

**APPENDIX M**  
**CASE 10-T-0139**  
**WATERBODY INVENTORY (114A) & WETLAND**  
**DELINEATION REPORT**

# Wetland & Waterbodies Delineation Report



## Champlain Hudson Power Express Segments 13, 14 & 15-Package 8

### Bronx - Astoria, New York

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*CHA Project Number: 066076*

*Prepared for:*  
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***July 2023***

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- Attachment 2 NWI & State Wetland and Stream Mapping
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- Attachment 5 Wetlands and Waterbodies Delineation Mapping
- Attachment 6 Waterbody Photographs



## **1.0 INTRODUCTION**

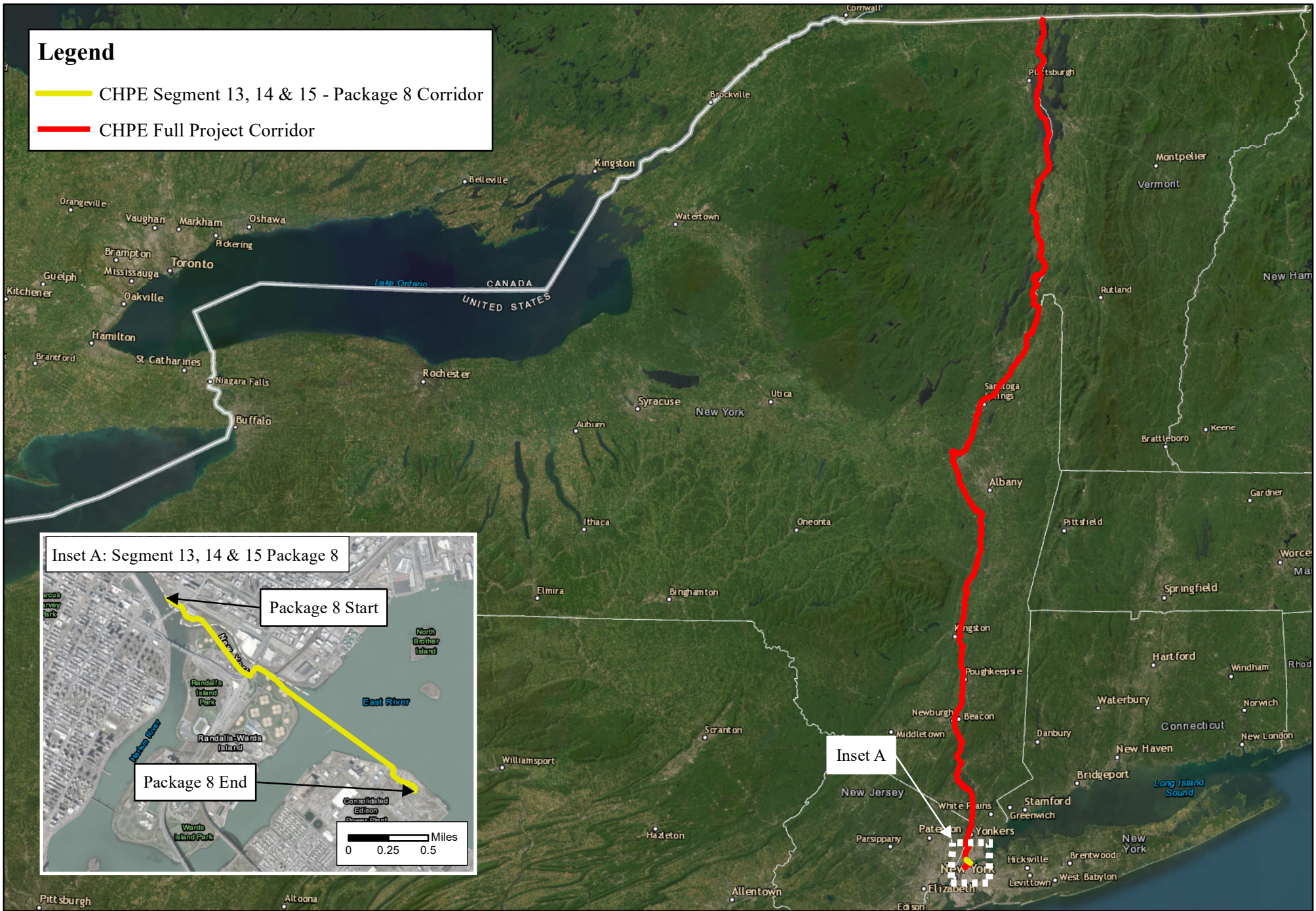
CHA Consulting, Inc. (“CHA”) has prepared this wetland and waterbodies delineation report on behalf of Champlain Hudson Power Express, Inc. (“CHPE, LLC”) and Kiewit Construction (Kiewit) for the Champlain Hudson Power Express Project (Project). CHA was retained by Kiewit to identify and delineate jurisdictional wetlands and waterways regulated under Section 404 of the Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act of 1899, Article 15 (Title 5 Protection of Waters Program), Article 25 (Tidal Wetlands Act) and Article 24 (Freshwater Wetlands Act (FWW)) of the Environmental Conservation Law along the overland transmission cable route that follows State, county and local roadways; public and private lands; and railroad rights-of-way (“ROW”), herein referred to as the Project Corridor. Delineations were conducted with the objective of verifying and updating previous wetland delineations performed for the Project Corridor as part of the Article VII and Section 10/404 permitting processes. This report describes the wetland delineation methodology and the existing wetland and waterbody resources that were identified in the Project Corridor during field surveys for the overland portions of the Project.

## **2.0 SEGMENTS 13, 14 & 15 - PACKAGE 8 CORRIDOR OVERVIEW**

The entire Project Corridor is approximately 339 miles from Montreal, Quebec, Canada to New York City, New York, USA. Figure 1 below shows the route from the Canadian border to New York City and highlights the approximately 1.9 miles of the Package 8 Project Corridor that was investigated for wetlands and waterbodies.

Segments 13, 14 & 15 - Package 8 begins where the Project Corridor exits the Harlem River at the Waste Management site in the Bronx, NY (80000+00). The Project Corridor extends southeast approximately 1.9 miles to its termination at Astoria, NY (80110+37.79).







### 3.0 WETLAND DELINEATION METHODOLOGY

To determine the potential for wetland impacts from construction of the Project, CHA assessed the Project Corridor in the field for the presence of federal (Section 404 CWA & Section 10 of the Rivers and Harbors Act of 1899) and state (Article 24 FWW, Article 25 Tidal Wetlands & Article 15 Protection of Waters) jurisdictional wetlands and waterbodies. CHA conducted a wetland delineation on November 2, 2022. The delineation criteria and methodology were performed in accordance with the *1987 Corps of Engineers Wetland Delineation Manual*, the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* Version 2.0 (January 2012) as well as the *New York State Freshwater Wetlands Delineation Manual* (Browne et. al., 1995).

The Project Corridor for the surveyed portions of the project included previously disturbed land within the Bronx, Randall's Island and Astoria. The wetland delineation limits were approximately 50 feet from the center line of the Project Corridor and included the edges of the Bronx Kill and East River.

In accordance with the procedures provided in the *Corps of Engineers Wetland Delineation Manual* (1987), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Version 2.0 (January 2012), the "Routine Wetland Determination" method was used to delineate wetland boundaries.

The wetland boundaries were determined in the field based on the three-parameter approach, whereby an area is a wetland if it exhibits vegetation adapted to wet conditions (hydrophytes), hydric soils, and the presence or evidence of water at or near the soil surface during the growing season (hydrology). In addition to vegetation, evidence of tidal influence, such as drift lines, was used to delineate tidal wetlands.

Coded surveyor's ribbons (eg, flag code A-1, A-2, etc.) were placed along the wetland boundaries based on observations of vegetation, soils and tidal hydrologic conditions. Data points were recorded along the wetland boundary. A wetland data point and an upland data point were recorded to show the difference between the wetland and upland habitats. Wetland Determination Data Sheets corresponding to each point can be found in Attachment 1.

The wetland within the Segments 13, 14 & 15 - Package 8 Project Corridor falls under the jurisdiction of the New York State Department of Environmental Conservation (NYSDEC) and the USACE. The New York State methodology similarly recognizes the three parameters of vegetation, soils, and hydrology; however, under the New York State method the hydrophytic vegetation criterion is mandatory, while the other two parameters are not (Browne et. al. 1995). Wetlands regulated by NYSDEC must be at least 12.4 acres (5 hectares) in size, unless they are deemed to have unusual local importance (Article 24 FWW). The NYSDEC regulates tidal wetlands and their adjacent upland areas (Article 25). In general, tidal wetlands consist of all the salt marshes, non-vegetated as well as vegetated flats and shorelines subject to tides. The NYSDEC publishes maps of wetland areas under state jurisdiction; however, they use field delineation to determine the precise boundaries of these wetland areas.

Prior to actual field delineations for wetland resources, CHA reviewed USGS 7.5-minute topographic maps, aerial photographs, National Wetland Inventory (NWI) mapping, United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil mapping, and NYSDEC tidal and freshwater wetlands mapping to identify potential wetland features present within the Project Corridor. More importantly, CHA used the previous wetland delineation prepared for this Project Corridor for the purposes of verifying and modifying the previous delineation. Wetland scientists from CHA conducted a wetland delineation on November 2, 2022. Refer to Attachment 2 for NWI and NYSDEC Tidal and Freshwater Wetlands & Stream Mapping and Attachment 3 for NRCS Soil Mapping.

Waterbodies within the Project Corridor, which included tidal rivers were defined/delineated by the Mean High Water. This was determined from the National Oceanic and Atmospheric Administration (NOAA) Tide Charts. The closest water elevation gage in the vicinity of the project corridor is located at the southern tip of Manhattan and is identified as The Battery, NY. We selected “The Battery” station located at the southern tip of Manhattan. Using the latest data (2018) for Mean High Water, elevation 2.2 feet (NAVD88) was used to define the jurisdictional limits of the Harlem River, Bronx Kill, and East River.

