("2019 Regulations," see 84 FR 44976, August 27, 2019) without making a finding on the merits. On

September 21, 2022, the U.S. Court of Appeals for the Ninth Circuit granted a temporary stay of the district court's July 5 order. As a result, the 2019 regulations are once again in effect, and we are applying the 2019 regulations here. For purposes of this consultation, we considered whether the substantive analysis and conclusions articulated in the letter of concurrence would be any different under the pre-2019 regulations. We have determined that our analysis and conclusions would not be any different.

Reinitiation of consultation is required and shall be requested by the lead federal agency or by us, where discretionary federal involvement or control over the action has been retained or is authorized by law and: (a) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the consultation; (b) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this consultation; or, (c) If a new species is listed or critical habitat designated that may be affected by the identified action. No take is anticipated or exempted. If there is any incidental take of a listed species, reinitiation would be required. Should you have any questions about this correspondence please contact Edith Carson-Supino at (978) 282-8490 or by email (Edith.Carson-Supino@noaa.gov). For questions related to Essential Fish Habitat, please contact Jessie Murray with our Habitat and Ecosystems Services Division at (978)-675-2175 or Jessie.Murray@noaa.gov.

Sincerely,

Jennifer Anderson
Assistant Regional Administrator
for Protected Resources

cc: Bartowitz, FEMA; Murray, NMFS/HESD
ECO: GARFO-2022-02710
File Code: H:\Section 7 Team\Section 7\Non-Fisheries\FEMA\Informals\2022\FEMA-4085-DR-NY PW4458 NYC EDC Dockbuilders Pier Tompkinsville Esplanade Upper NY

NOAA Fisheries EFH [MSA]

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
GREATER ATLANTIC REGIONAL FISHERIES OFFICE
55 Great Republic Drive
Gloucester, MA 01930

November15, 2023

James Zwolak
EHP Advisor, Hurricane Sandy NY
U.S. Department of Homeland Security
Federal Emergency Management Agency
FEMA Region II
One World Trade Center
205 Fulton Street
New York, New York 10007

RE: Essential Fish Habitat Consultation, FEMA-4085-DR-NY Hurricane Sandy: PW4458
NYC EDC Tompkinsville Esplanade and Dockbuilders Pier

Dear Mr. Zwolak:

We have finished reviewing the revised essential fish habitat assessment (EFH) provided to us on October 20, 2023, to reconstruct and increase the resiliency of the Tompkinsville Esplanade and construct a new pier for the New York City Department of Transportation (NYCDOT) Dockbuilders operations on Upper New York Bay in Richmond County, Staten Island, New York. Project components are to be implemented with financial assistance from the Federal Emergency Management Agency's (FEMA) Public Assistance (PA) Program by the New York State Division of Homeland Security and Emergency Services (NYSDHSES) (Applicant) and the New York City Economic Development Corporation (NYCEDC) (Sub-Applicant). The proposed project consists of rehabilitating the waterfront infrastructure previously damaged by Hurricane Sandy, providing resiliency upgrades in anticipation of future storm surge flooding and sea level rise, providing public accessibility to the waterfront, and constructing a new pier with a two-story building for the NYCDOT Dockbuilders water-dependent operations.

Project activities include the rehabilitation of the waterfront by demolishing and removing storm debris, damaged bulkheads, and derelict structures such as damaged platforms and pier remnants. Additional activities include constructing a new 2,100-linear foot waterfront esplanade, a new 742-foot long by 80- to 120-foot-wide pier, and a 30- by 90-foot two-story building atop the pier. Most work is anticipated to be completed using heavy equipment staged upland and within the project area. However, work barges will also be used for excavators to demolish and remove debris and to install piles. The applicant proposes to disturb 0.46-acres of unconsolidated shoreline for the installation of piles and esplanade features (e.g., bulkhead, platform) and shade 1.58-acres of open water for the new NYCDOT Dockbuilders Pier. To compensate for shading, the applicant proposes to remove 0.34-acres of existing over-water structures, and create 0.72-acres of open water through debris removal. Project activities are anticipated to take two years to complete.

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act (MSA) and the Fish and Wildlife Coordination Act (FWCA) require federal agencies to consult with one another on projects such as this that may adversely affect EFH and other aquatic resources. In turn, we must provide recommendations to conserve EFH. These recommendations may include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH resulting from actions or proposed actions authorized, funded, or undertaken by that agency. This process is guided by the requirements of our EFH regulation at 50 CFR 600.905, which mandates the preparation of EFH assessments and generally outlines each agency's obligations in this consultation procedure.

As discussed in our previous letters, EFH has been designated in the project area for a number federally managed species including bluefish (*Pomatomus saltatrix*), winter flounder (*Pseudopleuronectes americanus*), summer flounder (*Paralichthys dentatus*), windowpane flounder (*Scophthalmus aquosus*), Atlantic herring (*Clupea harengus*), Atlantic butterfish (*Peprilus triacanthus*), clearnose skate (*Raja eglanteria*), little skate (*Leucoraja erinacea*), red hake (*Urophycis chuss*), winter skate (*Leucoraja ocellata*), and longfin inshore squid (*Doryteuthis pealeii*).

We have provided technical assistance in a variety of emails, letters, meetings, and a site visit between August 2022 and August 2023. We appreciate the coordination between our agencies, the sub-applicant, and their consultants to work through our concerns, which included clarification on the project's effect on the existing habitat at the site and mitigation. Through this coordination, we were able to mutually agree on the removal of 0.34-acres of existing over-water structures, and creation of 0.72-acres of open water areas through debris removal to compensate for the 1.58-acres of shading.

Additionally, the proposed project may adversely affect EFH for the sensitive life stages of winter flounder. While specific details related to the avoidance of in-water work windows was not discussed, the EFH assessment mentioned that time of year restrictions will be implemented upon recommendation. As mentioned in our previous technical assistance, we generally recommend sediment disturbing in-water work be avoided when winter flounder eggs and larvae may be present between January 15 and May 31 in NY Harbor. This includes activities related to debris removal and construction.

Essential Fish Habitat Conservation Recommendations

Pursuant to Section 305(b)(4)(A) of the MSA that you adopt the following EFH conservation recommendations to minimize or offset adverse impacts on EFH:

- Avoid in-water work when winter flounder eggs and larvae may be present yearly between January 15 and May 31.

Please note that Section 305(b)(4)(B) of the MSA requires the FEMA to provide us with a detailed written response to these EFH conservation recommendations, including a description of measures adopted by the FEMA for avoiding, mitigating, or offsetting the impact of the project

on EFH. In the case of a response that is inconsistent with our recommendations, Section 305(b)(4)(B) of the MSA also indicates that the FEMA must explain its reasons for not following the recommendations. Included in such reasoning would be the scientific justification for any disagreements with us over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects pursuant to 50 CFR 600.920(k). This response must be provided within 30 days after receiving our EFH conservation recommendations and at least 10 days prior to final approval of this action. Please also note that further EFH consultation must be reinitiated pursuant to 50 CFR 600.920 (j) if new information becomes available, or if the project is revised in such a manner that affects the basis for above determination.

Conclusion

We look forward to your response to our EFH recommendations on this project. As always, please do not hesitate to contact Jessie Murray (Jessie.Murray@noaa.gov, 732-872-3116) in our Sandy Hook field office if you have any questions or need assistance.

Sincerely,

Louis A. Chiarella
Assistant Regional Administrator
for Habitat and Ecosystem Services

cc:

GARFO HESD – K. Greene
GARFO PRD – E. Carson-Supino
FEMA – K. Bartowitz
New York District ACOE – S. Ryba, C. Minck
NYDEC – J. Socrates, C. Bauer
FWS – S. Sinkevich, S. Papa
EPA Region II – M. Finocchiaro
NEFMC – C. O'Keefe
MAFMC – C. Moore
ASMFC – R. Beal

Essential Fish Habitat Time of Year Restriction Revision Request
[NOAA Fisheries]

From:	Jessie Murray - NOAA Federal
To:	Zwolak, James
Cc:	Minck, Christopher W CIV USARMY CENAN (USA); Brooke Wieczorek; Shabnam Bista; Edith Carson-Supino - NOAA Federal; Karen Greene - NOAA Federal
Subject:	Re: NAN-2022-00945-EMI - Tompkinsville Esplanade Permit - Winter Flounder TOYR
Date:	Thursday, October 31, 2024 3:30:20 PM
Attachments:	

Good afternoon

We have finished reviewing the waiver request to conduct in-water work (i.e.,debris removal, replacement of existing bulkheading, installation of
steel piles, construction of elevated esplanade platform and replenishment of rip-rap and placement of armor stone) during the recommended winter flounder early life stage protective window (January 15 - May 31) related to the Tompkinsville Esplanade and NYCDOT Pier Project. Based on the location of the work, which is primarily in disturbed intertidal areas, and the proposed avoidance and minimization measures, which includes working during low/lower tides, we are amenable to this request.

We appreciate the continued coordination on this project.

Thank you
Jessie

USFWS Section 7 [ESA]

Environmental & Historic Preservation
Region II - WTC
285 Fulton Street, 53rd Floor
New York, NY 10007

Memo to File
FEMA 4085 DR NY

MEMORANDUM to: File

Prepared by: FEMA Region 2 EHP

Date: 08/17/2022

Sub-applicant: NY Office of Management & Budget

Project Name: PA-02-NY-4085-PW-4458: UI9BL70 - SI Homeport & Bush Terminal - RC PAAP (NYCEDC)

Proposed Action: The 2,100 LF waterfront esplanade would extend along Bay Street Landing, Victory Peninsula, a segment of Murray Hulbert Avenue, and then through Miller's Launch and past the proposed location of the new NYCDOT Dockbuilders Pier to the prolongation of Swan Street where the esplanade's southern terminus would link up with the northern-most extent of the New Stapleton Waterfront Redevelopment Project.

The new pier would be at the southern terminus of the proposed esplanade just south of Miller's Launch. As designed, the pier would consist of a 502-foot-long by 80-foot-wide initial section extending outward from the shoreline followed by a 240-foot-long by 120-foot-wide section extending to the easternmost (waterward) limit of the pier for a total overall pier length of 742 feet.

Environmental and Historic Preservation Notes: Informal Consultation with the U.S. Fish and Wildlife Service (USFWS) was initiated on 07/15/2022 under the Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.). No response from USFWS was received within 30 days.

Determination: FEMA has determined that the proposed scope of work will result in no effect, no suitable habitat to any protected species under the ESA. Based on no response from USFWS within 30 days, FEMA intends to proceed with assumed concurrence with the findings of the consultation.

NYSDOS CZMA Consultation

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001
HTTPS://DOS.NY.GOV

KATHY HOCHUL
GOVERNOR

ROBERT J. RODRIGUEZ
SECRETARY OF STATE

April 19, 2023

Robert Fiorile
Matrix New World Engineering
26 Columbia Turnpike
Florham, NJ 07932

Re: F-2022-0831
U.S. Army Corps of Engineers/ New York District
Permit Application – New York City Economic Development Corporation
Tompkinsville Esplanade and NYCDOT Dockbuilders Pier Project
Project site is located within and adjacent to the west of the Upper New York Bay (New York Harbor), with the project's northern terminus located directly to the south of the National Lighthouse Museum located at 200 Promenade at Lighthouse Point, City of New York, Richmond County
Concurrence with Consistency Certification

Dear Robert Fiorile:

The Department of State received your Federal Consistency Assessment Form and consistency certification and supporting information for the above-referenced proposal on 10/19/2022 and has completed its review of your consistency certification regarding the consistency of this activity with the New York Coastal Management Program. The proposed project includes two main components which contains the esplanade and the pier.

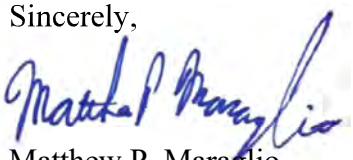
- Esplanade
  - A 2,100 LF waterfront esplanade will extend along Bay Street Landing, Victory Peninsula, a segment of Murray Hulbert Avenue, and then through Miller's Launch and past the proposed location of the new NYCDOT Dockbuilders Pier to the prolongation of Swan Street where the esplanade's southern terminus will link up with the northern-most extent of the New Stapleton Waterfront Redevelopment Project.
  - Bay Street Landing Segment
    - On the Bay Street landing segment, a new steel sheet pile bulkhead will be installed in front of (i.e., over-sheeting) the existing concrete seawall.
  - Victoria Peninsula
    - At the Victoria Boulevard segment, demolition of the existing and crumbling Pier 5A, debris removal at Pier 5, and earth fill excavation and installation of a riprap revetment will allow the peninsula to be rebuilt to support a broad, park-like section of the esplanade.
    - Embedded within the riprap of the revetment at random spacing will be at least 12 ECOncrete Tide Pools.
    - An existing NYCDEP stormwater drainage vault and conduit within Victory Boulevard will require modification of the drainage conduit that discharges from the vault. The conduit will be shortened, and a new outfall and headwall will be constructed within the riprap revetment.

- Murray Hulbert Avenue Segment
  - Existing storm debris, concrete, and fencing will need to be removed, and existing marine structures will be demolished and removed. A new steel sheet pile bulkhead with concrete pile cap will be driven into the substrate in front of the existing bulkhead to a top elevation of +6.7 feet (NAVD88). The new bulkhead concrete pile caps will be installed at elevation of +4.7 feet.

- NYCDOT Dockbuilders Pier
  - A pier consisting of a 502-foot-long by 80-foot-wide initial section extending outward from the shoreline followed by a 240-foot-long by 120-foot-wide section extending to the easternmost (waterward) limit of the pier for a total overall pier length of 742 feet. A total of 200 30-inch steel pipe piles will be driven into the marine substrate to accommodate 26-pile bents that will support the cast-in-place concrete decking of the new pier.
  - A new two-story, 30-foot-wide by 90-foot-long NYCDOT Dockbuilders building will be constructed on the pier approximately 22.6 feet east (waterward) of the new sheet pile bulkhead and NYCDOT Pier Gate that will be installed to deter pedestrian access from the new esplanade to the pier.

Pursuant to 15 CFR Part 930.62, and based upon the project information submitted, the Department of State concurs with your consistency certification for this activity. This concurrence is without prejudice to and does not obviate the need to obtain all other applicable licenses, permits, or other forms of authorization or approval that may be required pursuant to existing State statutes.

Sincerely,



Matthew P. Maraglio
Director, Development Division
Office of Planning, Development and
Community Infrastructure

MM/tl
ecc: ACOE - NY District - Arlene Tirado
DEC Region 2 - (App# 2-6402-00360/00001-03)
NYC Department of City Planning - Emily Sun (WRP#22-141)

NYSHPO Section 106 Consultation

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation, and Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

September 14, 2022

Mr. James Zwolak
FEMA
285 Fulton Street
New York, NY 10007

Re: FEMA
Tompkinsville Esplanade and Pier
Borough of Staten Island, Richmond County, NY
20PR00553

Dear Mr. Zwolak:

Thank you for continuing to consult with the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project.

We have reviewed the Section 106 consultation letter dated August 25, 2022, and the supporting map, photographs, drawings, and renderings. Based upon our review, SHPO' concurs with the proposed determination of No Adverse Effect to historic properties.

If you have any questions, I am best reached via e-mail.

Sincerely,

Olivia Brazee
Historic Site Restoration Coordinator
olivia.brazee@parks.ny.gov via e-mail only

Agency consultation(s) available upon request to FEMA Region 2 EHP at FEMAR2COMMENT@fema.dhs.gov

Appendix D: Executive Order (EO) 11988 8-Step Process

New York City Economic Development Corporation, Richmond County
Tompkinsville Esplanade and Pier Project

PW4458 Section 428 PAAP Project

FEMA 4085-DR-NY

Executive Order 11988 – FLOODPLAIN MANAGEMENT
Executive Order 11990 – WETLAND PROTECTION

8-STEP PROCESS SUMMARY

Date: 08/20/2024

Prepared by: FEMA R2 EHP

Project: The New York City Economic Development Corporation (NYCEDC – the Subrecipient) has applied to FEMA for financial assistance. The New York State Division of Homeland Security and Emergency Services (NYSDHSES) is the Recipient partner for the Proposed Action, which consists of construction of a new pier to serve the NYCDOT Dockbuilders operations and provide key infrastructure for Dockbuilders to effectively conduct routine emergency repairs to NYCDOT's maritime assets.

Additionally, the project would include construction of a Tompkinsville esplanade with pedestrian and bicycle paths for intermodal access. The esplanade would include shoreline hardening features (revetments, steel sheet bulkheads), and natural features such as native plantings.

Step 1 - Determine whether the proposed actions are located in a wetland and or the 100-year floodplain (500-year floodplain for critical actions [44CFR 9.4]) or whether they have the potential to affect or be affected by a floodplain or a wetland (44 CFR 9.7).

__X__ The project site is located in relation to the floodplains as mapped by:

Preliminary FIRM map: 3604970189G, 01/30/2015
Zone AE (EL 13), VE (El 17) NAVD88 datum
Location: 40.637095, -74.073607 to 40.640559, -74.073305

__X__ The Project is located in the wetland as identified by:

A review of the National Wetlands Inventory (NWI) Map indicates that some work at the proposed project sites lies with in a NWI Designated Wetland classified as **E1UBL**. The following describes the wetland:

Description for code **E1UBL**:

E System **ESTUARINE**: The Estuarine System describes deepwater tidal habitats and adjacent tidal wetlands that are influenced by water runoff from and often semi-enclosed by land. They are located along low-energy coastlines and they have variable salinity.

1 Subsystem **SUBTIDAL**: These habitats are continuously submerged substrate, (i.e. below extreme low water).

UB Class **UNCONSOLIDATED BOTTOM**: Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

Subclass: None

Modifier(s):
L WATER REGIME **Subtidal**: The substrate is permanently flooded with tidal water.

STEP 2 - Notify the public at the earliest possible time of the intent to carry out an action in a floodplain or wetland and involve the affected and interested public in the decision-making process (see 44 CFR 9.8).

_____Not applicable - Project is not located in a floodplain or wetland.

__X__ Applicable - Notice will be or has been provided by:

A Cumulative Initial Public Notice was published in the New York Post 12/14/2012. An additional public notice will be provided in the public comment period for the Environmental Assessment for this project.

STEP 3 - Identify and evaluate practicable alternatives to locating the proposed action in a floodplain or wetland (including alternative sites, actions, and the "No Action" option) [see 44 CFR 9.9]. If a practicable alternative exists outside of the floodplain or wetland, FEMA must locate the action at the alternative site.

_____Not applicable – Project is not located in a floodplain or in a wetland.

__X__ Applicable – Alternative identified in the EA Document or as described below:

Alternative 1: No Action – The Tompkinsville Esplanade area and DOT Dockbuilders operations would remain in their respective current states, with the current lack of pedestrian and bicycle infrastructure along the Tompkinsville shoreline, and DOT operations remaining landside.

Alternative 2: Proposed Action - The proposed Dockbuilders Pier would consist of a 502-foot-long by 80-foot-wide initial section extending outward from the shoreline followed by a 240-foot-long by 120-foot-wide section extending to the easternmost (waterward) limit of the pier for a total overall pier length of 742 feet. A total of 200 30-inch steel pipe piles would be driven into the marine substrate to accommodate 26-pile bents that would support the cast-in-place concrete decking of the new pier. The pile bents/pipe pile rows would be spaced 30-feet apart O.C. to create a total of 23 30-foot-wide "bays". The "bay" closest to the new steel sheet pile bulkhead that would be driven in front of the existing bulkhead, would be 21-feet-9-inches-wide, while the easternmost waterward "bay" at the end of the pier would be 25-feet-wide. At the southern and eastern faces of the pier, a fender system would be constructed to withstand the berthing forces of the design marine vessels. The fender system would mainly consist of timber fender piles, timber shocks and timber wales. A new two-story, 30-foot-wide by 90-foot-long NYCDOT Dockbuilders building would be constructed on the pier approximately 22.6 feet east (waterward) of the new sheet pile bulkhead and NYCDOT Pier Gate that would be installed to deter pedestrian access from the new esplanade to the pier. The new building would be designed with various environmental and resiliency measures including a south-facing sloped rooftop with solar panels (per Local Law 94), elevated second-story administrative suite, and semi-insulated first-floor staging area. New mechanized garage doors would also be installed on the first floor of the building to allow flood water cross-access and flow-thru during storm surge events.

The proposed Tompkinsville shoreline work would consist of construction of a 2,100 linear foot esplanade along Bay Street Landing, Victory Peninsula, a segment of Murray Hulbert Avenue, and then through Miller's Launch and past the proposed location of the new NYCDOT Dockbuilders Pier to the prolongation of Swan Street. The esplanade would include shoreline hardening features such as a new revetment at Victory Peninsula, and new steel sheet pile bulkheads throughout the Project Area, that would increase shoreline resilience and allow for development of topside public amenities associated with the esplanade. The esplanade design would also include creation of a living sustainable shoreline using a variety of plants resistant to saltwater, artificial tidepools for habitats, and green infrastructure to manage runoff and improve stormwater quality.

STEP 4 - Identify the full range of potential direct or indirect impacts occupancy or modification of floodplains and wetlands and the potential direct and indirect support of floodplain and wetland development that could result from the proposed action (see 44 CFR 9.10).

_____Not applicable – Project is not located in a floodplain or in a wetland.

__X__Applicable – Alternative identified in the EA document or as described below:

Alternative 2: Proposed Action – The work associated with the proposed action at these locations would result in the bolstering of DOT Dockbuilders operations, restoration of recreational space, eliminate the hazards of unrepaired facilities, and protect infrastructure against future storm surge and flooding. It would not support additional floodplain or wetland development beyond the DOT operations on the proposed pier. Specifically, there would be negligible short-term impacts to wetlands and floodplains during construction at each site, and a moderate beneficial long-term impact to both wetlands and floodplains with more resilient marina facilities.

The proposed project could not serve its purpose at other locations outside of the special flood hazard area.

STEP 5 - Minimize the potential adverse impacts and support to or within floodplains and wetlands to be identified under Step # 4, restore and preserve the natural and beneficial values served by floodplains, and preserve and enhance the natural and beneficial values served by wetlands (see 44 CFR 9.11).

_____Not applicable – Project is not located in a floodplain or in a wetland.

__X__Applicable – Mitigation measures identified in the EA document or as described below:

The purpose of the Tompkinsville Esplanade and Pier Project is to rehabilitate portions of the waterfront infrastructure within the Project Area by correcting damage caused by Superstorm Sandy and providing necessary upgrades to the waterfront in the area to be more resilient to impacts from storm surge flooding. The use of steel steel sheet pile bulkhead on the Esplanade and elevation DOT Dockbuilders facilities on the proposed pier, as well as living sustainable shoreline using a variety of plants resistant to saltwater, artificial tidepools for habitats, and green infrastructure to manage runoff and improve stormwater quality would help preserve the natural and beneficial values of wetlands and floodplains by limiting the potential for damages in future storm or flooding events.

Replacement/repairs and construction of new facilities shall be in accordance with local floodplain ordinances and meet codes to mitigate and minimize adverse effects.

STEP 6 - Re-evaluate the proposed action to determine first, if it is still practicable in lightof its exposure to flood hazards, the extent to which it will aggravate the hazards to others and its potential to disrupt floodplain and wetland values, and second, if alternatives preliminarily rejected at Step #3 are practicable in light of the information gained in Steps #4 and #5. FEMA shall not act in a floodplain or wetland unless it is the only practicable location.

_____Not applicable – Project is not located in a floodplain or in a wetland.

__X__Applicable – Action proposed is located in the only practicable location as described below:

The proposed action is the chosen practicable alternative based upon a review of possible adverse effects on the floodplain.

STEP 7 - Prepare and provide the public with a finding and public explanation of any final decision that the floodplain or wetland is the only practicable alternative (see 44 CFR 9.12).

_____Not applicable – Project is not located in a floodplain or in a wetland.

__X__Applicable – Finding is or will be prepared as described below:

A Cumulative Initial Public Notice was published in the New York Post 12/14/2012. An additional public notice will be provided in the public comment period for the Environmental Assessment for this project.

