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60 Railroad Place, Suite 402 • Saratoga Springs, NY 12866
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October 25, 2021

Ms. Karen M. Gaidasz, Chief
Offshore Wind & Hydroelectric Section
Energy Project Management Bureau
New York Department of Environmental Conservation
625 Broadway, 4th Floor
Albany, NY 12233-1750

Submitted via email

Re: Notice of Incomplete Application
401 Water Quality Certification & Article 15 Protection of Waters Permits
DEC # 4-0122-00322/00002
Port of Albany Expansion Project
Beacon Island Parcel, Bethlehem NY, Albany County

Dear Ms. Gaidasz:

Reference is made to the Notice of Incomplete Application (dated September 30, 2021) where the New York State Department of Environmental Conservation (NYSDEC) is requesting additional information for the above reference project. The following information is provided in response to NYSDEC's comments, necessary to continue the regulatory process and complete the evaluation of the Joint Permit Application submitted on August 06, 2021. The revised Joint Permit Application can be accessed and downloaded at https://mjinc-my.sharepoint.com/:f:/p/drosa/EtHhrX0spIVJtgtIERkTniwBlDiFq1aAB0J-JZPwYSF5Hg?e=m6QxWs . The following is our responses to each comment:

General Comments:

Comments # 1. *As required in the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-20-001), owners or operators of construction activities that are required to obtain Uniform Procedures Act (UPA) permits must submit a preliminary Stormwater Pollution Prevention Plan (SWPPP) at the time all other necessary UPA permit applications are submitted. Please provide a SWPPP for the Project.*

Response # 1: See **Exhibit 1** (Revised Permit Set) which includes the latest SWPPP for the project.

Comments # 2. *It is NYSDEC staff's understanding that other UPA and NYSDEC permits and approvals are required for this Project, including but not limited to an Air Title V permit, SPDES permit for the on-site wastewater treatment plant and a Multi-Sector General Permit (MSGP). Pursuant to 6 NYCRR Part 621.3(a)(4), "[i]f a project requires more than one department permit, the applicant must simultaneously submit all the necessary applications, or demonstrate to the department's satisfaction that there is good cause not to do so." Please provide a list of all NYSDEC permits and approvals required for the Project;*

justification for not submitting the applications simultaneously; and a schedule for when the applications will be submitted.

Response # 2: According to 6 CRR-NY 621.3 (General Requirements for Applications), if a project requires more than one permit from NYSDEC, the applicant must simultaneously submit all the necessary applications, or demonstrate to the NYSDEC's satisfaction that there is good cause not to do so. Considering the committed schedule submitted by the Port of Albany in support to Equinor's proposal to NYSERDA to achieve the States renewable energy goals, it is not feasible to submit simultaneously to NYSDEC all necessary permit applications due to the following:

- A phased approach is required for the site preparation to allow building construction including implementation of a 3-month surcharge program to address poor soils and settlement concerns.
- Project construction and development activities are required to follow multiple timing restriction (e.g., tree clearing, dredging window).
- Some of the permits are related to the operational components (not construction) of the Manufacturing Plant and subject to selection of manufacturing and processing equipment that must follow the Port of Albany procurement process and therefore, not all information is available prior construction bid.

Due to the poor on site soils, coupled with the very heavy dead and live loads associated with the weights of the manufactured tower and transition pieces, the geotechnical engineering recommendation is such that pre-loading the native soils is required. The weights of these components are such that surface compaction utilizing industry standard compaction equipment and or the implementation of deep dynamic compaction techniques will not adequately compact the deep layers of clay that exists 30-35 feet below the surface. Therefore, the geotechnical engineering recommendation is to surcharge (pre-load) the site by importing fill material and stockpile (stack) material to a height of 6-7 feet above the final grade to establish a heavy dead weight load to allow gravity to compact the native soils and deep layer of clay. The geotechnical recommendation is that this process could take up to 3 months, and should occur before construction start. During our meeting with the DEC and other permitting agency's on October 21, the DEC agreed to allow the operational permits to be issued after the construction permits. Please refer to **Exhibit 2** for additional details, including a list of anticipated permits for this project and associated schedule.

Comments # 3. *Pursuant to 6 NYCRR Part 621.3(a)(8), the application will remain incomplete until the Office of Parks, Recreation and Historic Preservation has made a determination whether: (i) any historic, architectural, archeological or cultural resources present in the project impact area are significant (listed on or eligible for listing on the State or National Register of Historic Places); and (ii) the project may have any impacts on such significant resources. Please provide an effect determination letter from OPRHP.*

Response # 3: Please note that the project site has been subject to multiple reviews and consultations under Section 106 of NHPA resulting in "No Effect" determinations by SHPO. For your reference, previous "No Effect" determinations from SHPO are included as **Exhibit 3**.

- SHPO Case # 18PR07273: March 14, 2019 – "No properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic

Places will be adversely affected by this undertaking with the condition that final construction design not exceed the design specifications noted on Concept Plan A (enclosed)."

Considering that the Area of Potential Effect (APE) continues to be similar to what has been previously evaluated by SHPO, it is understood the proposed action will continue to result in No Adverse Effect to cultural resources or historic properties listed in or eligible for the New York State and National Registers of Historic Places.

At a meeting between SHPO on September 13, 2021, photo simulations of the Project were presented and SHPO requested additional visual simulations. The requested additional visual simulation will be submitted this week. The Project submitted to OPRHP for "No Effect" determination is under review.

Comments # 4. *The application should consider the future risk of climate change. As originally enacted, the Community Risk and Resiliency Act (CRRA) requires applicants for permits in a number of specified programs to demonstrate that future physical climate risk due to sea-level rise, storm surge and flooding had been considered in project design, and that NYSDEC consider incorporating these factors into certain facility-siting regulations. The Climate Leadership and Community Protection Act (CLCPA) amended the CRRA to include all permits subject to UPA. The CLCPA also expanded the scope of the CRRA to require consideration of all climate hazards, not only sea-level rise, storm surge and flooding, in these permit programs. Please refer to NYSDEC"s website for further information: https://www.dec.ny.gov/energy/102559.html. NYSDEC staff are available to meet to discuss this in more detail.*

Response # 4: The Project consists of a marine terminal and manufacturing facility that requires waterfront access due to water dependent operations, similar to other port facilities along the Hudson River. The project has been sited, designed and will be constructed to prevent and minimize damage with future sea-level rise, storm surge and flooding.

<u>Sea Level Rise</u>

All building structures will be constructed at a finished floor of at least elevation 21.0 feet (NAVD 88). This elevation places the buildings 3/0 feet above the current FEMA 100-year Base Flood Elevation (BFE), and 2.0 feet above the FEMA 100-year BFE modified for the Low-Projection of sea level rise for the year 2100.

Given the definitions in the Draft NYS Flood Risk Management Guidance for Implementation of the CRRA, the project is considered to be a non-critical facility; it is located within a tidal area of the Hudson River; and the project's anticipated useful life is 50 years. This would make the medium projection of sea level rise 25 inches, or 2.1 feet over the life of the project. Assuming a BFE of 18, the resulting Finished Floor Elevation (FFE) of the building would be 22.1 feet (18' + medium sea level rise of the project life + 2'). The project's current FFE is 21.0 feet, which was established to keep the project safely above the BFE, account for sea level rise, and balance the earthwork of the Project Site to the greatest extent practicable.

The risk associated with using the "low" vs the "medium" projection of sea rise is that the medium projected sea rise would potentially flood a portion of the Project Site, the lowest points nearest to the river used for vehicle parking, to up to 6.1 feet; and that the building could potentially experience floodwaters to a depth of roughly 1.9 feet. The Project Site will be occupied by largely mobile assets (materials, trucks, cars, etc.) that can be evacuated from the flood prone areas in

the case of an emergency. The building will be privately owned, operated, and insured. The building construction will incorporate wet and dry floodproofing techniques, as applicable.

Storm Surge and Flooding

According to the FEMA Map (Panel 36001C0307D), the project site must be elevated and the placement of fill within the within the 100-year floodplain is required. In accordance with FEMA's National Flood Insurance Program (NFIP) the lowest floor of structures built in Special Flood Hazard Areas (SFHAs), including Zone AE, will be greater than 1-foot above the BFE.

The project has been designed such that all building lowest floor elevations and bridge lowest surface elevation will be at a minimum elevation of 21.0 feet (NAVD 88), which is 3.0 feet above the BFE or 2.0 feet above the FEMA required floor elevation.

In addition, the wastewater treatment plant will be constructed to meet *NYSDEC DRAFT New York State Flood Risk Management Guidance for Implementation of the Community Risk and Resiliency Act June 20, 2018.* This Act states the following: *Section 3.3.2.4.1, Non-Critical Water Infrastructure:*

- Applicants in projects involving non-critical water treatment and supply equipment in both tidal and nontidal areas should demonstrate consideration of the following guideline, considering practicality, costs, risk tolerance and environmental effects:
    - The vertical flood elevation and corresponding horizontal floodplain that result from adding two (2) feet of freeboard to the BFE [100-yr storm even water elevation] and extending this level (transversely to the direction of flow in riverine situations) to its intersection with the ground

The Resiliency Act suggests that the wastewater treatment plant will be constructed such that it will not allow a release of raw sewage for a storm event two (2) feet above the 100 year flood elevation. Two (2) feet above the 100 year storm event is elevation of approximately 20.0 (100 year BFE of 18 feet plus 2 feet). The design project's wastewater treatment plant will be designed and constructed to be resilient and operable at flood elevation of 22.1 feet (BFE of 18 feet, plus the 50 year-medium projection sea level rise of 2.1 feet, plus 2 feet of freeboard).

Comments # 5. *Supplement D-2 (Application for Permit for the Construction, Reconstruction or Expansion of Docking and Mooring (Including Platforms and Breakwaters)) does not provide details on vessels under Item #2. Please provide information on the vessels docking and mooring including how many will be docked and moored (including the maximum amount at any given time), size and type of vessel(s), and the duration for which these vessels will be docked and moored.*

Response # 5: Anticipated vessels that will dock and moor at the proposed wharf include a variety of high-capacity deck barges. The "minimum" anticipated barge size is an ABS Ocean Deck Barge (250' length, 72' width, 16' depth); the "maximum" anticipated barge size is a Crowley Series 455, or equal (400' length, 105' width, 25' depth). In addition, in the future a variety of ocean-going heavy transport vessels may call at the wharf, the largest of which is anticipated as Spliethoff S2L-Type, or equal (608.3' length overall, 83' beam, 34.8' (maximum) summer draft).

The wharf provides space for docking/mooring one vessel at any given time. Any additional vessels associated with the wharf operations (e.g., tugs) would be docked and moored at the existing Port of Albany facility that is located upriver of the site.

The vessels will be docked and moored at the wharf for a duration required for loading Offshore Wind components; once load-out is complete the vessels will depart for downriver transport. The current concept of operation indicates that a maximum of 3 barges could be loaded per week, which means each barge would be at berth for approximately 2 days each.

Comments # 6. *The WQC-1 form and Section 2.1 contains an inaccurate statement, "[t]he Final GEIS (FGEIS) received State Environmental Quality Review Act (SEQRA) approval by the New York State Department of Environmental Conservation (NYSDEC)…" This is incorrect, NYSDEC did not "approve" the FGEIS, the Town of Bethlehem as Lead Agency accepted the FGEIS as complete on the referenced May 5, 2020 date. Please correct.*

Response # 6: See **Exhibit 4** for revised WQC-1 Form.

Comments # 7. *The Federal Coastal Assessment Form (FCAF) contains errors. 2.a. is incorrect, there are no state designated wetlands within the Project site. 2.c. is incorrect, the section of the Normans Kill within the project area is significant fish and wildlife habitat (19 NYCRR Part 600.5(b)(1)).*

Response # 7: See **Exhibit 4** for revised FACF.

<u>Section 3.2.2 Hudson River and Normans Kill (Surface Waters)</u>

Comments # 8. *The statement, "[t]he shoreline along the Project Site is heavily modified ("armored shoreline")" is misleading. The application should instead reflect that there is remnant timber retaining walls in large portions of the shoreline and in these areas, the shoreline has naturally revegetated with mature trees. The mature trees assist in stabilizing the shoreline and provide shade and cover along the edge of the Hudson. Please revise.*

Response # 8: Section 3.2.2 has been revised accordingly and is presented below.

"Hudson River: The shoreline along the Hudson River does not remain in its natural state and was previously altered (engineered). However, the shoreline has naturally revegetated with mature trees, which assist in stabilizing the shoreline and provide shade and cover along the edge of the Hudson. An degraded and remnant timber runs nearly the entire length of the study area, and there are various types of shoreline armoring (e.g., stone, concrete) (Biodrawversity, 2020). The timber revetment was constructed with a single row of timber piles joined by horizontal timber cribbing, and backed by compacted earth, gravel, and stone. Based on other historical documentation, it appears that portions of the revetment may have undergone periodic repairs or improvements, including placement of concrete slabs in lieu of stone surfacing; however, the exact locations and extents of such repair measures cannot be ascertained."

Comments # 9. *The application should be amended to indicate that current conditions include potential shortnose sturgeon spawning habitat.*

Response # 9: Please note that information was included and addressed in the Joint Permit Application (dated August 2021) under third paragraph in Section 3.2.2.

"According to the Endangered Species Act (ESA) Section 7 Mapper2 from the National Oceanic and Atmospheric Administration (NOAA) Fisheries Greater Atlantic Region, the Hudson River is identified as spawning and foraging grounds for the Atlantic Sturgeon (*Acipenser oxyriynchus oxyriynchus*) and Shortnose sturgeon (*Acipenser brevirostrum*)."

Comments # 10. *As currently designed, the Project will impact the entire shoreline adjacent to the site. The existing shoreline slope and vegetative cover should be protected to the maximum extent practicable. It is recommended that the applicant consider an alternative layout for materials to provide for a wider buffer to the Hudson River which will result in a sustainable shoreline that is more resilient to large storm events.*

Response # 10: The site layout has been revised to provide riparian buffer area along the Hudson River. See **Exhibit 1** for revised plans (Permit Set).

Section 4.1.2 Stormwater Management System:

Comments # 11. *Cross-sections of the outfalls on the Normans Kill and Hudson River shorelines should be included in the site plans.*

Response # 11: See **Exhibit 1** for revised plans (Permit Set).

Comments # 12. *Please describe measures proposed to protect the shorelines of the Normans Kill and Hudson River from erosion resulting from the discharge of stormwater through the outfalls.*

Response # 12: See **Exhibit 1** for revised plans (Permit Set).

Section 4.2.1 Management of Water Flows and Fill within Floodway

Comments # 13. *Please provide details on how sea-level rise was accounted for. Pursuant to 6 NYCRR 490.4, the application must demonstrate consideration for sea-level rise with reference to projections of that part.*

Response # 13: As shown in the submitted Joint Permit Application (August 2021), Appendix 1 – Permit Sketches (Bridge Profile) and discussed in Section 4.2.1 , sea level rise was accounted for in the low chord elevation of the bridge within the limits of the Normans Kill floodway. The low chord elevation occurs near the piers on each side of the waterway. The elevation of the proposed bridge low chord will be not lower than the 100 year storm plus 19" of sea level rise per CRRA for the "high-medium" design scenario. The 100 year regulatory flood is at El. 18.6 + 19" = El. 20.2 ft.

Comments # 14. *Please clarify if the proposed concrete caps and bridge will be pre-cast or pour in place. Note that if proposing to pour in place, the work area will need to be isolated to prevent concrete leachate from entering into the Normans Kill.*

Response # 14: The method of construction for the proposed concrete caps is anticipated to be cast in place concrete. The superstructure slab is also proposed as cast in place. Stay in place forms will be used. Notes will be included in the construction plans indicate the area need to be isolated to prevent concrete leachate from entering the Normans Kill.

Comments # 15. *Temporary access will need to be designed to minimize impacts. Pile supported work trestles are the preferred method to minimize impacts.*

Response # 15: As discussed in Section 4.2.1 of Joint Permit Application (August 2021). Temporary construction access would be required to construct the foundations, erect the steel girders, and place the concrete bridge deck. The temporary construction access is anticipated to include earthen causeway and/or pile supported work trestles. Pile supported work trestles may be considered due to the poor soil strengths and high-water table. By rearranging the bridge span configuration and relocating the piers, the temporary construction access would occur outside or above the MHHW line and is not anticipated to result in environmental impacts. See Appendix 1 for Permit Sketches. The construction access concept shown provides area to mobilize drilled shaft installation equipment, deliver and erect structural steel girders, and deliver and place the concrete bridge deck. Additional temporary impacts between the pier and abutment on the north approach may be considered to provide flexibility for contractor means and methods. The temporary impact areas associated with construction are above MHHW line, outside the floodway, and would be returned to pre-construction upon completion of the Project.

Additionally, notes requiring pile supported work trestles as opposed to a causeway system will be included on the construction plans. Driving of piles or sheet piles is discarded. Vibratory or rotary methods is proposed. Additionally, the use of nets, tarps, and/or pans during construction of the bridge deck will be implemented to prevent debris falling into the water into the water. Temporary access is a contractor means and methods item, so we will be providing notes to indicate preferred alternatives that meet permit requirements.

Section 4.3 Proposed Wharf and Dredging

Comments # 16. *The proposed wharf dredge depth is significantly deeper than current conditions. Please describe what mitigation is proposed to offset potential impacts to shortnose sturgeon habitat.*

Response # 16: Proposed dredge depth is required to match current navigational depth of Hudson River (federal navigational channel) providing adequate separation and safe draft to vessels at the proposed wharf, and ability to the species to potentially swim under the vessels. Proposed depth is approximately 32 feet below the MLLW line, plus approximately two (2) feet of allowable overdredge.

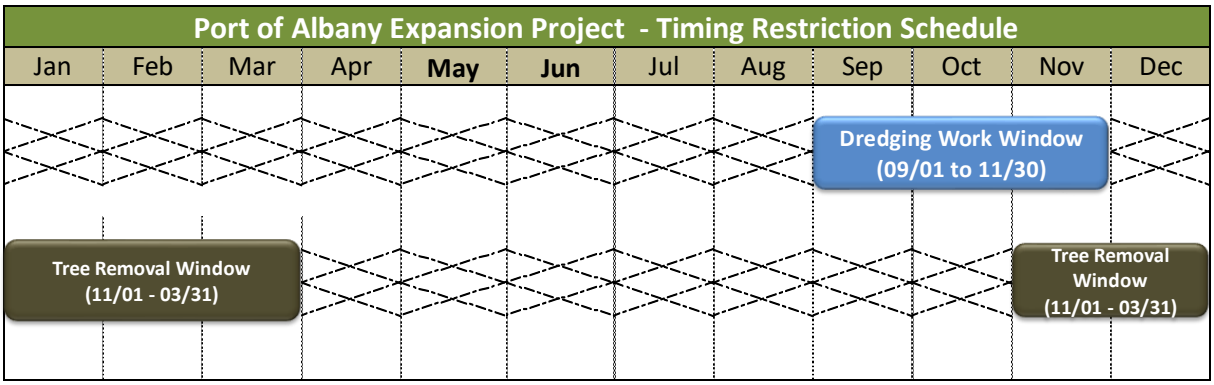
According to the Sediment Sampling Analysis, the proposed dredging will occur over a substrate consisting of silty clay, sand and some trace of gravel, including Class C sediments. The proposed mechanical dredging would remove of approximately 105,000 cubic yards containing concentrations of pesticides and PCBs contributing to the cleanup and improving the quality of the Hudson River.