This report documents the wetlands and waterbodies potentially under federal and State jurisdiction that were identified in the Project Corridor along the current proposed underground transmission cable route. The one (tidal) wetland that was delineated is summarized in Table 4-1 in Attachment 4. Wetlands and Waterbodies Delineation Mapping is included in Attachment 5. Wetland determination data forms and photographic documentation of the wetland are included in Attachment 1.

## 4.0 WETLAND & WATERBODIES DELINEATION RESULTS

One tidal wetland totaling approximately 0.62 acres was identified within the Segments 13, 14 & 15 - Package 8 Project Corridor (also defined as the Jurisdiction Determination limits). Table 4-1 in Attachment 4 provides a summary of the wetland identified along the Project Corridor, including its classification in accordance with Cowardin et al. (1979) and its state and federal jurisdiction. This wetland (Wetland A) (E2EM1) corresponds with a tidal wetland mapped by the NYSDEC.

Descriptions of wetland vegetation, hydrology, and soils observed within the Project Corridor are presented in the following sections. The delineated wetland is summarized in Table 4-1 (Attachment 4) and the delineated boundaries are illustrated on the Wetlands and Waterbodies Delineation Mapping (Attachment 5). Table 4-2 (Attachment 4) summarizes the waterbodies identified within the Project Corridor, with photographs of these resources provided in Attachment 6. Table 4-3 (Attachment 4) provides the soil series information.

## 4.1 VEGETATION

Vegetative communities within wetlands are described according to *Ecological Communities of New York State, Second Edition* (Edinger 2014)<sup>1</sup> and *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979)<sup>2</sup>. Using this hierarchical wetland classification

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<sup>1</sup> Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reshke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.

<sup>2</sup> Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe, 1979. *Classification of wetlands and deepwater habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.

system one primary cover type, brackish tidal marsh (E2EM), was identified for vegetated wetlands in the Project Corridor.

#### **4.1.1 Brackish Tidal Marsh**

The estuarine intertidal emergent wetland cover type is characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens (Cowardin et. al., 1979), and with less than 50 percent aerial cover by shrubs and/or trees. The one intertidal emergent wetland along the Project Corridor is brackish tidal marsh (Edinger et. al., 2014).

Brackish tidal marshes are a marsh community that occurs where water salinity ranges from 0.5 to 19.0 ppt and water is less than 2m (6 ft) deep at high tide. The vegetation is dense and dominated by tall graminoids (Edinger et. al., 2014). The brackish tidal wetland within the Project Corridor is dominated by a dense, continuous stand of smooth cordgrass (*Spartina alternifolia*) with groundsel tree (*Baccharis halimifolia*) and saltmarsh elder (*Iva frutescens*) growing along the upland edge of the wetland. The vegetated portion of this wetland is immediately fringe to the Bronx Kill/East River confluence and is inundated during high tides. Unvegetated tidal flats consisting of mud and rock flats extend into much of the Bronx Kill and within the entire JD boundary.

## **4.2 HYDROLOGY**

### **4.2.1 Streams**

Table 4-2 lists the three perennial tidal rivers identified within the Project Corridor, which is located within the Atlantic Ocean – Long Island Sound Basin. This watershed drains most of the New York City Metropolitan Area and all of Long Island, encompassing over 1,650 square miles of land within New York State. The three perennial tidal rivers within the Project Corridor include the Harlem River (E1UBL), the Bronx Kill (E1UBL), and the East River (E1UBL).

#### **4.2.2 Wetlands**

Site hydrology was examined within the wetland and adjacent upland areas. Indicators of wetland hydrology included inundation (A1), high water table (A2), saturation within the upper portion of the soil during the growing season (A3), sediment deposits (B2), drift deposits (B3), algal mat or crust (B4), water-stained leaves (B9), dry season water table (C2), geomorphic position (D2), and FAC-neutral test (D5) (Attachment 1). The wetland is completely within tidally influenced areas of the Bronx Kill and therefore is frequently inundated.

#### **4.3 SOILS**

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil map units for the Project Corridor are provided in Attachment 3. Indicators of hydric soils documented during the delineation included sandy redox (S5) and redox dark surface (F6) (Attachment 1). A total of three (3) different soil types have been mapped by the NRCS within the Project Corridor. The mapped soil types are well drained soils. According to descriptions provided by the NRCS Web Soil Survey (2022) (Section 4.4 and Attachment 4, Table 4-3), none of the soils mapped within the Project Corridor are classified as hydric soils. Table 4-3 summarizes the soil series in the Project Corridor.

The soils within the Project Corridor are anthropogenically disturbed soils that are associated with construction and land manipulation. The disturbed soils consist of disturbed natural deposits or human transported materials.

#### **4.4 NATURAL RESOURCE CONSERVATION SERVICE SOIL SERIES DESCRIPTIONS**

The following are the abbreviated descriptions of each of the relevant soil types taken from the USDA Web Soil Survey (NRCS, USDA 2022). Soils survey mapping and additional information regarding relevant soil characteristics are provided in Attachment 3.

### **LaGuardia Series (LUB & LUA)**

These are very deep, well drained soils formed in thick mantle of construction debris intertwined with human translocated soil materials. These soils are typically found on manipulated landscapes in and near urbanized areas within the northeast. Slopes can range from 0 to 75 percent. The A horizon is typically a pale brown sandy loam, with weak very fine subangular blocky structure, extending 0 to 12 inches deep. The B horizon is generally brown coarse sandy loam. This horizon also has approximately 25 percent cobble-sized brick and concrete fragments. The C horizon consists of very coarse sandy loam with approximately 10 percent cobble-sized asphalt fragments.

### **Urban Land (UmA, UrA, ULA & UtA)**

Urban Land consists of nearly level to strongly sloping areas where asphalt, concrete, buildings, or other impervious materials cover more than 85 percent of the surface. Slopes range from 0 to 15 percent. This map unit includes very few areas of soil material, and those areas which are used mainly as lawns or landscaping have been disturbed by adjacent building activities.

## **5.0 SUMMARY**

One wetland, a brackish tidal marsh (Wetland A), was identified within the Project Corridor. Stream communities include tidal river (the Harlem River, Bronx Kill and East River).

Land use in the Project Corridor consists of areas that were previously developed. These are currently used for industrial/commercial purposes (The Bronx and Astoria) and recreational purposes (athletic fields on Randall's Island). Wetland A appears to be in a natural state, but it may have received previous anthropogenic disturbances. The banks of the Bronx Kill and East River are abrupt and have been reinforced with rip rap throughout the Project Corridor.

Confirmation of the wetland boundaries are the responsibility of the involved regulatory agencies with jurisdiction over wetlands and waterbodies within this Package of the overall project. As previously noted, wetlands within Segments 13, 14 & 15 - Package 8 are regulated by USACE (Section 10/404) and NYSDEC (Article 25). The Harlem River, Bronx Kill and East River are regulated by USACE (Section 10/404) and NYSDEC (Article 15). Based on review of the NYSDEC wetland mapping, no wetlands regulated under Article 24 occur within the Project



Corridor. It is anticipated that the USACE and NYSDEC will take jurisdiction over Wetland A, the Harlem River, Bronx Kill and the East River. Final jurisdictional determinations will be made by the respective agencies.

## 6.0 REFERENCES

- Browne, S. et. al. 1995. New York State Freshwater Wetlands Delineation Manual. New York State Department of Environmental Conservation, Division of Fish and Wildlife, Bureau of Habitat, Albany, NY.
- Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe, 1979. *Classification of wetlands and deepwater habitats of the United States*. U. S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.
- Edinger, G. J., D. J. Evans, S. Gebauer, T. G. Howard, D. M. Hunt, and A. M. Olivero (editors). 2014. *Ecological Communities of New York State*. Second Edition. A revised and expanded edition of Carol Reshke's *Ecological Communities of New York State*. New York Natural Heritage Program, New York State Department of Environmental Conservation, Albany, NY.
- Federal Register. July 13, 1994. Changes in hydric soils of the United States.
- Natural Resources Conservation Service (NRCS), United States Department of Agriculture (USDA). Web soil Survey. Map Unit Descriptions. Accessed online May 2, 2022: <https://websoilsurvey.nrcs.usda.gov/app/>.
- United States Army Corps of Engineers. 1987 Wetland Delineation Manual. Technical Report Y-87-1. Experimental Laboratory, Vicksburg, MS.
- United States Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Manual: Northcentral and Northeast Region (Version 2.0)*. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

**ATTACHMENT 1**  
**WETLAND DETERMINATION DATA SHEETS AND**  
**WETLAND PHOTOGRAPHS**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE City/County: New York/Bronx Sampling Date: 11.2.2022  
 Applicant/Owner: TDI State: NY Sampling Point: Wet A  
 Investigator(s): J. Greaves & C. Chu Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope %: 2  
 Subregion (LRR or MLRA): LRR R Lat: 40.797167 Long: -73.915741 Datum: NAD83  
 Soil Map Unit Name: ULA - Urban land-Laguardia complex, 0 to 3 percent slopes NWI classification: E2EM1  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>Wetland A</u>
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) Tidal emergent wetland fringe to the tidal Bronx River.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input checked="" type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input checked="" type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>1</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Semipermanently saturated soils above the high tide line with tidal hydrology influences. Inundated areas limited to small patches.		

**VEGETATION** – Use scientific names of plants.

 Sampling Point: Wet A

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>99</u></td> <td>x 1 = <u>99</u></td> </tr> <tr> <td>FACW species <u>7</u></td> <td>x 2 = <u>14</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>106</u> (A)</td> <td><u>113</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.07</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>99</u>	x 1 = <u>99</u>	FACW species <u>7</u>	x 2 = <u>14</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>106</u> (A)	<u>113</u> (B)	Prevalence Index = B/A = <u>1.07</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>99</u>	x 1 = <u>99</u>																			
FACW species <u>7</u>	x 2 = <u>14</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>106</u> (A)	<u>113</u> (B)																			
Prevalence Index = B/A = <u>1.07</u>																				
=Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																				
1. <u>Baccharis halimifolia</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Iva frutescens</u>	<u>2</u>	<u>Yes</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover																				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																				
1. <u>Spartina alterniflora</u>	<u>99</u>	<u>Yes</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>      </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
=Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				

**Definitions of Vegetation Strata:**  
  
**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
  
**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation**  
 Present?      Yes X      No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point	Wet A
----------------	-------

[illegible]





**Wetland A - View facing southeast**



**Wetland A - Soils**

## **SITE PHOTOGRAPHS**

**Segments 13, 14 & 15 – Package 8**

**Champlain Hudson Power Express**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: CHPE City/County: New York/Bronx Sampling Date: 11.2.2022  
 Applicant/Owner: TDI State: NY Sampling Point: Upl A  
 Investigator(s): J. Greaves & C. Chu Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope %: 30  
 Subregion (LRR or MLRA): LRR R Lat: 40.797086 Long: -73.915875 Datum: NAD83  
 Soil Map Unit Name: ULA - Urban land-Laguardia complex, 0 to 3 percent slopes NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>Upland adjacent to Wetland A</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) Thin band of successional shrubland between the tidal wetland and adjacent developed upland.		