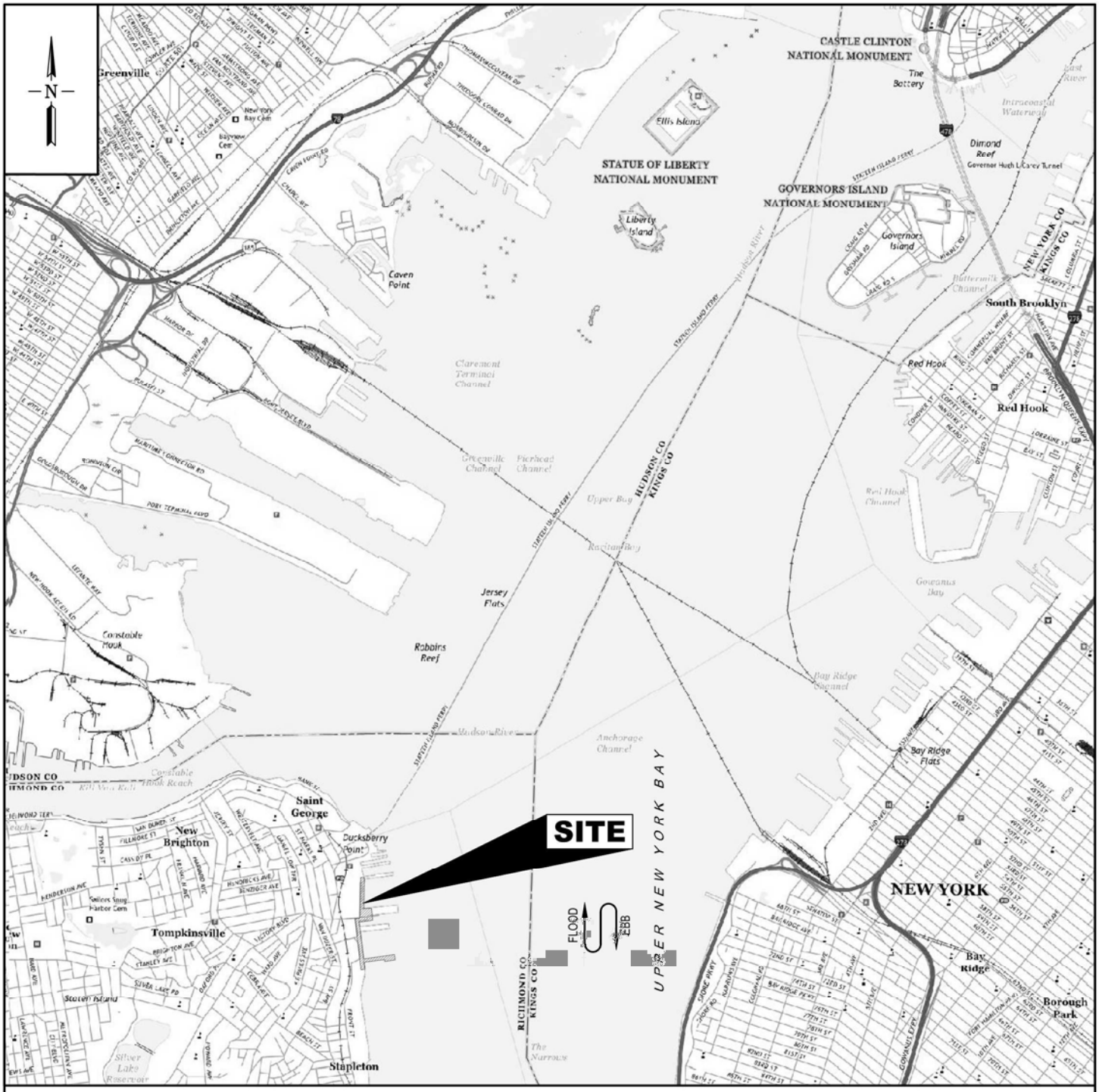
STEP 8 - Review the implementation and post-implementation phases of the proposedaction to ensure the requirements of the Order are fully implemented. Oversight responsibility shall be integrated into the existing process.

_____Not applicable – Project is not located in a floodplain or in a wetland.

__X__Applicable – Approval is conditioned on review of implementation and post-implementation phases to ensure compliance with the order(s).

Review the implementation and post-implementation phase of the proposed action to ensure that the requirement(s) stated in 44 CFR 9.11 are fully implemented.

Appendix E: Project Drawings



VICINITY MAP

SCALE: 1" = 10000'

10000 FT 0 10000 FT

1" = 10000'

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
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EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

VICINITY MAP

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022
REV 1: 11/21/2022
REV 2: 09/06/2023

SHEET 01 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-01.dwg PERMIT-01-VICINITY MAP Michelle Saraswati Fri, 02 Sep 2022 - 1:06pm

EXISTING SITE PLAN

SCALE: 1" = 300'-0"

N

300 FT 60 FT 0 300 FT

1" = 300'-0"

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AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

EXISTING SITE PLAN

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 02 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-02.dwg PERMIT-02-EXISTING SITE PLAN Michelle Saraswati Fri, 02 Sep 2022 - 1:08pm

PROPOSED PROJECT IMPACTS THAT REFLECT THE DESIGN PRESENTED IN THIS DRAWING SET

TABLE 1 – PROJECT ANTICIPATED IMPACT IN USACE JURISDICTIONAL AREA		
PROPOSED ACTIVITY*	**DISTURBANCE BELOW MHHW LINE (SF)**	**DISTURBANCE BELOW MHHW LINE (CY)**
FILL		
PILE - WATERFRONT ESPLANADE	616	147
PILES - NYCDOT DOCK BUILDERS PIER	3,834	2286
BULKHEAD - SOUTH OF VICTORY BOULEVARD PENINSULA	1,522	345
BULKHEAD - BAY STREET LANDING	1,400	259
REVETMENT - VICTORY BOULEVARD PENNINSULA	13,579	4493
TOTAL FILL	**20,150**	**7,530**
CUT		
BAY STREET LANDING FALLEN IN WATER PLATFORM & DEBRIS	-2,363	-183
VICTORY POINT PENINSULA	-19,421	-7,724
MURRAY HULBERT N OF MILLER'S LAUNCH	-7,607	-1,148
BETWEEN MILLER'S LAUNCH AND PROPOSED DOT PIER	-1,905	-290
TOTAL CUT	**-31,296**	**-9,345**
NET OPEN WATER CREATION	**-11,146**	**-1,814**
* (+) DENOTES FILL, (-) DENOTES CUT		

TABLE 2 – PROJECT ANTICIPATED IMPACT IN NYSDEC JURISDICTIONAL AREA		
Proposed Activity*	**Disturbance below MHW Line (SF)**	**Disturbance below MHW Line (CY)**
FILL		
BULKHEAD - SOUTH OF VICTORY BOULEVARD PENINSULA	1,522	331
BULKHEAD - BAY STREET LANDING	1,400	246
REVETMENT - VICTORY BOULEVARD PENINSULA	13,579	4,458
TOTAL FILL	**16,500**	**5,035**
CUT		
TOTAL CUT - VICTORY BOULEVARD	**-19,421**	**-7,494**
NET CUT/FILL	**-2,921**	**-2,459**
* (+) DENOTES FILL, (-) DENOTES CUT		

TABLE 3 – PROJECT ANTICIPATED IMPACT IN TIDAL WETLANDS ADJACENT AREA			
	IMPERVIOUS AREA (SF)	**PERVIOUS AREA (SF)**	**TOTAL AREA (SF)**
EXISTING	11,300	4,120	15,420
PROPOSED	13,030	2,390	15,420

NOTES

1. THIS DRAWING SET IS NOT FOR CONSTRUCTION.
2. THIS DRAWING SET REFLECTS ALL CONDITIONS AS EXISTING AS UNDERSTOOD BY SURVEYS, SITE INSPECTIONS AND PICTURES, AND CANNOT GUARANTEE EXACT RESOLUTION OF ALL DETAILS.
3. THIS DRAWING SET REPRESENTS A CONSTRUCTION DRAWING SET INTENDED TO BE UTILIZED FOR CONSTRUCTION UNDER FULL COMPLIANCE WITH ALL APPLICABLE CITY, STATE, FEDERAL AND OTHERWISE ENVIRONMENTAL AND CONDITION REQUIREMENTS TO MAINTAIN, IMPROVE OR MINIMIZE IMPACTS TO SITE CONDITIONS AND FURTHERMORE PROTECT WATERS OF THE UNITED STATES.
4. FOR FURTHER DETAIL ON THE DESIGNS OR INFORMATION PRESENTED HERE, PLEASE CONTACT THE CONSULTANT.

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AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

NOTES

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 03 OF 47

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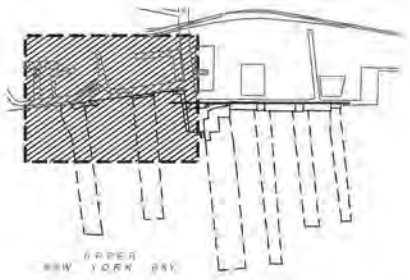
NOTES

1. LAND SURVEY PERFORMED BY MFS CONSULTING ENGINEERS & SURVEYOR, DPC COMPLETED JULY 2019 AND REPRESENT THE CONDITIONS OF THE SITE AT THE TIME OF THE SURVEY.
2. HYDROGRAPHIC SURVEY PERFORMED BY PRUDENT ENGINEERING, COMPLETED JANUARY 2019 AND REPRESENT THE CONDITIONS OF THE SITE AT THE TIME OF THE SURVEY.
3. ELEVATIONS ARE BASED ON THE NAVD 1988 DATUM.



KEY PLAN

EXISTING CONDITION SURVEY PLAN

SCALE: 1" = 200'-0"

200 FT 40 FT 0 200 FT

1" = 200'-0"

FOR PERMIT USE ONLY
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AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - EXISTING CONDITION SURVEY PLAN - 1

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022

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NOTES

1. LAND SURVEY PERFORMED BY MFS CONSULTING ENGINEERS & SURVEYOR, DPC COMPLETED JULY 2019 AND REPRESENT THE CONDITIONS OF THE SITE AT THE TIME OF THE SURVEY.
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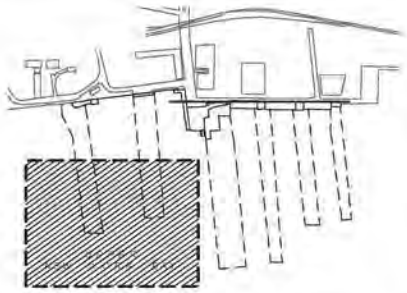

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200 FT 40 FT 0 200 FT

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AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - EXISTING CONDITION SURVEY PLAN - 2

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 05 OF 47

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NOTES

1. LAND SURVEY PERFORMED BY MFS CONSULTING ENGINEERS & SURVEYOR, DPC COMPLETED JULY 2019 AND REPRESENT THE CONDITIONS OF THE SITE AT THE TIME OF THE SURVEY.
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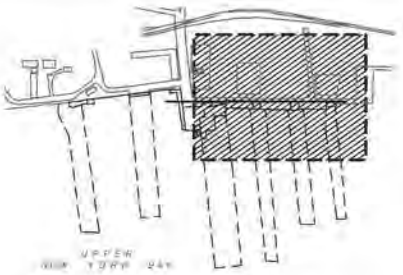
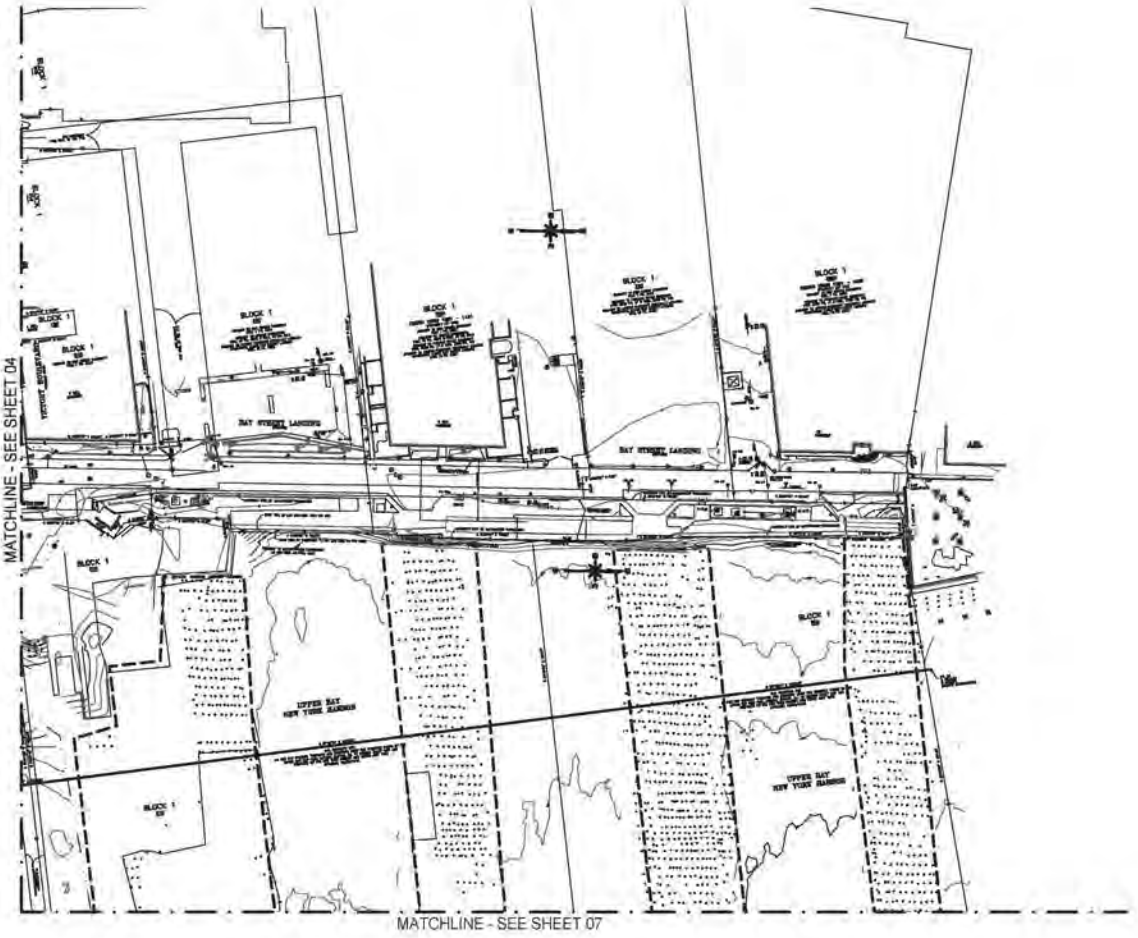


KEY PLAN



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AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - EXISTING CONDITION SURVEY PLAN - 3

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 06 OF 47

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NOTES

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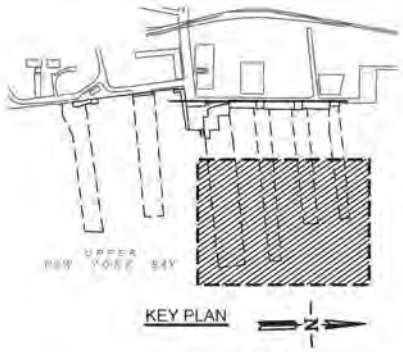

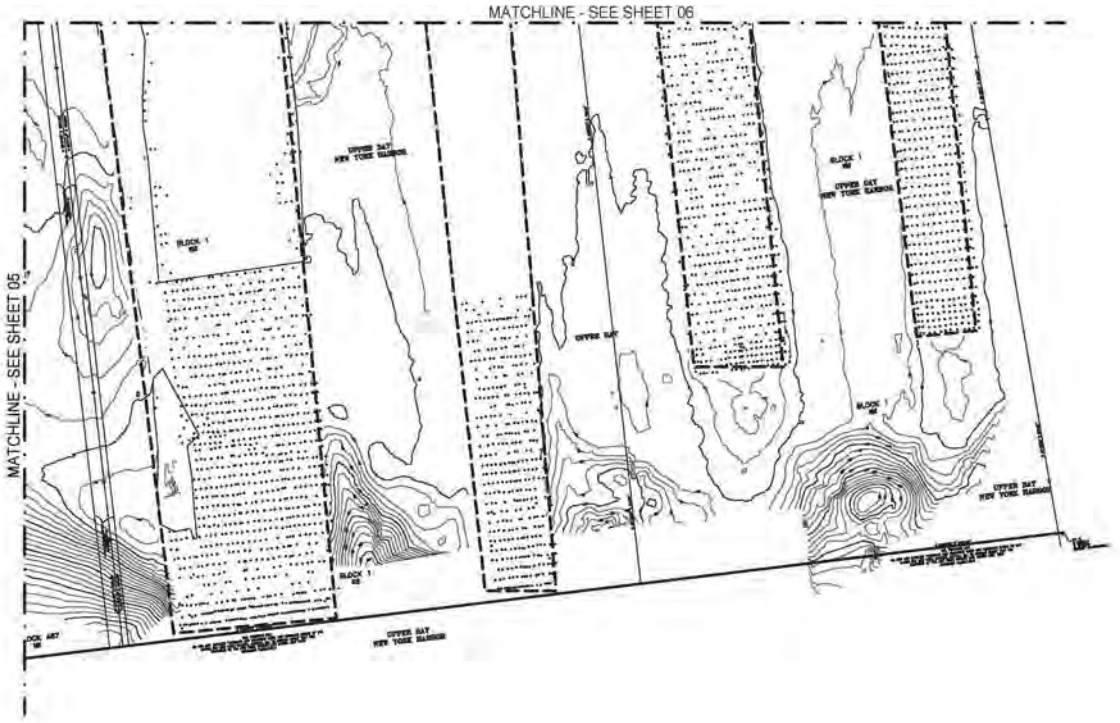

EXISTING CONDITION SURVEY PLAN

SCALE: 1" = 200'-0"

N

200 FT 40 FT 0 200 FT

1" = 200'-0"

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AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - EXISTING CONDITION SURVEY PLAN - 4

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 07 OF 47

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LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513 — Base Flood Elevation line and value; elevation in feet*

(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the National Geodetic Vertical Datum of 1929

A — A — Cross section line

22 — 22 — Transect line

87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere

76°N — 1000-meter Universal Transverse Mercator grid values, zone 18

600000 FT — 5000-foot grid ticks: New York State Plane coordinate system, Long Island zone (FIPSZONE 3104), Lambert Conformal Conic projection

DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)

M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

INITIAL NFIP MAP DATE
June 28, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS
June 11, 1976

FLOOD INSURANCE RATE MAP EFFECTIVE
November 16, 1983

FLOOD INSURANCE RATE MAP REVISIONS
September 5, 2007 - to change Special Flood Hazard Areas, to reflect updated topographic information, and to update map format
May 21, 2001 - to change Special Flood Hazard Areas, to reflect updated topographic information, and to update map format
July 5, 1994 - to add base flood elevations, to add Special Flood Hazard Areas, and to change Special Flood Hazard Areas
February 15, 1991 - to change zone designations and to add Special Flood Hazard Areas

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

1000 FT 200 FT 0 1000 FT

1" = 1000'-0"

PARTIAL VIEW OF 2007 FIRM PANEL 3604970189F

SCALE: 1" = 1000'-0"

N

NOTES

1. A COPY OF THE 2007 FEMA FLOOD INSURANCE RATE MAP (FIRM) IDENTIFYING THE LOCATION OF THE PROPERTY ON THE MAP IS PROVIDED IN THIS DRAWING.
2. FIRM DATA TAKEN FROM NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, BRONX, RICHMOND, NEW YORK, QUEENS AND KING COUNTIES, PANEL 189 OF 457.
3. WORK IS LOCATED IN A SPECIAL FLOOD HAZARD AREA.

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

FEMA 2007
EFFECTIVE FLOOD INSURANCE MAP

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 08 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-08-ESPL-V-601.dwg PERMIT-08-ESPL-V-601 Michelle Saraswati Fri, 02 Sep 2022 - 1:26pm

PARTIAL VIEW OF 2013 FIRM PANEL 3604970189G

SCALE: 1" = 1000'-0"

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
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ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Limit of Moderate Wave Action
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- Culvert, Flume, Penstock or Aqueduct
- Road or Railroad Bridge
- Footbridge
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4476000mN — 1000-meter Universal Transverse Mercator grid values, zone 18
- 600000 FT — 5000-foot grid values: New York State Plane coordinate system, Long Island zone (FIPSZONE 3104), Lambert Conformal Conic projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

INITIAL NFIP MAP DATE
June 28, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS
June 11, 1976

FLOOD INSURANCE RATE MAP EFFECTIVE
November 16, 1983

FLOOD INSURANCE RATE MAP REVISIONS

For descriptions of revisions see Notice to Users page in the Flood Insurance Study report.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

1000 FT 200 FT 0 1000 FT

1" = 1000'-0"

N

NOTES

1. A COPY OF THE 2013 FEMA FLOOD INSURANCE RATE MAP (FIRM) IDENTIFYING THE LOCATION OF THE PROPERTY ON THE MAP IS PROVIDED IN THIS DRAWING.
2. FIRM DATA TAKEN FROM NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, BRONX, RICHMOND, NEW YORK, QUEENS AND KING COUNTIES, PANEL 189 OF 457.
3. WORK IS LOCATED IN A SPECIAL FLOOD HAZARD AREA.

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

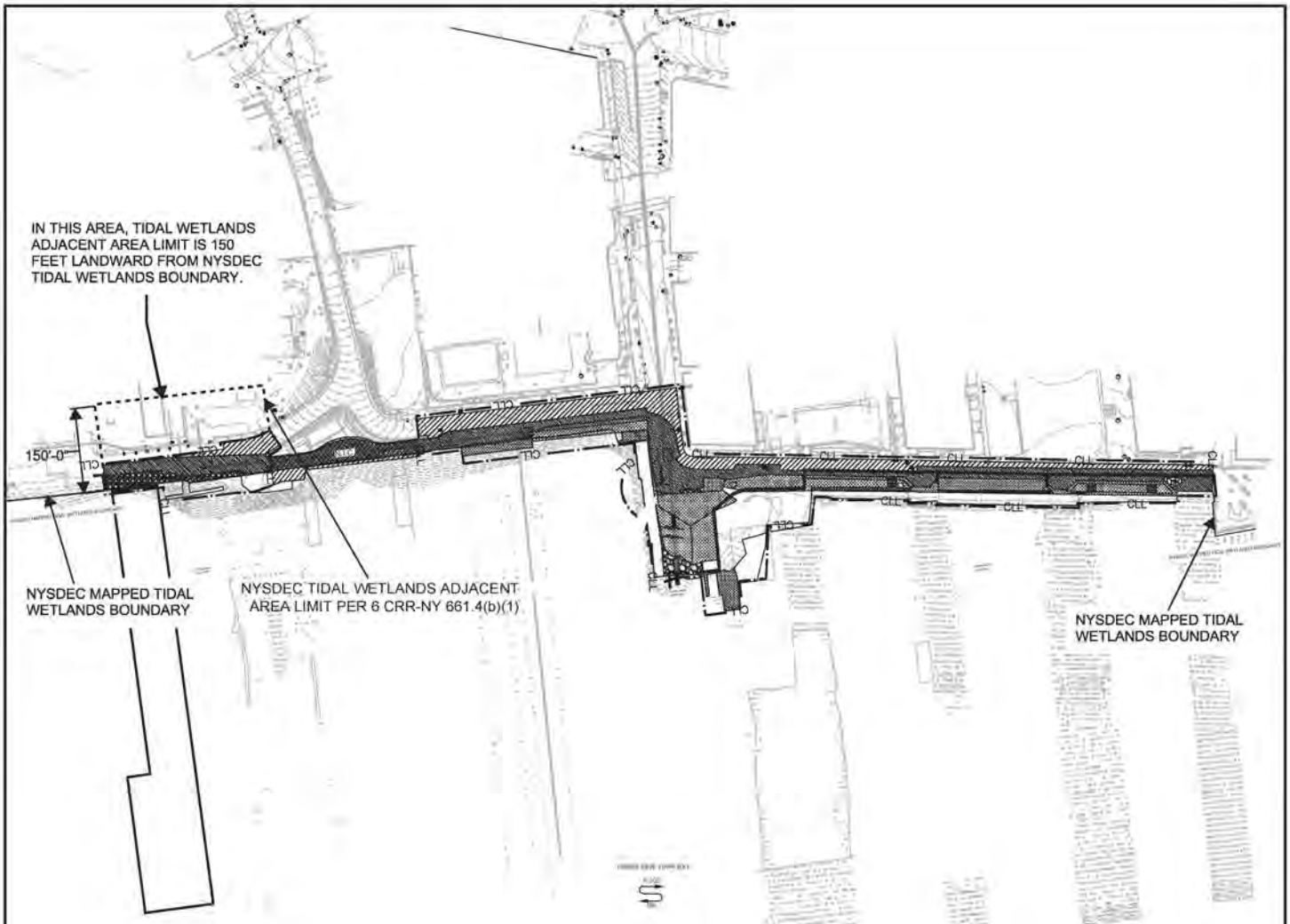
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

FEMA 2013
PRELIMINARY FLOOD INSURANCE MAP

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 09 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-09-ESPL-V-602.dwg PERMIT-09-ESPL-V-602 Michelle Saraswati Fri, 02 Sep 2022 - 1:32pm



REMOVAL LEGEND

- MILL 3" ASPHALT PAVEMENT **(IMPERVIOUS)**
- REMOVE FULL DEPTH ASPHALT PAVEMENT **(IMPERVIOUS)**
- REMOVE CONCRETE **(IMPERVIOUS)**
- REMOVE VEGETATION **(PERVIOUS)**
- REMOVE 6" TO 24" RIPRAP (SEE MD-SERIES DRAWINGS) **(PERVIOUS)**
- REMOVE PAVERS
- CONTRACT LIMIT LINE

EXISTING IMPERVIOUS AREA = 11,300 SF
EXISTING PERVIOUS AREA = 4,120 SF
TOTAL PROJECT AREA IN TIDAL WETLANDS ADJACENT AREA = 15,420 SF

REMOVAL PLAN - OVERALL - LAND

SCALE: 1" = 300'-0"

N

300 FT 60 FT 0 300 FT

1" = 300'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

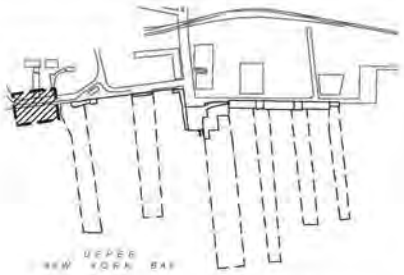
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