Overall, the habitat to be affected by the Project is expected to be small compared to existing available habitat along the Hudson River. The area of the Project would be temporarily

unavailable for foraging in the substrate during construction of the new wharf and dredging activities. However, foraging habitat would be reinstated when the wharf and dredging is complete. Aquatic organisms are expected to quickly recolonize such areas, as similar habitat is present and would remain in the surrounding area not to be unaffected by the project activities and would serve as the source of colonizing invertebrates.

Comments # 17. *The in-water work window for sturgeon species is September 1 to October 31 (not July 1 to November 30 as indicated in the application). The September 1 to October 31 in- water work window applies for any Project activities that might impact sturgeon. Additional mitigation and permitting requirements, such as a 6 NYCRR Part 182 permit, may be required if certain Project activities are conducted outside of this in-water work window. Further consultation with NYSDEC staff regarding the timing, duration and type of in-water work is recommended.*

Response # 17: Timing restriction schedule (graphic) presented in Section 4.4 has been revised accordingly. Please note that dredging work window (September 1st to November 30th) is as per approved FGEIS and NYSDEC written comments received on August 30, 2019 and September 30, 2019, during the SEQR regulatory review process.



Legend:

Time Restriction - No Dredging / No Tree Clearing

The project intents to follow established dredging timing restrictions from NYSDEC and NMFS. Please note that timing restrictions (no dredging) from NMFS goes from March 15th to September 30th). Any dredging activity outside the dredging window will be coordinated first with NYSDEC. All in-water work areas for both dredging and wharf construction will be completed within the confines of a weighted turbidity curtain, which will isolate work areas from other areas of the river. The turbidity curtain is also anticipated to serve as a barrier that excludes potential entry of fish and other marine species into the work area during the time it is deployed.

Section 4.3.2 Wharf / Quay Structure Description and Fill Material Quantities

Comments # 18. *The datum elevations are currently stated at NAVD29 datum and the standard at this time is NAVD88. All elevations will need to be updated to NAVD88 for consistent review.*

Response # 18: Project datum elevations has been revised to NAVD88 for all elements (e.g., wharf and dredging).

Comments # 19. *The application states, "[t]he design also takes into consideration sea level rise." Explain specifically what design measures were considered to address sea level rise.*

Response # 19: At the Beacon Island site, the Hudson River is both tidal, and experiences natural variations in water surface elevation due to changes in flow and conveyance volume (i.e., lower volumes during periods of drought, higher volumes during periods of snowmelt and extreme precipitation). Water surface elevations in the river can also be influenced, particularly in winter and early spring, by backwater conditions created by the formation of ice dams that are created at obstructions of the waterway, such as bridge piers. Sea Level Rise is also a consideration, as climate change could introduce variations to these processes.

The top surface elevation of the structure at its riverside edge is proposed as +15.50 NAVD88. This elevation is slightly higher (by ~0.5') than the outboard fascia of APDC's main terminal at the Port of Albany. The primary considerations in establishing this elevation include the following:

1. Accommodating variable elevations of cargo decks/holds of the various vessels that will frequent the berth, including elevations under low water, high water, loaded (low freeboard) and light (large freeboard) conditions, and the ability to efficiently transfer cargo across the face of berth under a wide range of conditions.
2. Providing a surface elevation high enough to avoid frequent overtopping by extreme event flood conditions, including those that may be impacted by Sea Level Rise; the Highest Recorded Water Level for the Period of Record occurred on 1/20/96, at Elevation +14.71 NAVD88.
3. Providing a structure with a geometric section that will prevent low freeboard vessels (i.e., loaded barges), during low water conditions, from entering the space landward of the face of the structure, and potentially contacting and damaging structures and foundations. Similarly, a barge wedged under the wharf could present a significant safety concern.
4. Affording landward slopes and grades that allow for effective collection (for pre-treatment) of stormwater prior to discharge.
5. Providing for landward slopes and grades that accommodate efficient movement of equipment and manufactured products, from higher "floodproofed" elevation to the working riverfront.
6. Recognition that the wharf contains no utilities or any other at-risk items, will not support buildings of any type, and acknowledgement that the sole purpose of the wharf is to provide a platform for the shore-to-vessel transfer of large, manufactured components.

The type of structure, a drilled shaft-supported open-type marginal wharf, configured as a low-level ballasted deck system, consisting of cast-in-place concrete bent caps, precast concrete panels and composite cast-in-place concrete deck slab closure and fascia, is very robust, and can withstand virtually any possible extreme flood event with very little to no anticipated damage to the structure.

Under an extreme flood event scenario, including any reasonably conceived contributing influence of Sea Level Rise where the structure is overtopped, restoration activities needed to

return the structure to service would likely be limited to removal of accumulated silt, mud, and other debris from the working surface of the wharf. Depending on flow velocity and patterns there could be some displacement of the dense graded aggregate surfacing during an overtopping flood event, but this material is anticipated to be included in the items where routine maintenance and grading is required, so no special operations or requirements are anticipated for repair.

This very rare overtopping scenario is considered both acceptable and necessary, to provide a working wharf surface elevation required to support operations, and also minimize impacts to the waterway.

Comments # 20. *Please provide a plan demonstrating how concrete leachate will be isolated and not entered into the river during the construction of the wharf.*

Response # 20: Conventional stormwater BMPs will be implemented during construction phase to trap runoff and preventing concrete leachate enter into the river. Project Contract Documents (Plans and Specifications) will strictly prohibit concrete contaminated leachate from being discharged to the river. Included in the requirements are the following stipulations:

- The Contractor shall furnish, install, maintain and remove upon completion of the project all necessary environmental protection and water control devices, including but not limited to sediment control devices, turbidity curtains, booms, check dams, floats, staging, tarpaulins, and other devices necessary to prevent soils, sediments, leachate, and other construction-related material from entering the water and leaving the immediate vicinity of the site.
- During the course of construction, the Contractor shall conduct his operations in such a manner to prevent any damage to the waterway from pollution by debris, sediment, or other foreign material or from the manipulation of equipment and/or materials in or near the waterway.
- The Contractor shall not return directly to the adjacent waterway any effluent that has been used for wash purposes or other similar operations which cause this water to become polluted with sand, silt, cement, oil, or other impurities. If the Contractor uses water on site for construction purposes, he shall control the discharge of such water through the use of whatever devices necessary to protect and maintain water quality, to sustain fish life, and otherwise protect the environment.
- The Contractor shall bear full responsibility for cleanup of any materials deposited outside the work area.
- The requirements of NYSDOT Standard Specification Section 107-12 for water quality protection shall apply to this work.
- Materials for temporary soil erosion and sediment control measures shall meet the requirements of NYSDOT Standard Specifications Subsection 209-2 and all applicable and referenced paragraphs and sub-paragraphs.
- Submit proposed environmental protection and water control plan to the Project Engineer for approval before work is started. Plan shall include procedures for environmental protection and water control in relation to demolition and removal

activities, construction and installations, coordination with other work in progress, a description of methods and equipment to be used for each operation, and of sequence of operations. The Contractor shall identify the proposed procedure for stabilizing and protecting the existing embankments, controlling runoff, preventing discharge of concrete leachate, and all other environmental protection procedures.

- The Contractor shall abide by all environmental protection requirements and other stipulations and conditions stated in the project permitting including but not limited to those concerning interference with navigation, conformance with plans, turbidity curtain use, material disposal, material and equipment storage, spill reporting, precautions against contamination of waters, and all other special conditions.

Comments # 21. *Please provide details on shaft installation, including dimensions.*

Response # 21: Drilled shafts located on the river side of the cut-off wall are 48" diameter, constructed in a permanent steel casing. Permanent casing varies in length (~70' to ~90') due to variable rock elevation. Each 48" diameter shaft will have a reinforced concrete rock socket that is 42" diameter, with a minimum length of 15'.

Drilled shafts located on the land side of the cut-off wall are 30" diameter, constructed either in a permanent steel casing or by using displacement slurry methods. Permanent casing varies in length (~70' to ~90') due to variable rock elevation. Each 30" diameter shaft will have a reinforced concrete rock socket that is 24" diameter, with a minimum length of approximately 25'.

The actual installation methods for the drilled shafts will be determined by the Contractor performing their installation, subject to review and approval of the Contractor's Drilled Shaft Installation Plan. Generally, the installation process is anticipated to include the following sequence of events for both the demonstration (technique) shaft installation(s) and the production shaft install:

1. The Contractor shall consider the geological conditions of the site and at each drilled shaft and to select appropriate construction methods, procedures, and equipment to meet the specification requirements. The Contractor shall propose the Means and Methods in Drilled Shaft Installation Plan. This plan shall be subject to revision following completion of the technique drilled shafts.
2. Once the Plan is finalized, no changes or deviations from the plan shall be permitted without prior written notification to the Project Engineer, who shall maintain the right to review and comment on any proposed revisions.
3. Drilled Shaft Installation Plan:
    - The Contractor shall submit to the Project Engineer a Drilled Shaft Installation Plan in accordance with Section 01 33 00, "Submittals". The drilled shaft installation procedures as shown on the Contract Drawings, and within these specifications, should be used as a basis for preparation of the Drilled Shaft Installation Plan.
4. Successful completion of the technique and production drilled shafts will be based on the following anticipated criteria:
    - Provide permanent steel casing; the casing shall be seated into rock.

- Remove alluvium sediment and weathered rock within the pile/casing and to the elevations and dimensions as proposed in the Drilled Shaft Installation Plan.
- Install any proposed installation platform and/or template in accordance with the Drilled Shaft Installation Plan.
- Drill a drilled shaft socket with the proposed method and equipment, to a position, dimension, straightness, and plumbness that satisfy the specified requirements and tolerances.
- Clean the drilled hole with the proposed method and equipment, and verify the cleanliness of the hole.
- Examine the drilled hole, including the sidewall and bottom, with a remotely controlled device.
- Fabricate and assemble reinforcing cages, shear lug steel (as required), test access tubes, and load cells to the specified tolerances in accordance with the contract drawings and shop drawings.
- Place the reinforcing steel, shear lug, and load test devices in the drilled shaft socket to the specified tolerances.
- Place underwater (tremie) concrete in a continuous pour in accordance with Concreting Plan.
- A professional test organization shall conduct concrete integrity tests, using CSL. CSL tests shall be conducted among the 5 CSL access tubes.
- If the concrete quality is found to be acceptable, a professional test organization shall conduct an Osterberg Cell load test in each technique shaft.

Section 4.3.3 Dredging (Hudson River)

Comment # 22. *The application states, "[t]otal length of riverbank impacts is approximately 950 SF." Is this intended to be linear feet?*

Response # 22: The approximate length of riverbank impacts is approximately 900 linear feet (LF) along the Hudson River and 1,025 LF along the Normanskill. Please note that the project layout incorporates a riparian buffer along the Hudson River, where the existing vegetation and linear feet not to be impacted will remain in its natural state. See **Exhibit 1** for revised Permit Set.

Comment # 23. *If possible, the practice of "dragging" of the post dredged area should be avoided, especially in areas of contaminated sediments. Should it be determined necessary, a drag beam should not be used in Class C sediments without first assuring that the material to be exposed does not contain PCB's greater than 1 ppm.*

Response # 23: Drag beam is discarded. The dredging specifications will prohibit both dragging the dredge bucket along the sediment surface, and prohibit the use of a drag beam for profiling the dredged surface.

Comment # 24. *The post dredging "to be exposed" sediment in the Class C areas must be tested to determine if Class C PCB's remain once dredging is complete. If samples representing the top 6" of "to be exposed" sediment have been archived, then they should be analyzed for PCB concentration in areas represented by the Class C PCB sample results.*

Response # 24: Please note that sediment samples have been discarded and are no longer archived; therefore, no further testing can be performed at this moment. Please note that dredging contemplates up to two (2) feet of allowable overdredge (varies depending on operational capabilities of dredge equipment); therefore, any pre-dredging sampling for the "top 6-inches to be exposed" may not provide the most accurate results of anticipated post dredging conditions. Once dredging is completed, a post dredging sediment sampling will be performed to inform NYSDEC if Class C PCB's remains.

Comment # 25. *Please provide a dewatering plan and further details to ensure the dredging and dewatering is done in a way that minimizes suspension of sediment in the water column.*

Response # 25: Please note that the Dredging Contractor has not been selected and the dewatering plans is part of the means and methods to be established during the construction phase. The Dredging Contractor will be responsible and shall propose the Means and Methods. A dewatering plan will be developed by the Dredging Contractor; this plan is subject to review and approval. Basic requirements of the dewatering plan include the following minimum stipulations:

a. Dredged sediments that are placed on a barge shall be dewatered in accordance to NYSDEC regulations.

b. Dewatering shall be conducted in a manner that precludes adding substantial suspended solids, turbidity, or sheens of the receiving water body and in accordance with applicable permits.

c. Dewatering operations shall be performed to avoid re-suspending or pumping previously settled sediment.

d. All decant water shall be held in the decant holding scow a minimum of 24 hours after the last addition of water to the decant holding scow. Said water contained in the decant holding scow may only be discharged after this mandatory 24-hour retention time.

e. Should the Contractor wish to reduce the required holding time, the contractor shall demonstrate that the reduced holding time is sufficient to meet a total suspended solids (TSS) background value of 30 mg/L. The total suspended solids shall be determined through gravimetric analysis.

f. No discharge shall be permitted from the decant holding scow until the results of the gravimetric analysis have confirmed that the 30 mg/L background level has been achieved.

g. No additional water shall be added to the decant holding scow between the time of sample acquisition and discharge. Upon successful demonstration that the reduced holding time is sufficient to meet the TSS background level of 30 mg/L, the monitoring of TSS may be suspended and the demonstrated settling time shall replace the 24-hour minimum. A successful demonstration of the reduced holding time efficiency shall be determined once three consecutive TSS analyses have confirmed that the 30 mg/L action level has been achieved by the reduced holding time.

h. Should the contractor wish to demonstrate this reduced holding time, all records including the time of last addition of decant water into the scow, time of TSS sampling and the results of TSS sampling shall be submitted as soon as they become available, together with a request for a reduced holding time.

i. Add section on PCB testing of water prior to discharge

j. Add section on water treatment if PCBs are found

k. During pumping of the decant water from the holding scow, great care shall be taken to avoid resuspending or pumping sediment which has settled in the decant holding scow.

l. Decant water from this project shall be discharged within the dredge area from where the sediment originated, in proximity to the dredging contract area.

Comment # 26. *Please describe how the side slopes of the dredge area will be stabilized.*

Response # 26: As shown and indicated in the typical section, a graded stone / rock / rip-rap revetment will be provided to stabilize both the front slope and side slopes of the dredge area. This includes the area beneath the open wharf, and the areas beyond the limits of the wharf. The height of stone protection is to the approximate elevation of wharf grade transition, +15.5 NAVD88. This information was presented in Section 4.3.3 and Appendix 1 (Permit Sketches) of Joint Permit Application (August 2021).

Section 4.3.3.1 Description of Dredging Material

Comment # 27. *For Class C material, an environmental bucket and no barge overflow will be required during dredging. Additional conditions will be applied to dredging the material with the high PCB concentrations of 8 ppm. Please revise this section accordingly.*

Response # 27: Section 4.3.3.1 has been revised accordingly. Best Management Practices (BMPs) for Contaminated Material Resuspension Control will include but are not limited to the following:

1. The Contractor shall place dredged material deliberately in the barge to prevent spillage of material overboard.

2. The closed clamshell environmental bucket shall be lifted slowly through the water, at a rate of 2 feet per second or less.

3. The discharge (i.e., overflow) of water from the barge/scow into which dredged material is placed is prohibited.

4. The Contractor shall not cause or allow any unreasonable interference with the free flow of regulated water by placing or dumping any materials, equipment, or structures within or adjacent to the channel while the regulated activity(ies) is being undertaken. Upon completion of the regulated activity(ies), the Contractor shall remove and dispose of in a lawful manner, all excess materials, debris and equipment from all regulated areas.

5. The Contractor shall control the “bite” of the bucket to: (a) minimize the total number of passes needed to dredge the required sediment volume; and (b) minimize the loss of sediment due to extrusion through the bucket’s vents openings or hinge area.

6. The dredge shall control the rate of descent of the bucket to maximize the vertical cut of the clamshell bucket while not penetrating the sediment beyond the vertical dimension of the open bucket (i.e., overfilling the bucket). This will reduce the amount of free water in the dredged material, will avoid overfilling the bucket, and minimize the number of dredge bucket cycles needed to complete the dredging contract. The dredging contractor shall use appropriate software and sensors on the dredging equipment to ensure consistent compliance with this condition during the entire dredging season.

7. The independent dredging inspector shall monitor the operation of the software and sensors during the inspections as specified in the below conditions. Any malfunction of the software and sensors on the dredge at any time shall be immediately reported to the independent dredging inspector and the permittee by the dredging contractor and shall be immediately repaired to working order.

8. The Contractor shall not drag the dredge bucket along the sediment surface.

Section 4.3.3.2 Dredged Material Placement Site

Comment # 28. *The Class C PCB material cannot be disposed of at Houghtaling Island. Please provide an alternative dredged material management plan.*

Response # 28: It is anticipated that Houghtaling Island cannot be used for both impacted (PCB contaminated) and non-impacted dredge material disposal. Various options are being considered for the upland disposal of the dredged material at authorized facilities and in relatively close proximity to the Project Site. Potential CDFs preliminarily identified for sediments with contamination rates less than 50 mg/kg include:

- Casella – Ontario County Landfill, 1879 NY-5, Stanley, NY 14561
- Seneca Meadows Landfill, 1786 Salcman Rd, Waterloo, NY 13165

Other potential landfill sites include but are not limited to, Fairless Landfill at 1000 Bordentown Road, Morrisville, PA 19067 Clean Earth, Carteret, NJ.