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)		<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**VEGETATION** – Use scientific names of plants.

 Sampling Point: Upl A

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>75</u></td> <td>x 2 = <u>150</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>10</u></td> <td>x 5 = <u>50</u></td> </tr> <tr> <td>Column Totals: <u>105</u> (A)</td> <td><u>275</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.62</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>75</u>	x 2 = <u>150</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>10</u>	x 5 = <u>50</u>	Column Totals: <u>105</u> (A)	<u>275</u> (B)	Prevalence Index = B/A = <u>2.62</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>75</u>	x 2 = <u>150</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>15</u>	x 4 = <u>60</u>																			
UPL species <u>10</u>	x 5 = <u>50</u>																			
Column Totals: <u>105</u> (A)	<u>275</u> (B)																			
Prevalence Index = B/A = <u>2.62</u>																				
=Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )																				
1. <u>Baccharis halimifolia</u>	<u>70</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Robinia pseudoacacia</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
3. <u>Viburnum dentatum</u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
4. <u>Morus alba</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover																				
<u>85</u>																				
Herb Stratum (Plot size: <u>5'</u> )																				
1. <u>Artemisia vulgaris</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>																	
2. <u>Baccharis halimifolia</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Lonicera morrowii</u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
=Total Cover																				
<u>20</u>																				
Woody Vine Stratum (Plot size: <u>30'</u> )																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)

**Hydrophytic Vegetation Indicators:**  
1 - Rapid Test for Hydrophytic Vegetation  
2 - Dominance Test is >50%  
3 - Prevalence Index is ≤3.0<sup>1</sup>  
4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
   Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**  
  
**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
  
**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
  
**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
  
**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?**      Yes         No X

## SOIL

Sampling Point	Upl A
----------------	-------

[illegible]



**Upland A- View facing west**



**Upland A - Soils**

**Segments 13, 14 & 15 – Package 8**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

**ATTACHMENT 2**  
**NWI & NYSDEC WETLAND & STREAM MAPS**



Author: Cole Scrivner Date Saved: 12/6/2022

### Legend

- Segment 13, 14 & 15 Alignment
- NWI Wetlands & Streams
- NYSDEC Mapped Streams

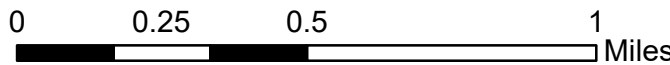


Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



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Page 1 of 1



***Champlain Hudson Power Express  
Segment 13, 14 & - Package 8  
Wetland & Stream Map (NWI and NYSDEC)***

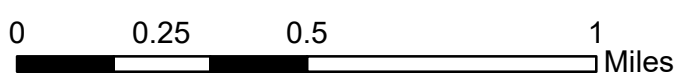
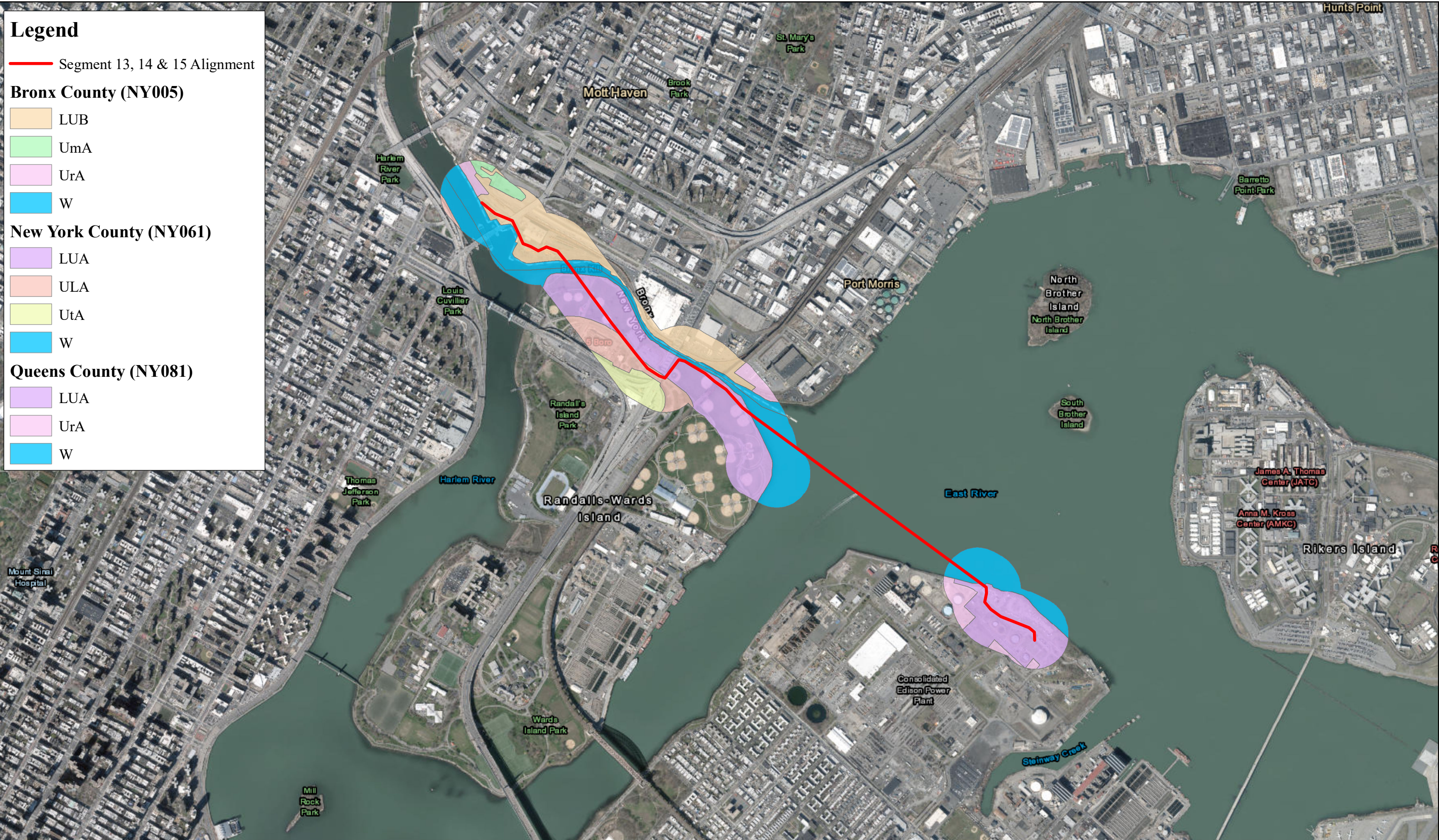
Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community.  
Wetland layers obtained from USFWS NWI and NYSDEC



**ATTACHMENT 3**  
**NRCS SOIL MAPS**



Author: Cole Scrivner Date Saved: 12/6/2022



**Champlain Hudson Power Express  
Segment 13, 14 & - Package 8  
NRCS Soil Map**

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community  
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community. Soil data was obtained from the NRCS.



## **ATTACHMENT 4 TABLES**



Table 4-1 Summary of Wetlands Within the Project Corridor <sup>1</sup>						
Approximate Station & Dwg. No.	Wetland ID	Cowardin Classification <sup>2</sup>	Associated Water Course	Area w/in JD Limits Square Feet (sf)	USACE & NYSDEC Jurisdiction	Coordinates (lat., long)
80051+00	A	E2EM1	Bronx Kill	26,849	USACE & NYSDEC	40.797124, -73.915765

<sup>1</sup>Wetlands identified include both wetlands that are directly crossed by the overland transmission cable corridor as well as wetlands that are adjacent to the Project Corridor that were delineated during field surveys.

<sup>2</sup>Cowardin et al. 1979 categories include: Estuarine Intertidal Emergent (E2EM).