REMOVAL PLAN - OVERALL - LAND

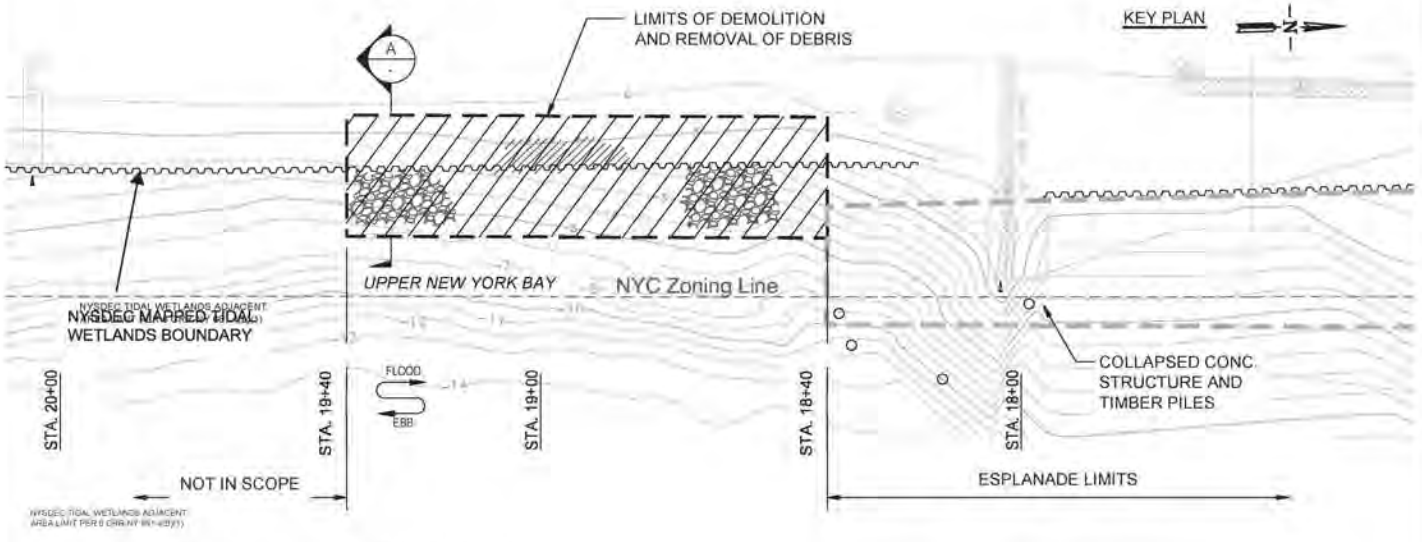
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 10 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-10-ESPL-R-101.dwg PERMIT-10-ESPL-R-101 Michelle Saraswati Fri, 02 Sep 2022 - 1:34pm



KEY PLAN

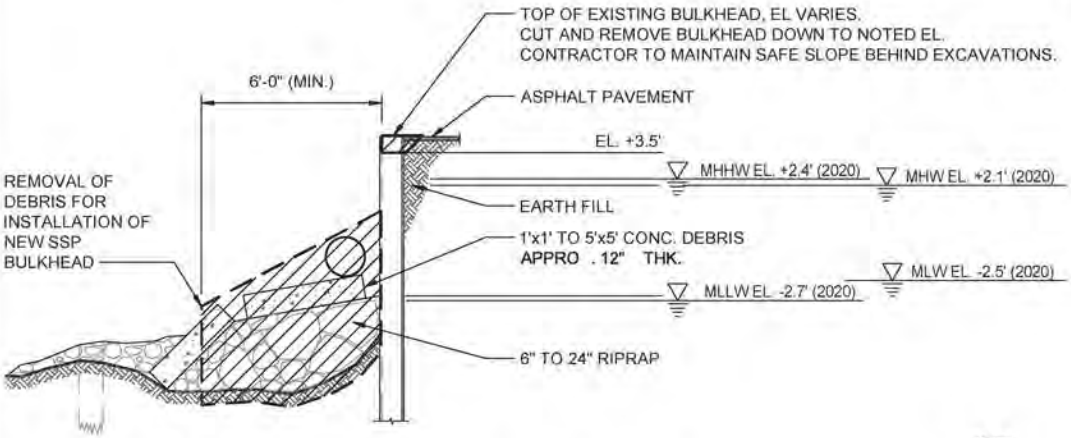


DEMOLITION PARTIAL PLAN

SCALE: 1" = 40'-0"

LEGEND

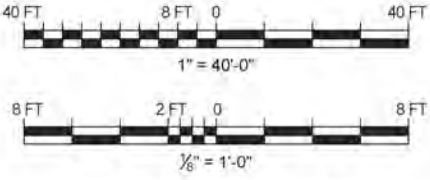
- TO BE DEMOLISHED 5'x5' CONC. DEBRIS AND 6" TO 24" RIPRAP
- 6" TO 24" RIPRAP
- ASPHALT PAVEMENT
- GRAVEL
- LANDSCAPE AREA
- TIMBER DEBRIS
- CHAIN LINK FENCE
- GUARDRAIL
- TO BE DEMOLISHED



A

SECTION AT SSP BULKHEAD DEBRIS

SCALE: 1/8" = 1'-0"



FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION PARTIAL PLAN AND SECTION 1

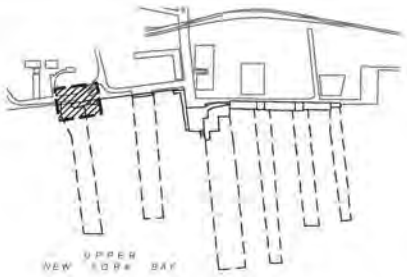
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 11 OF 47

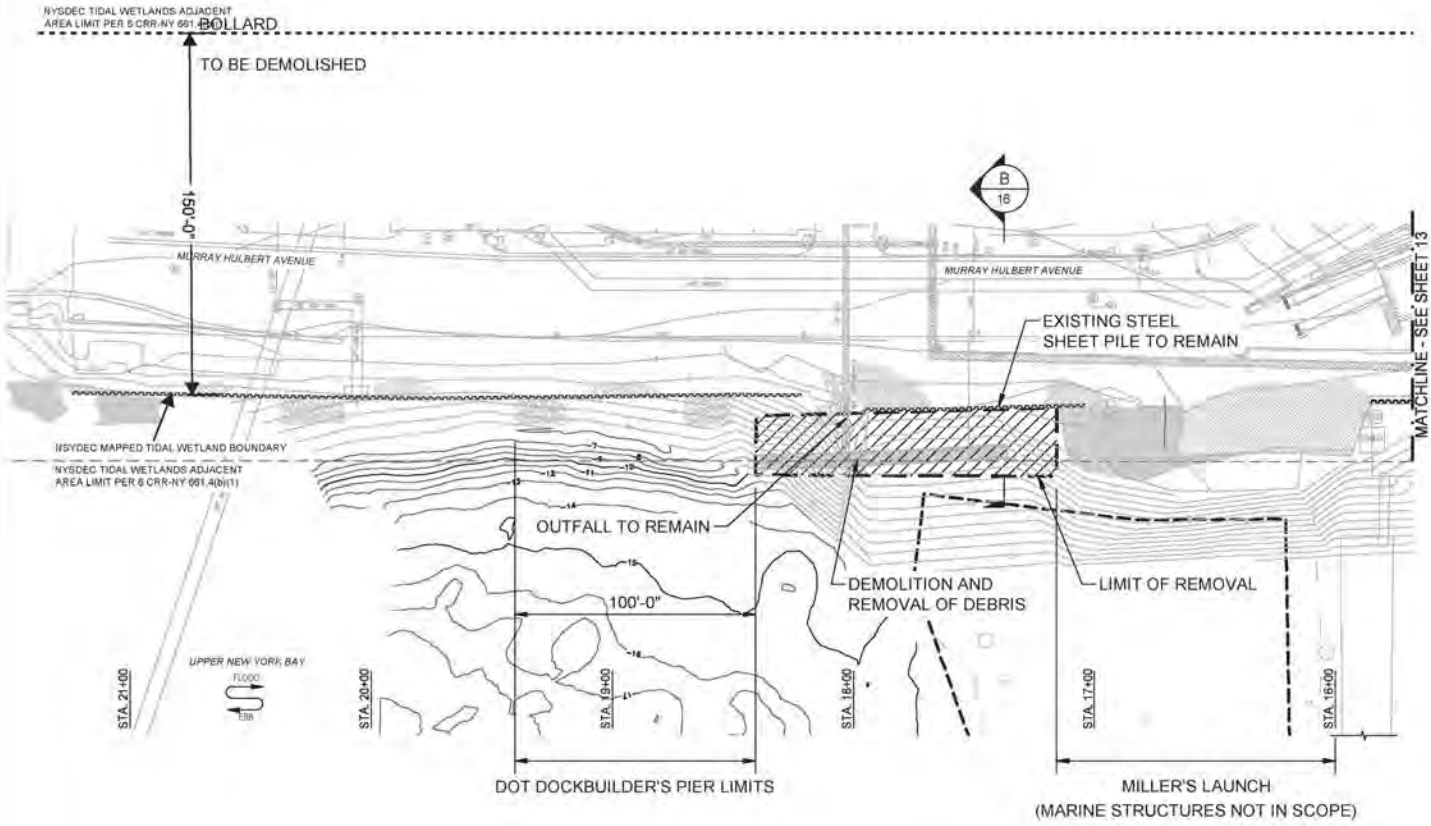
C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-11-PIER-SD-301.dwg PERMIT-11-PIER-SD-301 Michelle Saraswati Fri, 02 Sep 2022 - 1:35pm

LEGEND

- TO BE DEMOLISHED GRANITE CAPSTONE
- TIMBER ASPHALT
- PAVEMENT
- BRICK PAVERS
- LANDSCAPE AREA
- COLLAPSED CONC.
- 1'x1' TO 5'x5' CONC. DEBRIS
- RIPRAP
- HANDRAIL
- X X CHAIN LINK FENCE
- GUARDRAIL



KEY PLAN



DEMOLITION PARTIAL PLAN

SCALE: 1" = 80'-0"

80 FT 8 FT 0 80 FT

1" = 80'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

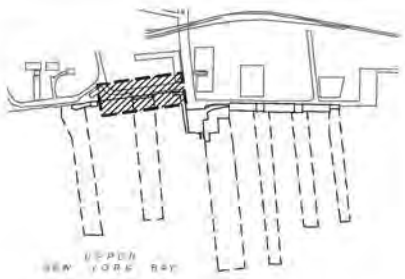
DEMOLITION PARTIAL PLAN 2

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 12 OF 47

LEGEND

- TO BE DEMOLISHED GRANITE CAPSTONE
- TIMBER ASPHALT
- PAVEMENT
- BRICK PAVERS
- LANDSCAPE AREA
- COLLAPSED CONC.
- 1'x1' TO 5'x5' CONC. DEBRIS
- RIPRAP
- HANDRAIL
- X X CHAIN LINK FENCE
- GUARDRAIL
- BOLLARD
- TO BE DEMOLISHED



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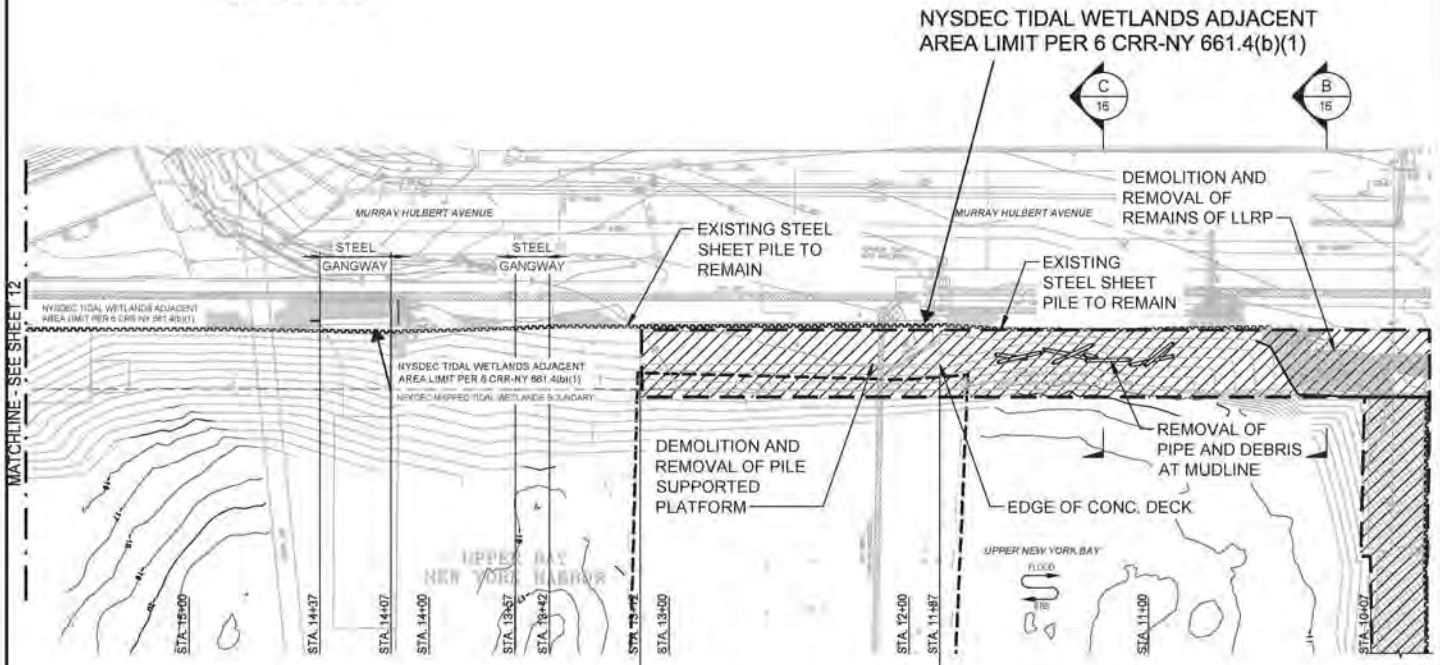


DEMOLITION PARTIAL PLAN

SCALE: 1" = 80'-0"

80 FT 8 FT 0 80 FT

1" = 80'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

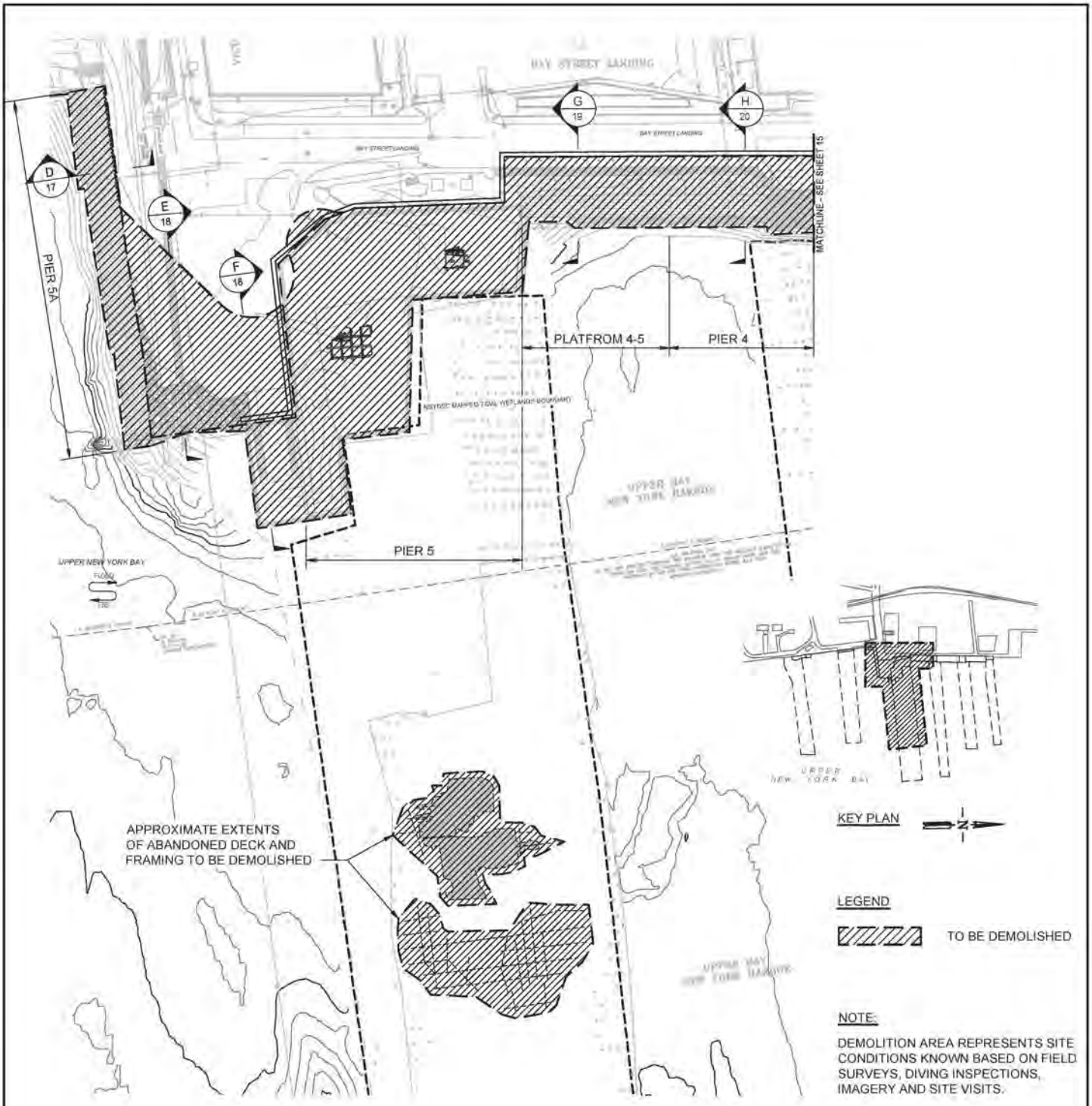
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION PARTIAL PLAN 3

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 13 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-13-ESPL-SD-202B.dwg PERMIT-13-ESPL-SD-202B Michelle Saraswati Fri, 02 Sep 2022 - 1:43pm



DEMOLITION PARTIAL PLAN

SCALE: 1" = 100'-0"

100 FT 10 FT 0 100 FT

1" = 100'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
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3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION PARTIAL PLAN 4

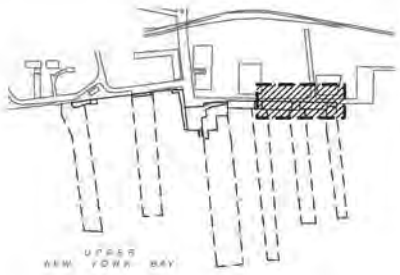
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 14 OF 47

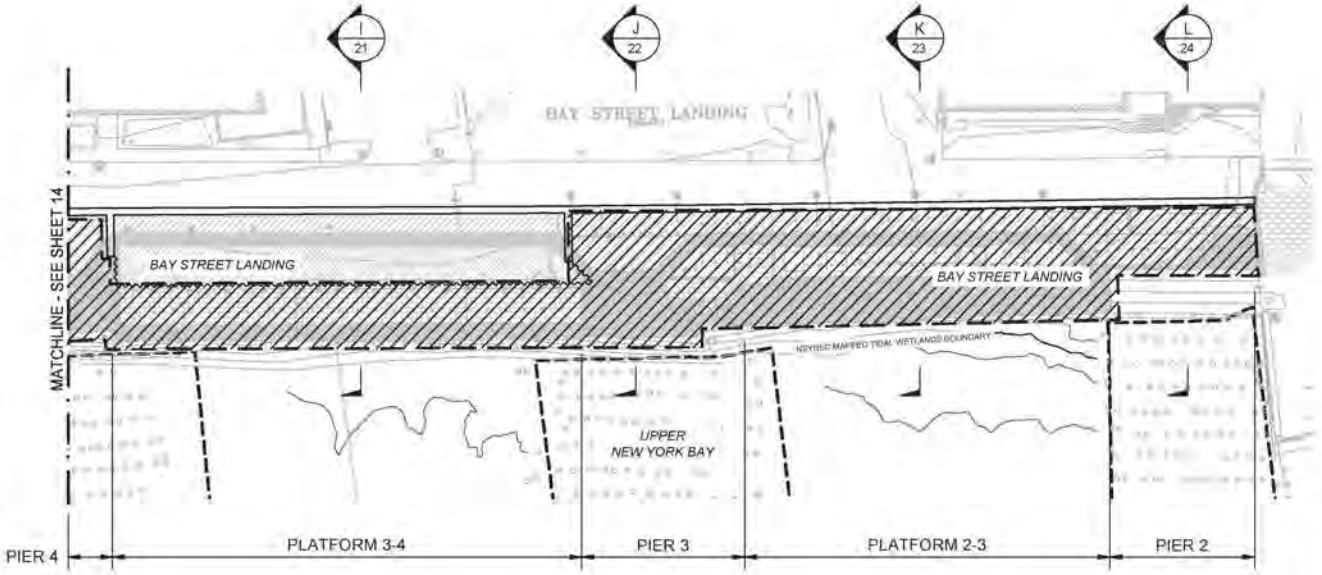
C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-14c-ESPL-SD-201A-combined.dwg PERMIT-14-ESPL-SD-201A Michelle Saraswati Fri, 29 Sep 2023 - 6:11pm

LEGEND

▨	TO BE DEMOLISHED GRANITE CAPSTONE
	TIMBER ASPHALT
	PAVEMENT
	BRICK PAVERS
	LANDSCAPE AREA
	COLLAPSED CONC.
	1'x1' TO 5'x5' CONC. DEBRIS
	RIPRAP
	HANDRAIL
X X	CHAIN LINK FENCE
	GUARDRAIL
	BOLLARD
	TO BE DEMOLISHED



KEY PLAN



DEMOLITION PARTIAL PLAN

SCALE: 1" = 80'-0"

80 FT 8 FT 0 80 FT

1" = 80'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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WATER LEVEL	ELEVATION (NAVD88)
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EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

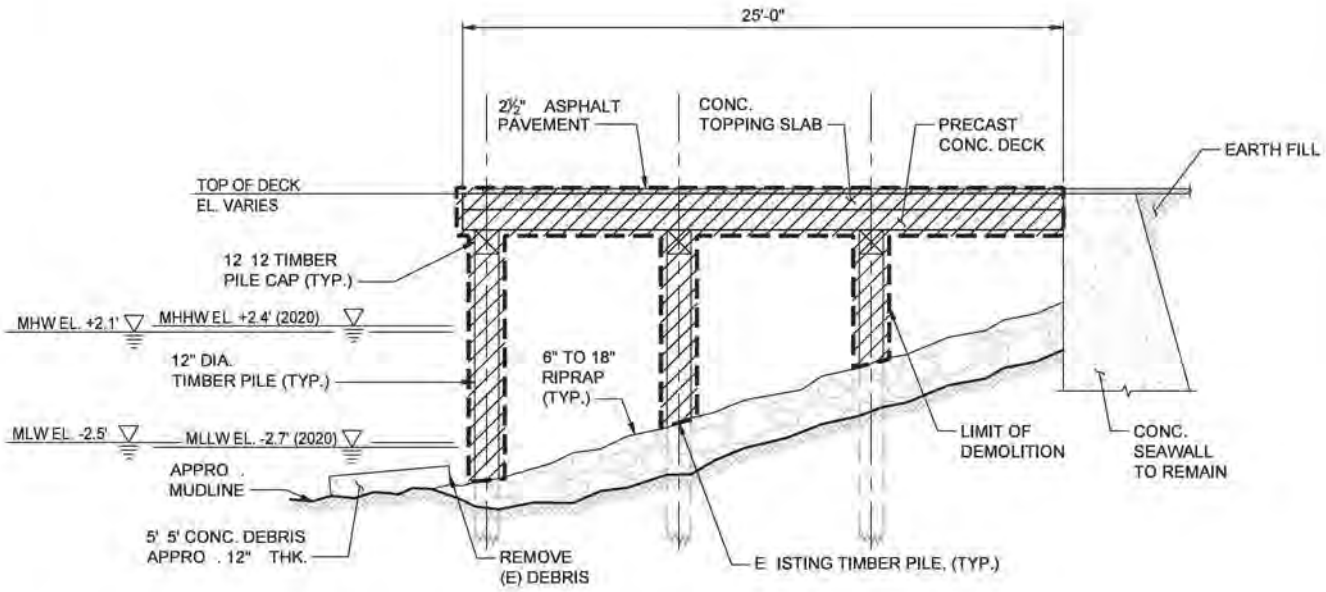
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION PARTIAL PLAN 5

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 15 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-15-ESPL-SD-201B.dwg PERMIT-15-ESPL-SD-201B Michelle Saraswati Fri, 02 Sep 2022 - 1:48pm



L / 15 DEMOLITION SECTION (TYPICAL)

SCALE: 1/8" = 1'-0"