The Dredge Material Management Plan will be developed and submitted by the dredging contractor for review. Submittal items for the dredging work will include but may not be limited to the following:

A. Dredging Operation Plan including the following:

   1. Complete project team organization with duties, responsibilities, and authorities clearly defined.

   2. Names and specifications for all dredging and support plant to be used for each specific work element, including, but not limited to, the proposed dredging equipment and methods to meet performance requirements.

   3. Order of work.

   4. Schedule, indicating no in-river activities will take place within the migration and spawning period for anadromous fish.

5. Detailed anchoring and mooring plans.
6. Plan for marking and lighting of floating plant and equipment.
7. Debris removal plan, include procedures in event of inadvertent debris capture (i.e., bucket non-closure, clogged hydraulic pipeline).
8. Survey Plan: Written plan presenting the job survey effort.
9. Coordinates and land elevations of all control points for electronic positioning and vertical control.
10. Certificates: Manufacturer's guarantee of accuracy of electronic positioning system for dredging surveys.
11. Quality Control procedures.
12. Plan for inspection, identification, handling, and disposal of munitions and other similar items of concern.
13. Spill Containment Plan.
14. Accident Prevention Program Plan: Written plan describing the Contractor's Accident Prevention Program.

B. Dredged Material Management Plan including the following:

1. Method and equipment for transporting dredged material from the dredging site to other locations.
2. Method and equipment for dewatering dredged material.
3. Method and equipment for amending and mixing dredged material at the designated dredged material management facility.
4. Method and equipment for offloading dredged material (either amended or not amended).
5. Method and equipment for placing dredged material.
6. Method and equipment to prevent spillage of dredged material.
7. Fuel spill control plan.
8. Schedule.
9. Spill Containment Plan.

C. Docking/Anchoring Plan including the following:

1. Methods to secure Project vessels during work in a way that will limit potential sediment resuspension. Identify steps to be taken to ensure methods do not pose a hazard to navigation.
2. Describe docking and/or anchoring procedures to be used during storm events.
3. Identify suitable and available dock space.

D. Marine Equipment Safety Report including the following:

1. Marine survey report prepared by independent licensed marine surveyor for any vessel greater used by the Contractor.
2. Include photographs and statement on vessels stability, seaworthiness, operation of installed equipment and instrumentation, conformance to applicable Federal regulations and requirements for its intended role and function as well as its ability to perform its intended project function.
3. State any modification made to vessels and/or equipment as a result of deficiencies identified in marine survey.

E. Contractor Qualifications: Company specializing in contaminated sediment dredging specified in this section with minimum three years documented experience on at least three projects of similar or larger scale.

F. Independent Hydrographic Surveyor Qualifications: The Contractor shall be responsible for providing an independent surveyor to perform pre-dredge, progress, and post-dredge hydrographic surveys to determine the volume of all material removed for payment. The surveyor's equipment and workforce shall be independent from the Contractor's. The independent surveyor must be able to document in writing to the Company's Representative at least five (5) years of experience in hydrographic surveying of navigable channels and possess a current land surveyor's license valid in the State of New York. The Contractor shall submit the Independent Hydrographic Surveyor's qualifications for review and approval prior to performing any dredging.

G. Independent Dredging Inspector: The Contractor shall employ the services of an independent dredging inspector to continuously monitor dredging activities. Contractor shall submit the resume of the dredging inspector for review and receive written approval prior to the initiation of dredging. The independent dredging inspector shall perform inspections of the dredging contract a daily using the attached WQC Field Inspector form. The Contractor shall submit the completed inspection forms for submission to the NYSDEC on at least a weekly basis.

H. Pre-dredging survey.

I. The Contractor shall provide copy of the necessary air permits and other permits from the dredged material processing facility.

J. The Contractor shall obtain letters of commitment from sediment transport companies and from any treatment or disposal facility agreeing to handle and/or dispose of sediment from the Site. In the event that a facility is prohibited from issuing a letter of commitment without a sample of the waste, a conditional-type letter will be acceptable. Such a conditional letter shall specifically state what types and quantities of waste the facility will accept. A copy of each letter shall be maintained by the Contractor in its files.

K. The letters of commitment from proposed dredged material treatment facility to be used shall include:

1. Name and EPA or State identification number of the facility.
2. Facility address with name and responsible contact for the facility.
3. Signature.
4. A description of the proposed facility.

5. Any and all necessary permit authorizations for each type of waste stream (if applicable).

L. Dredging Progress Plan: The Contractor shall prepare and maintain a daily progress plan of the dredging work. The plan shall have the same scale as that of the Drawings for the area being dredged and shall be marked to indicate the progress of the dredging work on a daily basis. Soundings shall be taken as the dredging progresses and they shall be plotted on the progress plan. These records shall be turned over to the Company at the end of work.

M. Post-dredging survey.

N. The Contractor shall complete and submit a Dewatering Form to the independent dredging contractor on a daily basis as part of the Quality Control Report provided to the Company's Representative. Said Dewatering Form shall be certified by the independent dredging inspector that they have witnessed the dewatering process during the preceding day.

Section 4.3.3.5 Recurrent Maintenance Dredging Program

Comment # 29. Periodic maintenance dredging is typically necessary. Please explain why maintenance dredging won't be required or provide an estimate of anticipated maintenance dredge time intervals.

Response # 29: Maintenance dredging is expected to be required periodically throughout the service life of the proposed facility. The frequency of and volumes of material removed during maintenance dredging are expected to be variable, based on both natural processes (i.e., river sediment load, flow velocities, flow patterns) and use of the facility. Currently, it is anticipated that maintenance dredging could be expected at approximate 5 to 7 -year intervals, which is the same approximate interval at which the Port of Albany turning basin (located upstream of the project site) undergoes maintenance dredging.

Section 4.4 Project Schedule, Construction Duration and Year Restrictions

Comment # 30. The dredging work window is September 1 to October 31, not July 1 to November 30 as indicated. Please correct.

Response # 30: Timing restriction schedule presented in Section 4.4 has been revised accordingly. Please note that dredging work window (September 1st to November 30th) is as per approved FGEIS and NYSDEC written comments received on August 30, 2019 and September 30, 2019. The project intents to follow established dredging timing restrictions from NYSDEC and NMFS. Please note that timing restrictions (no dredging) from NMFS go from March 15th to September 30th). Any dredging activity outside the dredging window will be coordinated first with NYSDEC. All in-water work areas for both dredging and wharf construction will be completed within the confines of a weighted turbidity curtain, which will isolate work areas from other areas of the river. The turbidity curtain is also anticipated to serve as a barrier that excludes potential entry of fish and other marine species into the work area during the time it is deployed.

Comment # 31. *Please provide details on how work areas will be isolated, and turbidity minimized during work.*

Response # 31: See **Exhibit 1** for Permit Set (Wharf Dredging and Construction Plan – Proposed Temporary Environmental Protection). All in-water work areas for both dredging and wharf construction will be completed within the confines of a weighted turbidity curtain, which will isolate work areas from other areas of the river. The turbidity curtain is also anticipated to serve as a barrier that excludes potential entry of fish and other marine species into the work area during the time it is deployed. Turbidity in the work area will be minimized by enforcing Best Management Practices, including but not limited to:

a. Placing dredged material deliberately in the barge to prevent spillage of material overboard.

b. Requiring the closed clamshell environmental bucket be lifted slowly through the water, at a rate of 2 feet per second or less.

c. Prohibiting the discharge (i.e., overflow) of water from the barge/scow into which dredged material is placed.

d. Prohibit dragging the dredge bucket along the sediment surface

Section 5 BMPs and Environmental Protection

Comment # 32. *This section should describe any Best Management Practices (BMPs) that are proposed to minimize impacts to sturgeon, such as a bubble curtains.*

Response # 32: Section 5 of Joint Permit Application has been updated with the following information. The following BMPs and mitigation measures are proposed to minimize potential impacts to the Atlantic sturgeon and Shortnose sturgeon:

- All in-water work areas for both dredging and wharf construction will be completed within the confines of a weighted turbidity curtain, which will isolate work areas from other areas of the river. The turbidity curtain is also anticipated to serve as a barrier that excludes potential entry of fish and other marine species into the work area during the time it is deployed.
    - Turbidity curtains are proposed to avoid and minimize potential impacts to Atlantic sturgeon and Shortnose sturgeon. Additionally, floating turbidity curtains, staked turbidity barriers and/or silt-fence would be installed to protect SAV beds to remain.
    - Large portion of the channel will remain open for aquatic organism passage.
- The Project intends to avoid dredging during spawning periods of the Atlantic sturgeon and Shortnose sturgeon. Dredging schedule will follow timing restrictions as per NYSDEC (September 1st to November 30th) and NMFS (March 15th to September 30th) guidelines.
- Use of a clamshell (closed) bucket to minimize resuspended sediments.
    - The closed clamshell environmental bucket would be lifted slowly through the water, at a rate of approximately two (2) feet per second.
- For the wharf construction, the permanent steel casing for the drilled shaft foundations and the sheet pile wall components would be vibrated in, rather than utilizing an impact

hammer. An impact hammer would be used only to seat the steel casing within the first few inches in the top of rock. Other BMPs considered include:

- Use of pre-drilling prior to vibratory hammering
- Implement soft start (i.e., pile tapping) prior to full energy impact hammering
- If necessary, cushion blocks, air bubbles curtain or other noise attenuating tools would be implemented when impact hammering to avoid reaching noise levels that could cause injury or behavioral disturbance to these species.

- Use of nets, tarps, and/or pans during construction of the bridge deck over the Normans Kill and removal of any debris that falls into the water.
- A SWPPP will be implemented and maintained during the construction phase to be implemented and address potential water quality impacts.

Section 6.2.1 Option 1 – Purchase SAV Credits from Mitigation Bank and ILF

Comment # 33. *Please note that purchasing Submerged Aquatic Vegetation (SAV) mitigation credits is not available for the Hudson River SAV. Please propose an alternative mitigation plan for SAV.*

Response # 33: Information was provided under Section 6.2.2. In accordance with NYSDEC letter dated August 29, 2020 (*DEC* #4-0122-00322/00001), *V. americana* from SAV patch # 3 will be transplanted to SAV beds and adjoining areas outside the project limits. See response to Comment # 34 for additional details.

Section 6.2.2 Option 2 – Transplanting Plan for *V. americana* and Protection of SAV Beds

Comment # 34. *Please provide a SAV relocation plan for NYSDEC staff review.*

Response # 34: The relocation plan for *V. americana* was presented under Section 6.2.2. The mitigation plan consists of transplanting *V. americana* from SAV patch # 3 to SAV beds and adjoining areas (FSM Sections 1 to 7) outside the project limits, seeking to promote a continuous bed. SAV beds (patches 1 and 2) would be protected. SAV Transplanting Plan is also enclosed as **Exhibit 5**.

Section 6.2.5 SAV Removal and Transplant (V. americana)

Comment # 35. *The application states, "[t]he SAV transplanting efforts would be conducted in coordination with the mussel relocation." Please clarify if the Mussel and SAV relocation are intended to occur at the same time in one effort.*

Response # 35: Please note that means and method would be subject to the qualified contractor to be selected; however, Mussel and SAV relocation is not expected to occur at the same time in one effort unless otherwise recommended by NYSDEC.

Section 6.3.3 Collection and Relocation of Mussels

Comment # 36. *Please note that water temperatures for mussel handling and relocation must exceed 55 degrees and air temperatures must exceed 50 degrees. Please revise accordingly.*

Response # 36: Section has been revised accordingly. Relocation activities would take place when the water temperature exceeds 55°F and air temperature exceeds 50°F.

Section 7 Alternative Analysis

Comments # 37. *Section 7.1 states, "[d]uring the planning process the APDC evaluated other potential sites." Please provide a list and a map of the other potential sites that were evaluated.*

Response # 37: An attempt to assemble a collection of adjacent properties that comprised of approximately 160 acres along the east side of the Hudson River in East Greenbush was evaluated. The **Exhibit 6** illustrates the location and compilation of properties that were considered. For various reasons, including the fact that not all of the properties were available, this site was eliminated from consideration.

In addition, the applicant researched a 100 to 160 acres within the existing Port District boundary's including vacant lands in the Town of Bethlehem. There are no available properties that met the needs of the project within the Port District boundary or in the adjacent City of Albany or Town of Bethlehem.

Comments # 38. *Section 7 describes various site layouts and alternative designs for the bridge and wharf that were considered for the Project. Please provide the conceptual drawings showing these various site layouts and alternative designs.*

Response # 38: See **Exhibit 7** for previous conceptual designs discarded.

Appendix 1 Permit Sketches

Comment # 39. *Cross-sections of key locations need to be included on the grading plans. Each cross-section should include MLLW, MHW, MHHW, Spring High Tide in NAVD88 datum with a statement as to how the elevations were determined. Currently the cross sections have MHT, MHHW and OHW datums on one line and they are in NGVD 29.*

Response # 39: See **Exhibit 1** for Revised Permit Set, including requested cross sections and labeling the requested datums.

Comment # 40. *Additional cross sections should include stormwater outfalls and the north-south section of the dredge area.*

Response # 40: See **Exhibit 1** for Revised Permit Set, including requested cross sections.

Section – Wharf and Dredging (sheet 4 of 4)

Comment # 41. *This plan appears to identify heavy stone slope protection as being installed below the MLLW. If so, please confirm and provide proposed fill totals.*

Response # 41. The proposed plan to stabilize slopes both above and below the MLLW elevation is to provide heavy stone (rip-rap) stone protection. Preparation for heavy stone placement will involve over-dredge and over-excavation to the required depth and thickness of the stabilizing stone layer, and then placing the graded stone to the required thickness to establish final lines and grades.

The heavy stone fill volume (which replaces over-dredge material removed) below MLLW is approximately 7,800 cubic yards. The total volume of heavy stone fill, including areas where stone is placed above the MLLW elevation, is approximately 9,700 cubic yards.

Appendix 12 Sediment Sampling and Analysis Report

Comments # 42. *There are no results listed for the top six inches to be exposed following dredging. This is especially important in the Class C PCB areas. Please provide.*

Response # 42. Sediment samples have been discarded and are no longer archived. Once dredging is completed, a post dredging sediment sampling will be performed to inform NYSDEC if Class C PCB's remains. Please note that dredging contemplates approximately two (2) feet of allowable overdredge; therefore, any pre-dredging sampling for the "top 6-inches" assumed to be exposed (post dredging) may not provide the most accurate results of post dredging conditions.

We respectfully submit our responses to your comments and hope our responses meet your approval so that this important project can continue moving forward. If you have any questions related to the enclosed information or if you require additional information, please contact me or David Rosa at (518) 580-9380 or via email at SBoisvert@mjinc.com and drosa@mjinc.com.

Sincerely,
McFarland-Johnson, Inc.

David R. Rosa
Environmental Project Manager

c: Richard Hendrick, Port of Albany
Megan Daly, Port of Albany
Andrew Dangler, USACE
Steve Boisvert, McFarland-Johnson

Enclosures:	Exhibit 1	- Revised Permit Set (drawings)
	Exhibit 2	- List of Anticipated Permits and Permitting Schedule
	Exhibit 3	- Previous SHPO No Effect Determination
	Exhibit 4	- Revised WQC-1 and FACF Forms
	Exhibit 5	- SAV Transplanting Plan
	Exhibit 6	- Alternate Site (discarded)
	Exhibit 7	- Previous Conceptual Layouts (discarded)

Exhibit 1: Permit Set

PORT OF ALBANY

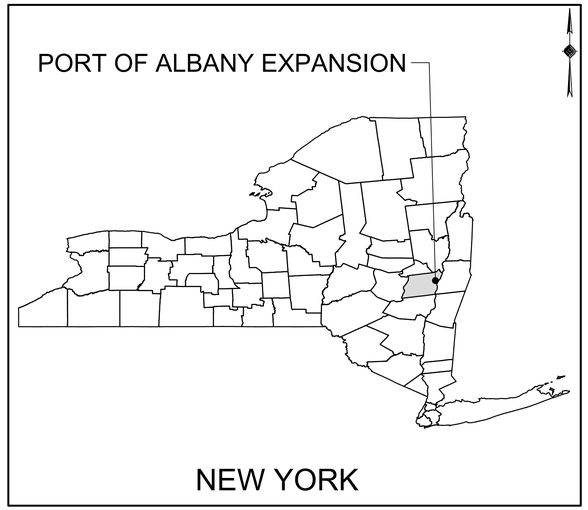
Joint Permit Application Package
Albany Port District Commission

Port of Albany Expansion Project

McFarland Johnson

ALBANY PORT DISTRICT COMMISSION

PORT OF ALBANY EXPANSION SITE



LOCATION MAP

PERMIT SKETCHES
OCTOBER 2021

TOWN OF BETHLEHEM
ALBANY COUNTY
NEW YORK

VICINITY MAP

PREPARED FOR:

PORT OF ALBANY

ALBANY PORT DISTRICT COMMISSION
106 SMITH BOULEVARD
ALBANY, NEW YORK
(518) 463-8763
WWW.ALBANY.GOV

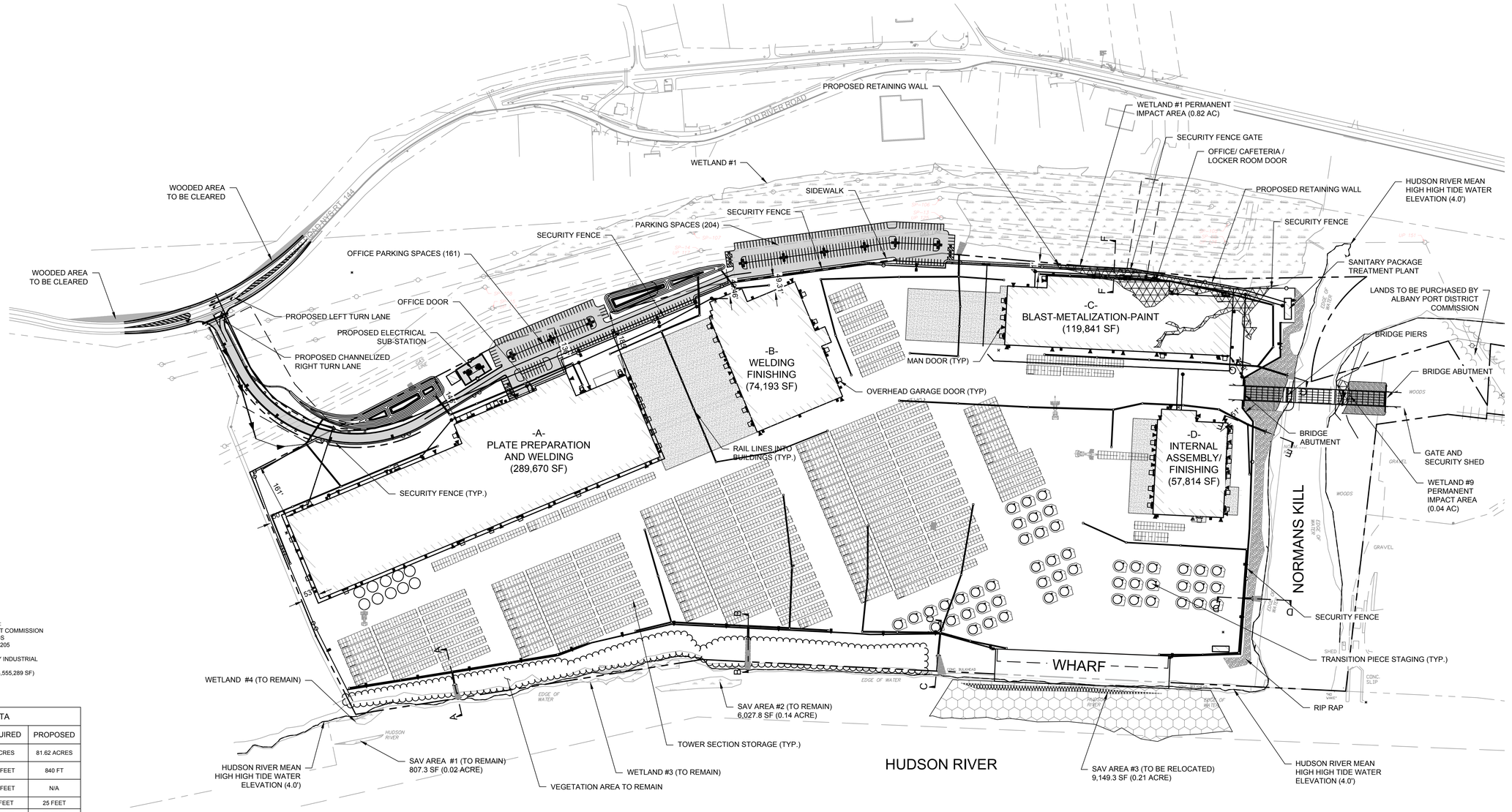
PREPARED BY:

McFarland Johnson

60 RAILROAD PLACE, SUITE 402
SARATOGA SPRINGS, NEW YORK 12866

MCFARLAND JOHNSON PROJECT # 18641.00

SEALED	ADAM J. FROSINO
PE_NO	088870
PE_DATE	OCTOBER 2021



PROJECT DATA

1. APPLICANT / LAND OWNER:
   ALBANY PORT DISTRICT COMMISSION
   106 SMITH BOULEVARDS
   ALBANY, NEW YORK 12205
2. EXISTING ZONING: HEAVY INDUSTRIAL
3. LOT AREA: 81.62 ACRES (3,555,289 SF)
4. BUILDING HEIGHT: 110 FT

SITE DATA		
FEATURE	REQUIRED	PROPOSED
MINIMUM LOT SIZE, NONRESIDENTIAL	5 ACRES	81.62 ACRES
MINIMUM FRONT YARD, FROM RIGHT-OF-WAY	100 FEET	840 FT
MINIMUM FRONT YARD, FROM CENTER LINE	125 FEET	N/A
MINIMUM SIDE YARD	25 FEET	25 FEET
MINIMUM REAR YARD	50 FEET	50 FEET
MINIMUM HIGHWAY FRONTAGE	150 FEET	N/A
MAXIMUM HEIGHT	LESSER OF 4 STORIES OR 60 FEET	110 FEET*
MINIMUM LOT DEPTH	200 FEET	2850 FEET
MINIMUM LOT WIDTH	150 FEET	757 FEET
MAXIMUM LOT COVERAGE	30%	17.0%

* WILL REQUEST A VARIANCE

ZONING:

EXISTING: ±81.62 ACRES HEAVY INDUSTRIAL

PROPOSED: ±81.62 ACRES HEAVY INDUSTRIAL

TAX ACCOUNT NUMBERS: 98.00-2-10.23
98.01-2-1

PARKING:

1 SPACE FOR EACH 2 EMPLOYEES ON MAXIMUM WORKING SHIFT.

TOTAL EMPLOYEES = 550

REQUIRED:
275 TOTAL SPACES REQUIRED

PROVIDED:
CAR PARKING 365 SPACES PROVIDED
365 TOTAL SPACES PROVIDED

ADA SPACES REQUIRED:
PER 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

REQUIRED (365 SPACE LOT): 9 SPACES
PROVIDED (365 SPACE LOT): 9 SPACES

LEGEND

PROPERTY LINE
BUILDING SETBACK
DITCH CENTERLINE
ROADSIDE SWALE
OVERHEAD DOORS
MAN DOORS

PROPOSED BUILDING FOOTPRINT
MATERIAL STORAGE AREAS
WETLAND AREA
WHARF DREDGING AREA
SAV AREA TO BE RELOCATED
PERMANENT WETLAND IMPACT AREA
RIP-RAP WATER EMBANKMENT STABILIZATION

0 150 300 450 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PERMIT SKETCHES

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION

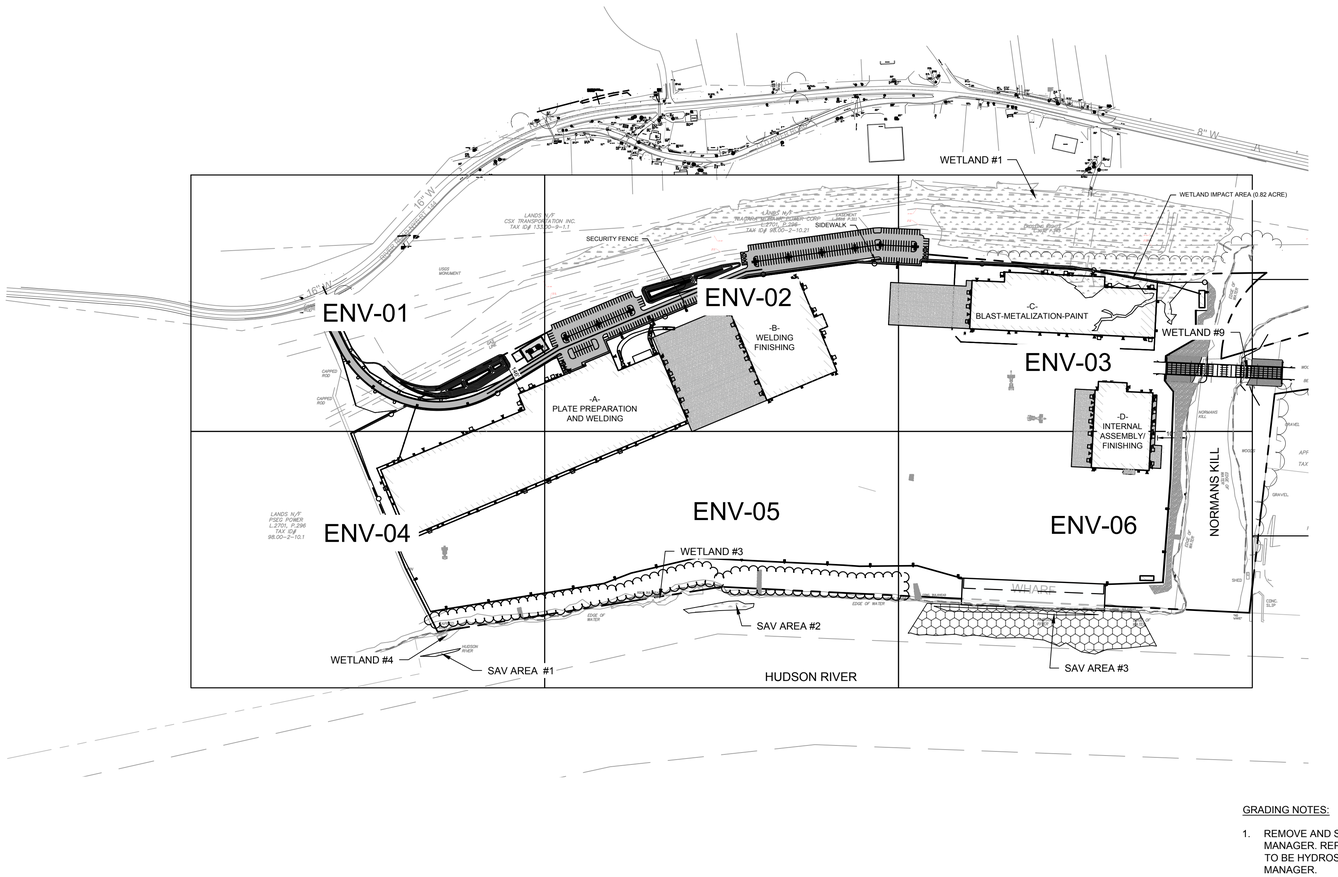
ALBANY, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION SITE

DRAWN	NSO
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=150'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
SITE PLAN OVERALL

DRAWING NUMBER
SP-01



GRADING NOTES:

1. REMOVE AND STOCKPILE TOPSOIL AS DIRECTED BY THE CONSTRUCTION MANAGER. REPLACE TOPSOIL TO A MINIMUM 4" DEPTH. ALL DISTURBED AREAS TO BE HYDROSEEDED AS DIRECTED BY THE CONSTRUCTION MANAGER.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS, INCLUDING INLET PROTECTION AND SILT FENCE. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE VEGETATION HAS OCCURRED COMPLETELY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF TOPSOIL TO ALL DISTURBED AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES.
4. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, ALBANY COUNTY HEALTH DEPARTMENT, AND THE TOWN OF BETHLEHEM REQUIREMENTS.
5. ALL INLETS TO THE STORM SEWER SHALL HAVE STONE DROP INLET PROTECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING BEST MANAGEMENT PRACTICES (BMP'S) UNTIL GROUND COVER IS ESTABLISHED.
6. SILT FENCE, JUTE MESH, AND/OR EROSION CONTROL BLANKETS WILL BE USED ON STEEP SLOPES AND WHEREVER NECESSARY TO CONTROL EROSION AND SILTATION OF EXISTING DRAINAGE SYSTEMS AS ORDERED BY THE ENGINEER OR SPECIFIED ON PLANS.
8. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL, EROSION CONTROL STRUCTURES, TREE PROTECTION AND PRESERVATION THROUGHOUT CONSTRUCTION.
9. ALL GRADING AND EARTHWORK SHALL BE IN CONFORMANCE WITH NEW YORK STATE STANDARD SPECIFICATIONS SECTION 203 - EXCAVATION AND EMBANKMENT, WHICH INCLUDES MAXIMUM EMBANKMENT LIFT THICKNESS ALLOWED BASED ON THE COMPACTION EQUIPMENT USED.
10. ALL PROPOSED ELEVATIONS SHOWN HEREON ARE FINISHED GRADE ELEVATION.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING RIM ELEVATIONS IN RELATION TO PROPOSED GRADE PRIOR TO INSTALLATION.

STORM SEWER:

1. ALL HDPE PIPES SHALL FOLLOW NYSDOT SECTION 603-2 AND 706-12, BE SMOOTH INTERIOR.
2. PLACE RIP-RAP AROUND ALL END SECTIONS.
3. IN INSTANCES WHERE THE STORM SEWER CROSSES THE SANITARY SEWER A CRUSHED STONE ENCASEMENT SHALL BE PROVIDED AROUND THE SANITARY SEWER UP TO THE STORM SEWER-COMPACT WITH APPROVED EQUIPMENT.
4. ALL CATCH BASINS AND STORM MANHOLES WITHIN PAVEMENT TO BE CONSTRUCTED TO WITHSTAND HS-20 LOADING.

LEGEND

PROPERTY LINE
BUILDING SETBACK
EXISTING RAIL LINE
EXISTING TREE LINE
DITCH CENTERLINE
ROADSIDE SWALE
WETLAND AREA

0 250 500 750 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PERMIT SKETCHES

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: PORT OF ALBANY EXPANSION SITE

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=250'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
ENVIRONMENTAL
PLAN NOTES & INDEX

DRAWING NUMBER
ENV-00

LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- EXISTING RAIL LINE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DITCH CENTERLINE
- WETLAND AREA TO REMAIN
- PROPOSED DRAINAGE PIPE
- PROPOSED UNDERDRAIN
- MATERIAL STORAGE AREA

RIVER ROAD

SEE OFF-SITE DESIGN PLANS

PROPOSED CULVERT (SEE OFF-SITE DESIGN PLANS)

STRUCTURE - (90)
RIM: 1.68
INV OUT: 1.18 (24")

PROPOSED ROADWAY
12' LANE WIDTH 2' SHOULDERS

PROPOSED ACCESS EASEMENT

STORMWATER FILTER STRIP

PROPERTY LINE

PROPOSED DITCH
STONE LINING
WITH CHECK DAMS

PROPOSED DITCH
STONE LINING
WITH CHECK DAMS

PROPERTY LINE

CHECK DAM (TYP.)

ES9
RIM: 15.74
INV IN: 13.08 (30")

DS9
RIM: 18.00
INV IN: 13.50 (30")
INV IN: 13.50 (12")
INV OUT: 13.50 (30")

DS9-1
RIM: 16.95
INV OUT: 13.95 (12")

DS9-3
RIM: 20.74
INV IN: 16.22 (24")
INV OUT: 16.22 (24")

DS9-4
RIM: 20.97
INV OUT: 16.97 (24")

BUILDING - A
FFE = 21.0
(289,931 SF)

LANDS N/F
CSX TRANSPORTATION INC.
LIBER 1 PAGE 1

CHIZZ. SC
NR DOR OF
SC-WW

SOUTHERLY
NUT OF
POST

0 40 80 120 FT
SCALE

MATCH LINE SEE SHEET ENV-04

MATCH LINE SEE SHEET ENV-02

N:\18641.00 ALBANY PORT EXPANSION\DRAWING\SHEET FILES - CIVIL PERMIT PLANS\18641.00-P-GRAD.DWG

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PROJECT MILESTONE

PERMIT SKETCHES

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION

PROJECT: PORT OF ALBANY EXPANSION SITE
ALBANY, NEW YORK

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE

ENVIRONMENTAL PLAN

DRAWING NUMBER

ENV-01

LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- EXISTING RAIL LINE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DITCH CENTERLINE
- WETLAND AREA TO REMAIN
- PROPOSED DRAINAGE PIPE
- PROPOSED UNDERDRAIN
- MATERIAL STORAGE AREA

WETLAND #1

STORMWATER FILTER STRIP

STORM WATER TREATMENT FACILITY

PROPERTY LINE

ES8
RIM: 15.10
INV IN: 11.92 (36")

ES8A
RIM: 16.85
INV IN: 14.69 (24")

PROPOSED ROADWAY
12' LANE WIDTH

DS8-12
RIM: 20.63
INV OUT: 15.50 (24")

DS8-11
RIM: 20.78
INV IN: 15.02 (24")
INV OUT: 15.02 (24")

DS8A
RIM: 20.78
INV IN: 12.50 (30")
INV OUT: 12.20 (36")

DS8
RIM: 20.40
INV IN: 12.80 (30")
INV IN: 14.00 (18")
INV OUT: 12.80 (30")

DS8-1
RIM: 20.50
INV IN: 12.92 (30")
INV OUT: 12.92 (30")

DS8-10
RIM: 20.38
INV OUT: 14.80 (18")

DS8-2
RIM: 20.50
INV IN: 13.14 (24")
INV OUT: 13.14 (30")

DS8-3
RIM: 20.50
INV IN: 13.35 (24")
INV OUT: 13.35 (24")

DS8-4
RIM: 20.50
INV IN: 13.57 (24")
INV OUT: 13.57 (24")

DS8-5
RIM: 20.50
INV IN: 13.99 (24")
INV OUT: 13.99 (24")

DS8-6
RIM: 20.50
INV IN: 14.41 (24")
INV OUT: 14.41 (24")

DS8-7
RIM: 20.04
INV IN: 14.83 (12")
INV OUT: 14.83 (24")

DS8-8
RIM: 20.18
INV IN: 15.68 (12")
INV OUT: 15.68 (12")

DS8-9
RIM: 20.26
INV OUT: 16.50 (12")

DS7-2
RIM: 20.50
INV IN: 12.74 (24")
INV OUT: 12.74 (30")

DS7-3
RIM: 20.57
INV IN: 13.87 (24")
INV OUT: 13.87 (24")

DS7-4
RIM: 20.97
INV IN: 15.20 (18")
INV OUT: 14.70 (24")

DS7-5
RIM: 20.50
INV OUT: 15.81 (18")

DS7-9
RIM: 20.50
INV OUT: 16.08 (18")

DS5-7
RIM: 18.90
INV OUT: 13.90 (24")

BUILDING - A
FFE = 21.0
(289,931 SF)

BUILDING - B
FFE = 21.0
(99,936 SF)

0 40 80 120 FT
SCALE

MATCH LINE SEE SHEET ENV-01

MATCH LINE SEE SHEET ENV-03

MATCH LINE SEE SHEET ENV-05

N:\18641.00 ALBANY PORT EXPANSION\DWG\WORKING\SHEET FILES - CIVIL PERMIT PLANS\18641.00-P-GRAD.DWG

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NO.	DATE	DESCRIPTION

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ALBANY, NEW YORK

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DESIGNED	NSO
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DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
ENVIRONMENTAL PLAN

DRAWING NUMBER
ENV-02

LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- EXISTING RAIL LINE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DITCH CENTERLINE
- WETLAND AREA TO REMAIN
- PROPOSED DRAINAGE PIPE
- PROPOSED UNDERDRAIN
- MATERIAL STORAGE AREA
- PROPOSED RIP RAP
- TEMPORARY WETLAND IMPACT AREA
- PERMANENT WETLAND IMPACT AREA

STORMWATER FILTER STRIP

WETLAND #1

WETLAND #1 TEMPORARY IMPACT AREA 13,940 SF (0.32 ACRE)

EXISTING 40" WETLAND OUTLET PIPE

ES7
RIM: 14.89
INV OUT: 11.71 (36")

DS7-10
RIM: 20.54
INV OUT: 16.00 (18")

DS6-13
RIM: 20.87
INV OUT: 16.75 (24")

DS6-12
RIM: 20.92
INV IN: 16.31 (24")
INV OUT: 16.25 (24")

DS6-11
RIM: 20.90
INV IN: 15.60 (24")
INV OUT: 15.60 (30")

DS6-9
RIM: 20.94
INV IN: 14.81 (30")
INV OUT: 14.81 (30")

DS6-10
RIM: 20.93
INV IN: 15.05 (30")
INV OUT: 15.05 (30")

DS6-8
RIM: 20.86
INV IN: 13.98 (30")
INV OUT: 13.98 (30")

DS7-1
RIM: 20.50
INV IN: 11.89 (30")
INV IN: 15.13 (18")
INV IN: 13.75 (24")
INV OUT: 11.89 (36")