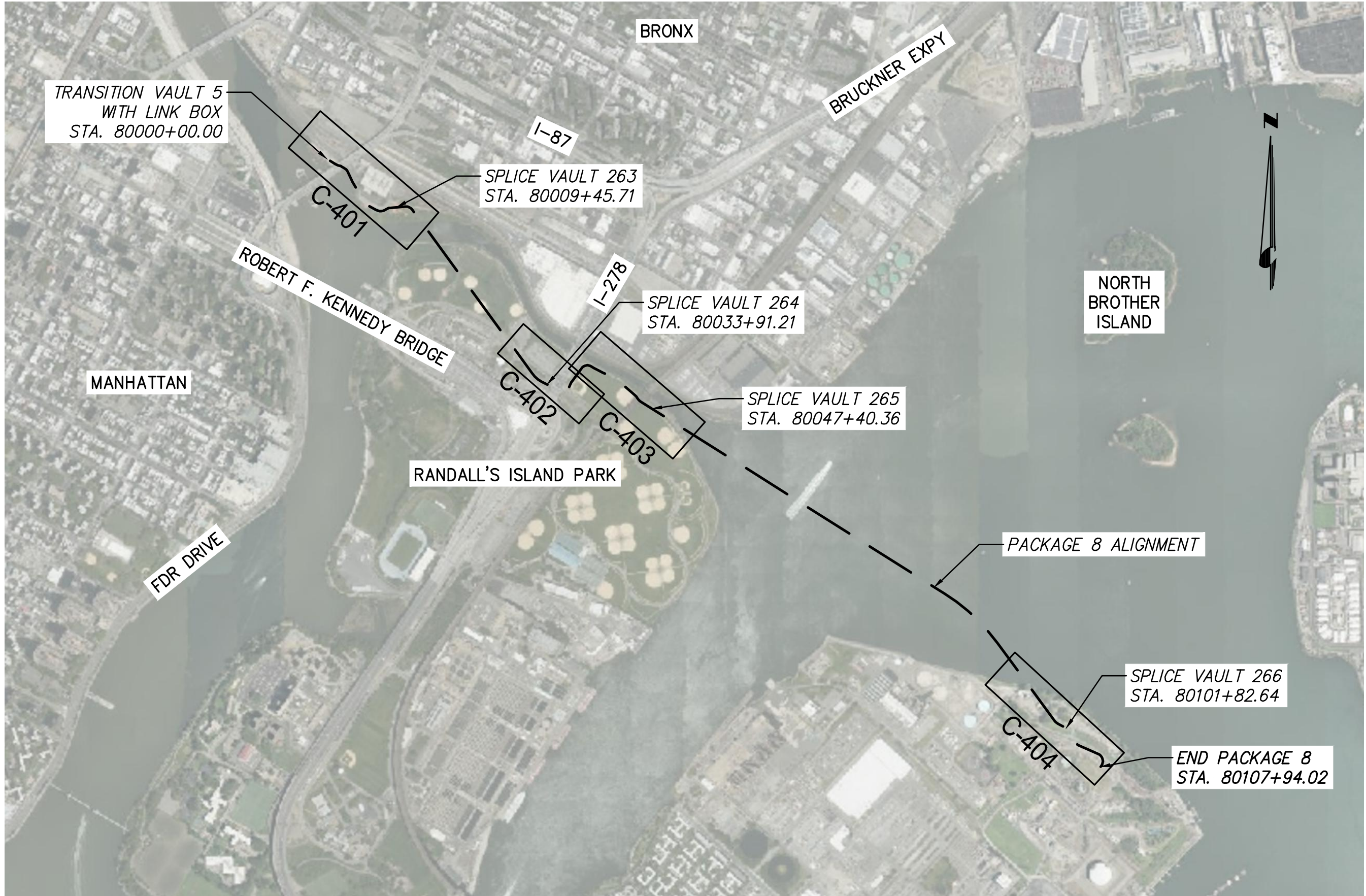
<b>Table 4-2</b> <b>Summary of Waterbodies within the Project Corridor</b>									
Approximate Station & Dwg. No.	Waterbody Name	NYSDEC Classification	Waterbody Field ID & NYSDEC Regulation	Flow Status	Substrate	Width (ft.) <sup>1</sup>	Depth (ft.) <sup>1</sup>	Length w/in JD Boundary	Coordinates (lat., long)
80000+00 C-101	Harlem River	I/I	N/A 890-56	Perennial	Cobble-gravel/boulders, silt	755	20	0	40.803709, -73.927469
80017+00 C-102	Bronx Kill	I/I	NA 890-56	Perennial	Cobble-gravel/boulders, silt	200	4	1,370 linear ft.	40.802200, -73.924578
80054+00 C-104	Bronx Kill	I/I	NA 890-56	Perennial	Cobble-gravel/boulders, silt	200	4		40.796694, -73.915195
80061+00 C-105	East River	I/I	NA 890-53 935-1	Perennial	Cobble-gravel/boulders, silt	3,500	70	4,528 linear ft.	40.793960, -73.913646

<sup>1</sup> Bankfull width and bankfull depth measurements are approximate.

**ATTACHMENT 5**  
**WETLANDS AND WATERBODIES DELINEATION MAPPING**



File: P:\120174-CHPE\CABLE\_INSTALL-KIEWIT\60\_CAD\20\_ENGINEERING\_CAD\_FILES\PACKAGE\_8\NY\_ENVIRONMENTAL\_EROSION\_CONTROL\01\_KCE\SHEET\_FILES\21162\_8\_C-400.DWG Saved: 7/27/2023 1:07:42 PM Plotted: 7/27/2023 3:12:27 PM Current User: Melinda Kwak LostSavedBy: mkwak



**E&SC KEY MAP**  
SCALE: 1" = 1000'



Engineering and  
Land Surveying, P.C.



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

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0	07/31/2023	ISSUED FOR CONSTRUCTION SUBMISSION	MK	BD
No.	DATE	SUBMITTAL / REVISION DESCRIPTION	DB	APP

CHAMPLAIN HUDSON POWER EXPRESS  
SEGMENTS 13 TO 15 - PACKAGE 8  
TRANSITION VAULT 5 TO ASTORIA CONVERTER STATION  
E&SC KEY SHEET

KIEWIT PROJECT NO.	21162
KC PROJECT NO.	120174
DRAWING NO.	C-400
DATE	07/31/2023
SH.NO.	OF



File: P:\20174-CHPE\_CABLE\_INSTALL--KEWIT--KIEWIT\60\_CAD\20\_ENGINEERING\_CAD\_FILES\PACKAGE\_8\NY\_COMMON\01\_KCE\SHEET\_FILES\21162\_B\_0001-0005.DWG Saved: 7/31/2023 1:36:23 PM Plotted: 7/31/2023 6:24:23 PM Current User: Melinda Kwok LeftSolveDB: mtkwk

CLEANUP AND RESTORATION NOTES

PROMPT CLEANUP AND RESTORATION OF ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITY IS A PRIORITY OF THE CONSTRUCTION SCHEDULE AND SEQUENCING. TIMELY CLEANUP AND RESTORATION WILL ASSIST IN MINIMIZING POTENTIAL ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE PROJECT. PROCEDURES FOR CLEANUP AND RESTORATION ARE DESCRIBED IN THE FOLLOWING SECTIONS. IN ACCORDANCE WITH CERTIFICATE CONDITION 48, WITHIN TEN (10) DAYS OF THE COMPLETION OF FINAL RESTORATION ACTIVITIES, THE CERTIFICATE HOLDER WILL NOTIFY THE SECRETARY THAT ALL RESTORATION HAS BEEN COMPLETED IN COMPLIANCE WITH THE CERTIFICATE AND THE ORDER(S) APPROVING THE EM&CP.

CLEANUP STANDARDS AND PRACTICES

FROM THE BMPS', CLEAN-UP, RESTORATION, AND REVEGETATION PROCEDURES WILL BE ONGOING DURING CONSTRUCTION AS EACH SEGMENT IS COMPLETED. DURING CONSTRUCTION, ROAD AND CONSTRUCTION ROWS WILL BE KEPT FREE OF DEBRIS AND DISCARDED MATERIAL TO THE GREATEST EXTENT POSSIBLE. AS CONSTRUCTION CONTINUES, EACH SECTION OF THE ROWS WILL BE THOROUGHLY CLEANED AFTER CONSTRUCTION IS COMPLETED ON THAT PARTICULAR SECTION. VEGETATION TO BE CLEARED WILL BE IDENTIFIED ON A SITE-SPECIFIC BASIS ON THE EM&CP PLAN AND PROFILE DRAWINGS. CLEARED VEGETATION WILL BE DISPOSED OF IN ACCORDANCE WITH THE APPROPRIATE DISPOSAL TECHNIQUES. ALL FABRICATED DEBRIS RESULTING FROM CONSTRUCTION WILL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE IN COMPLIANCE WITH ALL APPROPRIATE ENVIRONMENTAL REGULATIONS. FABRICATED DEBRIS GENERATED DURING CONSTRUCTION INCLUDES PIPING, FENCING, WIRING, AND ANY OTHER MATERIALS USED DURING CONSTRUCTION. ALL TRUCKS LEAVING THE CONSTRUCTION AREA WILL BE LOADED AND COVERED IN ACCORDANCE WITH APPLICABLE REGULATIONS AS NEEDED AS DESCRIBED IN THE SOIL MANAGEMENT PLAN OF THE EM&CP IN APPENDIX L. NO FABRICATED DEBRIS BE BURNED OR BURIED.

RESTORATION AND PLANTING

THE FINAL STAGE OF CONSTRUCTION WILL CONSIST OF RESTORING THE ROW TO ITS ORIGINAL CONDITION AND CHARACTER TO THE EXTENT PRACTICAL, UNLESS DOING SO WOULD INTERFERE WITH THE SAFE OR RELIABLE OPERATION AND MAINTENANCE OF THE PROJECT. RESTORATION ACTIVITIES MAY VARY WITH THE SPECIFIC AREA TO BE RESTORED BUT WILL CONSIST PREDOMINANTLY OF RESTORING TOPOGRAPHY TO ORIGINAL GRADIENTS AND RESEEDING EXCAVATED AREAS OVER THE TRENCH AS IDENTIFIED HEREIN.

SITE PREPARATION FOR REVEGETATION

THE SURFACE OF THE ROAD AND CONSTRUCTION ROWS DISTURBED BY CONSTRUCTION ACTIVITIES WILL BE GRADED TO MATCH THE ORIGINAL TOPOGRAPHIC CONTOURS AND TO BE COMPATIBLE WITH SURROUNDING DRAINAGE PATTERNS WHERE APPROPRIATE OR IN ACCORDANCE WITH THE EM&CP. IT SHOULD BE NOTED THAT SUBCONTRACTORS WILL TYPICALLY LIMIT GRUBBING (THE REMOVAL OF STUMPS AND ROOTS) TO THE FOOTPRINT OF THE EXCAVATED TRENCH AND ACCESS ROADS TO ALLOW RE-SPROUTING AND ASSIST IN THE RECOVERY OF WOODY SPECIES, EXCEPT WHERE REMOVAL IS REQUIRED FOR SAFE CONSTRUCTION. WHERE NEEDED, IT MAY BE NECESSARY TO IMPORT TOPSOIL TO RETURN AN AREA TO GRADE. IMPORTED TOPSOIL WILL FOLLOW CLASSIFICATION AND CHARACTERIZATION MEASURES OUTLINED IN THE SOIL MANAGEMENT PLAN IN APPENDIX L. HDD ENTRY AND EXIT PITS WILL BE BACKFILLED AND THE DISTURBED GROUND SURFACE WILL BE SIMILARLY GRADED. TRENCHES WILL BE BACKFILLED IN ACCORDANCE WITH THE MEASURES OUTLINED IN SECTION 4.4.7 OF THE EM&CP. THE CERTIFICATE HOLDER WILL BE RESPONSIBLE FOR WILL CHECKING ALL CULVERTS AND ASSURE THAT THEY ARE NOT CRUSHED OR BLOCKED DURING CONSTRUCTION AND RESTORATION OF THIS SEGMENT AND, IF A CULVERT IS BLOCKED OR CRUSHED, TAKE IMMEDIATE STEPS TO REPLACE OR REPAIR THE CULVERT IN ACCORDANCE WITH APPLICABLE STATE OR LOCAL STANDARDS.