LEGEND

TO BE DEMOLISHED

8 FT 2 FT 0 8 FT

⅛" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

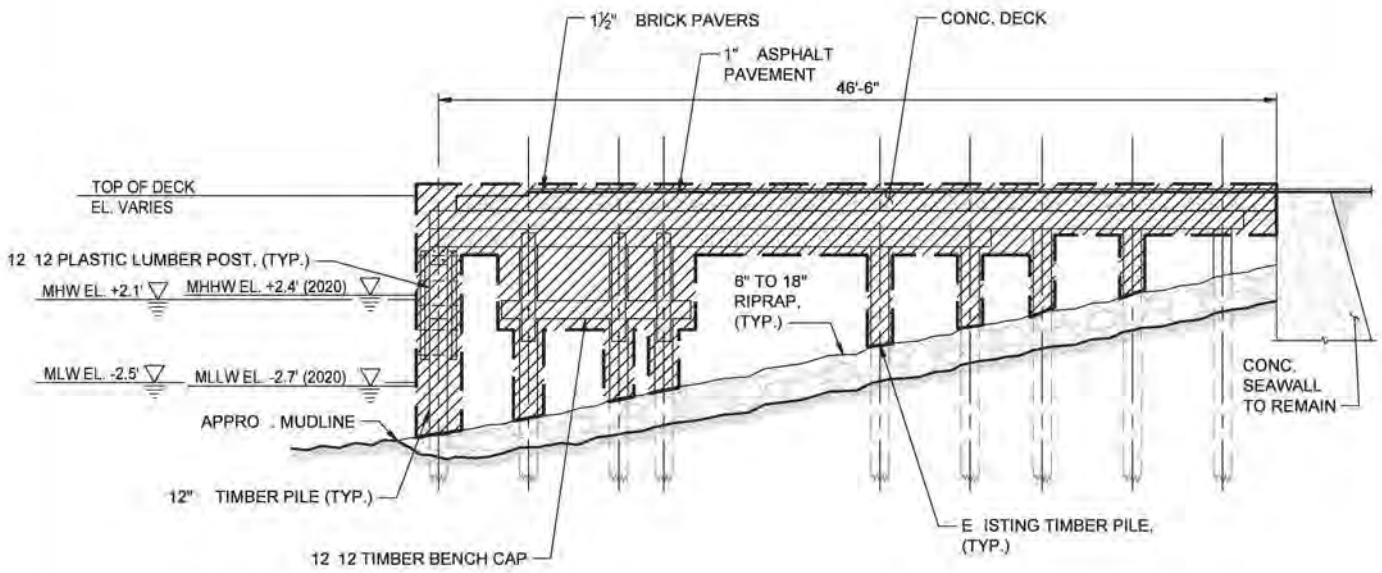
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 2

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 16 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-16-ESPL-SD-301A.dwg PERMIT-16-ESPL-SD-301A Michelle Saraswati Fri, 02 Sep 2022 - 1:44pm



K / 15 TYPICAL DEMOLITION SECTION - PLATFORM 2-3

SCALE: 3/32" = 1'-0"

LEGEND

TO BE DEMOLISHED

6 FT 0 15 FT

3/32" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

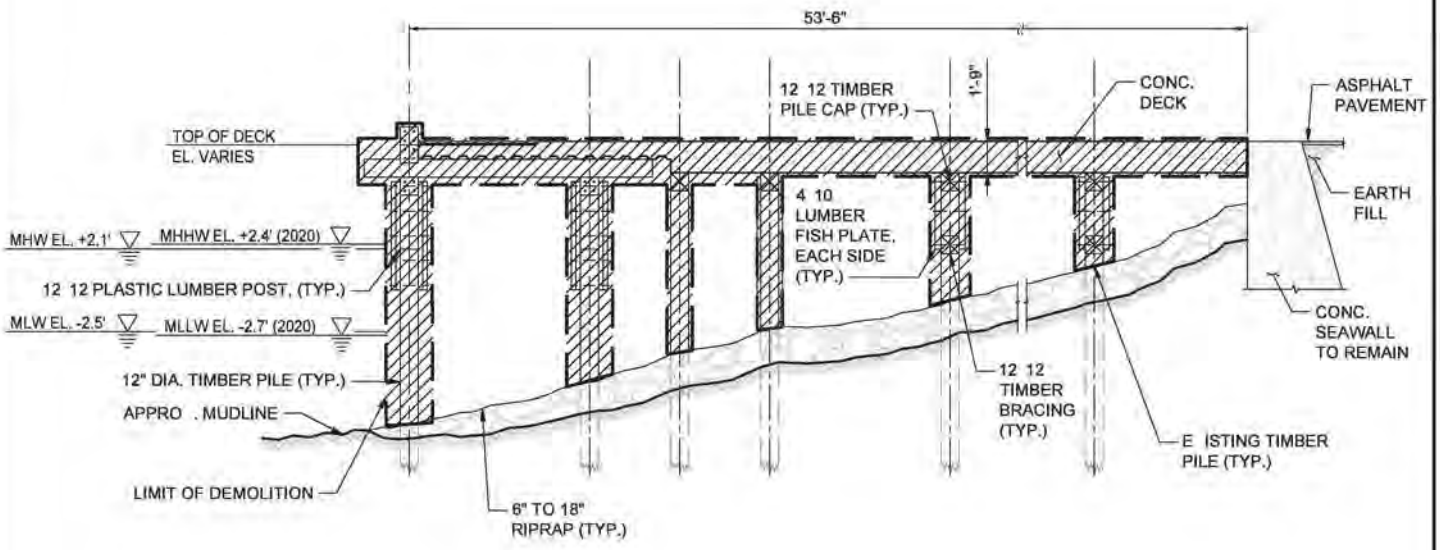
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 3

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 17 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-17-ESPL-SD-301B.dwg PERMIT-17-ESPL-SD-301B Michelle Saraswati Fri, 02 Sep 2022 - 1:45pm



J / 15 TYPICAL DEMOLITION SECTION - PIER 3

SCALE: 3/32" = 1'-0"

LEGEND

TO BE DEMOLISHED

6 FT 0 15 FT

3/32" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

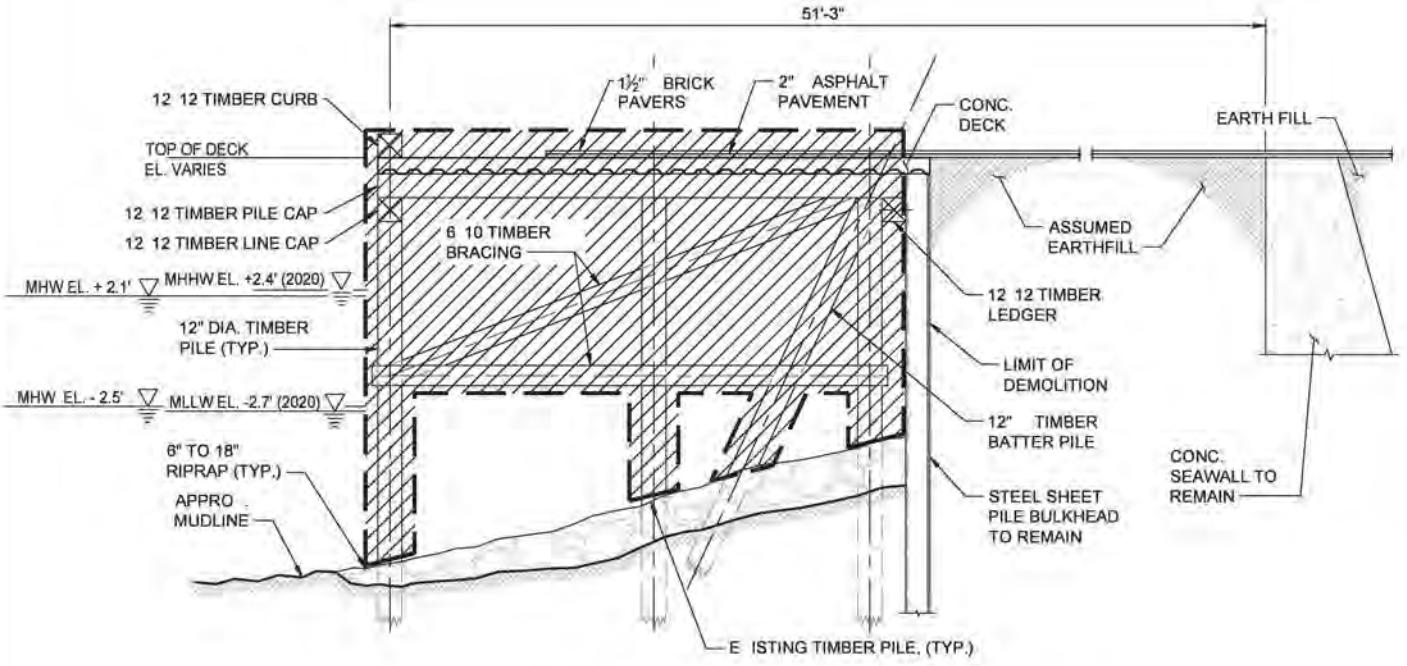
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 4

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 18 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-18-ESPL-SD-301C.dwg PERMIT-18-ESPL-SD-301C Michelle Saraswati Fri, 02 Sep 2022 - 1:45pm



1/15 TYPICAL DEMOLITION SECTION - PLATFORM 3-4

SCALE: 1/8" = 1'-0"

LEGEND

TO BE DEMOLISHED

8 FT 2 FT 0 8 FT

⅛" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

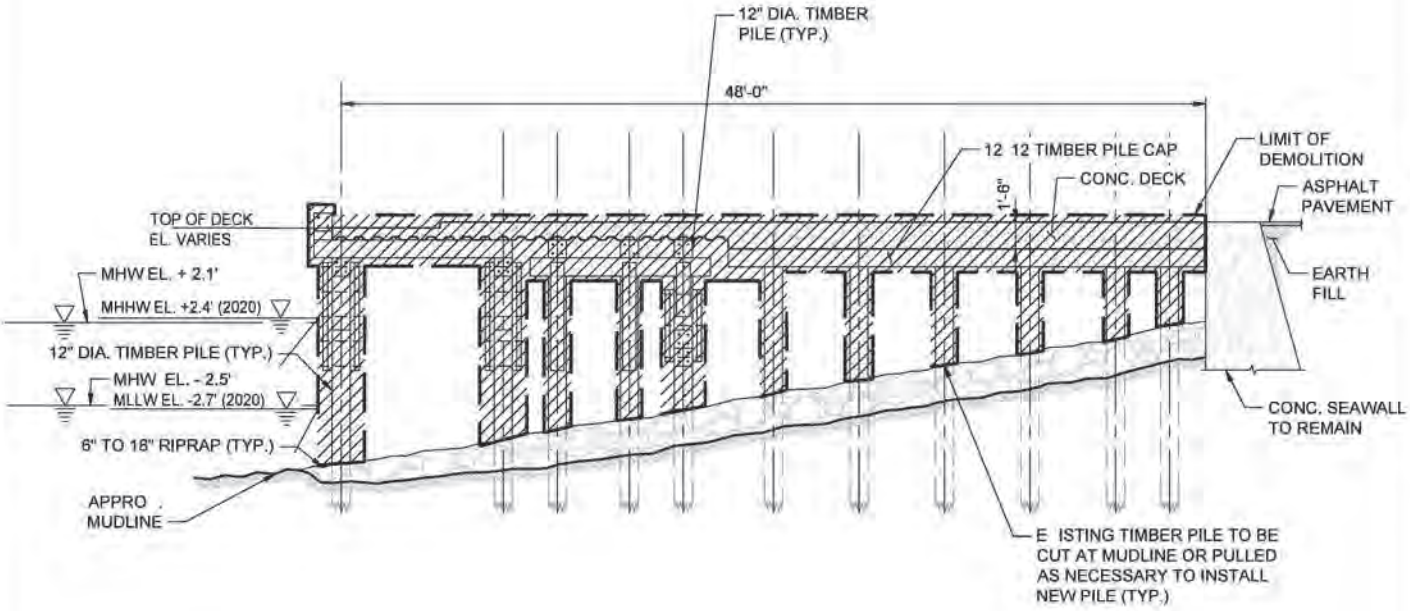
AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 5

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 19 OF 47



H / 14 TYPICAL DEMOLITION SECTION - PIER 4

SCALE: 3/32" = 1'-0"

LEGEND

TO BE DEMOLISHED

6 FT 0 15 FT

3/32" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

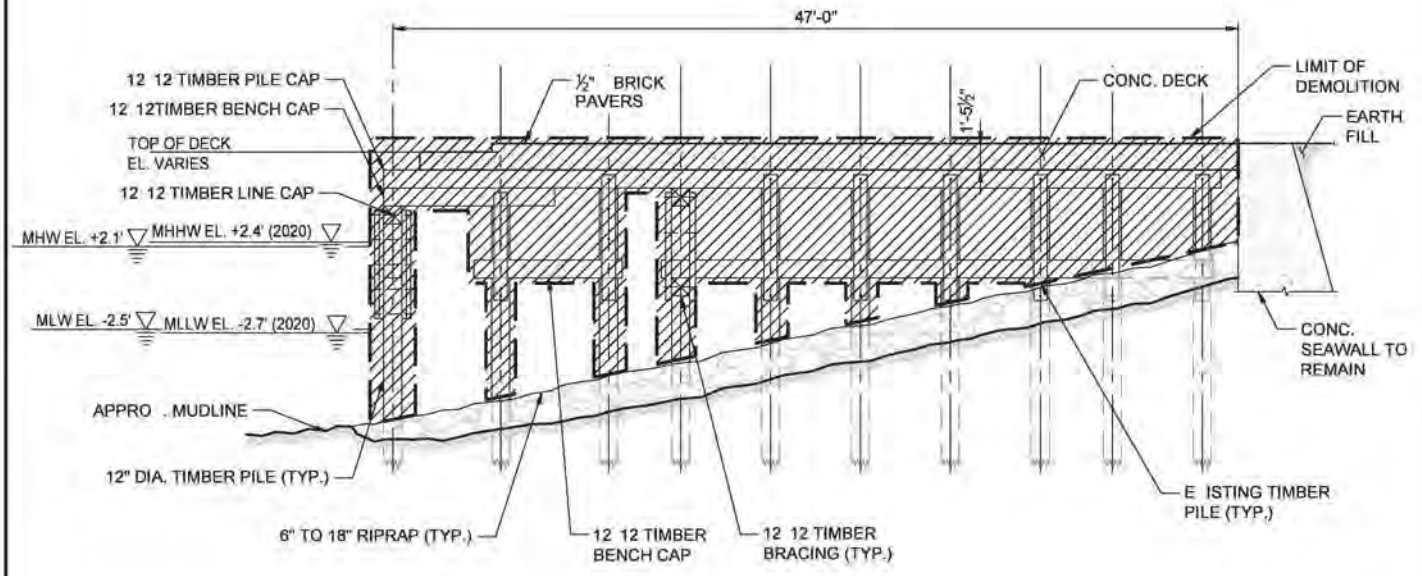
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 6

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 20 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-20-ESPL-SD-302B.dwg PERMIT-20-ESPL-SD-302B Michelle Saraswati Fri, 02 Sep 2022 - 1:49pm



G
14

TYPICAL DEMOLITION SECTION - PLATFORM 4-5

SCALE: 3/32" = 1'-0"

LEGEND

TO BE DEMOLISHED

6 FT 0 15 FT

3/32" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

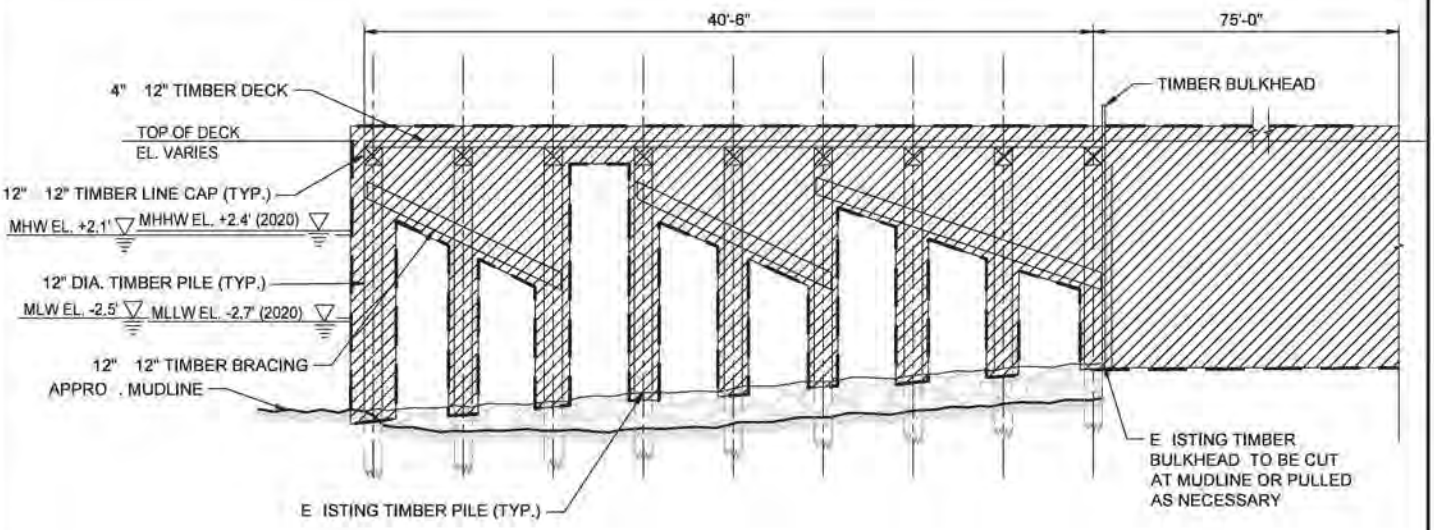
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 7

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

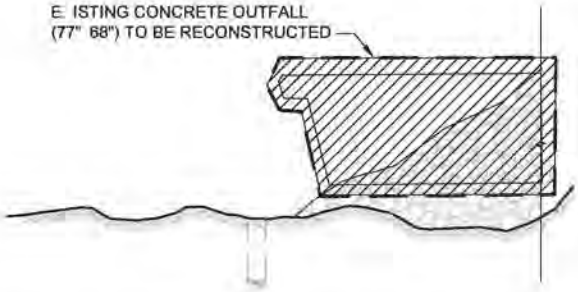
DATE: 09/09/2022 SHEET 21 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-21-ESPL-SD-302C.dwg PERMIT-21-ESPL-SD-302C Michelle Saraswati Fri, 02 Sep 2022 - 1:55pm



F / 14 TYPICAL DEMOLITION SECTION - FINGER PIERS AT VICTORY BLVD. PENINSULA

SCALE: 3/32" = 1'-0"



E / 14 TYPICAL DEMOLITION SECTION - CONCRETE OUTFALL AT VICTORY BLVD. PENINSULA

SCALE: 3/32" = 1'-0"

LEGEND

TO BE DEMOLISHED

6 FT 0 15 FT

3/32" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

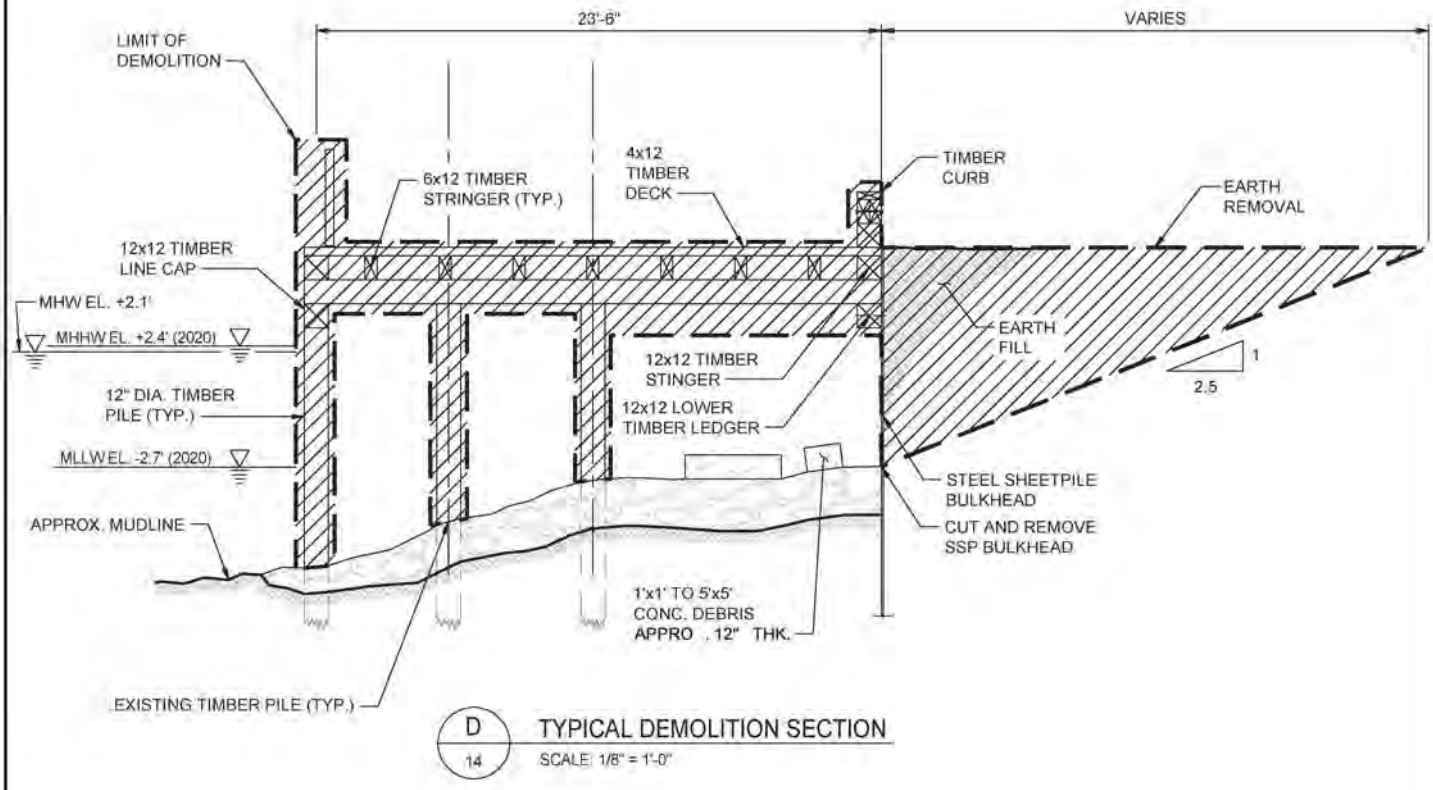
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 8

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 22 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-22-ESPL-SD-303.dwg PERMIT-22-ESPL-SD-303 Michelle Saraswati Fri, 02 Sep 2022 - 1:56pm



D / 14 TYPICAL DEMOLITION SECTION

SCALE: 1/8" = 1'-0"

LEGEND

TO BE DEMOLISHED

8 FT 2 FT 0 8 FT

⅛" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

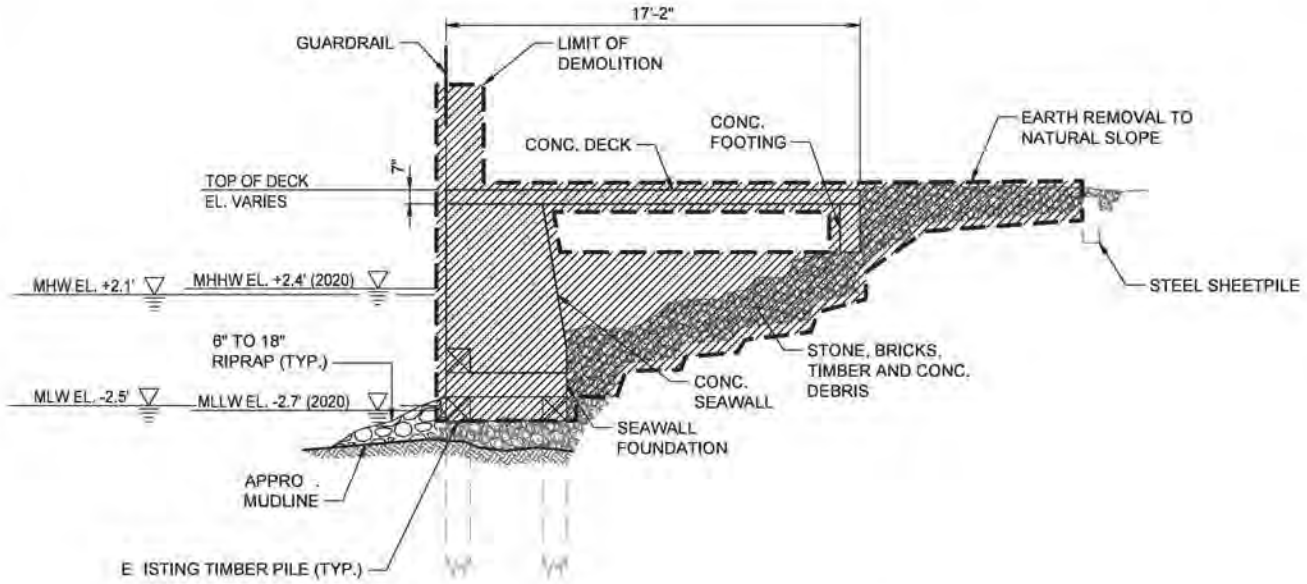
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 9