STORMWATER FILTER STRUCTURE TYPE 3

DS7-6
RIM: 20.50
INV IN: 14.67 (18")
INV OUT: 14.17 (24")

DS7-7
RIM: 20.50
INV IN: 14.96 (18")
INV OUT: 14.96 (18")

DS7-8
RIM: 20.50
INV IN: 15.39 (18")
INV OUT: 15.39 (18")

BUILDING - C
FFE = 21.0
(121,593 SF)

WETLAND #1 TOTAL PERMANENT IMPACT AREA 36,000 SF (0.82 ACRE)

DS6-7
RIM: 20.11
INV IN: 13.30 (30")
INV OUT: 13.30 (30")

PROPOSED PACKAGE TREATMENT PLANT
FFE = 21.0'
OUTFALLS TO THE NORMANSKILL

DS6-6
RIM: 19.34
INV IN: 12.70 (30")
INV OUT: 12.70 (30")

STORMWATER FILTER STRUCTURE TYPE 2

DS6-5
RIM: 20.50
INV OUT: 15.50 (24")

DS6-4
RIM: 20.50
INV IN: 14.75 (24")
INV OUT: 14.75 (24")

DS6-3
RIM: 20.50
INV IN: 14.00 (24")
INV OUT: 14.00 (30")

DS6-2
RIM: 20.50
INV IN: 13.25 (30")
INV OUT: 13.25 (30

DS6-1
RIM: 19.55
INV IN: 12.44 (30")
INV IN: 12.34 (30")
INV OUT: 12.34 (36")

PROPOSED CURB

ES6
RIM: 15.07
INV IN: 11.90 (36")

DS6-6
RIM: 18.50
INV IN: 13.06 (24")
INV OUT: 13.06 (24")

DS5-5
RIM: 18.90
INV IN: 12.05 (24")
INV OUT: 12.05 (30")

DS5-4
RIM: 20.50
INV IN: 14.57 (24")
INV IN: 10.83 (30")
INV OUT: 10.83 (30")

DS5-3
RIM: 20.51
INV IN: 10.40 (30")
INV OUT: 10.40 (30")

DS5-2
RIM: 20.65
INV IN: 9.82 (30")
INV OUT: 9.82 (30")

BRIDGE ABUTMENT

WETLAND #9 PERMANENT IMPACTS 1,601 SF (0.04 ACRE)

DS5-1
RIM: 20.70
INV IN: 9.31 (30")
INV OUT: 9.31 (36")

STORMWATER FILTER STRUCTURE TYPE 2

ES5
RIM: 11.82
INV IN: 8.64 (36")

DS5
RIM: 20.01
INV IN: 8.84 (36")
INV IN: 13.60 (18")
INV OUT: 8.84 (36")

NORMANS KILL

20.50
FG

DS5-8
RIM: 20.10
INV OUT: 15.10 (24")

BUILDING - D
FFE = 21.0
(57,898 SF)

MEAN HIGH HIGH WATER LINE

0 40 80 120 FT
SCALE

MATCH LINE SEE SHEET ENV-02

MATCH LINE SEE SHEET ENV-06

N:\18641.00 ALBANY PORT EXPANSION\DRAWING\DRAWINGS\SHEET FILES - CIVIL PERMIT PLANS\18641.00-P-GRAD.DWG

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PROJECT MILESTONE
PERMIT SKETCHES

NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION

PROJECT:
PORT OF ALBANY EXPANSION SITE

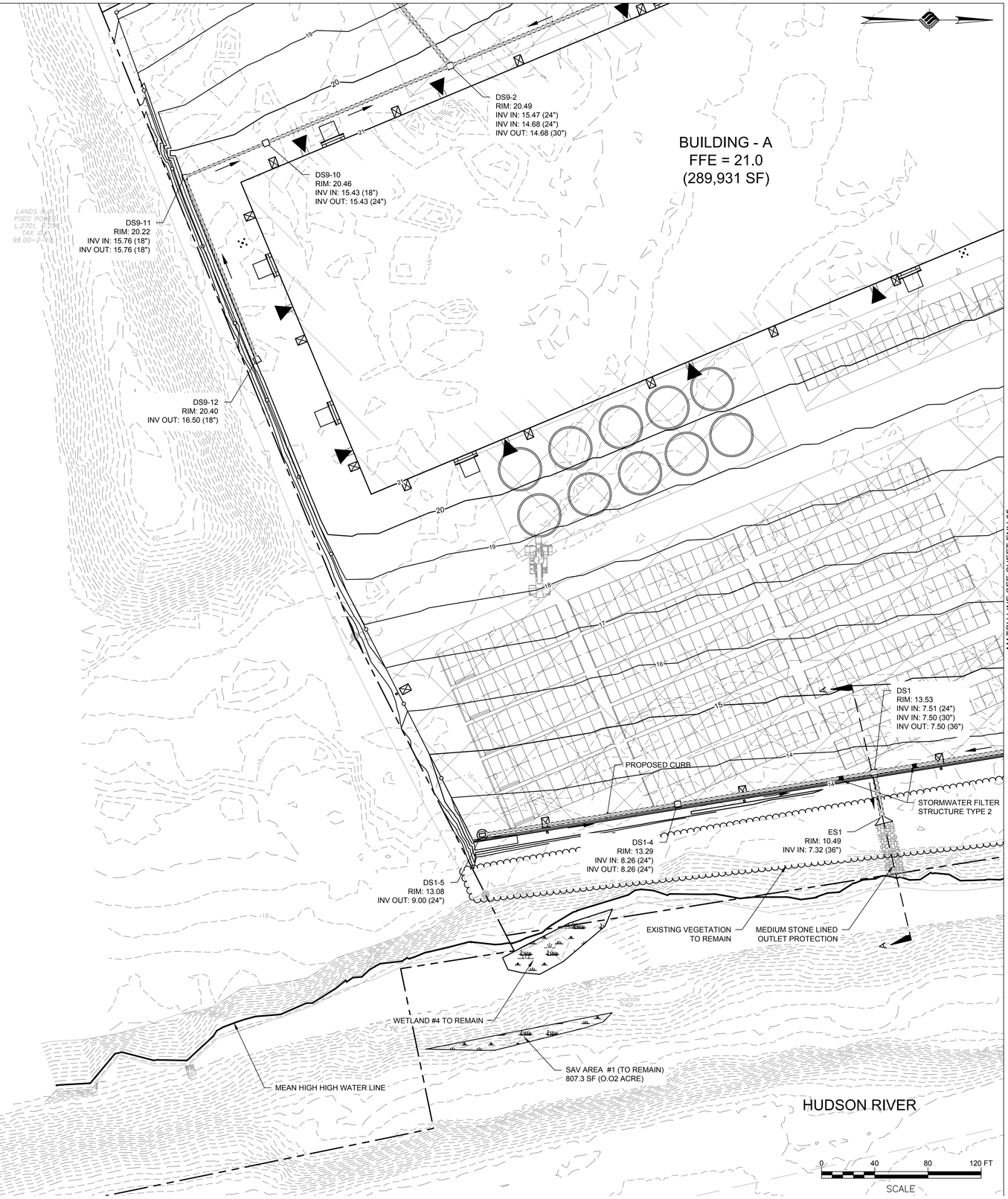
ALBANY, NEW YORK

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
ENVIRONMENTAL PLAN

DRAWING NUMBER
ENV-03

MATCH LINE SEE SHEET ENV-01



LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- EXISTING RAIL LINE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DITCH CENTERLINE
- WETLAND AREA TO REMAIN
- PROPOSED DRAINAGE PIPE
- PROPOSED UNDERDRAIN
- MATERIAL STORAGE AREA

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NO.	DATE	DESCRIPTION

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PROJECT:
PORT OF ALBANY EXPANSION SITE

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
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DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
ENVIRONMENTAL PLAN

DRAWING NUMBER
ENV-04

N:\18641.00 ALBANY PORT EXPANSION\DRAWINGS\SHEET FILES - CIVIL PERMIT PLANS\18641.00-P-GRAD.DWG

MATCH LINE SEE SHEET ENV-02

BUILDING - A
FFE = 21.0
(289,931 SF)

DS2-4
RIM: 18.75
INV OUT: 13.75 (24")

DS2-9
RIM: 18.09
INV OUT: 13.07 (24")

DS3-8
RIM: 18.22
INV OUT: 13.22 (24")

DS2-8
RIM: 16.50
INV IN: 11.35 (24")
INV OUT: 11.35 (24")

DS2-3
RIM: 16.24
INV IN: 11.24 (24")
INV OUT: 10.74 (30")

DS3-7
RIM: 16.58
INV IN: 11.98 (24")
INV OUT: 11.98 (24")

STORMWATER FILTER
STRUCTURE TYPE 2

DS2-6
RIM: 14.67
INV IN: 8.98 (24")
INV IN: 9.67 (24")
INV OUT: 8.98 (30")

PROPOSED CURB

DS3-5
RIM: 15.14
INV IN: 10.05 (30")
INV OUT: 10.05 (30")

DS2-7
RIM: 13.76
INV OUT: 9.50 (24")

DS2-5
RIM: 15.02
INV IN: 8.37 (30")
INV OUT: 8.37 (30")

DS2
RIM: 14.59
INV IN: 7.88 (30")
INV IN: 8.48 (36")
INV OUT: 7.88 (48")

DS2-1
RIM: 14.57
INV IN: 9.52 (24")
INV IN: 9.07 (30")
INV OUT: 9.07 (36")

DS2-2
RIM: 15.07
INV OUT: 10.07 (24")

DS3-6
RIM: 15.55
INV IN: 10.55 (24")
INV OUT: 10.55 (30")

DS1-3
RIM: 13.73
INV OUT: 9.50 (24")

DS1-2
RIM: 14.01
INV IN: 9.03 (24")
INV OUT: 9.03 (24")

DS1-1
RIM: 13.80
INV IN: 8.30 (24")
INV OUT: 8.30 (30")

MEDIUM STONE LINED
OUTLET PROTECTION

ES2
RIM: 11.90
INV IN: 7.70 (48")

EXISTING VEGETATION
TO REMAIN

MEAN HIGH HIGH WATER LINE

WETLAND #3 TO REMAIN

SAV AREA #2 TO REMAIN
6,027.8 SF (0.14 ACRE)

HUDSON RIVER

EDGE OF WATER

MATCH LINE SEE SHEET ENV-04

MATCH LINE SEE SHEET ENV-06

LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- EXISTING RAIL LINE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DITCH CENTERLINE
- WETLAND AREA TO REMAIN
- PROPOSED DRAINAGE PIPE
- PROPOSED UNDERDRAIN
- MATERIAL STORAGE AREA

0 40 80 120 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
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PROJECT MILESTONE
PERMIT SKETCHES

NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION

PROJECT:
PORT OF ALBANY EXPANSION SITE
ALBANY, NEW YORK

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
ENVIRONMENTAL PLAN

DRAWING NUMBER
ENV-05

N:\18641.00 ALBANY PORT EXPANSION\DRAWING\DRAWINGS\SHEET FILES - CIVIL PERMIT PLANS\18641.00-P-GRAD.DWG

MATCH LINE SEE SHEET ENV-03

MATCH LINE SEE SHEET ENV-05

BUILDING - D
FFE = 21.0
(57,898 SF)

DS3-2
RIM: 18.66
INV OUT: 13.35 (24")

DS3-1
RIM: 16.50
INV IN: 11.38 (24")
INV OUT: 11.38 (24")

DS3
RIM: 14.52
INV IN: 9.43 (30")
INV IN: 9.06 (30")
INV IN: 9.52 (24")
INV OUT: 9.05 (36")

DS3-3
RIM: 14.10
INV IN: 9.72 (24")
INV OUT: 9.50 (30")

DS3-4
RIM: 14.64
INV OUT: 10.25 (24")

ES3
RIM: 11.81
INV IN: 8.63 (36")

DS4-5
RIM: 18.79
INV OUT: 14.31 (18")

DS4-4
RIM: 19.11
INV IN: 13.63 (18")
INV OUT: 13.63 (18")

DS4-3
RIM: 19.77
INV IN: 12.85 (18")
INV OUT: 12.35 (24")

DS4
RIM: 17.61
INV IN: 10.71 (24")
INV IN: 8.33 (30")
INV OUT: 8.33 (36")

ES4
RIM: 11.33
INV IN: 8.15 (36")

DS5-9
RIM: 19.80
INV OUT: 14.31 (18")

DS4-2
RIM: 19.04
INV IN: 11.41 (24")
INV OUT: 11.41 (24")

DS4-1
RIM: 15.86
INV IN: 9.11 (30")
INV OUT: 9.11 (30")

DS4-6
RIM: 15.31
INV IN: 9.63 (24")
INV OUT: 9.63 (30")

DS4-7
RIM: 14.62
INV OUT: 10.25 (24")

PROPOSED CURB

PROPOSED MOBILE OFFICE PAD FFE=17.0'

PROPOSED WHARF ELEV. 15.5'
SEE SEPARATE WHARF DESIGN PLANS BY OTHERS

MEDIUM STONE LINED OUTLET PROTECTION

STORMWATER FILTER STRUCTURE TYPE 3

MEAN HIGH HIGH WATER LINE

NORMANS KILL

HUDSON RIVER

CONCEPTUAL WHARF GRADING TO EXISTING, SEE SEPARATE WHARF DESIGN PLANS BY OTHERS

SAV AREA #3 TO BE RELOCATED
9,149.3 SF (0.21 ACRE)

LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- EXISTING RAIL LINE
- EXISTING TREE LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- DITCH CENTERLINE
- SAV IMPACT AREA
- WETLAND AREA TO REMAIN
- PROPOSED DRAINAGE PIPE
- PROPOSED UNDERDRAIN
- MATERIAL STORAGE AREA
- PROPOSED RIP RAP
- HUDSON RIVER DREDGING
- EXCAVATION FOR WHARF

0 40 80 120 FT
SCALE

N:\18641.00 ALBANY PORT EXPANSION\DRAWING\DRAWINGS\SHEET FILES - CIVIL PERMIT PLANS\18641.00-P-GRAD.DWG

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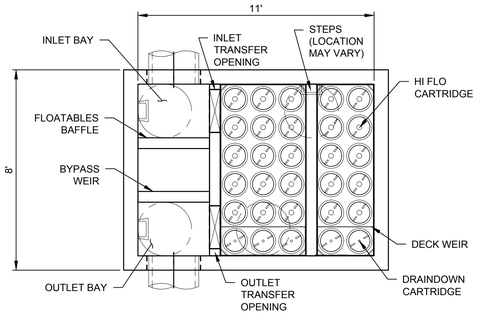
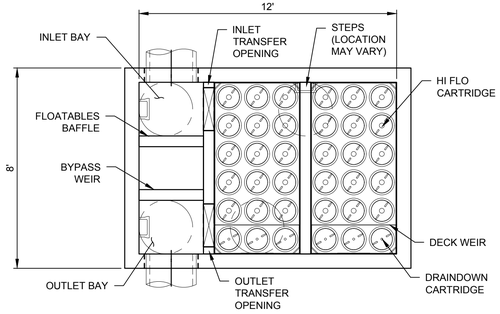
PROJECT	18641.00

DRAWING TITLE
ENVIRONMENTAL PLAN

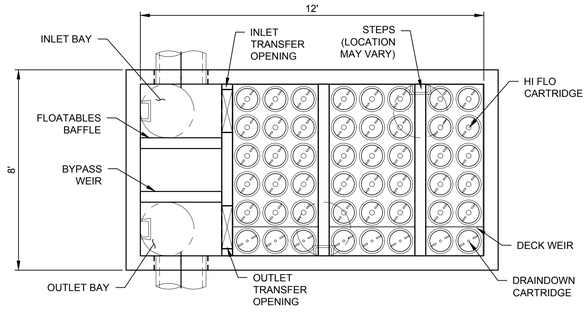
DRAWING NUMBER
ENV-06



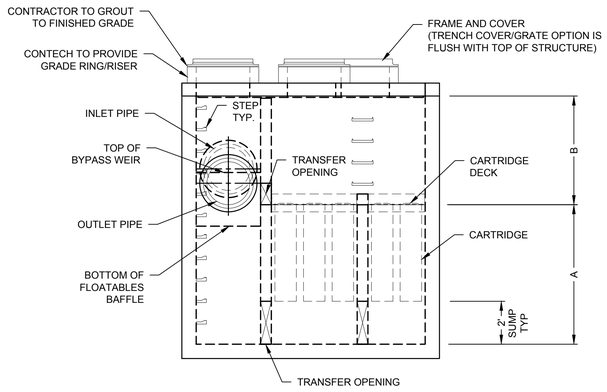
PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



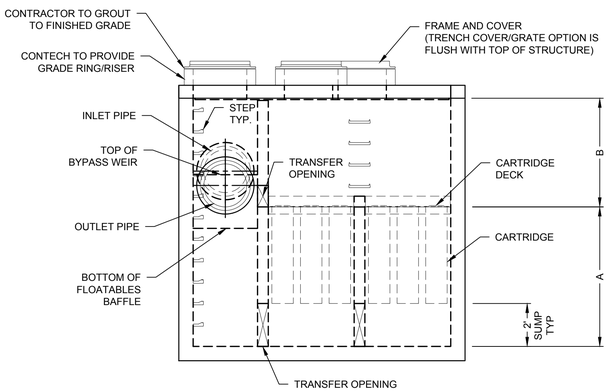
PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



ELEVATION VIEW

JELLYFISH DESIGN NOTES				
JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD				
CARTRIDGE SELECTION				
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HIGH-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	4.90	3.67	2.45	1.36
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00

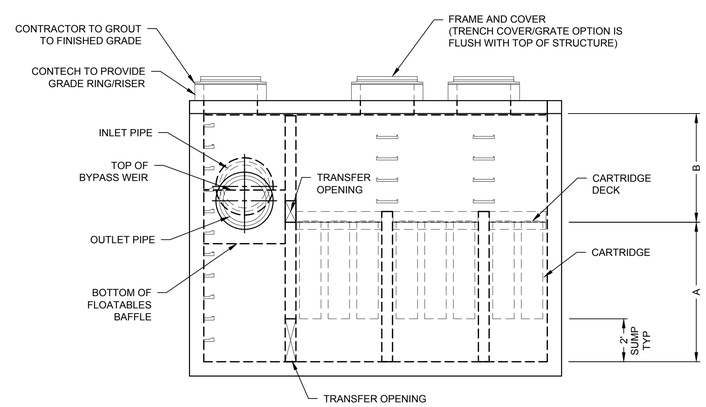
STORMWATER FILTER STRUCTURE TYPE 1
(JFPD0811)



ELEVATION VIEW

JELLYFISH DESIGN NOTES				
JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD				
CARTRIDGE SELECTION				
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HIGH-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	5.88	2.21	2.94	1.62
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00

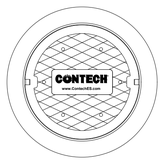
STORMWATER FILTER STRUCTURE TYPE 2
(JFPD0812)



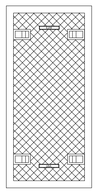
ELEVATION VIEW

JELLYFISH DESIGN NOTES				
JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD PEAK DIVERSION STYLE WITH PRECAST TOP SLAB IS SHOWN. ALTERNATE OFFLINE VAULT AND/OR SHALLOW ORIENTATIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD				
CARTRIDGE SELECTION				
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HI-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	7.84	5.88	3.92	2.16
DECK TO INSIDE TOP (MIN) (B)	5.00	4.00	4.00	4.00

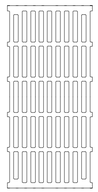
STORMWATER FILTER STRUCTURE TYPE 3
(JFPD0816)



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



24"
TRENCH COVER
(LENGTH VARIES)
N.T.S.