SEEDING AND PLANTING

SEEDING OPERATIONS WILL COMMENCE ONLY AFTER AN ACCEPTABLE SEEDBED HAS BEEN ESTABLISHED. SEED WILL BE APPLIED BY HAND, CYCLONE SEEDER, DRILL, OR CULTI-PACKER-TYPE SEEDER AT A DEPTH OF 0.25 TO 0.5 INCH. THE SEEDBED WILL BE FIRMED FOLLOWING SEEDING OPERATION WITH A ROLLER OR LIGHT DRAG, EXCEPT WHERE CULTI-PACKER-TYPE SEEDERS OR HYDROSEEDERS ARE USED. THE ENTIRE SEEDED AREA WILL BE WATERED WITH A FINE SPRAY UNTIL A UNIFORM MOISTURE DEPTH OF ONE (1) INCH HAS BEEN ACHIEVED. MULCHING AND ANCHORING OF THE MULCH MAY BE NECESSARY IN SOME AREAS UNLESS A HYDROMULCH/SEED SLURRY IS USED. ON STEEP SLOPES, JUTE NET WILL BE USED TO PROVIDE STABILIZATION. FERTILIZER WILL BE ADDED AT THE APPROPRIATE RATES AFTER SEED IS APPLIED. NO FERTILIZER WILL BE APPLIED IN WETLAND RESOURCE AREAS. SEEDING/MULCHING WILL TAKE PLACE UNDER THE SUPERVISION OF THE ENVIRONMENTAL INSPECTOR.

THE SEED MIXTURE AND RATE OF APPLICATION WILL DEPEND ON THE SOIL TYPE, LAND USE, AVAILABLE MOISTURE, AND SEASON AT THE TIME OF APPLICATION AS PER NYCDPR SPECIFICATIONS. IF APPLICABLE OR AS SPECIFIED BY THE LANDOWNER. ALL SEED MIXES WILL BE FREE OF INVASIVE SPECIES. ALL SEED BAG TAGS (EITHER ORIGINAL OR SCANNED COPIES) WILL BE PROVIDED TO THE ENVIRONMENTAL INSPECTOR EITHER ORIGINAL TAGS OR SCANNED COPIES. THE SEED MIXTURES WILL FOLLOW THE TECHNICAL SPECIFICATIONS INCLUDED ON THE PLAN AND PROFILE DRAWINGS IN APPENDIX C FOR UPLANDS AND WETLAND BUFFER ZONES. SEEDED AREAS WILL BE MONITORED FOLLOWING RESTORATION UNTIL A MINIMUM VEGETATIVE COVER OF EIGHTY (80) PERCENT IS ACHIEVED.

WHERE TREE OR SHRUB PLANTINGS ARE PRESCRIBED IN THE EM&CP, A POST-CONSTRUCTION SURVIVAL SURVEY WILL BE PERFORMED ONE YEAR AFTER THE PLANTINGS. IF ANY TREE OR SHRUB HAS NOT SURVIVED OR IS IN POOR HEALTH, THE TREE/SHRUB WILL BE REPLACED (BMP DOCUMENT SECTION 11.1.2.5).

VEGETATION THROUGHOUT THE TEMPORARY ROW WILL BE CUT TO GROUND LEVEL AND ROOT SYSTEMS WILL REMAIN INTACT TO ALLOW FOR RESPROUTING FOLLOWING CONSTRUCTION, UNLESS RESPROUTING WOULD INTERFERE WITH THE SAFE AND RELIABLE OPERATION OF THE PROJECT.

- ALL TREES OVER TWO (2) INCHES IN DIAMETER AT BREAST HEIGHT OR SHRUBS OVER FOUR (4) FEET IN HEIGHT DAMAGED OR DESTROYED BY ACTIVITIES DURING CONSTRUCTION, OPERATION, OR MAINTENANCE, REGARDLESS OF WHERE LOCATED, SHALL BE REPLACED WITHIN THE FOLLOWING YEAR BY THE CERTIFICATE HOLDERS WITH THE EQUIVALENT TYPE OF TREES OR SHRUBS EXCEPT IF:
  - a)OTHER ARRANGEMENTS ARE SPECIFIED IN THE APPROVED EM&CP; OR
  - b)EQUIVALENT TYPE REPLACEMENT TREES OR SHRUBS WOULD INTERFERE WITH THE PROPER CLEARING, CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE FACILITY OR WOULD BE INCONSISTENT WITH STATE-INVASIVE SPECIES POLICY; OR
  - c)REPLACEMENT WOULD BE CONTRARY TO SOUND ROW MANAGEMENT PRACTICES, OR TO ANY APPROVED LONG-RANGE ROW MANAGEMENT PLAN APPLICABLE TO THE FACILITY OR ADJOINING ROW; OR
  - d)THE OWNER OF LAND WHERE THE DAMAGED OR DESTROYED TREES OR SHRUBS WERE LOCATED (OR OTHER RECORDED EASEMENT OR LICENSE HOLDERS WITH THE RIGHT TO CONTROL REPLACEMENT) DECLINES REPLACEMENT.

RESTORATION OF WATERBODIES

UPON COMPLETION OF BACKFILLING OPERATIONS, CLEANUP AND RESTORATION OF THE STREAM CROSSING, BANKS AND BANK APPROACHES (AT LEAST 50 FEET ADJACENT TO EACH BANK) WILL BE COMPLETED. IF NEEDED, STREAM BANKS WILL BE RE-ESTABLISHED TO ORIGINAL GRADE IMMEDIATELY AFTER STREAM BANK WORK IS COMPLETED. THE BANKS WILL THEN BE PERMANENTLY STABILIZED BY SEEDING WITH NATIVE GRASSES, MULCHED AND, IF NEEDED, PLANTED WITH NATIVE OR NATURALIZED SHRUB SEEDLINGS. IF ADDITIONAL STABILIZATION IS NEEDED JUTE NETTING OR EROSION CONTROL BLANKETS WILL BE USED. RESTORATION AND PLANTING DETAILS FOR WATERBODIES ARE FURTHER DETAILED IN SECTION 14.4.1 OF THE EM&CP. MANY DIRECT IMPACTS TO STREAMS AND WATERBODIES ASSOCIATED WITH THIS SEGMENT HAVE BEEN AVOIDED BY CROSSING OVER OR UNDER EXISTING CULVERTS, AND INCORPORATING HDD METHODS. HOWEVER, WHERE IMPACTS TO WATERBODIES DO OCCUR, THE PROCEDURES FOR THE CLEANUP AND RESTORATION OF STREAMS AND WATERBODIES ARE SUMMARIZED IN SECTION 9.1 OF THE EM&CP

RESTORATION OF WETLANDS

DURING THE INITIAL RESTORATION PHASE, ALL CONSTRUCTION DEBRIS WILL BE REMOVED FROM THE RIGHT-OF-WAY. SEGREGATED TOPSOIL WILL BE REPLACED, AND WETLAND CONTOURS AND DRAINAGE PATTERNS WILL BE RESTORED TO APPROXIMATE ORIGINAL CONDITION BY MATCHING THAT WHICH EXISTS IN ADJACENT UNDISTURBED AREAS.

RESTORATION OF THE WETLAND (OTHER THAN THE TRAVEL WAY) WILL BE COMPLETED PRIOR TO CONCLUSION OF ALL WORK. THIS WILL BE DONE FOR A MINIMUM DISTANCE OF 50 FEET FROM THE WETLAND EDGE. RESTORATION OF THE WETLAND WILL INCLUDE BUT IS NOT LIMITED TO FINAL GRADING, SEEDING WITH A NATIVE WETLAND SEED MIX, FERTILIZING, AND MULCHING. HIGH ORGANIC SOILS (AS DETERMINED BY NYSDC, DPS, OR THE ENVIRONMENTAL INSPECTOR) WILL BE GRADED BACK TO ORIGINAL CONTOURS AND LEFT UNMULCHED AND UNSEEDED TO FACILITATE THE GERMINATION OF NATIVE SEEDS AND SPROUTING OF RHIZOMES FROM THE SEED BANK. FOLLOWING CLEANUP, THE WETLAND WILL BE EVALUATED FOR POSSIBLE VEGETATIVE PLANTINGS. THIS WILL BE DONE IN CONSULTATION WITH THE APPROPRIATE AGENCIES AND IN ACCORDANCE WITH THE EM&CP.

FOR WETLAND RESOURCE AREAS, EMERGENT COMMUNITIES SHOULD BE REVEGETATED WITH AN ERNST FACW WETLAND MEADOW MIX (ERNMX-122) OR EQUIVALENT, AND FOR SHADED SITES WITHIN FORESTED/SHRUB-SHRUB WETLAND COMMUNITIES, DISTURBED AREAS SHOULD BE REVEGETATED WITH ERNST SPECIALIZED WETLAND MIX FOR SHADED AREAS (ERNMX-137) OR EQUIVALENT (SHOWN ON PLAN AND PROFILE DRAWINGS, APPENDIX C) OR AS APPROVED BY NYCDPR AND OTHER PERTINENT STAKEHOLDERS.