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 23 OF 47

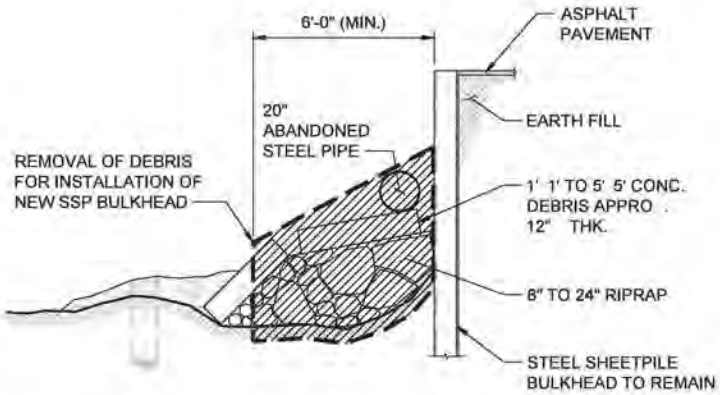
C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-23-ESPL-SD-304A.dwg PERMIT-23-ESPL-SD-304A Michelle Saraswati Fri, 02 Sep 2022 - 1:56pm



B
12, 13

TYPICAL DEMOLITION SECTION - LOW-LEVEL RELIEVING PLATFORM

SCALE: 1/8" = 1'-0"



LEGEND

TO BE DEMOLISHED

C
13

TYPICAL DEMOLITION SECTION - SSP BULKHEAD DEBRIS

SCALE: 1/8" = 1'-0"

8 FT 2 FT 0 8 FT

1/8" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

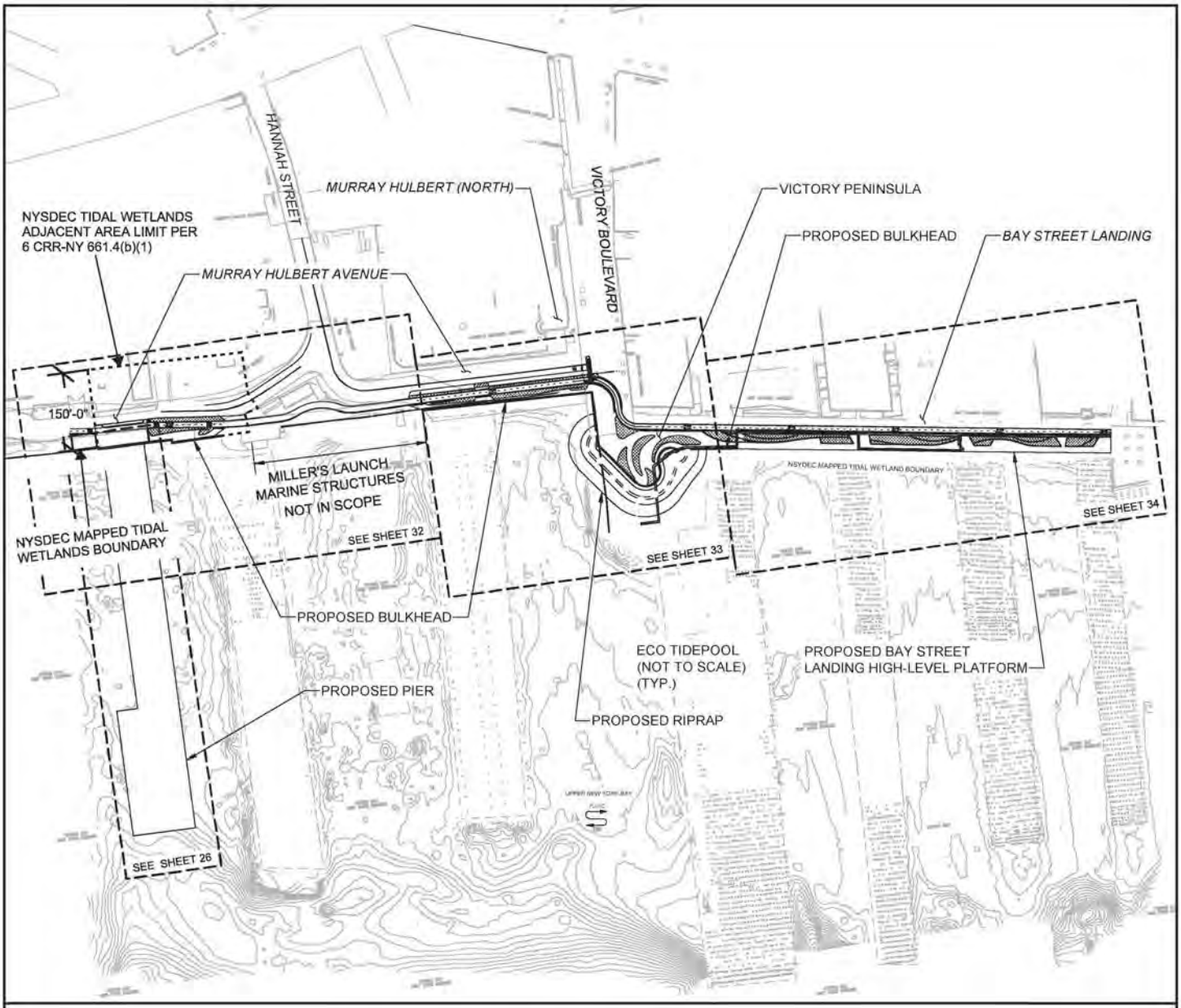
AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

DEMOLITION SECTIONS 10

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 24 OF 47



PROPOSED SITE PLAN

SCALE: 1" = 300'-0"

N

PROJECT AREA IN TIDAL WETLANDS ADJACENT AREA (SF)

	IMPERVIOUS	PERVIOUS	TOTAL
EXISTING	11,300	4,120	15,420
PROPOSED	13,030	2,390	15,420

LEGEND

TIDEPOOL

300 FT 60 FT 0 300 FT

1" = 300'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
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EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

PROPOSED SITE PLAN

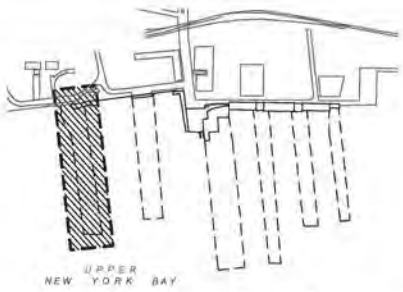
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022

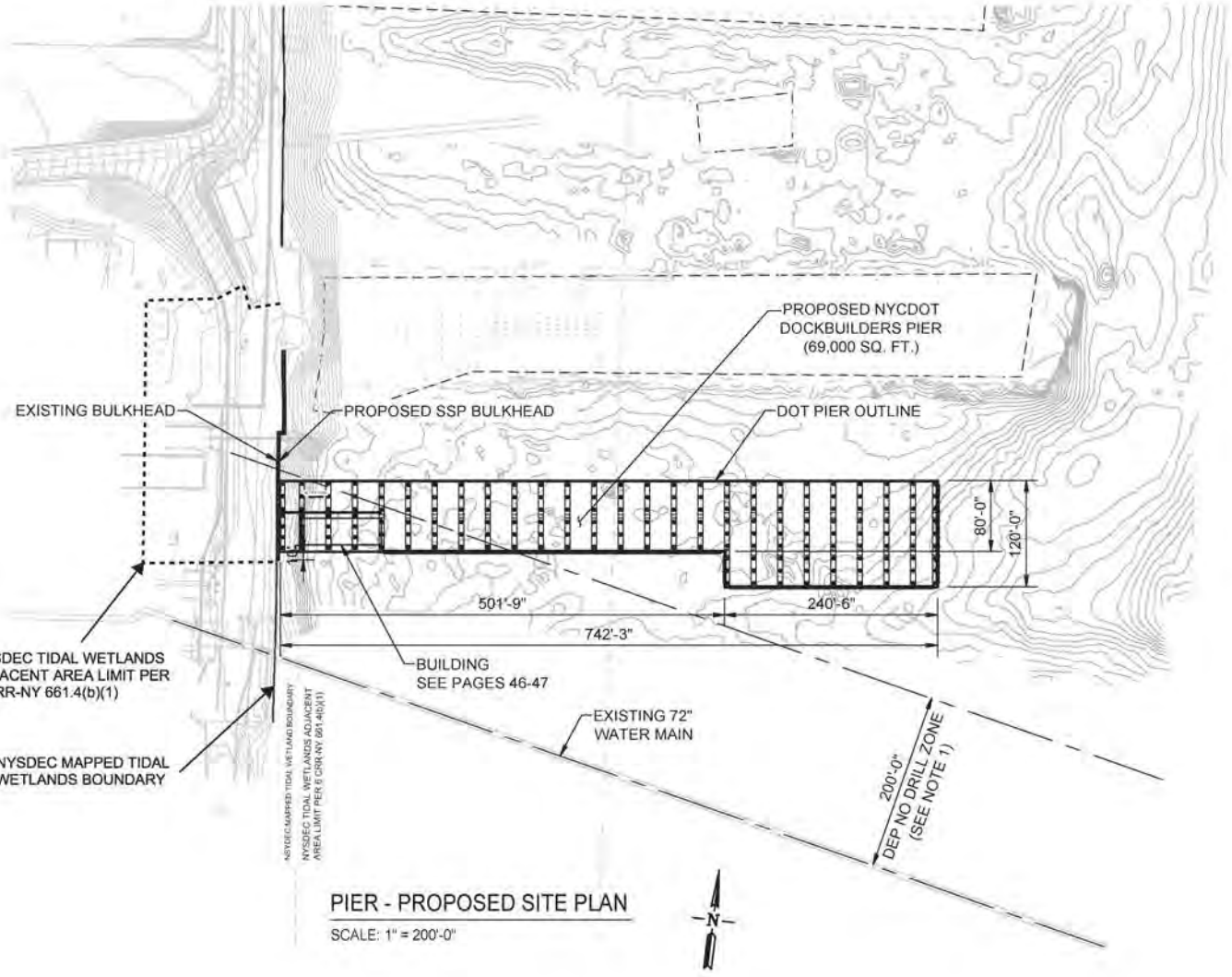
C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-25-ESPL-MS-003.dwg PERMIT-25-ESPL-MS-003 Michelle Saraswati Fri, 02 Sep 2022 - 1:57pm

NOTES

1. PER TITLE 15 OF THE RULES OF THE CITY OF NEW YORK CHAPTER 57, THE CONTRACTOR SHALL NOT DRILL WITHIN THE SPECIFIED EXLUSION ZONE WITHOUT EXPRESS WRITTEN PERMISSION FROM THE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION.



KEY PLAN



PIER - PROPOSED SITE PLAN

SCALE: 1" = 200'-0"

200 FT 40 FT 0 200 FT

1" = 200'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
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EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

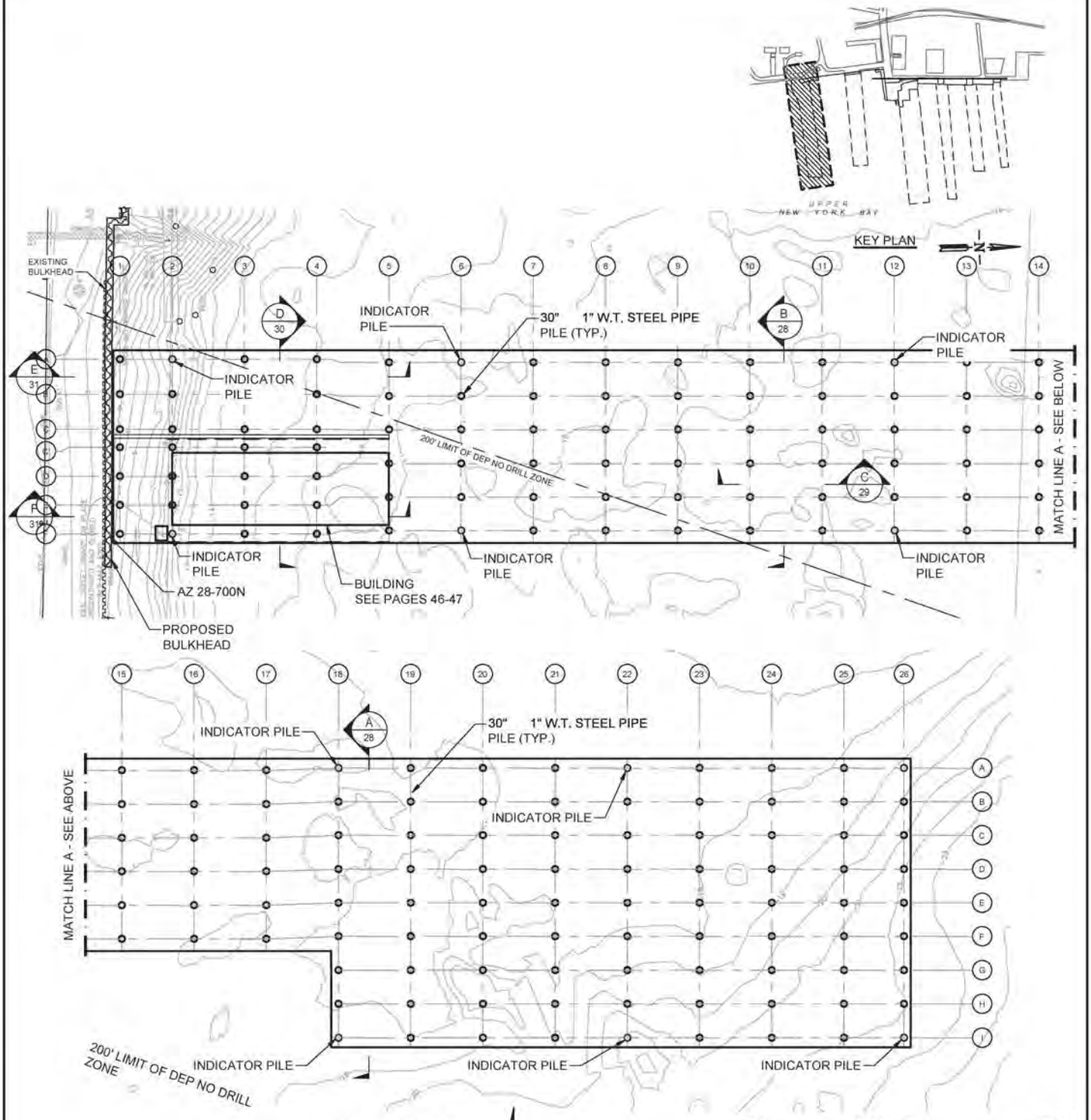
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

PIER - PROPOSED SITE PLAN

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 26 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-26-PIER-MS-003.dwg PERMIT-26-PIER-MS-003 Michelle Saraswati Fri, 02 Sep 2022 - 2:07pm



PIER - PILE PLAN

SCALE: 1" = 60'-0"

60 FT 12 FT 0 60 FT

1" = 60'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
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EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

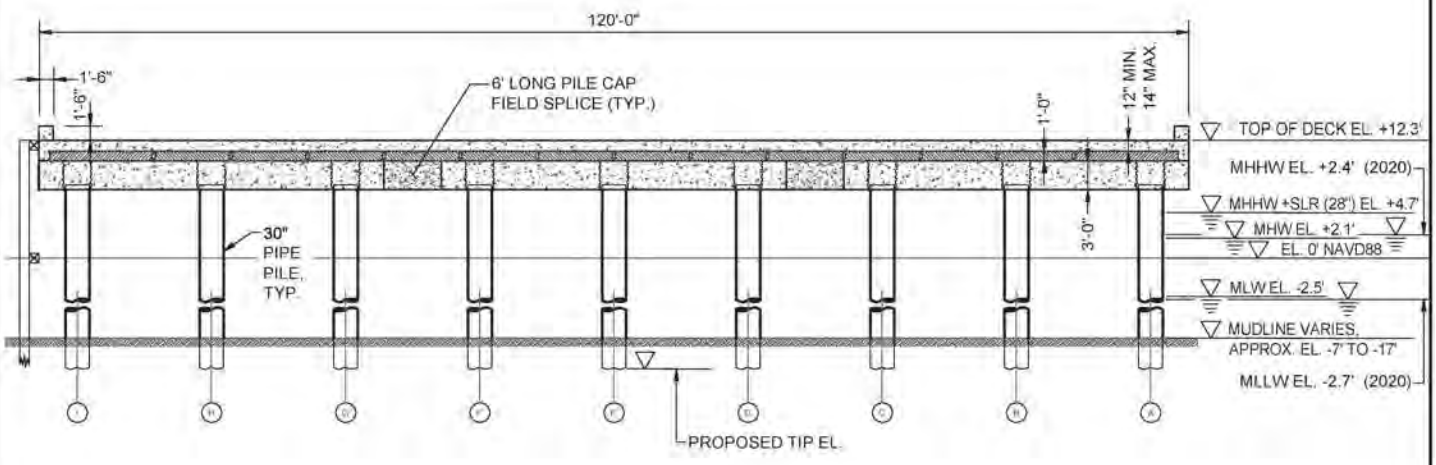
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

PIER - PILE PLAN

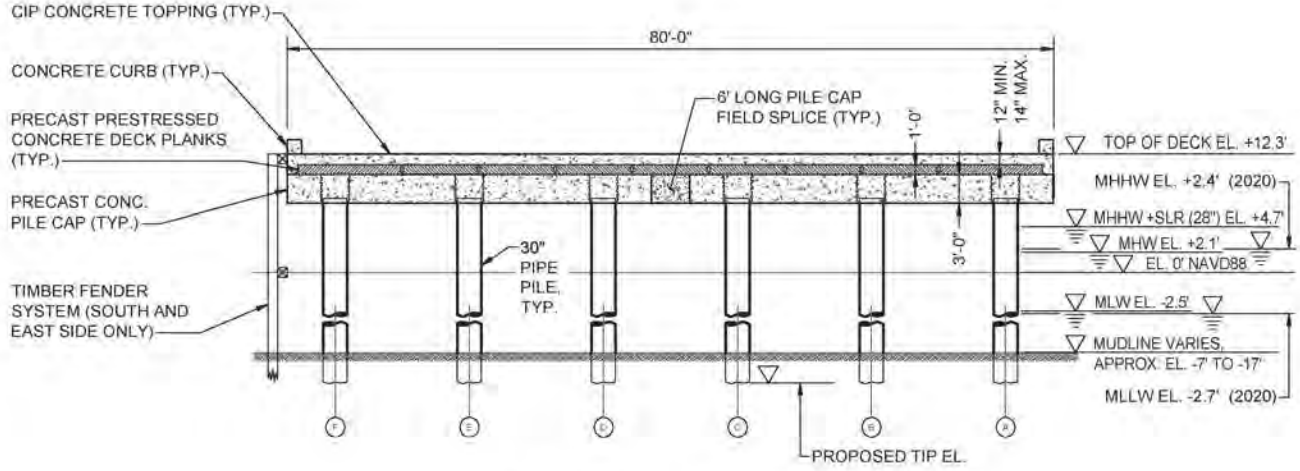
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 27 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-27-PIER-MS-201.dwg PERMIT-27-PIER-MS-201 Michelle Saraswati Fri, 02 Sep 2022 - 2:07pm



A 27 TYPICAL SECTION
SCALE: 1" = 20'-0"



B 27 TYPICAL SECTION
SCALE: 1" = 20'-0"

20 FT 4 FT 0 20 FT
1" = 20'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

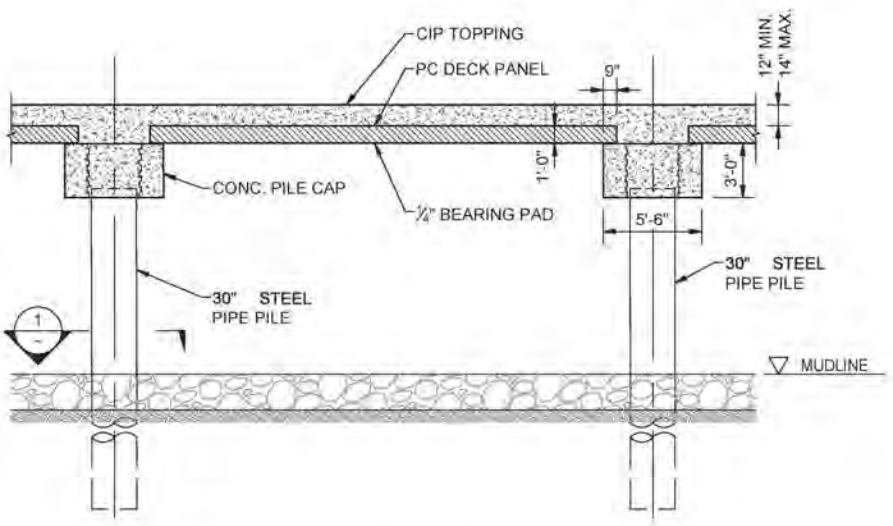
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

PIER SECTIONS 1

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 28 OF 47

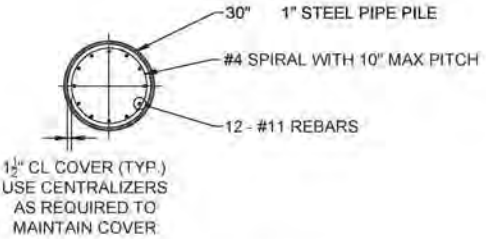
C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-28-PIER-MS-301.dwg PERMIT-28-PIER-MS-301 Michelle Saraswati Fri, 02 Sep 2022 - 2:08pm



C / 27 TYPICAL SECTION

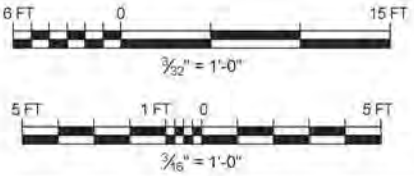
SCALE: 3/32" = 1'-0"

NOTES: REINFORCEMENT NOT SHOWN FOR CLARITY



1 / - SECTION - TYPICAL PILE

SCALE: 3/16" = 1'-0"



FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

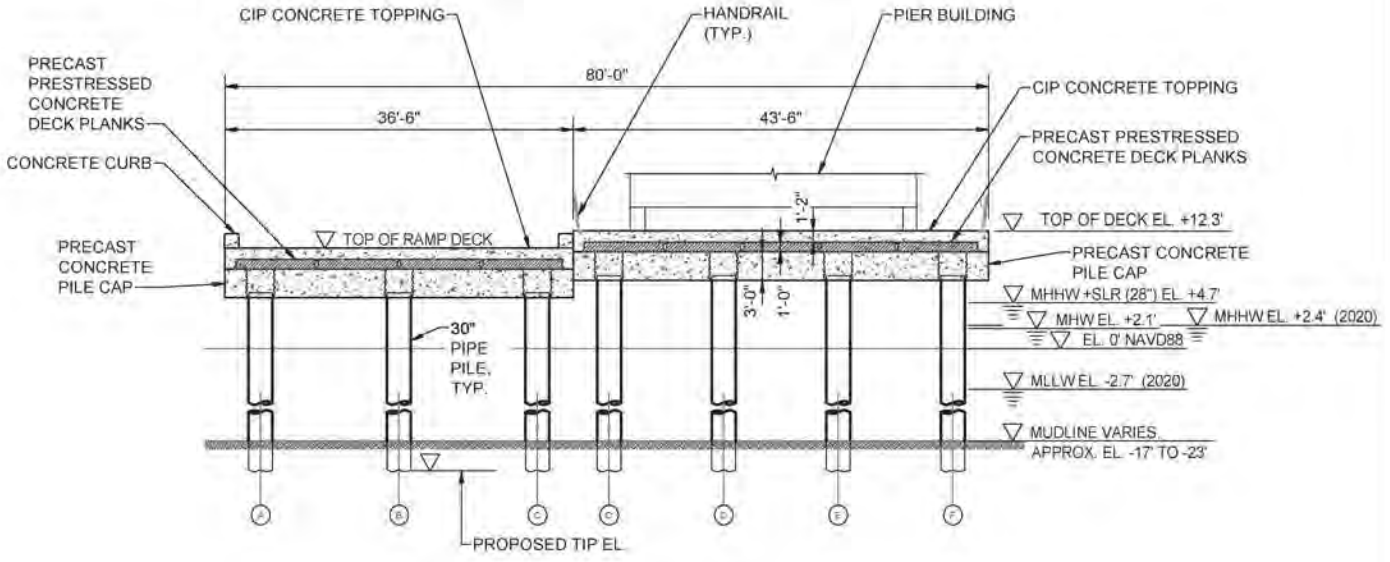
AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

PIER SECTIONS 2

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 29 OF 47



D / 27 TYPICAL SECTION

SCALE: 3/16" = 1'-0"