24"
TRENCH GRATE
(LENGTH VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS						
STRUCTURE ID						*
WATER QUALITY FLOW RATE (cfs)						*
PEAK FLOW RATE (cfs)						*
RETURN PERIOD OF PEAK FLOW (yrs)						*
# OF CARTRIDGES REQUIRED (HF / DD)						*
CARTRIDGE LENGTH						*
PIPE DATA:	I.E.	MAT'L	DIA	SLOPE %	HGL	
INLET #1	*	*	*	*	*	
INLET #2	*	*	*	*	*	
OUTLET	*	*	*	*	*	
SEE GENERAL NOTES 6-7 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS.						
RIM ELEVATION						*
ANTI-FLOTATION BALLAST		WIDTH		HEIGHT		
		*		*		
NOTES/SPECIAL REQUIREMENTS:						
* PER ENGINEER OF RECORD						

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT, ASSUMING EARTH COVER OF 0' - 10', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDED TO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

STORMWATER FILTER STRUCTURES

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PERMIT SKETCHES

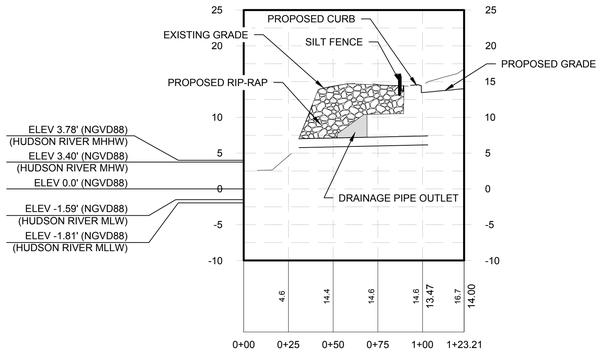
NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: PORT OF ALBANY EXPANSION SITE

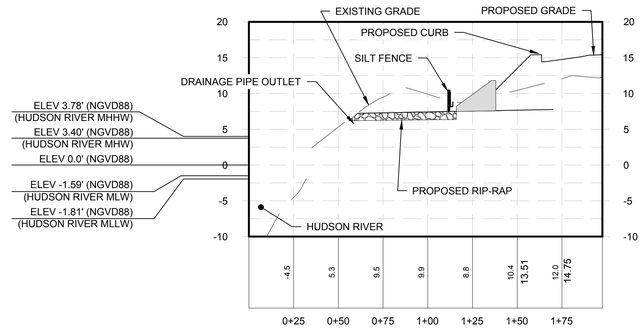
DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
ENVIRONMENTAL DETAILS

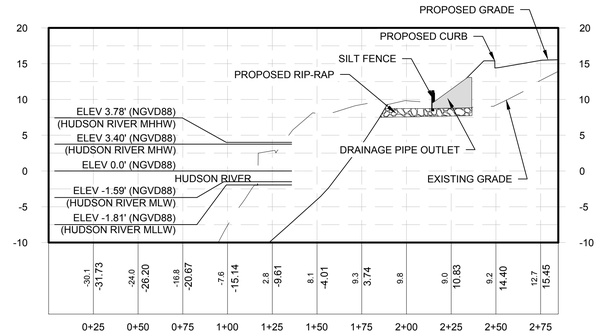
DRAWING NUMBER
ENV-07



SECTION A-A
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 10'



SECTION B-B
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 10'



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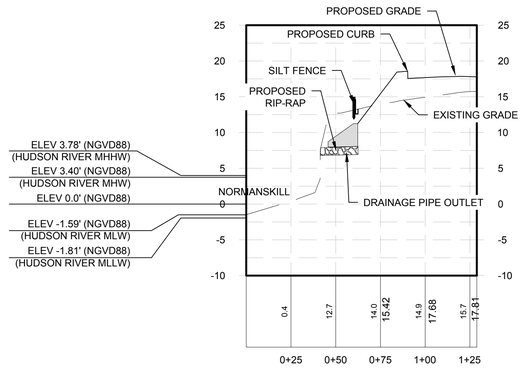
Vertical Scale: 1" = 10'



SECTION D-D
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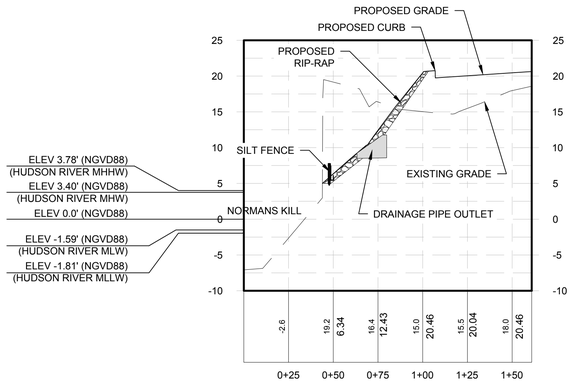

SECTION E-E
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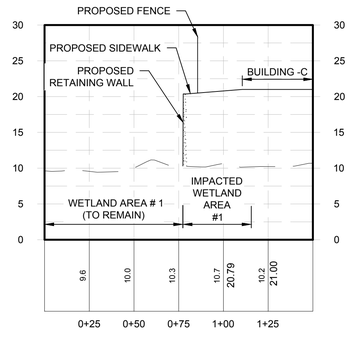
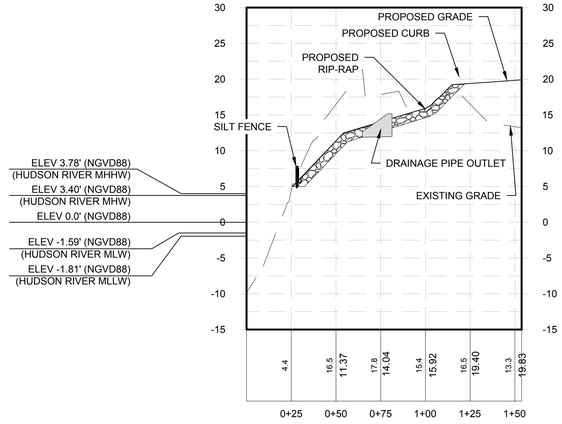
Vertical Scale: 1" = 10'



SECTION F-F
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 10'



SECTION G-G
Horizontal Scale: 1" = 40'
Vertical Scale: 1" = 10'

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PERMIT SKETCHES

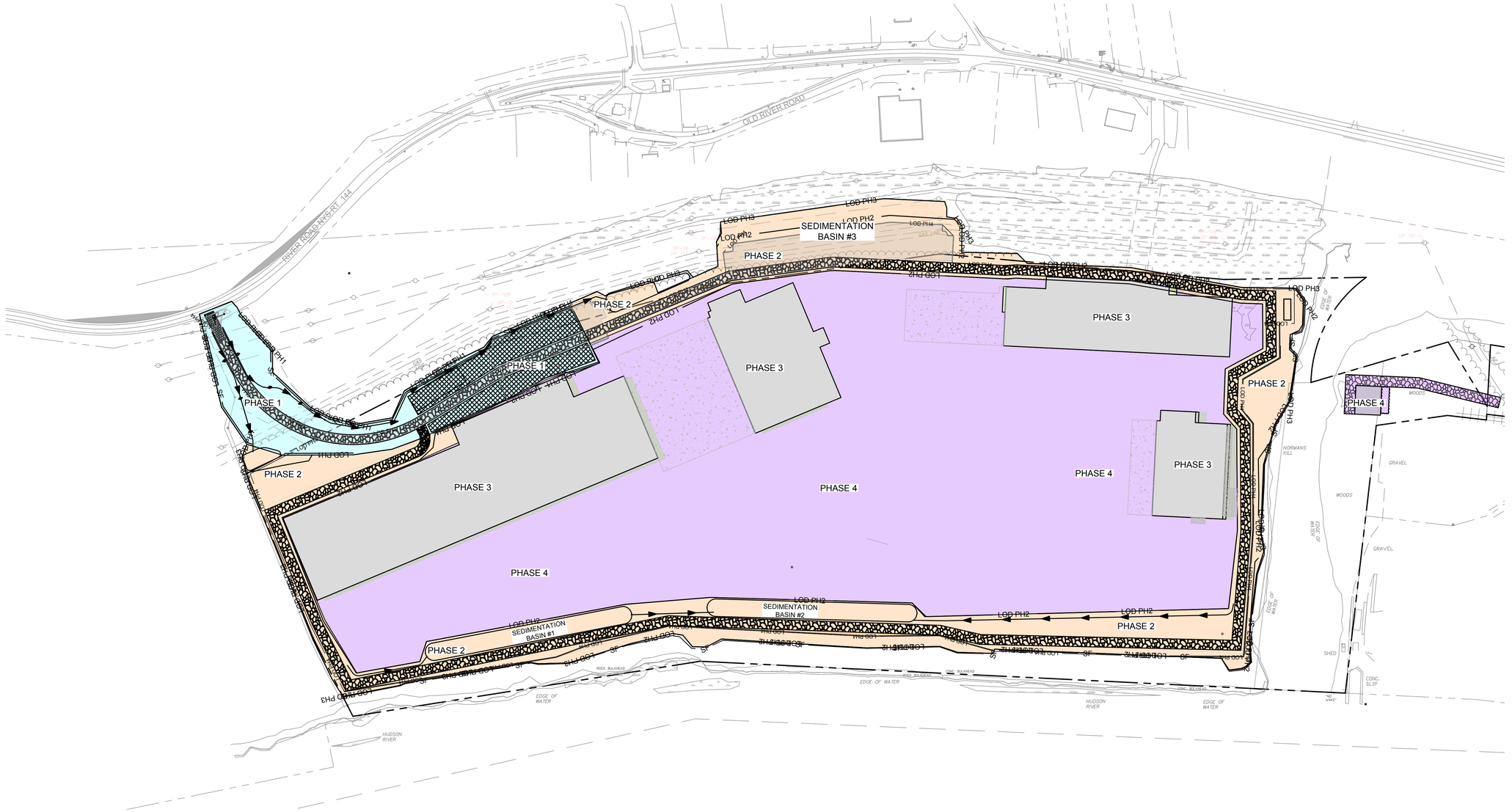
NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: PORT OF ALBANY EXPANSION SITE

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
SECTION VIEWS

DRAWING NUMBER
XS-01



NOTES:
1. SEE SHEET ESC-05 FOR EROSION AND SEDIMENT CONTROL NOTES.
2. THIS PLAN HAS BEEN PRODUCED IN COLOR.

LEGEND
- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- TEMPORARY ROADS

0 150 300 450 FT
SCALE

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DESIGNED	NSO
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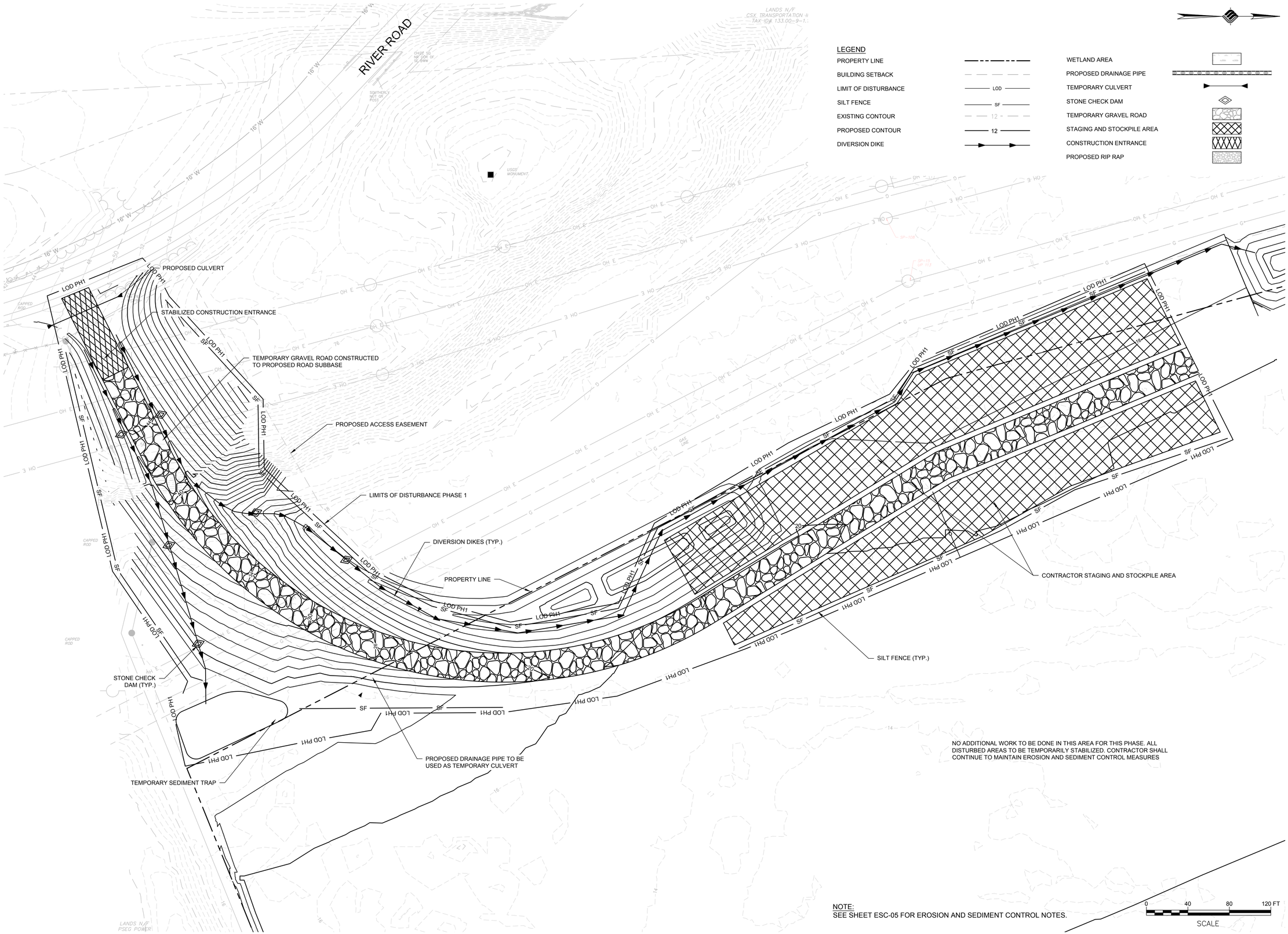
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
EROSION AND SEDIMENT CONTROL PHASING PLAN

DRAWING NUMBER
ESC-00



NOTE:
SEE SHEET ESC-05 FOR EROSION AND SEDIMENT CONTROL NOTES.

0 40 80 120 FT
SCALE

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DRAWING TITLE
EROSION AND SEDIMENT CONTROL PLAN-PH.1

DRAWING NUMBER
ESC-01

LEGEND

PROPERTY LINE
BUILDING SETBACK
LIMIT OF DISTURBANCE — LOD
SILT FENCE — SF
EXISTING CONTOUR — 12 —
PROPOSED CONTOUR — 12 —
DIVERSION DIKE

WETLAND AREA
PROPOSED DRAINAGE PIPE
TEMPORARY CULVERT
STONE CHECK DAM
TEMPORARY GRAVEL ROAD
STAGING AND STOCKPILE AREA
CONSTRUCTION ENTRANCE
PROPOSED RIP RAP

OLD RIVER ROAD
RIVER ROAD (NYS RT. 144)
LANDS N/F CSX TRANSPORTATION, INC. TAX ID# 133.00-9-1.1
LANDS N/F NIAGARA MOHAWK POWER CORP. L.2701, P.296 TAX ID# 198.00-2-10
EASEMENT L.2616 P.311
CROSSING RIGHTS L.2303 P.345
USGS MONUMENT
GAS LINE
PROPERTY LINE
SEDIMENTATION BASIN #3
SEDIMENTATION BASIN #1
SEDIMENTATION BASIN #2
DIVERSION DIKES (TYP.)
TEMPORARY GRAVEL ROAD INSTALLED IN PHASE 1
CONTRACTOR STAGING AND STOCKPILE AREA INSTALLED IN PHASE 1
TEMPORARY GRAVEL ROAD CONSTRUCTED TO PROPOSED ROAD SUBBASE
TEMPORARY GRAVEL ROAD
PERIMETER DIKE (TYP.)
LIMITS OF DISTURBANCE PHASE 2
SILT FENCE (TYP.)
DOUBLE SILT FENCE (TYP.)
NORMANS KILL
EDGE OF WATER
ROCK-BULKHEAD
RIPRAP
HUDSON RIVER

NO ADDITIONAL WORK TO BE DONE IN THIS AREA FOR THIS PHASE. ALL DISTURBED AREAS TO BE TEMPORARILY STABILIZED. CONTRACTOR SHALL CONTINUE TO MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES

NOTE:
SEE SHEET ESC-05 FOR EROSION AND SEDIMENT CONTROL NOTES.