RESTORATION OF CONSTRUCTION MATERIALS AND EQUIPMENT STAGING LOCATIONS AND TEMPORARY ACCESS ROADS

THE CONSTRUCTION MATERIALS EQUIPMENT STAGING LOCATIONS FOR THIS SEGMENT ARE SUMMARIZED IN SECTION 5.4 TABLE 5.2 OF THE EM&CP AND ARE SHOWN IN THE PLAN AND PROFILE DRAWINGS AND EROSION AND SEDIMENT CONTROL PLANS. THESE AREAS WILL BE RESTORED AS CLOSE AS PRACTICABLE TO PRE-CONSTRUCTION CONDITIONS AND CONTOURS TO THE EXTENT PRACTICABLE IN COORDINATION WITH WM, NYCDPR, CONED, AND OTHER PERTINENT STAKE HOLDERS.

ALL TEMPORARY FENCING AND EROSION CONTROLS WILL BE REMOVED AND DISPOSED OF IN AN ACCEPTABLE MANNER AT A STATE-APPROVED DISPOSAL FACILITY APPROVED BY DPS STAFF AND THE CERTIFICATE HOLDERS. ALL MOTORIZED CONSTRUCTION EQUIPMENT WILL BE TRANSPORTED TO OFF-SITE FACILITIES. ALL OTHER USABLE CONSTRUCTION EQUIPMENT AND MATERIALS WILL BE COLLECTED, PACKED, AND TRANSPORTED TO OFF-SITE STORAGE FACILITIES OR TO THE NEXT SEGMENT'S STAGING AREA AS NEEDED. ALL UNUSABLE EQUIPMENT AND MATERIALS WILL BE REMOVED FROM THE LAYDOWN YARD AND DISPOSED OF APPROPRIATELY.

PLANT INSPECTION, GUARANTEE AND MAINTENANCE

VEGETATION RESTORATION ALSO INCLUDES THE MAINTENANCE OF PLANTINGS FOR SPECIFIED TIME PERIODS AND THE REPLACEMENT OF UNSUCCESSFUL PLANTINGS. PRIOR TO PLANTING, THE ENVIRONMENTAL INSPECTOR WILL INSPECT ALL PLANTS IN CONTAINERS. PLANTINGS WILL BE PERFORMED BY A QUALIFIED LANDSCAPE OR NURSERY CONTRACTOR. THE ENVIRONMENTAL INSPECTOR WILL ALSO INSPECT ALL PLANTS AFTER COMPETITION OF PLANTING TO ENSURE PROPER PLANTING PROCEDURES AND THE CORRECT PLANT SPECIES WERE USED. ADDITIONALLY, THE ENVIRONMENTAL INSPECTOR WILL CONDUCT A FINAL INSPECTION OF ALL REVEGETATED AREAS AFTER THE END OF THE MONITORING PERIOD TO ENSURE FINAL STABILIZATION. ALL VEGETATION REPLACED WILL HAVE A MINIMUM TWO -YEAR SURVIVAL GUARANTEE (BMP DOCUMENT SECTION 11.2.2). WHERE TREE OR SHRUB PLANTINGS ARE NEEDED, A POST-CONSTRUCTION SURVIVAL SURVEY WILL BE PERFORMED ONE YEAR AFTER THE PLANTINGS. IF ANY TREE OR SHRUB HAS NOT SURVIVED OR IS IN POOR HEALTH, THE TREE/SHRUB WILL BE REPLACED (BMP DOCUMENT SECTION 11.2.1.5).

SWPPP INSPECTIONS WILL BE PERFORMED BY THE ENVIRONMENTAL INSPECTOR ON A WEEKLY BASIS UNTIL ALL DISTURBED AREAS HAVE ACHIEVED THE 80% REVEGETATION REQUIRED FOR FINAL RESTORATION, FOLLOWING FINAL RESTORATION. EROSION AND SEDIMENT CONTROL MEASURES WILL BE REMOVED FROM THE SITE AND DISPOSED OF APPROPRIATELY.

RESTORATION OF RECREATIONAL AREAS

FOLLOWING CONSTRUCTION, THE CERTIFICATE HOLDERS WILL RESEED THE CONSTRUCTION AREA WITHIN RECREATIONAL AREAS AND THE ATHLETIC FIELDS USING THE PROCEDURES AND METHODS SPECIFIED IN THE SECTIONS ABOVE WHERE NEEDED. IF NECESSARY, ADDITIONAL REVEGETATION AND TREE PLANTING MAY BE PERFORMED DEPENDING ON THE IMPACT OF CONSTRUCTION. RECREATIONAL AREAS ARE DESCRIBED IN SECTION 7.2 OF THE EMCP.

ROADWAY RESTORATION (STRIPPING, SIGNAGE, AUDIBLE ROADWAY

DELINEATORS)

STRIPING IMPACTED OR REMOVED FROM CONSTRUCTION WITHIN THE LIMITS OF WORK, INCLUDING AREAS OF MILL AND OVERLAYS TO BE INSTALLED PER EXISTING STRIPING PATTERNS. CONTRACTOR SHALL INVENTORY ALL STRIPING PRIOR TO WORK. WORK TO BE COMPLETED IN ACCORDANCE WITH NYSDOT STANDARD SHEETS AND SPECIFICATIONS (SEE 685 SERIES STANDARD SHEETS).

RESTORATION OF ROADWAY

THESE AREAS WILL BE RESTORED AS CLOSE AS PRACTICABLE TO PRE-CONSTRUCTION CONDITIONS AND CONTOURS. TRENCHES WILL BE BACKFILLED PER THE APPROPRIATE DETAIL, FULL WIDTH OF THE TRENCH WILL BE RESTORED TO MATCH THE EXISTING PAVEMENT SECTION, THE FULL WIDTH OF THE TRAVEL LANE TO THE CENTERLINE WILL BE MILLED AND OVERLAYED WITH A TOP COURSE OF ASPHALT. ALL TEMPORARY FENCING AND EROSION CONTROLS WILL BE REMOVED AND DISPOSED ON IN AN ACCEPTABLE MANNER AT A STATE-APPROVED DISPOSAL FACILITY APPROVED BY DPS STAFF AND THE CERTIFICATE HOLDERS.

RESTORATION OF ROADWAY SHOULDER

THESE AREAS WILL BE RESTORED AS CLOSE AS PRACTICABLE TO PRE-CONSTRUCTION CONDITIONS AND CONTOURS. TRENCHES WILL BE BACKFILLED PER THE APPROPRIATE DETAIL, FULL WDTN OF THE TRENCH WILL BE RESTORED TO MATCH THE EXISTING PAVEMENT SECTION, THE FULL WIDTH OF THE TRAVEL LANE TO THE CENTERLINE WILL BE MILLED AND OVERLAYED WITH A TOP COURSE OF ASPHALT. ALL TEMPORARY FENCING AND EROSION CONTROLS WILL BE REMOVED AND DISPOSED ON IN AN ACCEPTABLE MANNER AT A STATE-APPROVED DISPOSAL FACILITY APPROVED BY DPS STAFF AND THE CERTIFICATE HOLDERS.

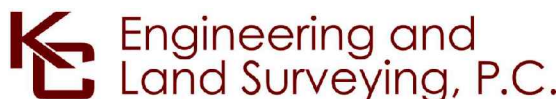
PAVEMENT RESTORATION

AS DESCRIBED IN THE BMP DOCUMENT AND CERTIFICATE CONDITIONS, CURBS, SIDEWALKS, AND STREETS DAMAGED BY CONSTRUCTION WILL BE RESTORED TO PRE-EXISTING CONDITION OR BETTER. FURTHER, DISTURBED AREAS, RUTS, AND RILLS ALONG ROADWAYS SHALL BE RESTORED TO ORIGINAL GRADES AND CONDITIONS WITH PERMANENT REVEGETATION AND EROSION CONTROLS APPROPRIATE FOR THOSE LOCATIONS, AS APPROPRIATE.

THE CERTIFICATE HOLDERS WILL CONSULT THE MUNICIPAL ROAD OR HIGHWAY DEPARTMENT AND/OR THE REGIONAL OFFICE OR COUNTY ENGINEER OF THE NYSDOT IN ORDER TO IDENTIFY AND INCORPORATE APPROPRIATE SPECIFICATIONS FOR CURB, SIDEWALK, OR STREET RESTORATION. ALL SURFACE RESTORATION WILL FOLLOW THE SPECIFICATIONS AND DETAILS PROVIDED IN THE PLAN AND PROFILE DRAWINGS (SHEET C-631). GUIDE RAILS WILL BE REMOVED AND REPLACED IN ACCORDANCE WITH NYSDOT STANDARD SHEET 606-01. COUNTY/LOCAL ROADS WILL BE RESTORED UNDER A DIFFERENT COUNTY RESTORATION REQUIREMENT AS SHOWN IN THE PLAN AND PROFILE DRAWINGS (SHEET C-631).