20 FT 4 FT 0 20 FT

1" = 20'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

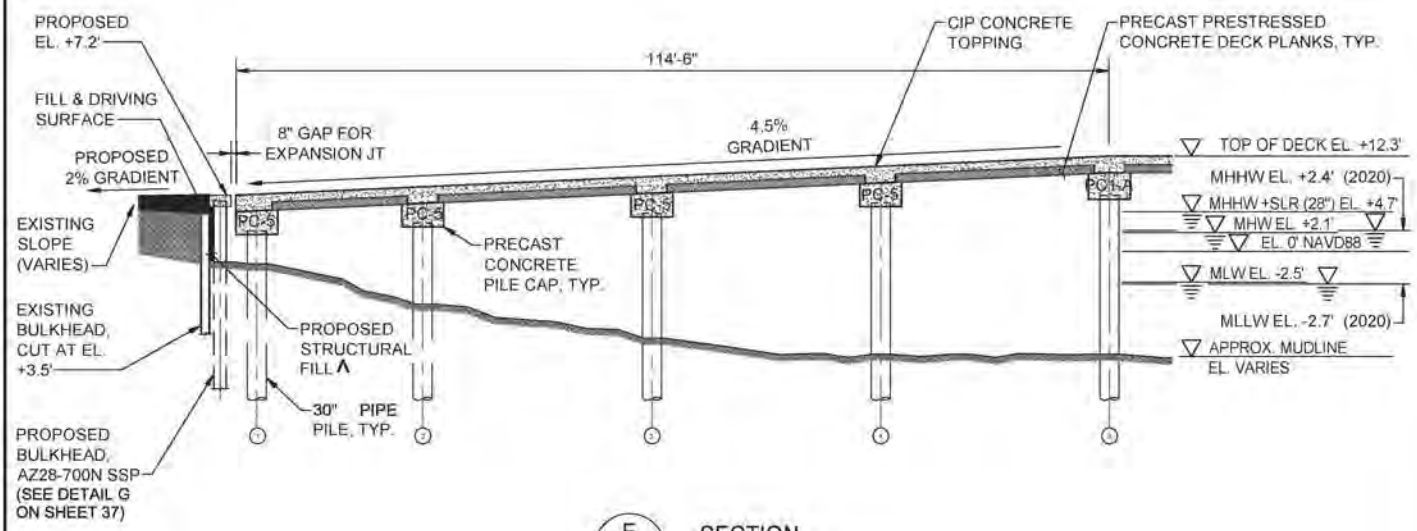
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

PIER SECTIONS 3

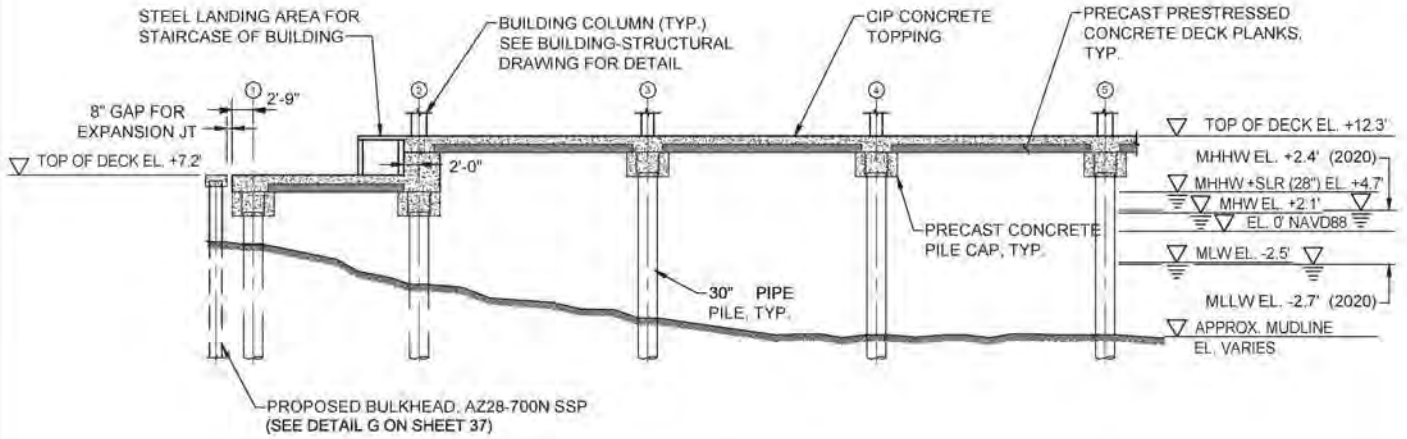
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 30 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-30-PIER-MS-303.dwg PERMIT-30-PIER-MS-303 Michelle Saraswati Fri, 02 Sep 2022 - 2:09pm



E/27 SECTION
SCALE: 1" = 25'-0"



F/27 SECTION
SCALE: 1" = 25'-0"

25 FT 1 FT 0 25 FT
1" = 25'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

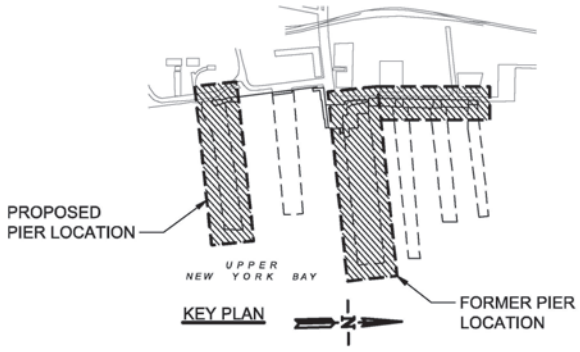
PIER SECTIONS 4

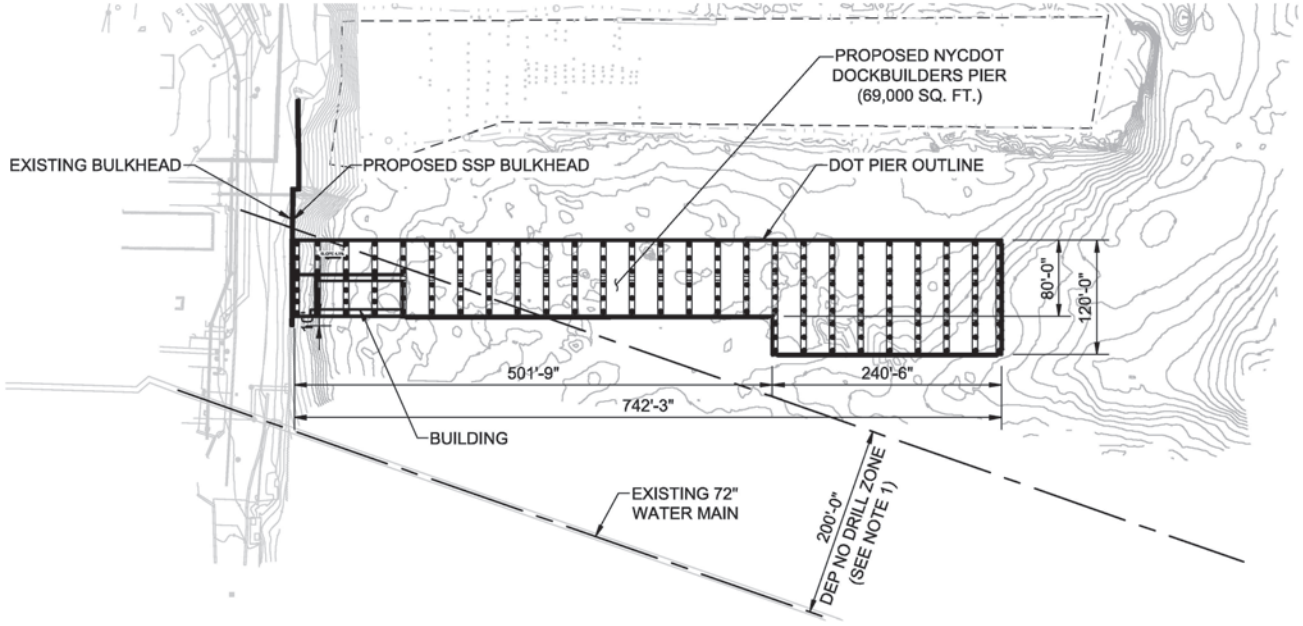
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 31 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-31-PIER-MS-302.dwg PERMIT-31-PIER-MS-302 Michelle Saraswati Fri, 02 Sep 2022 - 2:17pm

See NOAA/USACE Mitigation correspondence attached.





PROPOSED PIER SITE PLAN (SEE SHEET 26)

SCALE: 1" = 200'-0"

N

200 FT 40 FT 0 200 FT

1" = 200'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

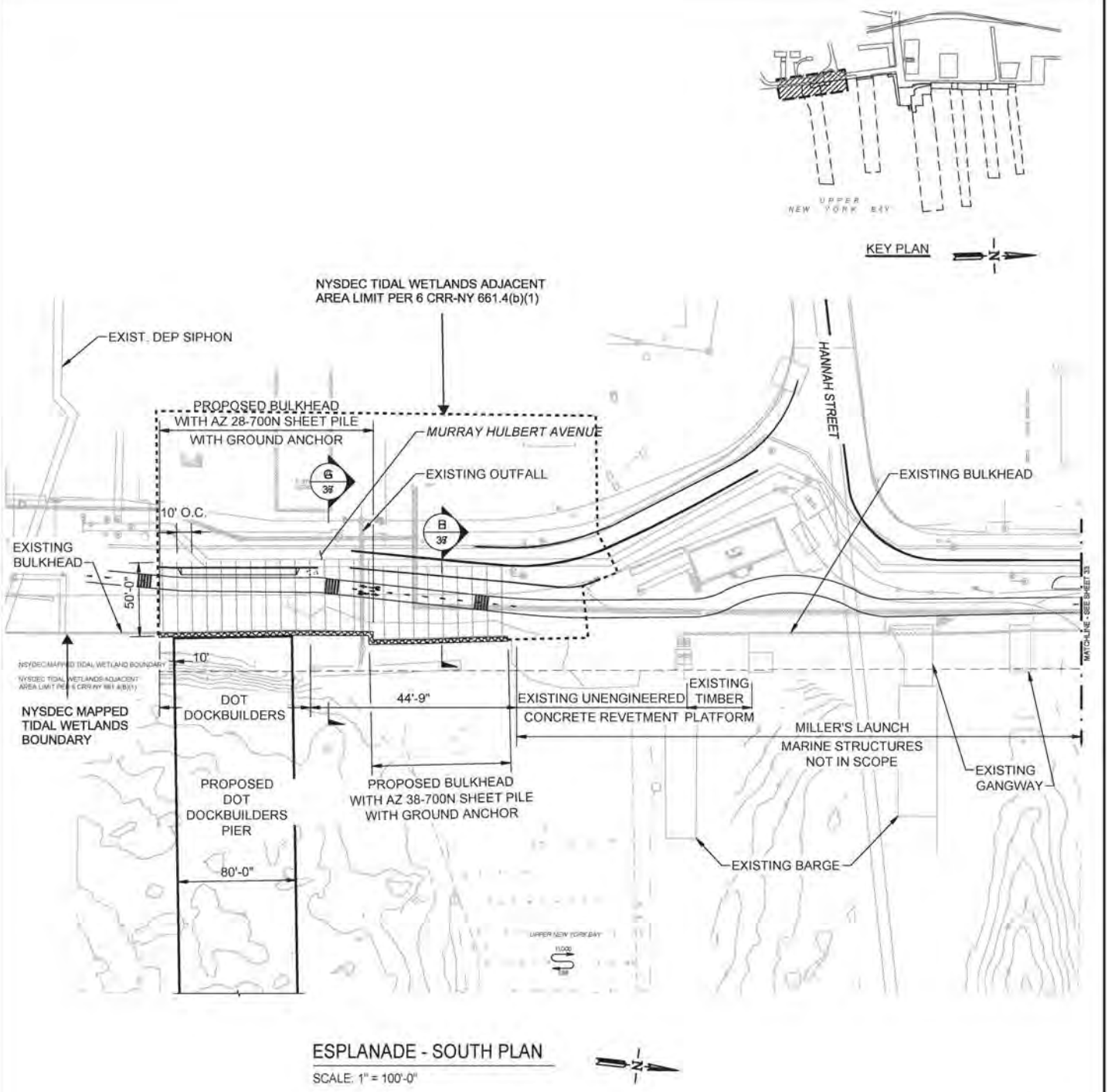
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

PIER SHADING COMPENSATION

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-32-PIER-MS-003.dwg PERMIT-32-PIER-MS-003 Michelle Saraswati Fri, 02 Sep 2022 - 2:17pm



ESPLANADE - SOUTH PLAN

SCALE: 1" = 100'-0"

100 FT 20 FT 0 100 FT

1" = 100'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

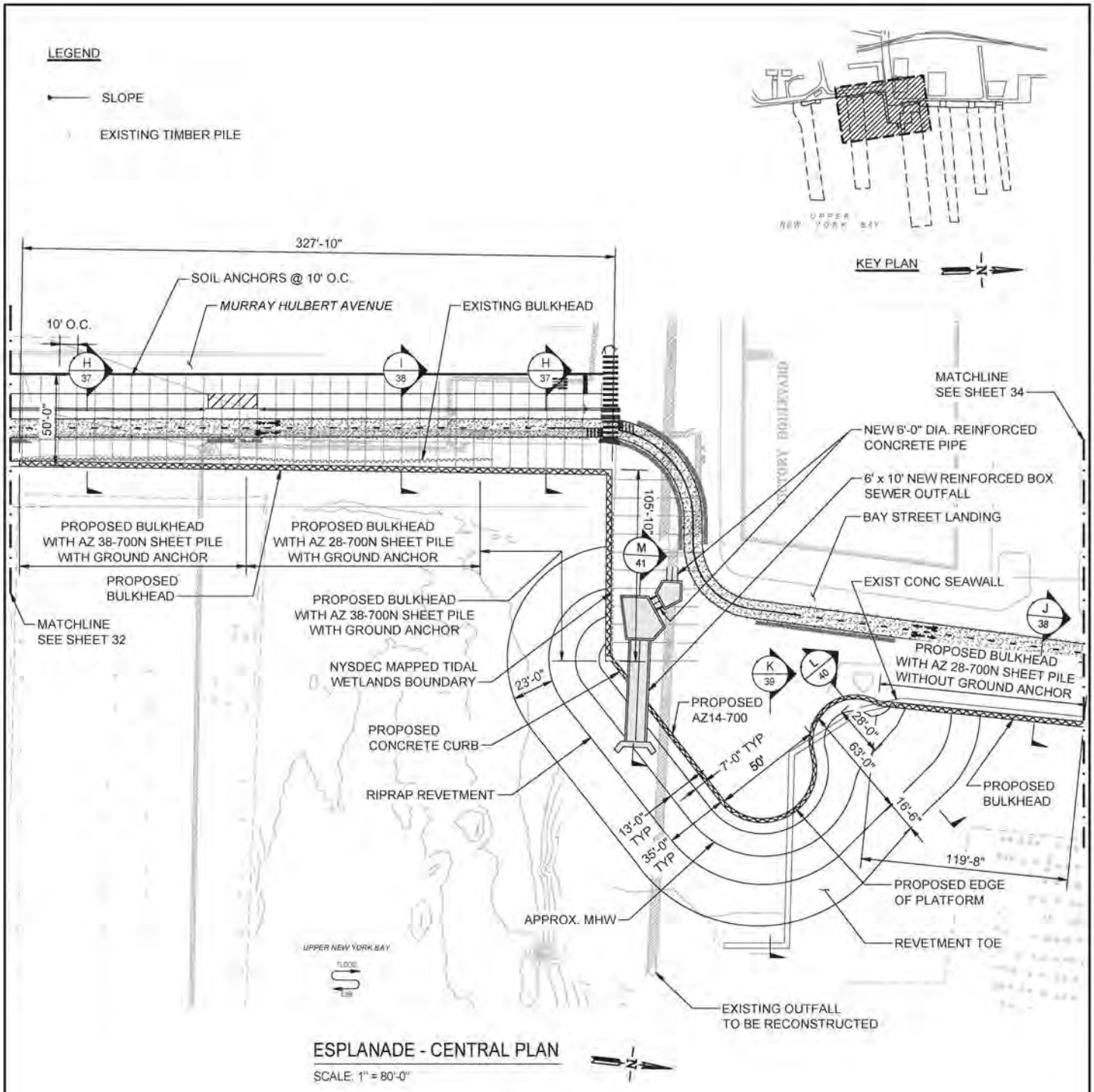
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - SOUTH PLAN

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 33 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-33-ESPL-MS-206.dwg PERMIT-33-ESPL MS-206 Michelle Saraswati Fri, 02 Sep 2022 - 2:18pm



ESPLANADE - CENTRAL PLAN

SCALE: 1" = 80'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

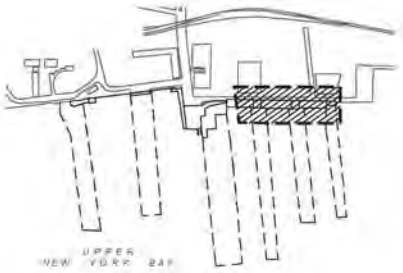
ESPLANADE - CENTRAL PLAN

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

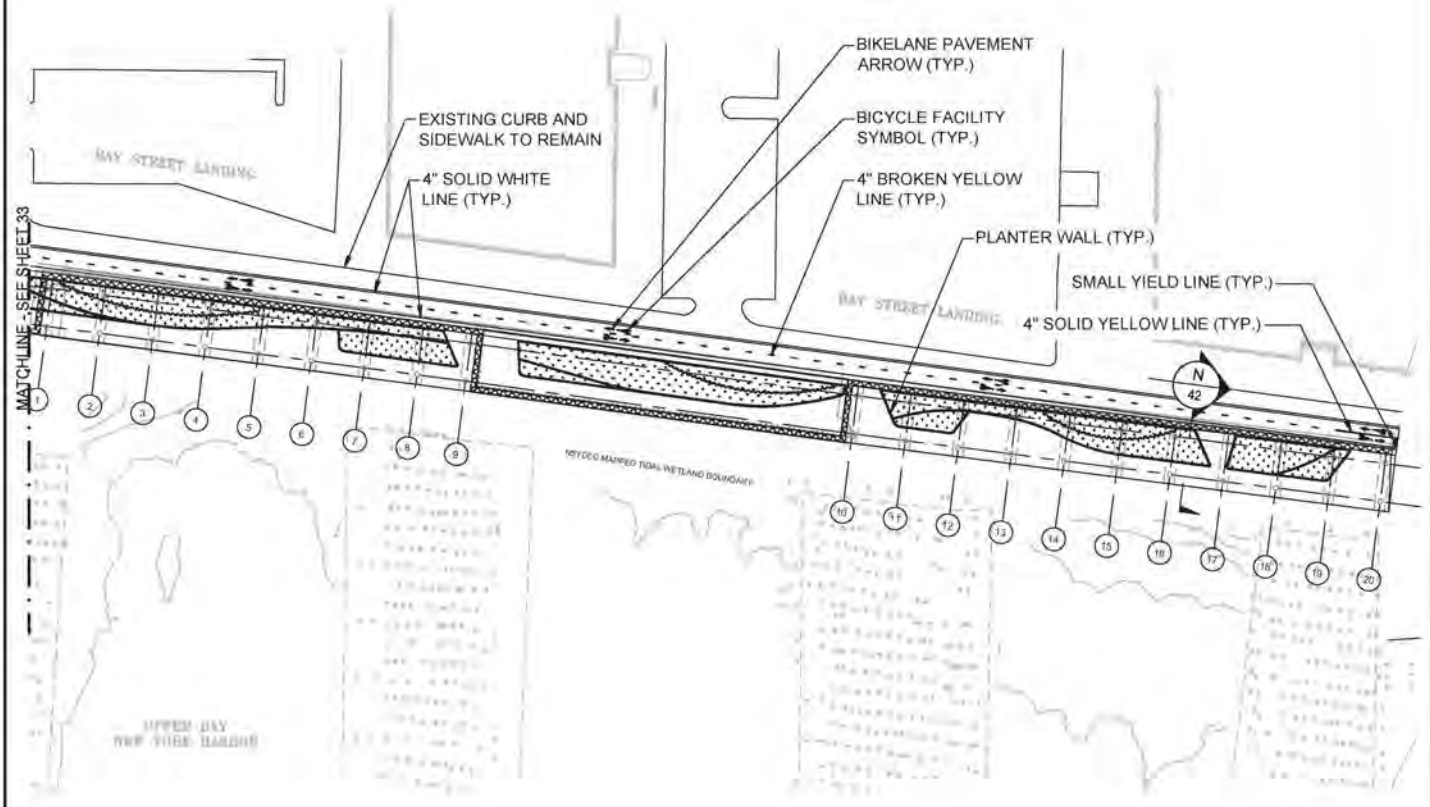
DATE: 09/09/2022

SHEET 34 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-34-ESPL-MS-205.dwg PERMIT-34-ESPL-MS-205 Michelle Saraswati Tue, 17 Oct 2023 - 2:48pm



KEY PLAN



ESPLANADE - NORTH PLAN

SCALE: 1" = 100'-0"

100 FT 20 FT 0 100 FT

1" = 100'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - NORTH PLAN

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

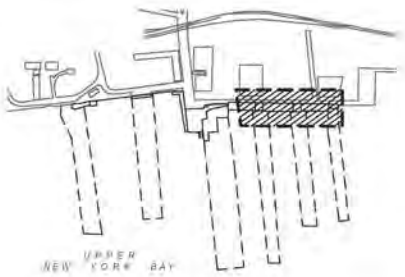
DATE: 09/09/2022 SHEET 35 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-35-ESPL-MS-204.dwg PERMIT-35-ESPL MS-204 Michelle Saraswati Fri, 02 Sep 2022 - 2:19pm

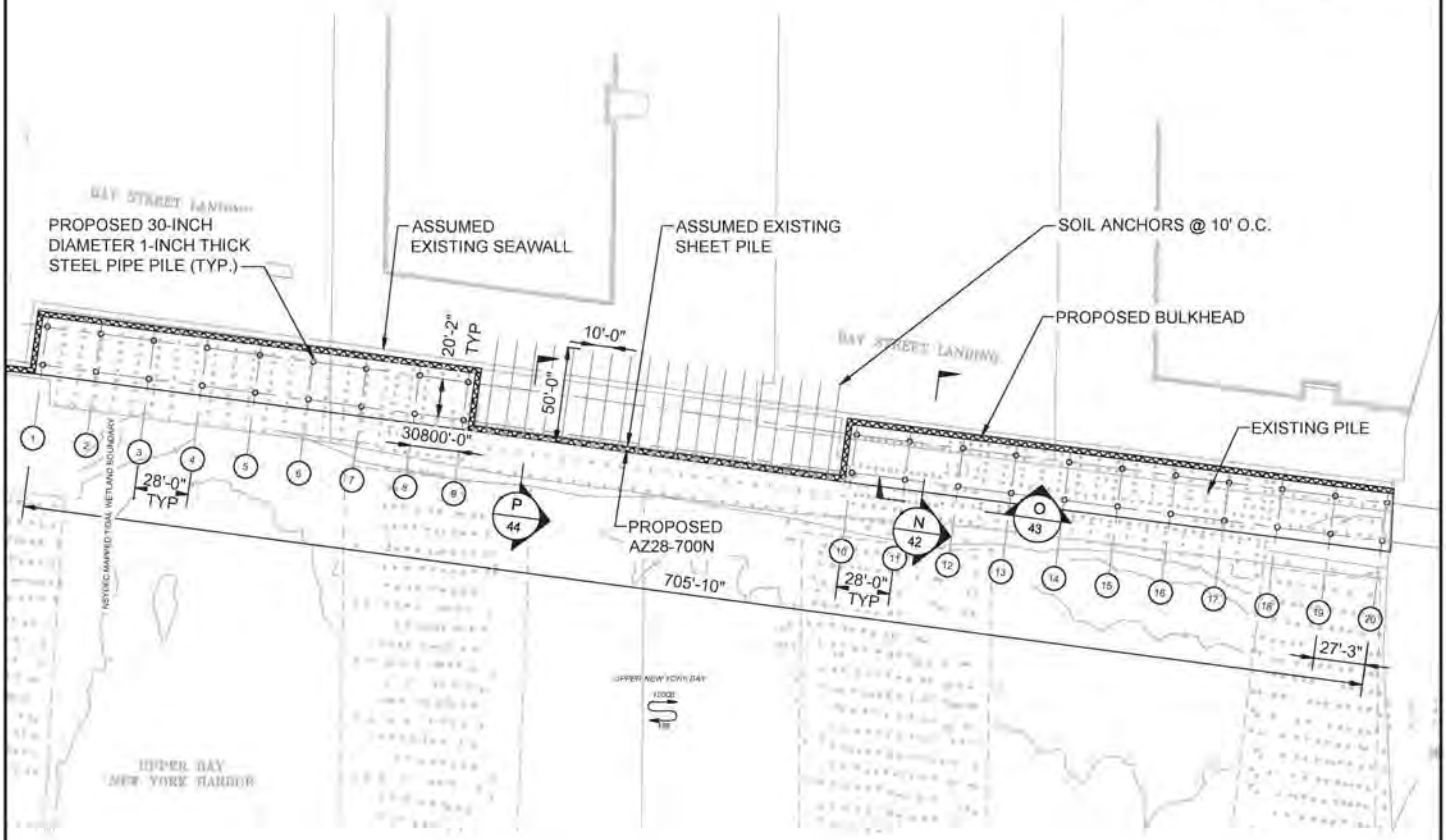
LEGEND

1 PILE BENT

A PILE ROW



KEY PLAN



ESPLANADE - SOUTH PILE PLAN

SCALE: 1" = 100'-0"