0 40 80 120 FT
SCALE

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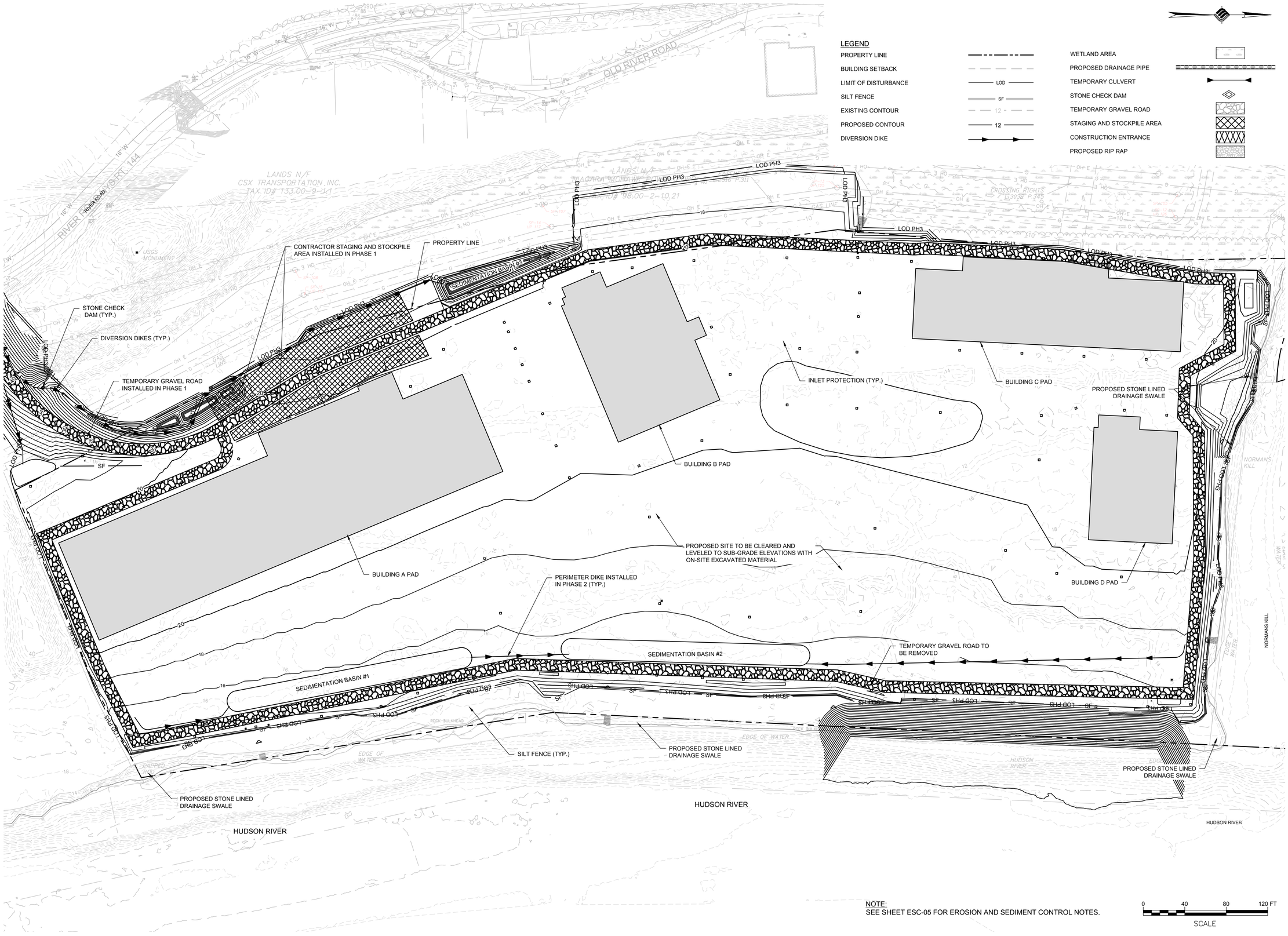
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
EROSION AND SEDIMENT CONTROL PLAN-PH.2

DRAWING NUMBER
ESC-02

N:\18641.00 ALBANY PORT EXPANSION\DRAWINGS\SHEET FILES - CIVIL PERMIT PLANS\18641.00 ESC-PH2.DWG



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PROJECT MILESTONE

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ALBANY, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION SITE

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DESIGNED	NSO
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SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

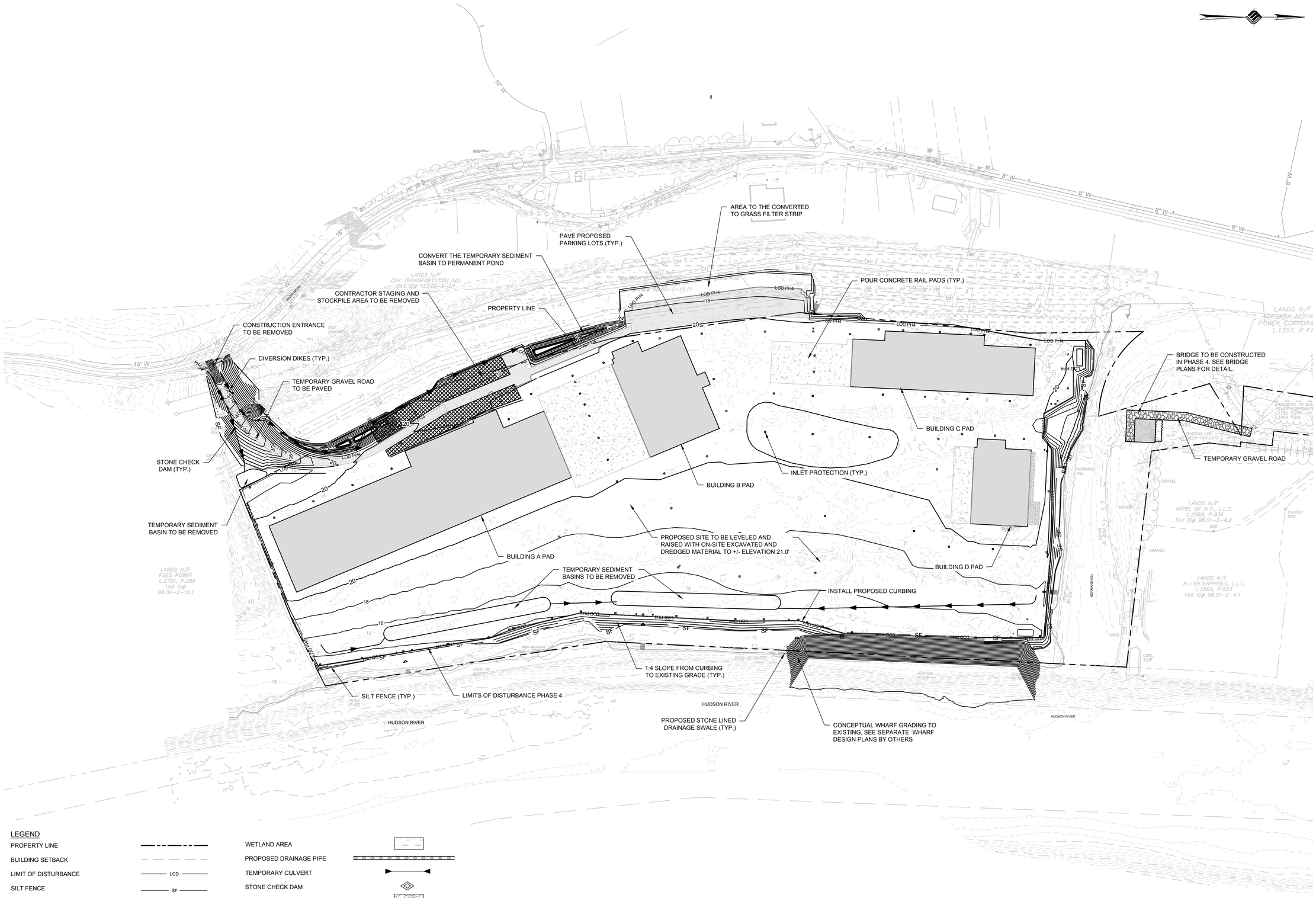
DRAWING TITLE

EROSION AND SEDIMENT CONTROL PLAN-PH.3

DRAWING NUMBER

ESC-03

N:\18641.00 ALBANY PORT EXPANSION\DRAWINGS\SHEET FILES - CIVIL PERMIT PLANS\18641.00-ESC-PH03.DWG



LEGEND

PROPERTY LINE		WETLAND AREA	LOD
BUILDING SETBACK		PROPOSED DRAINAGE PIPE	
LIMIT OF DISTURBANCE	LOD	TEMPORARY CULVERT	
SILT FENCE	SF	STONE CHECK DAM	
EXISTING CONTOUR	12	TEMPORARY GRAVEL ROAD	
PROPOSED CONTOUR	12	STAGING AND STOCKPILE AREA	
DIVERSION DIKE		CONSTRUCTION ENTRANCE	
		PROPOSED RIP RAP	

NOTE:
SEE SHEET ESC-05 FOR EROSION AND SEDIMENT CONTROL NOTES.

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PROJECT MILESTONE
PERMIT SKETCHES

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ALBANY, NEW YORK
PROJECT: PORT OF ALBANY EXPANSION SITE

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DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
EROSION AND SEDIMENT CONTROL PLAN-PH.4

DRAWING NUMBER
ESC-04

N:\18641.00 ALBANY PORT EXPANSION\DRAWING\DRAWINGS\SHEET FILES - CIVIL PERMIT PLANS\18641.00-ESC-PH04.DWG

EROSION AND SEDIMENT CONTROL PLAN NOTES:

1. THE EROSION AND SEDIMENT CONTROL PLAN IS INTENDED TO REPRESENT A CONCEPTUAL APPROACH TO EROSION AND SEDIMENT CONTROL. IT IS FURTHER INTENDED THAT THE OWNER AND CONTRACTOR SHALL IMPLEMENT PRACTICES, AS REQUIRED, TO CONTROL EROSION AND SEDIMENT IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL AND SWPPP.

2. INSTALL SILT FENCE, AND ALL OTHER EROSION CONTROL MEASURES AS INDICATED ON THE PLAN PRIOR TO THE START OF ANY EXCAVATION WORK. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AND THE GOVERNING MUNICIPALITY REQUIREMENTS.

3. REMOVE AND STOCKPILE TOPSOIL IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN. REPLACE TOPSOIL TO A MINIMUM 4" DEPTH. ALL DISTURBED AREAS ARE TO BE HYDROSEEDED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLANS.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS, INCLUDING INLET PROTECTION AND SILT FENCE. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE AREAS HAVE BEEN PROPERLY STABILIZED.

5. CONTRACTOR SHALL MAINTAIN A STOCK PILE OF EROSION AND SEDIMENT CONTROL MEASURES ON SITE AS INDICATED ON THE PLAN.

6. NO PETROLEUM PRODUCTS ARE TO BE STORED ON SITE WITHOUT PRIOR APPROVAL OF THE LOCAL STORMWATER INSPECTOR. ANY PETROLEUM ON SITE WILL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL GOVERNMENT REGULATIONS.

7. WRAP YARD INLET GRATES IN FILTER FABRIC PROGRESSIVELY AS STORM SEWER AND YARD INLETS ARE INSTALLED.

8. ALL EROSION CONTROL MEASURES ARE TO BE REPLACED WHENEVER THEY BECOME CLOGGED OR INOPERABLE AND SHALL BE REPLACED AT A MINIMUM OF EVERY 3 MONTHS.

9. JUTE MESH WILL BE USED ON SLOPES STEEPER THAN 3:1 AND WHEREVER NECESSARY TO CONTROL EROSION AND SILTATION OF EXISTING DRAINAGE SYSTEMS AS ORDERED BY THE ENGINEER.

10. ALL DISTURBED AREAS SHALL BE FINISH GRADED TO PROMOTE VEGETATION ON ALL EXPOSED AREAS AS SOON AS PRACTICABLE. STABILIZATION PRACTICES (TEMPORARY/PERMANENT SEEDING, MULCHING, GEOTEXTILES, ETC.) MUST BE IMPLEMENTED WITHIN SEVEN (7) DAYS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND NOT EXPECTED TO RESUME WITHIN FOURTEEN (14) DAYS.

11. ALL RIP-RAP OUTLET PROTECTION TO BE CONSTRUCTED PER NYSDEC STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

12. CONTRACTOR SHALL TAKE THE NECESSARY MEASURES, INCLUDING WATER SPRINKLING, TO PROVIDE DUST CONTROL DURING CONSTRUCTION.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL FEATURES THROUGHOUT THE DURATION OF CONSTRUCTION.
   A. ALL SEDIMENT TRAPPING DEVICES AND INLET PROTECTION DEVICES SHALL BE CLEANED OF ACCUMULATED SILT WHEN STORAGE CAPACITY HAS BEEN REDUCED BY 50% OF THEIR DESIGN CAPACITY.
   B. ALL SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE AND STRAW BALES WHEN IT ACCUMULATES TO A MAXIMUM HEIGHT OF 6".
   C. AFTER VEGETATION HAS BEEN SUBSTANTIALLY ESTABLISHED, EXCAVATE SWALES OF ACCUMULATED SILT. RE-ESTABLISHED VEGETATION ON DISTURBED AREAS.
   D. SEDIMENT COLLECTED BY EROSION CONTROL MEASURES SHALL BE DISPOSED OF BY SPREADING ON-SITE OR HAULED AWAY IF DETERMINED TO BE UNSUITABLE FOR FILL.

12. ALL DISTURBED AREAS SHALL BE STABILIZED, SEEDED AND MULCHED WITHIN 7 DAYS OF CEASED CONSTRUCTION ACTIVITY.

13. TOTAL PROJECT DISTURBANCE AREA PER THE NYSDEC SPDES STANDARDS IS 79 ACRES.

14. ALL AREAS TO REMAIN AS PERVIOUS VEGETATED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE NYS STORMWATER MANAGEMENT DESIGN MANUAL TABLE 5.3 SOIL RESTORATION REQUIREMENTS.

PERMANENT SEEDING NON-SLOPED AREAS:

1. IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING.

2. PLACE TOPSOIL TO A MINIMUM DEPTH OF 4 INCHES.

3. SEED PER SCHEDULE SPECIFIED ON LANDSCAPE PLANS.

4. FERTILIZE WITH 600 POUNDS PER ACRE OF 10-10-10. LIME TO ACHIEVE A PH OF NOT LESS THAN 5.5 OR GREATER THAN 7.6. IF HYDROSEEDER IS NOT USED, SEED AND FERTILIZER SHOULD BE LIGHTLY RAKED INTO SOIL.

5. MULCH WITH CLEAN (WEED FREE) STRAW IF SPECIFIED ON PLANS.

PERMANENT SEEDING SLOPED AREAS:

1. IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING.

2. PLACE TOPSOIL TO A MINIMUM DEPTH OF 4 INCHES.

3. FERTILIZE WITH 600 POUNDS PER ACRE OF 10-10-10. LIME TO ACHIEVE A PH OF NOT LESS THAN 5.5 OR GREATER THAN 7.6. IF HYDROSEEDER IS NOT USED, SEED AND FERTILIZER SHOULD BE LIGHTLY RAKED INTO SOIL.

4. IMMEDIATELY SEED PER SEED SCHEDULE SPECIFIED ON LANDSCAPE PLAN.

5. PROVIDE JUTE MESH IF SPECIFIED ON PLANS OR MULCH WITH CLEAN (WEED FREE) STRAW.

EROSION AND SEDIMENT CONTROL SEQUENCE:

THE TOWN OF BETHLEHEM SHOULD BE NOTIFIED PRIOR TO CONSTRUCTION ACTIVITIES STARTING AND CEASING DISTURBANCE OF OVER 5 ACRES AT ONE TIME.

PHASE I:

- INSTALL CONSTRUCTION ENTRANCE ROADS
- ESTABLISH THE PROJECT CONSTRUCTION STAGING/OFFICE AREA
- USE ANY ACCESS ROAD CUT MATERIAL AS FILL FOR THE CONSTRUCTION STAGING AREA
- TEMPORARILY STABILIZE ALL DISTURBED AREAS
- INSTALL SILT FENCE DOWNSTREAM OF ALL DISTURBED AREAS
- STABILIZE THE CONSTRUCTION ACCESS ROAD DISTURBANCE AREA PRIOR TO PROGRESSING TO PHASE II

PHASE II:

- INSTALL PERIMETER CONTROLS
- INSTALL CONSTRUCTION ACCESS ROAD AROUND THE PERIMETER OF THE SITE
- CONSTRUCT SEDIMENTATION BASINS
- STABILIZE ALL DISTURBED AREAS BEFORE PROGRESSING INTO PHASE III

PHASE III:

- SITE TO BE CLEARED AND GRUBBED
- BALANCE CUT AND FILLS IN THE SITE
- COMPACT/IMPROVE EXISTING GROUND CONDITIONS ACCORDING TO GEOTECHNICAL REPORT
- IMPORT MATERIAL TO RAISE THE SITE TO PROPOSED SUBGRADE ELEVATIONS
- ESTABLISH BUILDING FOOTPRINTS AND INITIATION BUILDING FOUNDATION CONSTRUCTION
- INSTALL STORM SEWER SYSTEM WITH INLET PROTECTION FOR DRAINAGE STRUCTURES AND STONE LINING OUTLET PROTECTION
- INSTALL SITE UTILITIES
- STABILIZE ALL DISTURBED AREAS BEFORE PROGRESSING INTO PHASE IV

PHASE IV:

- CONVERT TEMPORARY SEDIMENT BASINS TO PERMANENT STORMWATER MANAGEMENT FACILITIES
- POUR ALL PROPOSED CONCRETE RAIL PADS AND SIDEWALKS
- INSTALL PROPOSED CONCRETE CURBING
- PAVE PARKING LOT AREAS
- REMOVE CONSTRUCTION STAGING AREA
- FINAL STABILIZATION FOR EMBANKMENT SLOPES ALONG THE NORMANS KILL AND HUDSON RIVER

TEMPORARY SEEDING:

1. IF SOILS ARE COMPACTED, SCARIFY UPPER TWO INCHES BY BACKBLADING WITH DOZER, RAKING, OR DISKING. FERTILIZE WITH 300 POUNDS PER ACRE OF 10-10-10.

2. NOTE: NO FERTILIZER SHOULD BE USED AFTER OCTOBER 1ST IF THERE IS DANGER OF LEACHING INTO WATER RESOURCE.

3. IMMEDIATELY SEED PER SEED SCHEDULE SPECIFIED ON LANDSCAPE PLAN.

4. APPLY STRAW MULCH AS NECESSARY TO HOLD IN MOISTURE, PROTECT SOIL FROM EROSION, HOLD SEED IN PLACE, AND KEEP SOIL TEMPERATURES MORE CONSTANT; 2 TONS PER ACRE.

SOIL RESTORATION NOTES:

SOIL RESTORATION PROCEDURE:

DURING PERIODS OF RELATIVELY LOW TO MODERATE SUBSOIL MOISTURE, THE DISTURBED SUBSOILS ARE RETURNED TO ROUGH GRADE AND THE FOLLOWING SOIL RESTORATION STEPS APPLIED:

1. APPLY 3 INCHES OF COMPOST OVER SUBSOIL

2. TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR-MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO SUBSOILS

3. ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE

4. APPLY TOPSOIL TO A DEPTH OF 6 INCHES

5. VEGETATE AS REQUIRED BY APPROVED PLAN.

AT THE END OF THE PROJECT AN INSPECTOR SHOULD BE ABLE TO PUSH A 3/8'' METAL BAR 12 INCHES INTO THE SOIL JUST WITH BODY WEIGHT. TILLING (STEP 2 ABOVE) SHOULD NOT BE PERFORMED WITHIN THE DRIP LINE OF ANY EXISTING TREES OR OVER UTILITY INSTALLATIONS THAT ARE WITHIN 24 INCHES OF THE SURFACE.