SEED MIXES

- A. GENERAL SEED:
  - 1. PIPELINE MIX W/SWITCHGRASS (ERNMX-102-1)
  - 2. MIX COMPOSITION
    - 33.0% PANICUM VIRGATUM, 'SHAWNEE' (SWITCHGRASS, 'SHAWNEE')
    - 25.0% FESTUCA RUBRA (CREEPING RED FESCUE)
    - 18.0% LOLIUM MULTIFLORUM (ANNUAL RYEGRASS)
    - 16.0% PHLEUM PRATENSE, CLIMAX (TIMOTHY, CLIMAX)
    - 5.0% TRIFOLIUM HYBRIDUM (ALSIKE CLOVER)
    - 3.0% AGROSTIS ALBA (REDTOP)
  - 3. APPLIED AT A RATE OF 40 LBS/ACRE.
- B. SPECIALIZED WETLAND MIX FOR SHADED OBL-FACW AREAS (ERNMX-137)
  - 2. MIX COMPOSITION
    - 35.0% CAREX VULPINOIDEA, PA ECOTYPE (FOX SEDGE, PA ECOTYPE)
    - 20.0% ELYMUS VIRGINICUS, MADISON-NY ECOTYPE (VIRGINIA WILDRIE, MADISON-NY ECOTYPE)
    - 15.0% CAREX SCOPARIA, PA ECOTYPE (BLUNT BROOM SEDGE, PA ECOTYPE)
    - 12.8% CAREX LURIDA, PA ECOTYPE (LURID SEDGE, PA ECOTYPE)
    - 5.0% CAREX LUPULINA, PA ECOTYPE (HOP SEDGE, PA ECOTYPE)
    - 4.0% VERBENA HASTATA, PA ECOTYPE (BLUE VERVAIN, PA ECOTYPE)
    - 2.0% HELIOPSIS HELIANTHOIDES, PA ECOTYPE (OXEYE SUNFLOWER, PA ECOTYPE)
    - 1.0% CAREX INTUMESCENS, PA ECOTYPE (STAR SEDGE, PA ECOTYPE)
    - 1.0% SPARGANIUM AMERICANUM (EASTERN BUR REED)
    - 0.7% IRIS VERSICOLOR (BLUEFLAG)
    - 0.5% BIDENS CERNUA, PA ECOTYPE (NODDING BUR MARIGOLD, PA ECOTYPE)
    - 0.5% CAREX CRINITA, PA ECOTYPE (FRINGED SEDGE, PA ECOTYPE)
    - 0.5% CAREX STIPATA, PA ECOTYPE (AWL SEDGE, PA ECOTYPE)
    - 0.5% EUPATORIUM PERFOLIATUM, PA ECOTYPE (BONESET, PA ECOTYPE)
    - 0.5% SCIRPUS CYPERINUS, PA ECOTYPE (WOOLGRASS, PA ECOTYPE)
    - 0.5% VERNONIA NOVEBORACENSIS, PA ECOTYPE (NEW YORK IRONWEED, PA ECOTYPE)
    - 0.3% LOBELIA SIPHILITICA, PA ECOTYPE (GREAT BLUE LOBELIA, PA ECOTYPE)
    - 0.2% PENTHORUM SEDOIDES, PA ECOTYPE (DITCH STONECROP, PA ECOTYPE)
  - 3. APPLIED AT A RATE OF APPROXIMATELY 20 LBS/ACRE, ALONG WITH THE COVER CROP.
  - 4. COVER CROP SHOULD BE APPLIED AT A RATE OF 60-80 LBS/ACRE. COVER CROP TO BE AN ANNUAL RYE. COVER CROP BASED ON SEASON OF RESTORATION AN ANNUAL RYE THROUGH SPRING AND SUMMER AND WINTER RYE FOR LATE FALL.
- C. FACW WETLAND MEADOW MIX (ERNMX-122)
  - 1. MIX COMPOSITION
    - 21.0% CAREX VULPINOIDEA, PA ECOTYPE (FOX SEDGE, PA ECOTYPE)
    - 20.0% ELYMUS VIRGINICUS, PA ECOTYPE (VIRGINIA WILDRIE, PA ECOTYPE)
    - 16.0% CAREX LURIDA, PA ECOTYPE (LURID SEDGE, PA ECOTYPE)
    - 12.0% CAREX LUPULINA, PA ECOTYPE (HOP SEDGE, PA ECOTYPE)
    - 12.0% CAREX SCOPARIA, PA ECOTYPE (BLUNT BROOM SEDGE, PA ECOTYPE)
    - 3.0% VERBENA HASTATA, PA ECOTYPE (BLUE VERVAIN, PA ECOTYPE)
    - 2.4% ASCLEPIAS INCARNATA, PA ECOTYPE (SWAMP MILKWEED, PA ECOTYPE)
    - 2.0% JUNCUS EFFUSUS (SOFT RUSH)
    - 2.0% ZIZIA AUREA, PA ECOTYPE (GOLDEN ALEXANDERS, PA ECOTYPE)
    - 1.6% ASTER NOVAE-ANGLIAE, PA ECOTYPE (NEW ENGLAND ASTER, PA ECOTYPE)
    - 1.3% CAREX STIPATA, PA ECOTYPE (AWL SEDGE, PA ECOTYPE)
    - 1.0% BIDENS CERNUA, PA ECOTYPE (NODDING BUR MARIGOLD, PA ECOTYPE)
    - 1.0% JUNCUS TENUIS, PA ECOTYPE (PATH RUSH, PA ECOTYPE)
    - 0.8% SOLIDAGO RUGOSA, PA ECOTYPE (WRINKLELEAF GOLDENROD, PA ECOTYPE)
    - 0.6% VERBENA URTICIFOLIA, PA ECOTYPE (WHITE VERVAIN, PA ECOTYPE)
    - 0.5% CAREX CRINITA, PA ECOTYPE (FRINGED SEDGE, PA ECOTYPE)
    - 0.5% EUPATORIUM PERFOLIATUM, PA ECOTYPE (BONESET, PA ECOTYPE)
    - 0.5% HELENIUM AUTUMNALE, PA ECOTYPE (COMMON SNEEZEWEED, PA ECOTYPE)
    - 0.5% MIMULUS RINGENS, PA ECOTYPE (SQUARE STEMMED MONKEYFLOWER, PA ECOTYPE)
    - 0.3% LOBELIA SIPHILITICA, PA ECOTYPE (GREAT BLUE LOBELIA, PA ECOTYPE)
    - 0.3% SCIRPUS CYPERINUS, PA ECOTYPE (WOOLGRASS, PA ECOTYPE)
    - 0.2% ALISMA SUBCORDATUM, PA ECOTYPE (MUD PLANTAIN, PA ECOTYPE)
    - 0.2% ASTER PUNICEUS, PA ECOTYPE (PURPLESTEM ASTER, PA ECOTYPE)
    - 0.2% ASTER UMBELLATUS, PA ECOTYPE (FLAT TOPPED WHITE ASTER, PA ECOTYPE)
    - 0.1% PENTHORUM SEDOIDES, PA ECOTYPE (DITCH STONECROP, PA ECOTYPE)
  - 2. APPLIED AT A RATE OF APPROXIMATELY 20 LBS/ACRE, ALONG WITH THE COVER CROP.
  - 3. COVER CROP SHOULD BE APPLIED AT A RATE OF 60-80 LBS/ACRE. COVER CROP TO BE AN ANNUAL RYE. COVER CROP BASED ON SEASON OF RESTORATION AN ANNUAL RYE THROUGH SPRING AND SUMMER AND WINTER RYE FOR LATE FALL.
- E. LAWN MIX: USE AN ERNST SEED MIX, SUCH AS ATHLETIC FIELD MIX OR SIMILAR.



FOR INFORMATION, SEE ENVIRONMENTAL AND CONSTRUCTION PLAN NARRATIVE.

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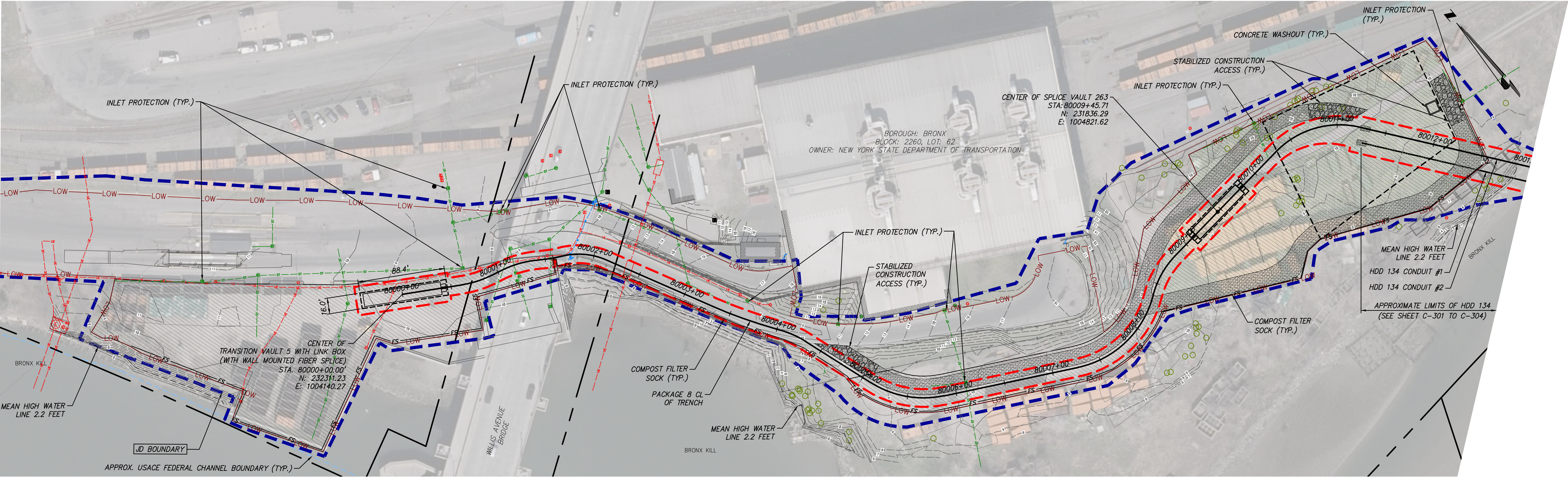
CHAMPLAIN HUDSON POWER EXPRESS  
SEGMENTS 13 TO 15 - PACKAGE 8  
TRANSITION VAULT 5 TO ASTORIA CONVERTER STATION

PACKAGE 8 SPECIFIC RESTORATION NOTES

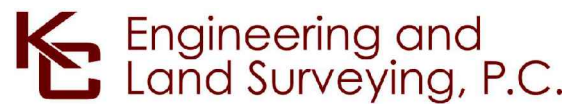
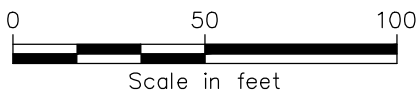
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KC PROJECT NO.	120174
DRAWING NO.	G-004
DATE	07/31/2023
SH.NO.	5 OF





STA. 80000+00 TO STA. 80013+00 PLAN VIEW  
SCALE: 1" = 50'