100 FT 20 FT 0 100 FT

1" = 100'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

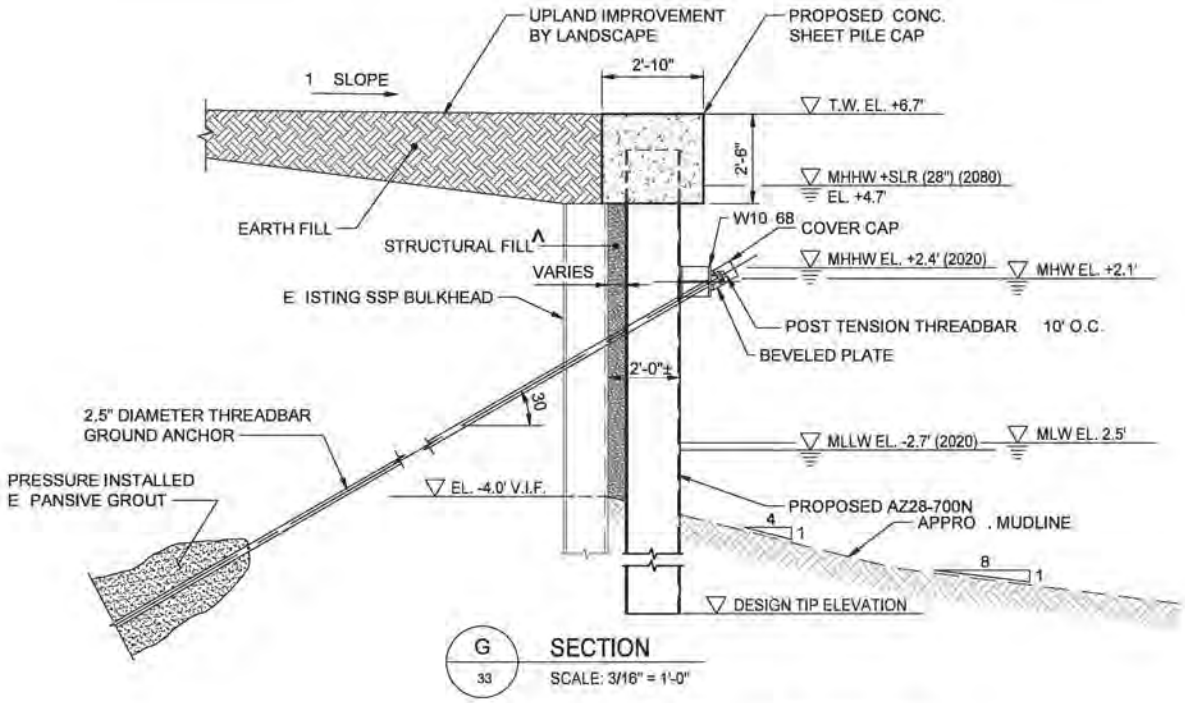
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - SOUTH PILE PLAN

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

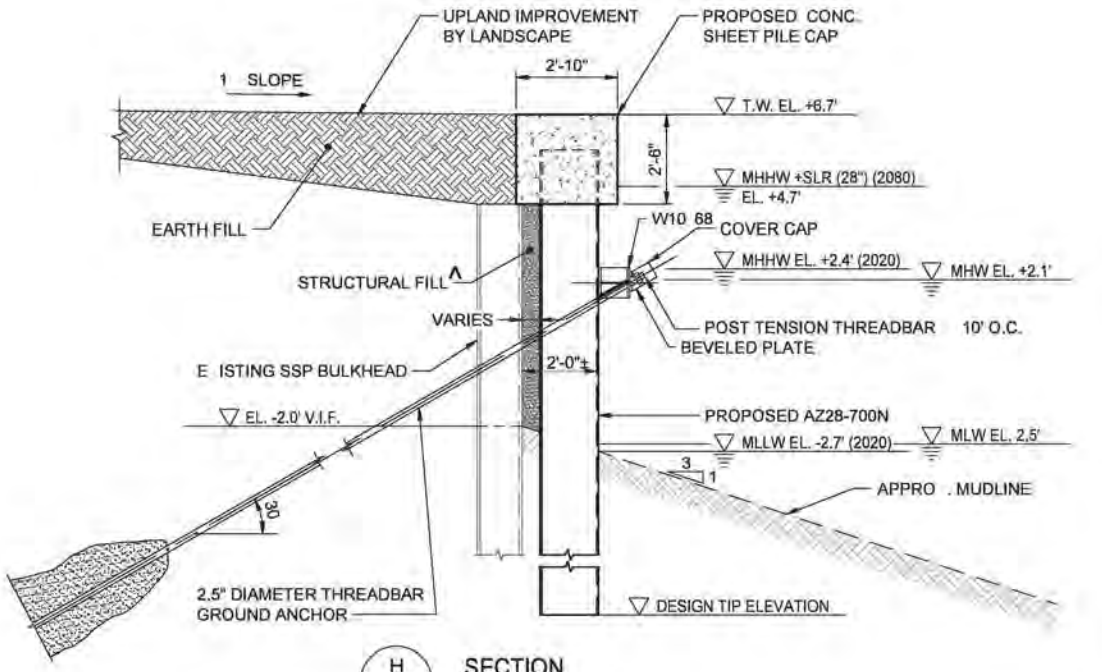
DATE: 09/09/2022 SHEET 36 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-36-ESPL-MS-201.dwg PERMIT-36-ESPL-MS-201 Michelle Saraswati Fri, 02 Sep 2022 - 2:28pm



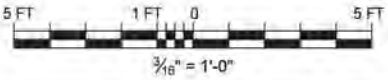
G / 33 SECTION

SCALE: 3/16" = 1'-0"



H / 33 SECTION

SCALE: 3/16" = 1'-0"



FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

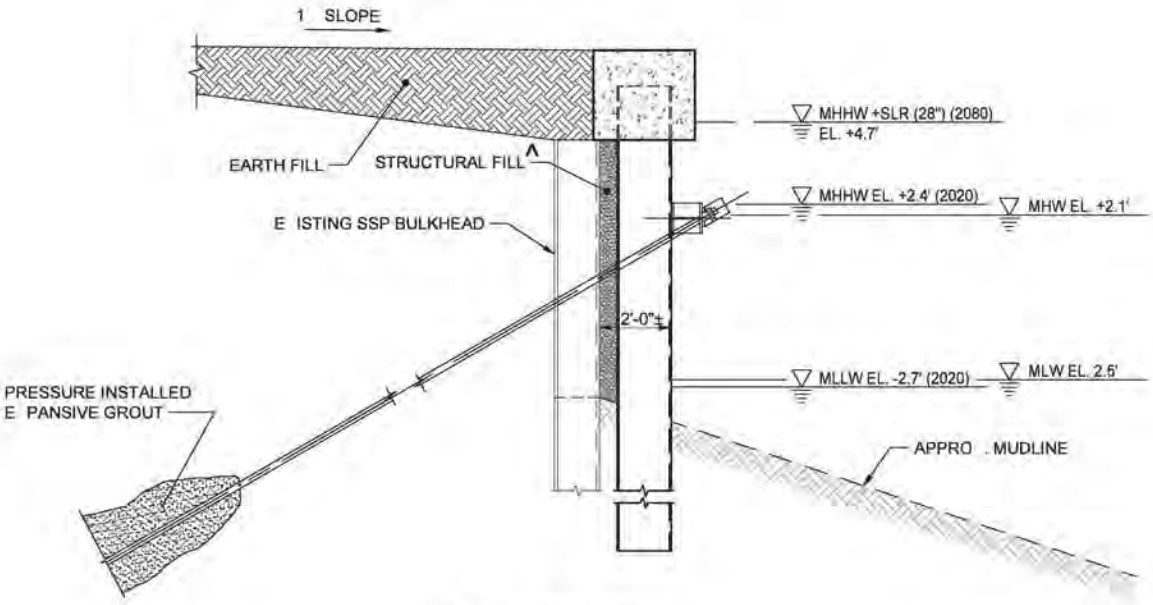
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - ANCHOR SECTIONS 1

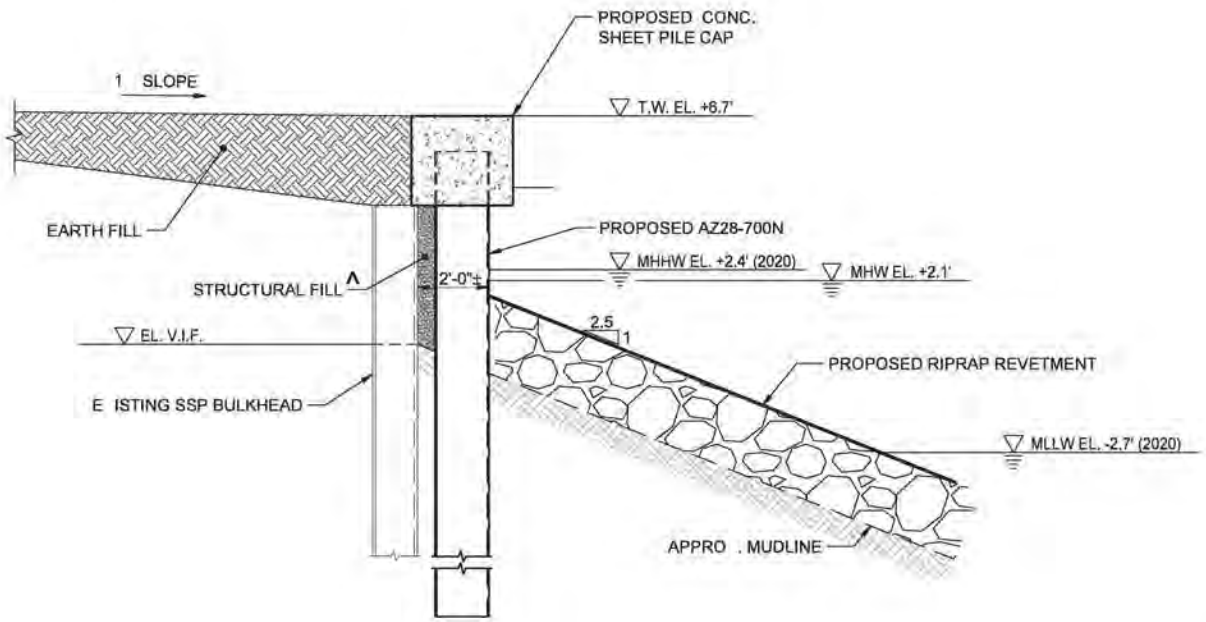
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-37-ESPL-MS-341A B.dwg PERMIT-37-ESPL-SD-341A B Michelle Saraswati Fri, 02 Sep 2022 - 2:29pm



I / 34 SECTION
SCALE: 3/16" = 1'-0"



J / 34 SECTION
SCALE: 3/16" = 1'-0"

5 FT 1 FT 0 5 FT
3/16" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

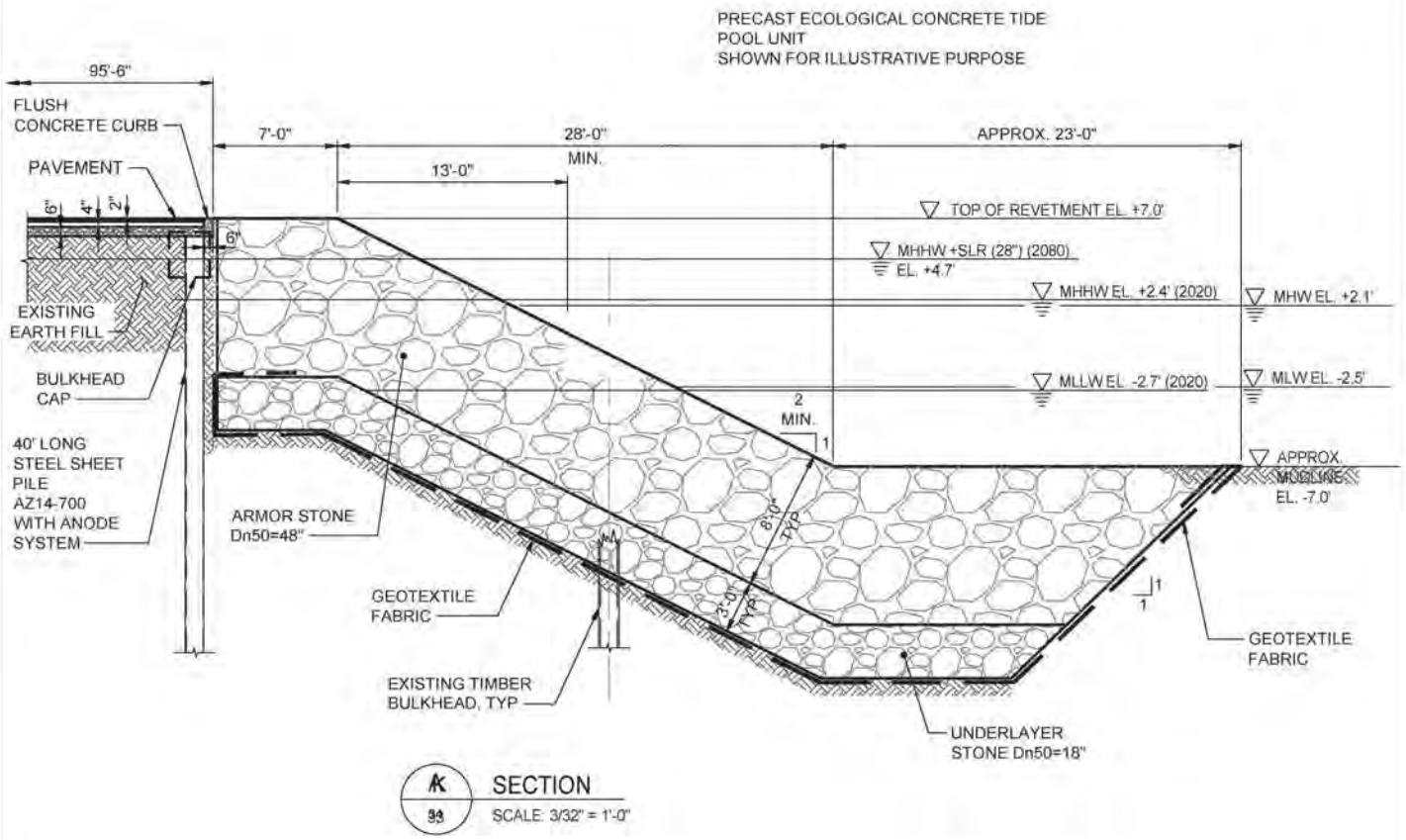
AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - ANCHOR SECTIONS 2

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 38 OF 47



SECTION

SCALE: 3/32" = 1'-0"

LEGEND

REVETMENT

TIDAL POOL

6 FT 0 15 FT

3/32" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

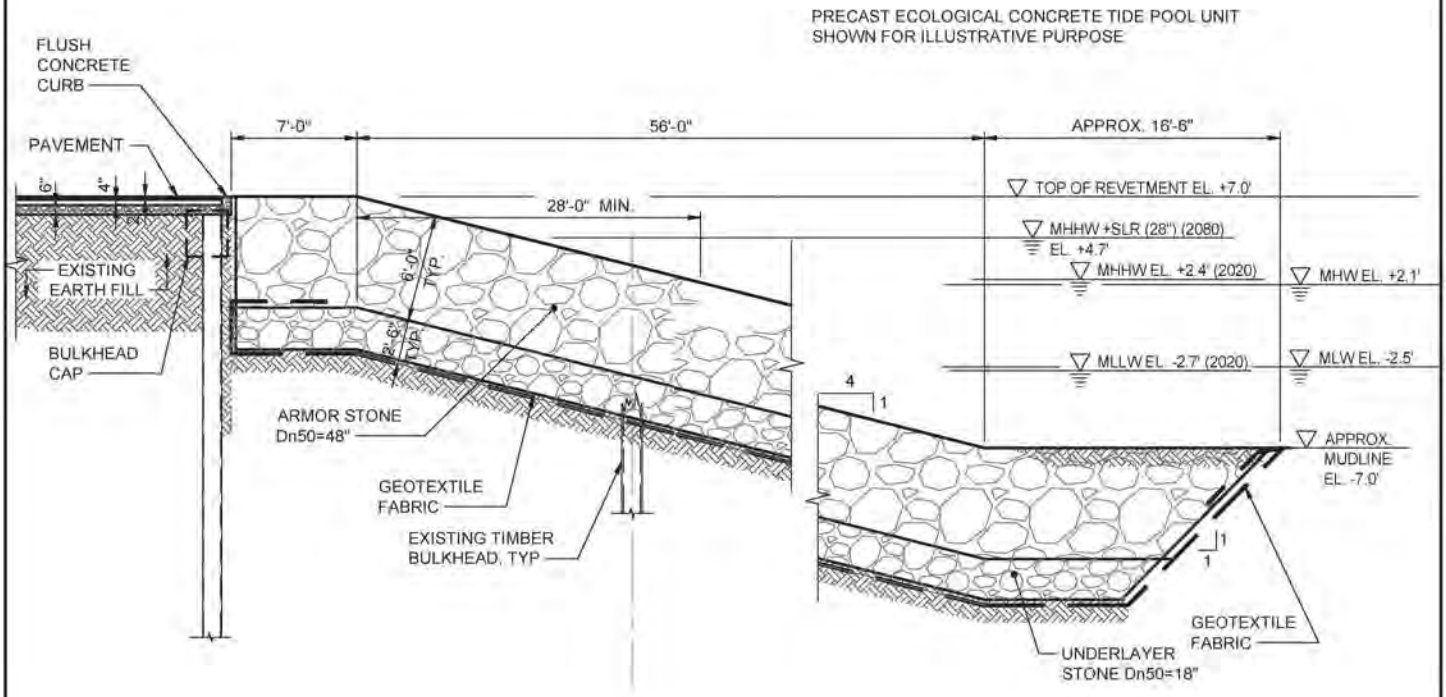
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE REVETMENT SECTIONS 1

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 39 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-39-ESPL-MS-351A.dwg PERMIT-39-ESPL-MS-351A Michelle Saraswati Fri, 02 Sep 2022 - 2:30pm



B / 38 SECTION
SCALE: 3/32" = 1'-0"

LEGEND

REVETMENT

TIDAL POOL

6 FT 0 15 FT
3/32" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

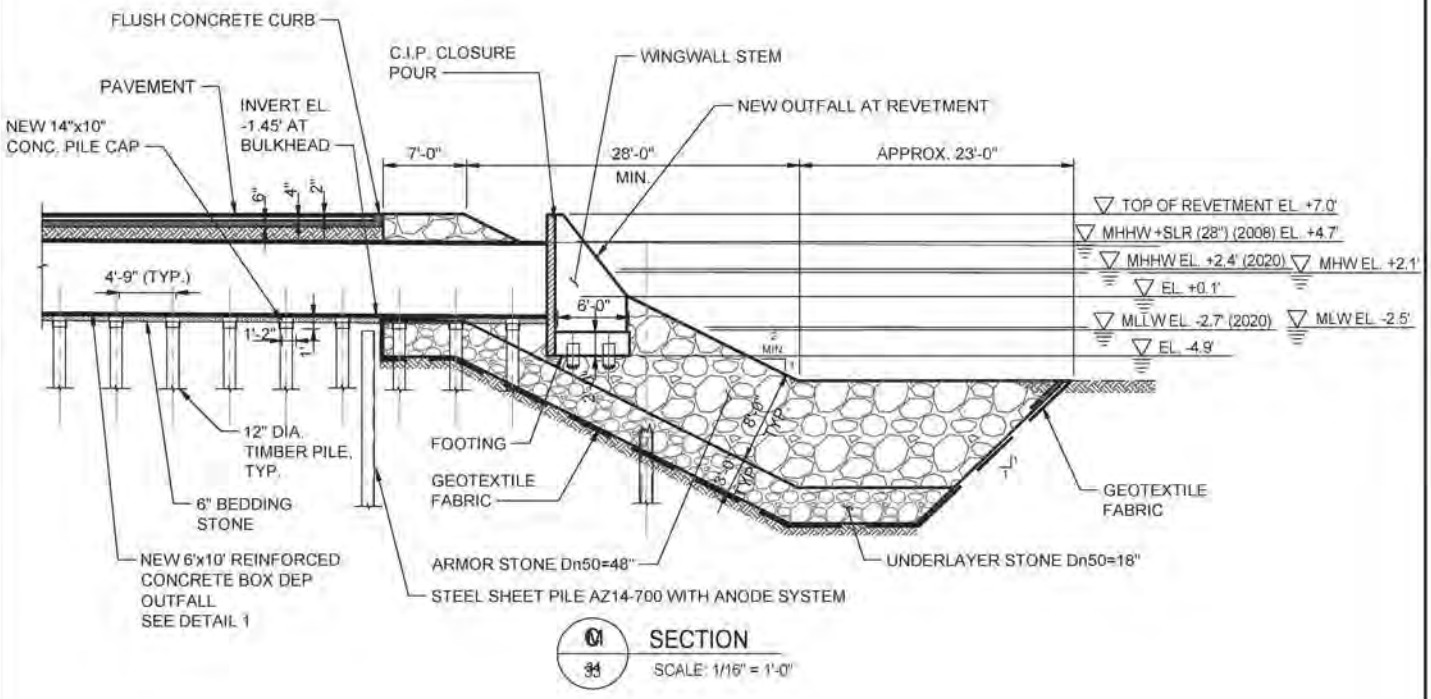
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE REVETMENT SECTIONS 2

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 40 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-40-ESPL-MS-351B.dwg PERMIT-40-ESPL-MS-351B Michelle Saraswati Fri, 02 Sep 2022 - 2:31pm



01 / 34 SECTION

SCALE: 1/16" = 1'-0"

LEGEND

REVETMENT

16 FT 4 FT 0 16 FT

1/16" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
EL. +11.5'	100 YR RETURN PERIOD
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EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

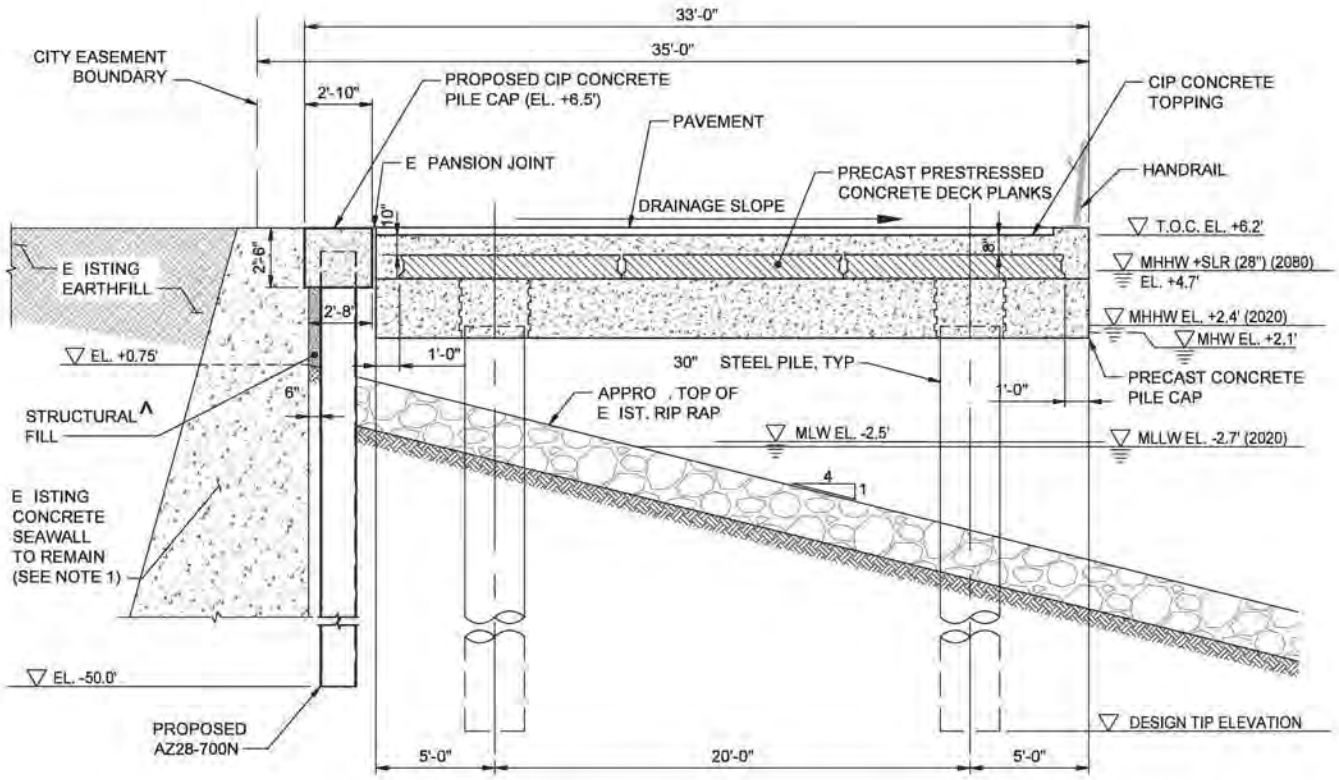
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE REVETMENT SECTIONS 3

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 41 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-41-ESPL-MS-352.dwg PERMIT-41-ESPL-MS-352 Michelle Saraswati Fri, 02 Sep 2022 - 2:36pm



N
35, 36

TYPICAL SECTION

SCALE: 1/8" = 1'-0"

NOTES

1. E ISTING CONCRETE CROSS SECTION IS ASSUMED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
2. ELEVATION OF TOP OF E ISTING SHEET PILE TO BE VERIFIED BY CONTRACTOR. E ISTING SHEET PILE SHALL BE CUT BELOW E ISTING CAP, IF ANY, AND E ISTING CAP SHALL BE REMOVED. COMPACTED GRANULAR AGGREGATE AND EARTH FILL TO BE ADDED OVER TOP OF CUT E ISTING SHEET PILE AS RE UIRED TO MEET DESIGN ELEVATION.
3. E ISTING EARTH FILL ASSUMED BASED ON FIELD OBSERVATIONS AND SHALL BE VERIFIED BY CONTRACTOR. NON-E PANSIVE FILL TO BE ADDED AND COMPACTED TO 95 AS RE UIRED TO MEET DESIGN ELEVATION.