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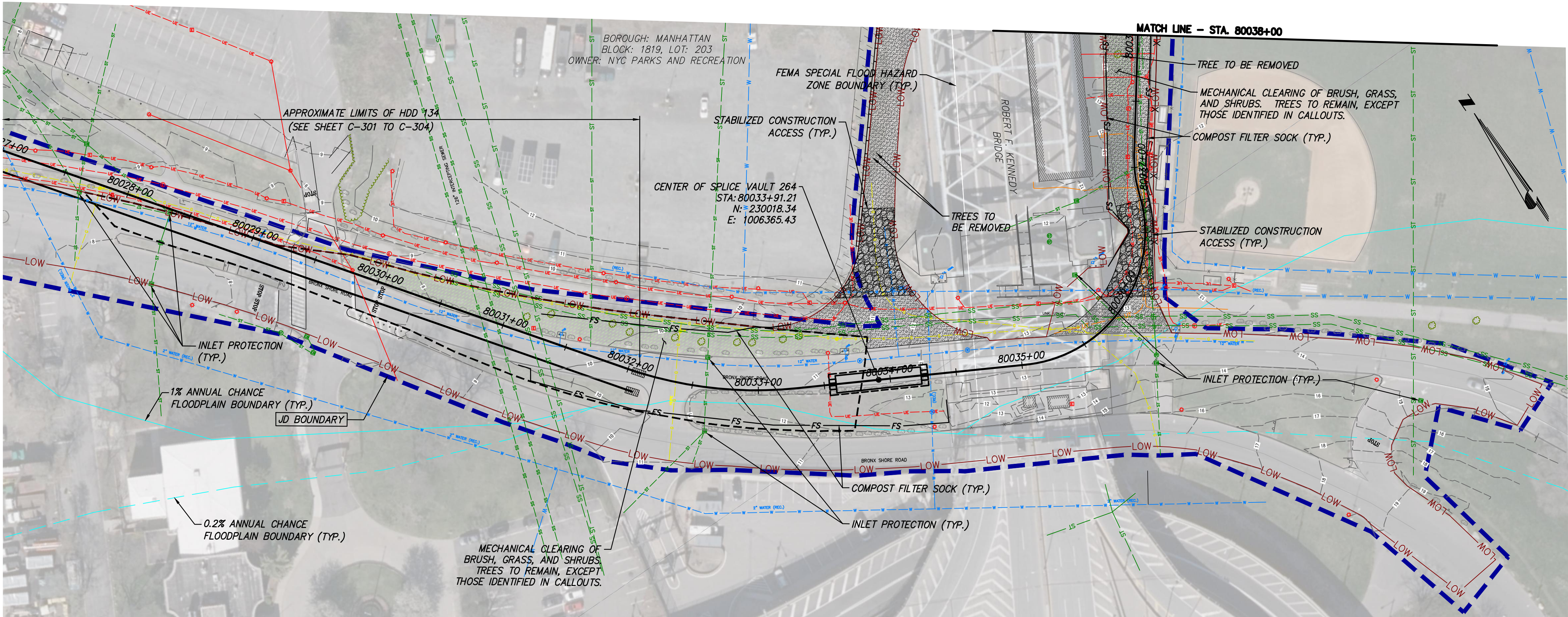
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TRANSITION VAULT 5 TO ASTORIA CONVERTER STATION  
STA. 80000+00 TO STA. 80013+00

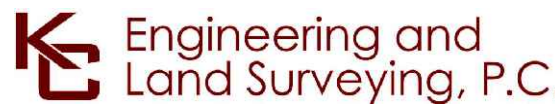
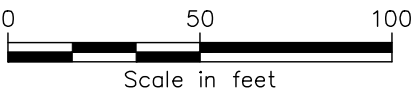
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KC PROJECT NO.	120174
DRAWING NO.	C-401
DATE	07/31/2023
SH. NO.	OF





STA. 80027+00 TO STA. 80038+00 PLAN VIEW  
SCALE: 1" = 50'



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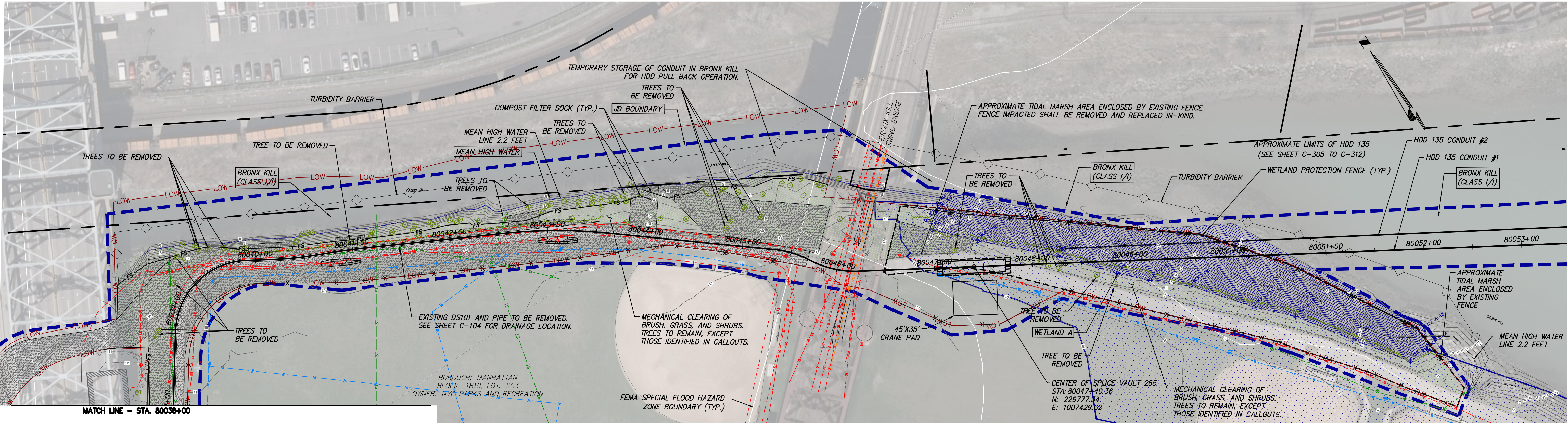
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TRANSITION VAULT 5 TO ASTORIA CONVERTER STATION  
STA. 80027+00 TO STA. 80038+00

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KC PROJECT NO.	120174
DRAWING NO.	C-402
DATE	07/31/2023
SH. NO.	OF



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STA. 80038+00 TO STA. 80053+50 PLAN VIEW  
SCALE: 1" = 50'



Engineering and  
Land Surveying, P.C.



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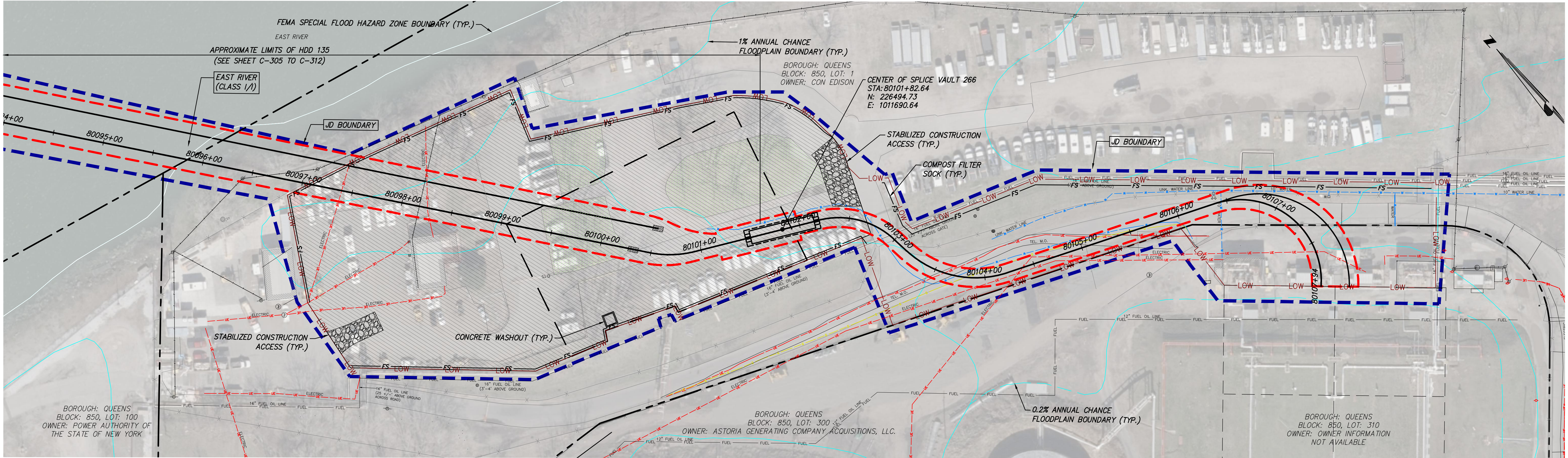
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TRANSITION VAULT 5 TO ASTORIA CONVERTER STATION  
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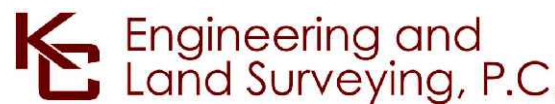
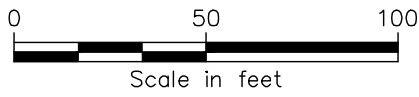
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KIEWIT PROJECT NO.	21162
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STA. 80094+00 TO STA. 80107+94 PLAN VIEW  
SCALE: 1" = 50'



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CHAMPLAIN HUDSON POWER EXPRESS  
SEGMENTS 13 TO 15 - PACKAGE 8  
TRANSITION VAULT 5 TO ASTORIA CONVERTER STATION  
STA. 80094+00 TO STA. 80107+94

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KIEWIT PROJECT NO.	21162
KC PROJECT NO.	120174
DRAWING NO.	C-404



**ATTACHMENT 6**  
**WATERBODY PHOTOGRAPHS**



**Bronx Kill - upstream**  
**Lat: 40° 47' 52"N Long: -73° 55' 02"W**



**Bronx Kill - downstream**

**Segment 13, 14 & 15 –  
 Package 8**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**





**Bronx Kill - upstream**  
**Lat: 40° 47' 48"N Long: -73° 54' 54"W**



**East River - downstream**

**Segment 13, 14, & 15 –  
 Package 8**

## **SITE PHOTOGRAPHS**

**Champlain Hudson Power Express**