8 FT 2 FT 0 8 FT

1/8" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

1. SPRING HIGH TIDE IS SHOWN VIA MHHW.
2. VERTICAL CONTROL: ELEVATIONS SHOWN ARE BASED ON NAVD88 UNLESS OTHERWISE NOTED.
3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

WATER LEVEL	ELEVATION (NAVD88)
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EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

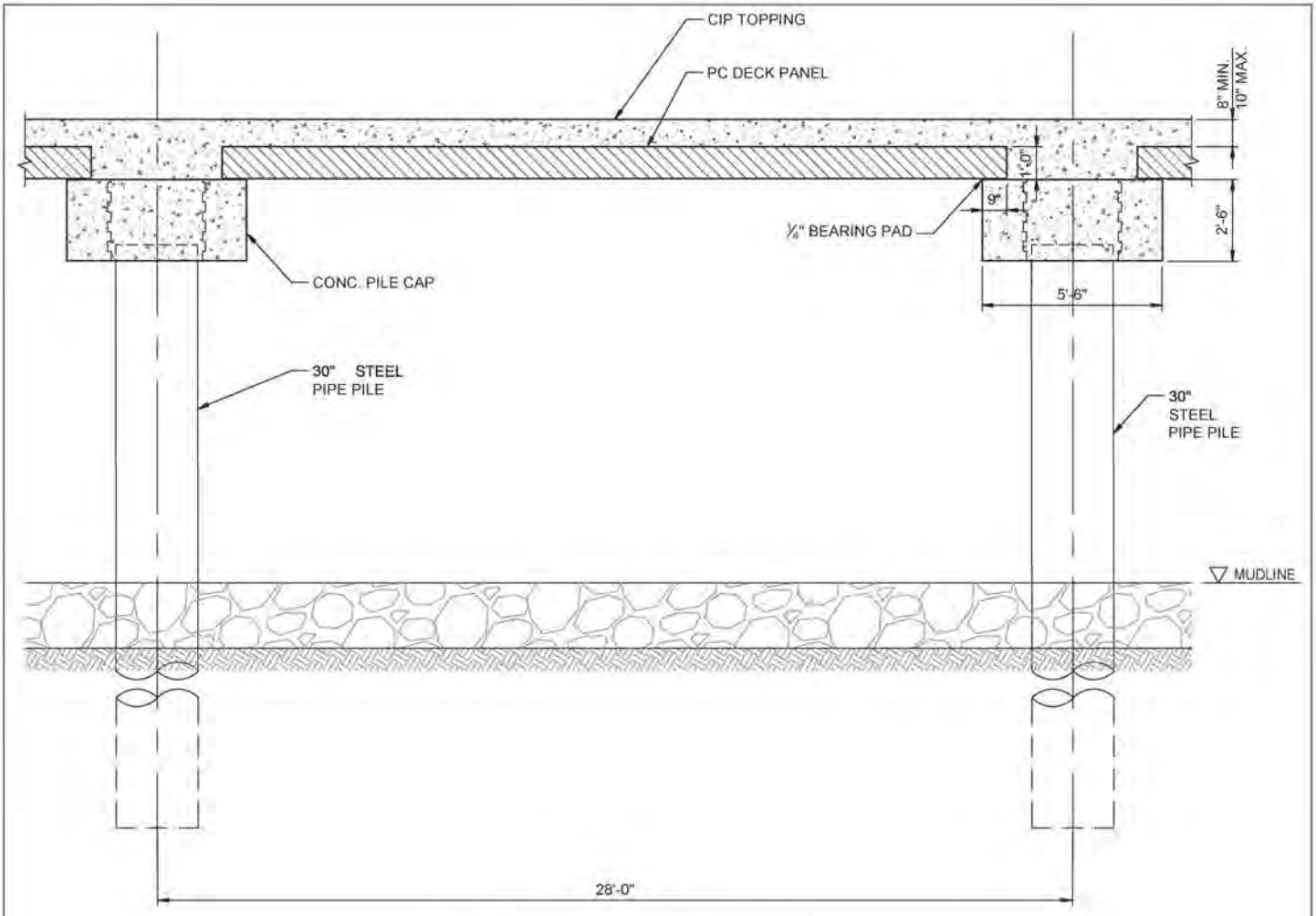
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

BAY STREET LANDING OVERALL SECTIONS 1

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 42 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-42-ESPL-MS-301A.dwg PERMIT-42-ESPL MS-301A Michelle Saraswati Fri, 02 Sep 2022 - 2:37pm



B
36

TYPICAL SECTION

SCALE: 1/8" = 1'-0"

NOTES

1. PLUG SEAL PLATE SHOWN IS CONCEPTUAL. ACTUAL PLUG DETAILS SHALL BE DESIGNED BY THE CONTRACTOR AND SUBMITTED FOR ENGINEER APPROVAL.
2. HSS 6x3 FOR SUPPORTING THE PRECAST CAP ON THE PILE IS CONCEPTUAL. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND SELECTION OF TEMPORARY SUPPORT MEANS AND METHODS.
3. CONTRACTOR IS RESPONSIBLE FOR THE SELECTION OF PILE SHOE TO MEET ANTICIPATED DRIVING CONDITIONS, TO ASSURE PILES REACH THE DESIGN TIP ELEVATION AND TO PERMIT DRILLING THROUGH OBSTRUCTIONS IN ACCORDANCE TO THE PROJECT SPECIFICATIONS.

5 FT 1 FT 0 5 FT

3/16" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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WATER LEVEL	ELEVATION (NAVD88)
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EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

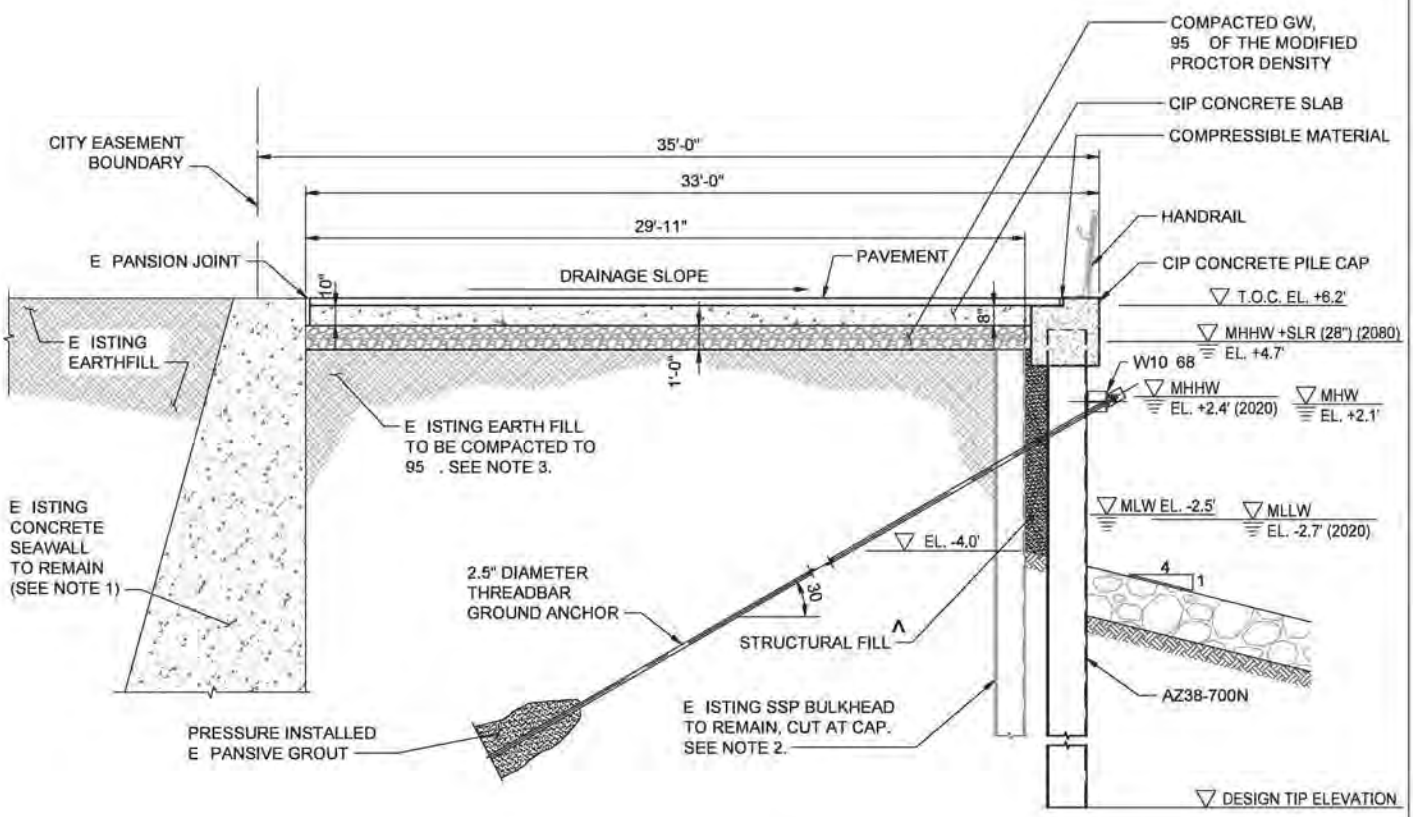
AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

BAY STREET LANDING OVERALL SECTIONS 2

DATE: 09/09/2022

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-43-ESPL-MS-302A.dwg PERMIT-43-ESPL-MS-302A Michelle Saraswati Fri, 02 Sep 2022 - 2:37pm



P
36

TYPICAL SECTION

SCALE: 1/8" = 1'-0"

NOTES

1. E ISTING CONCRETE CROSS SECTION IS ASSUMED AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
2. ELEVATION OF TOP OF E ISTING SHEET PILE TO BE VERIFIED BY CONTRACTOR. E ISTING SHEET PILE SHALL BE CUT BELOW E ISTING CAP, IF ANY, AND E ISTING CAP SHALL BE REMOVED. COMPACTED GRANULAR AGGREGATE AND EARTH FILL TO BE ADDED OVER TOP OF CUT E ISTING SHEET PILE AS RE UIRED TO MEET DESIGN ELEVATION.
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8 FT 2 FT 0 8 FT

1/8" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

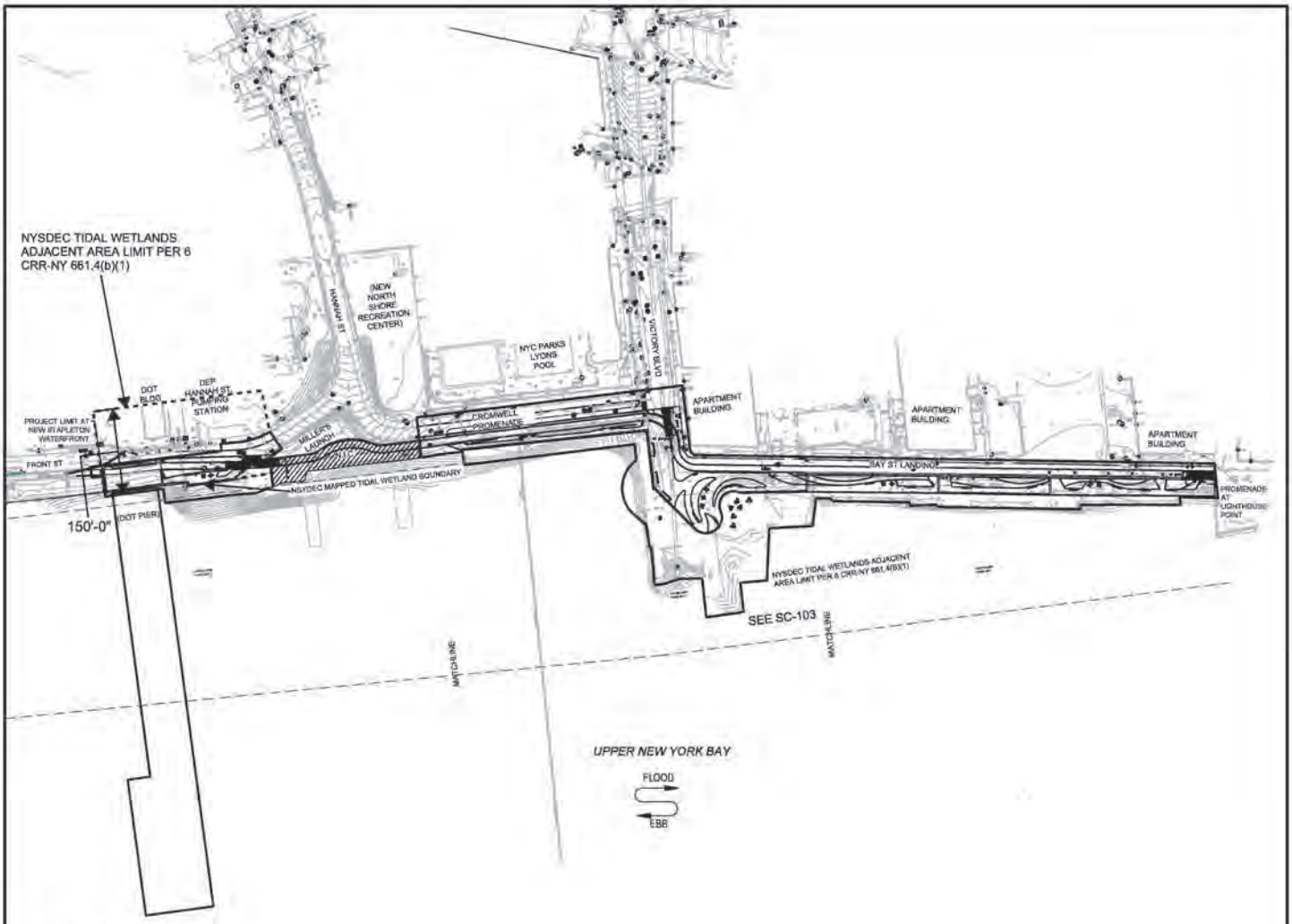
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

BAY STREET LANDING OVERALL SECTIONS 3

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 44 OF 47

C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-44-ESPL-MS-301B.dwg PERMIT-44-ESPL-MS-301B Michelle Saraswati Fri, 02 Sep 2022 - 2:38pm



LEGEND

- CONTRACT LIMIT LINE
- SILT FENCE
- SEA RAIL
- CONSTRUCTION FENCE
- INLET PROTECTION
- STABILIZED CONSTRUCTION ACCESS

ESPLANADE - EROSION AND SEDIMENT CONTROL PLAN - OVERALL

SCALE: 1" = 300'-0"

300 FT 60 FT 0 300 FT

1" = 300'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

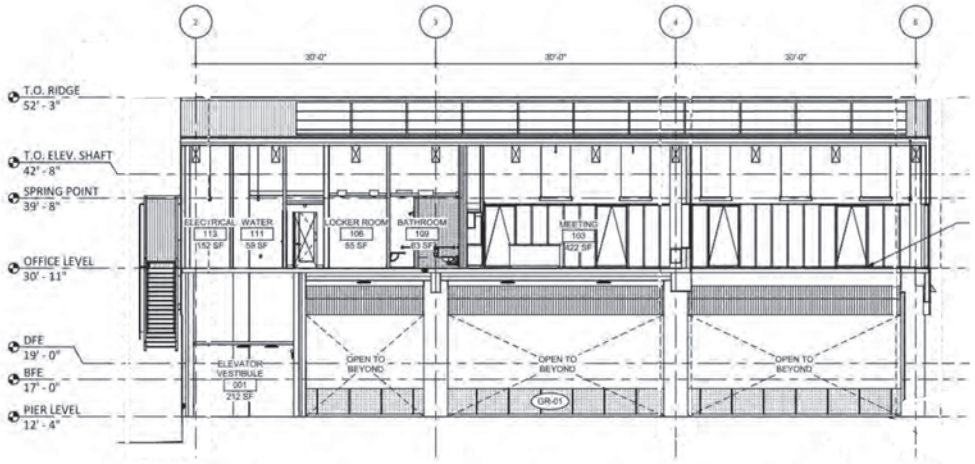
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

ESPLANADE - EROSION AND SEDIMENT CONTROL PLAN OVERALL

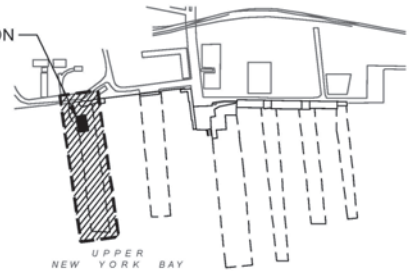
NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022 SHEET 45 OF 47

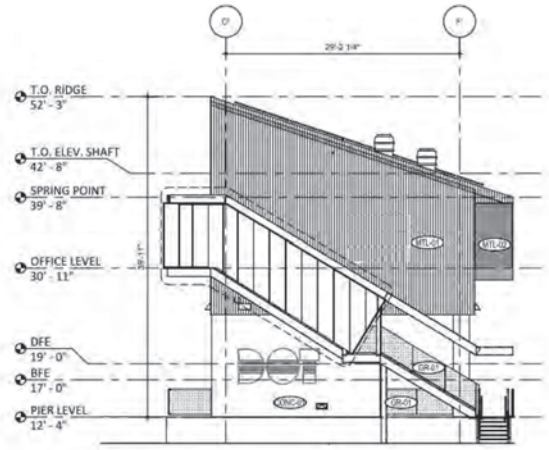
C:\pwwork\dklypw2\mcls\d0860743\A111961-PERMIT-45-ESPL-SC-101.dwg PERMIT-45-ESPL-SC-101 Michelle Saraswati Fri, 02 Sep 2022 - 2:38pm



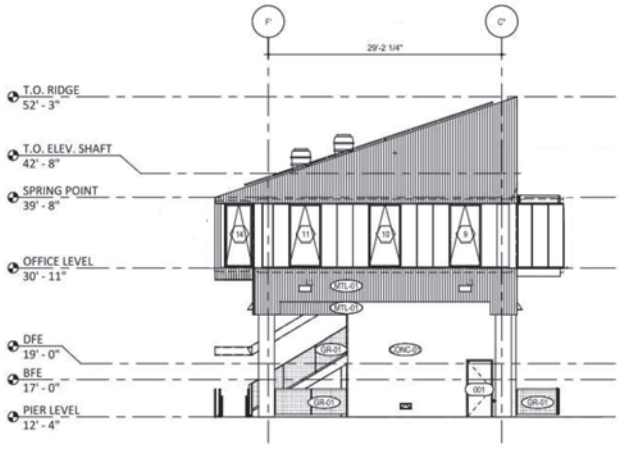
EAST-WEST SECTION
1/8" = 1'-0"



KEY PLAN



WEST ELEVATION
1/8" = 1'-0"



EAST ELEVATION
1/8" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

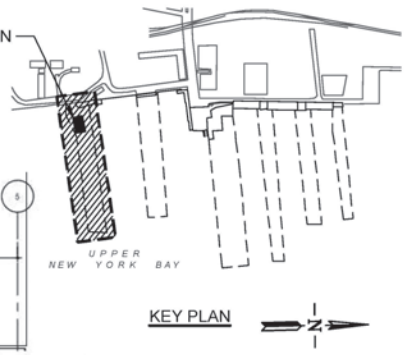
TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

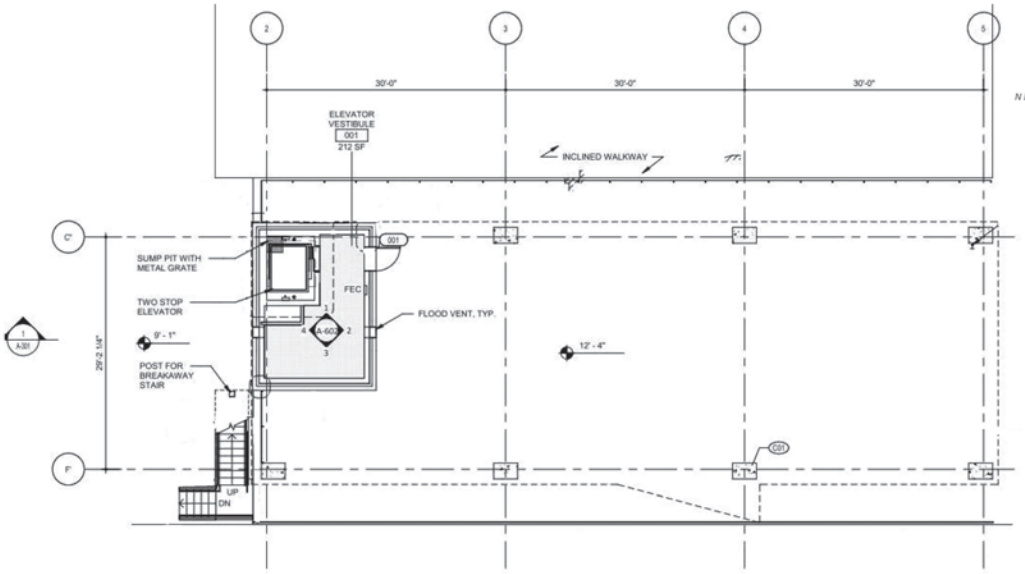
BUILDING & BUILDING ELEVATIONS

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

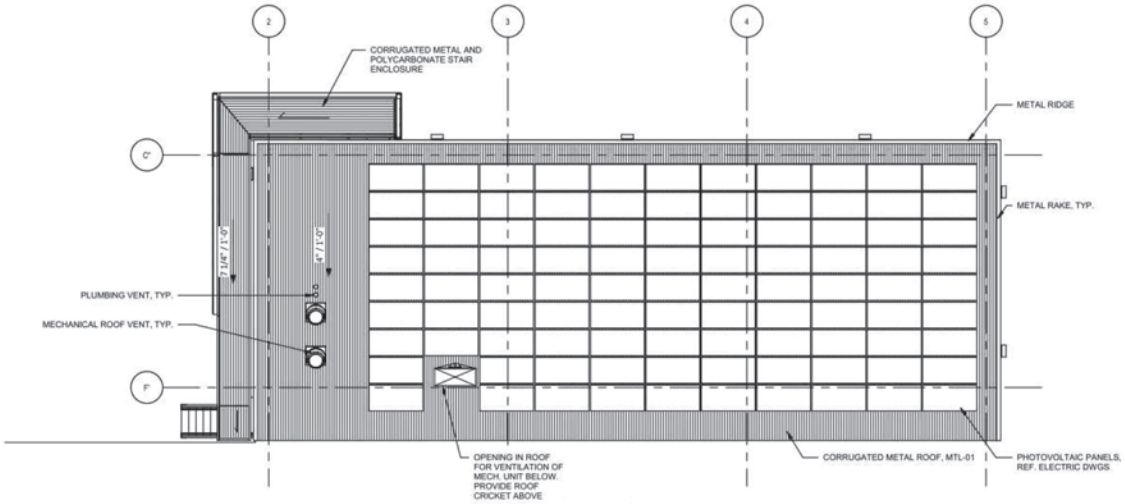
DATE: 09/09/2022

C:\pwwork\dklypw2\cowi_axmn\d0860743\A111961-PERMIT-46.dwg PERMIT-46 Alex MacPherson Fri, 02 Sep 2022 - 1:21pm





PIER LEVEL PLAN
1/8" = 1'-0"



ROOF PLAN
1/8" = 1'-0"

FOR PERMIT USE ONLY
NOT FOR CONSTRUCTION

NOTES

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3. HORIZONTAL CONTROL: NORTH AMERICAN DATUM OF 1983 (NAD 83) NEW YORK LONG ISLAND STATE PLANE.

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EL. +10.1'	50 YR RETURN PERIOD
EL. + 7.1'	10 YR RETURN PERIOD
EL. + 2.4'	M.H.H.W.
EL. + 2.1'	M.H.W.
EL. + 0.0'	N.A.V.D. 1988
EL. - 2.5'	M.L.W.
EL. - 2.7'	M.L.L.W.

AGENT:
BTMI AS COWI

TOMPKINSVILLE
DOT DOCKBUILDER PIER AND ESPLANADE
(PERMIT DRAWING SET)

BUILDING

NEW YORK CITY
ECONOMIC DEVELOPMENT CORPORATION

DATE: 09/09/2022

SHEET 47 OF 47

C:\pwwork\dklypw2\cowi_axmn\d0860743\A111961-PERMIT-47.dwg PERMIT-47 Alex MacPherson Fri, 02 Sep 2022 - 1:31pm