COMPOST SPECIFICATIONS:

COMPOST SHALL BE AGED, FROM PLANT DERIVED MATERIALS, FREE OF VIABLE WEED SEEDS, HAVE NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A HALF INCH SCREEN AND HAVE A PH SUITABLE TO GROW DESIRED PLANTS.

MAINTENANCE:

A SIMPLE MAINTENANCE AGREEMENT SHOULD IDENTIFY WHERE SOIL RESTORATION IS APPLIED, WHERE NEWLY RESTORED AREAS ARE/CANNOT BE CLEARED, WHO THE RESPONSIBLE PARTIES ARE TO ENSURE THAT ROUTINE VEGETATION IMPROVEMENTS ARE MADE (I.E., THINNING, INVASIVE PLANT REMOVAL, ETC.). SOIL COMPOST AMENDMENTS WITHIN A FILTER STRIP OR GRASS CHANNEL SHOULD BE LOCATED IN PUBLIC RIGHT OF WAY, OR WITHIN A DEDICATED STORMWATER OR DRAINAGE EASEMENT.

FIRST YEAR MAINTENANCE OPERATIONS INCLUDES:

- INITIAL INSPECTIONS FOR THE FIRST SIX MONTHS (ONCE AFTER EACH STORM GREATER THAN HALF-INCH)

- RESEEDING TO REPAIR BARE OR ERODING AREAS TO ASSURE GRASS STABILIZATION

- WATER ONCE EVERY THREE DAYS FOR FIRST MONTH, AND THEN PROVIDE A HALF INCH OF WATER PER WEEK DURING FIRST YEAR. IRRIGATION PLAN MAY BE ADJUSTED ACCORDING TO THE RAIN EVENT.

- FERTILIZATION MAY BE NEEDED IN THE FALL AFTER THE FIRST GROWING SEASON TO INCREASE PLANT VIGOR.

ONGOING MAINTENANCE:

TWO POINTS HELP ENSURE LASTING RESULTS OF DECOMPACTION:

1. PLANTING THE APPROPRIATE GROUND COVER WITH DEEP ROOTS TO MAINTAIN SOIL STRUCTURE.

2. KEEPING THE SITE FREE OF VEHICULAR AND FOOT TRAFFIC OR OTHER WEIGHT LOADS. CONSIDER PEDESTRIAN FOOTPATHS. (SOMETIMES IT MAY BE NECESSARY TO DE-THATCH THE TURF EVERY FEW YEARS).

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE

PERMIT SKETCHES

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION SITE

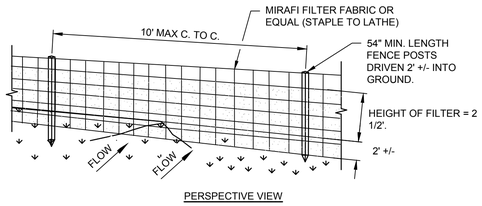
DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE

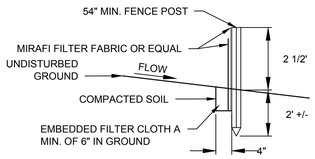
EROSION AND SEDIMENT CONTROL NOTES

DRAWING NUMBER

ESC-05



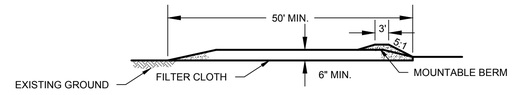
PERSPECTIVE VIEW



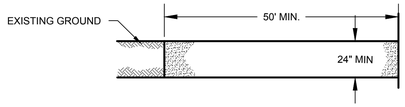
SECTION VIEW

NOTES:
1. MIRAFI FILTER FABRIC TO BE SECURED TO FENCE POSTS WITH STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE



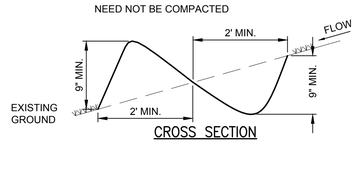
PROFILE



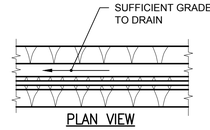
PLAN VIEW

NOTES:
1. STONE SIZE - USE #3 CRUSHED STONE OR GRAVEL (PER NYSDOT SECTION 209).
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE



CROSS SECTION



PLAN VIEW

NOTES:
1. ALL PERIMETER DIKE/SWALE SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSION VELOCITY.
4. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD.
5. STABILIZATION OF THE AREA DISTURBED BY THE DIKE AND SWALE SHALL BE DONE IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR TEMPORARY SEEDING AND MULCHING, AND SHALL BE DONE WITHIN 10 DAYS.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

PERIMETER DIKE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE

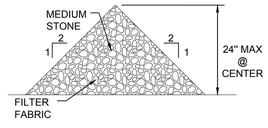
PERMIT SKETCHES

NO.	DATE	DESCRIPTION

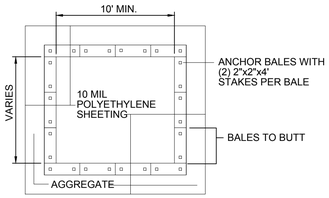
CLIENT: ALBANY PORT DISTRICT COMMISSION

PROJECT: PORT OF ALBANY EXPANSION SITE

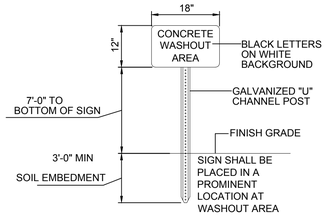
ALBANY, NEW YORK



SECTION B–B

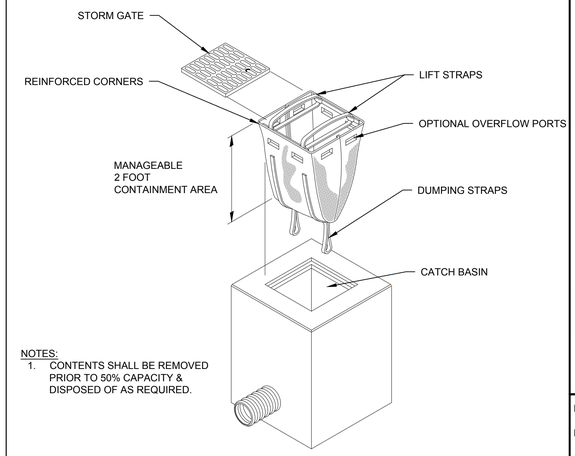


PLAN



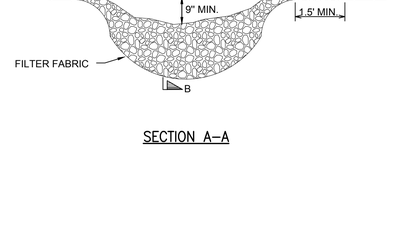
WASHOUT SIGN

NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

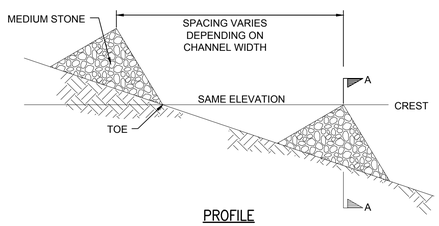


NOTES:
1. CONTENTS SHALL BE REMOVED PRIOR TO 50% CAPACITY & DISPOSED OF AS REQUIRED.

INLET PROTECTION



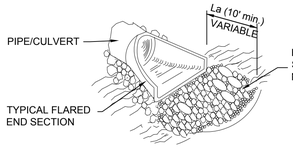
SECTION A–A



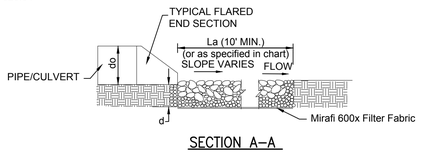
PROFILE

CONSTRUCTION SPECIFICATIONS
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES GRADES AND LOCATIONS SHOWN ON THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWESTCHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

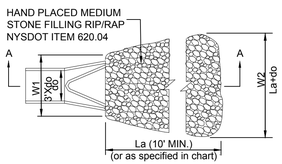
LIGHT STONE CHECK DAM



ISOMETRIC VIEW



SECTION A–A

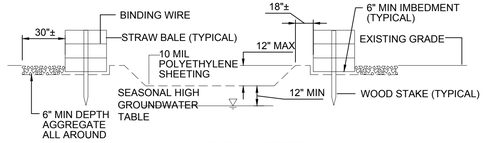


PLAN

do = Pipe Dia. (see plans)
La = Apron Length
W = Apron Width (centered on pipe)
d = Apron Depth

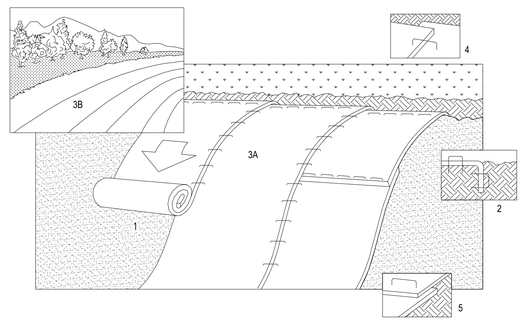
NOTES:
1. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NO LESS THAN 6".
2. INSTALL FILTER MIRAFI 500X OR APPROVED EQUAL FILTER FABRIC BETWEEN RIP-RAP AND SUBGRADE.

OUTLET PROTECTION - RIP RAP



TYPICAL SECTION

CONCRETE WASHOUT



INSTALLATION OF GEOSYNTHETICS EROSION CONTROL MATS:
1. EROSION CONTROL MATS SHALL BE UTILIZED ON ALL SLOPES OF 3:1 OR GREATER REQUIRING PERMANENT STABILIZATION.
2. SLOPES SHALL BE PREPARED AND EROSION CONTROL MATS SHALL BE INSTALLED, ANCHORED AND SOIL FILLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION PROCEDURES.
3. SEEDING SHALL BE COMPLETED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS ABOVE PRIOR TO PLACEMENT OF THE EROSION CONTROL MAT. A SECOND APPLICATION OF PERMANENT SEEDING SHALL BE APPLIED AFTER THE MAT IS IN PLACE, PRIOR TO SOIL FILLING THE MAT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE, RESEEDING AND REPAIR OF MATS AND SLOPES UNTIL PERMANENT STABILIZATION IS ACHIEVED.

NOTES:
REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL SUPERCEDE THIS DETAIL.

EROSION CONTROL MAT INSTALLATION

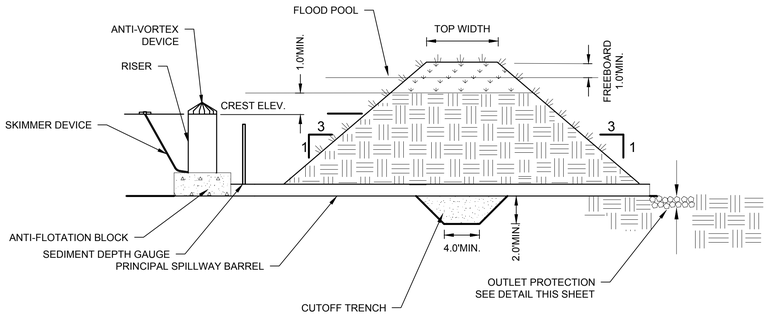
DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE

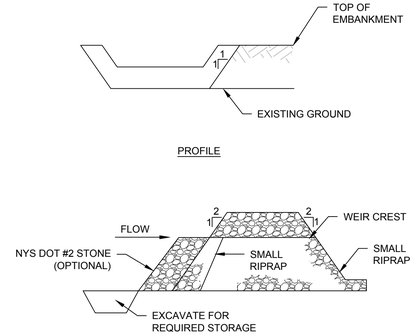
EROSION AND SEDIMENT CONTROL DETAILS

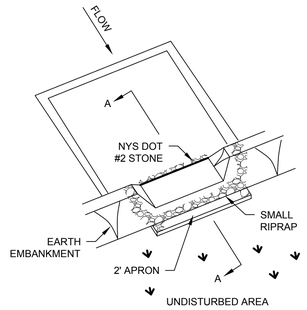
DRAWING NUMBER

ESC-06



SEDIMENT BASIN

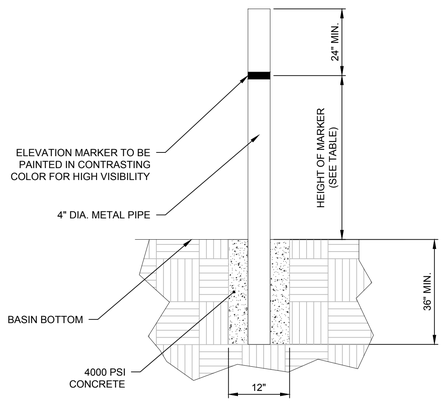




OPTION: A ONE FOOT LAYER OF NYS DOT #2 STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP INPLACE OF THE EMBEDDED FILTER CLOTH.

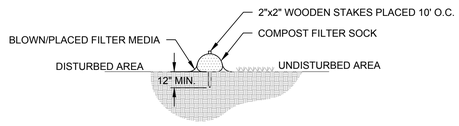
NOTES:
1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ THE DESIGN DEPTH OF THE TRAP. IT SHALL BE PLACED ON SITE AND STABILIZED.
6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
9. THE MAXIMUM DRAINAGE AREA IS 5 ACRES.

STONE OUTLET SEDIMENT TRAP

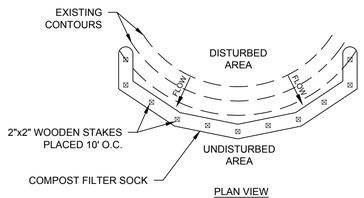


NOTES:
1. CONTRACTOR SHALL PLACE A 4" DIA. METAL PIPE AT A MINIMUM OF 36" BELOW THE BASIN BOTTOM ELEVATION ENCASED IN 12" OF 4000 PSI CONCRETE.
2. CONTRACTOR SHALL MARK THE CORRESPONDING ELEVATION FOR SEDIMENT STORAGE CLEANOUT ON THE PVC PIPE TO INDICATE WHEN MAINTENANCE IS REQUIRED.
3. SEDIMENT DEPTH GAUGE REQUIRED FOR SEDIMENT BASINS, FOREBAYS, AND INFILTRATION BASINS.

SEDIMENT DEPTH GAUGE



SECTION VIEW



PLAN VIEW

NOTES:
1. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 5.1 OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. COMPOST SHALL MEET THE STANDARDS LISTED ON TABLE 5.2 OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45° TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE X.X OF NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCKS. STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

COMPOST FILTER SOCK

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PERMIT SKETCHES

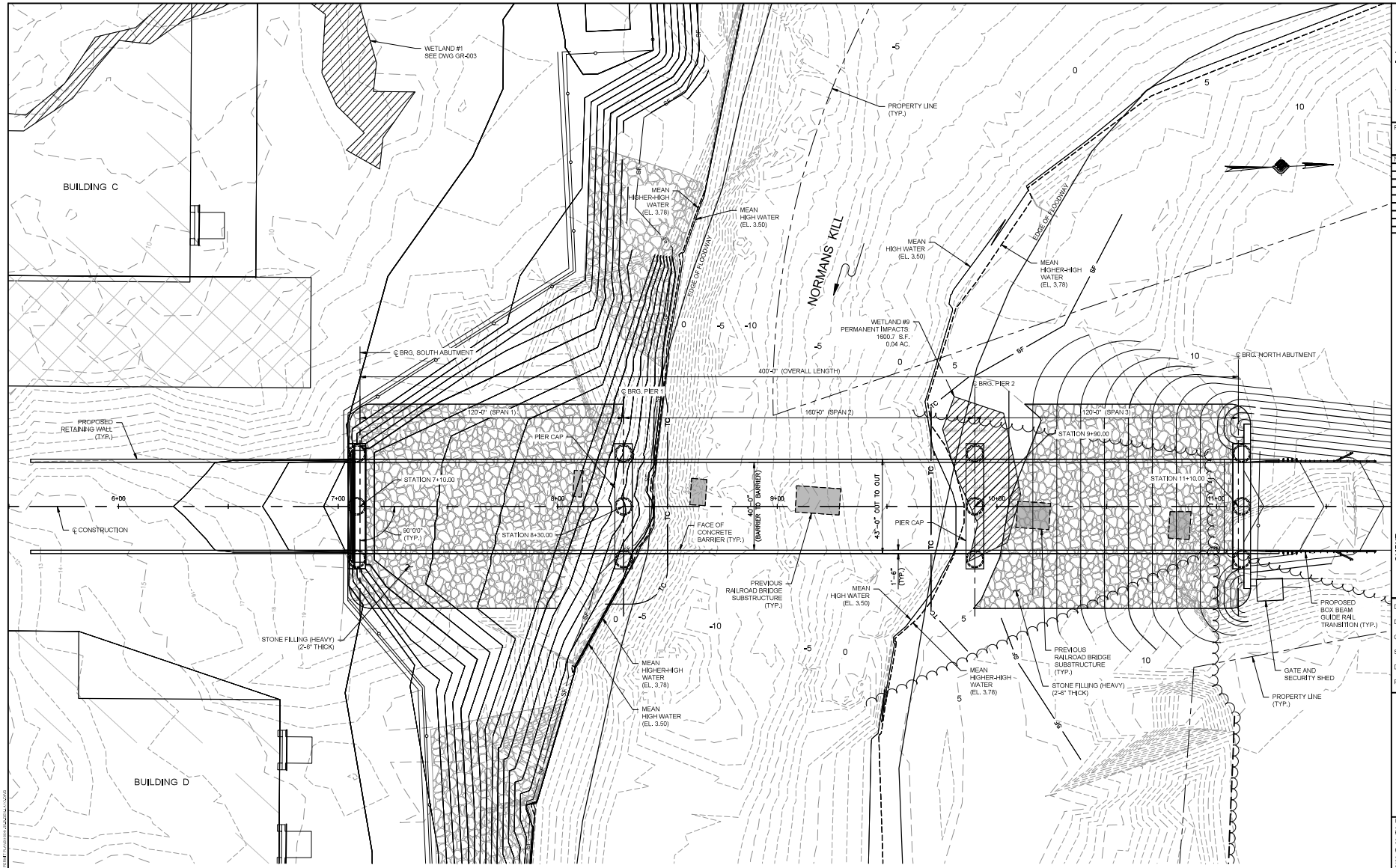
NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: PORT OF ALBANY EXPANSION SITE

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	1"=40'
DATE	OCTOBER 2021
PROJECT	18641.00

DRAWING TITLE
EROSION AND SEDIMENT CONTROL DETAILS

DRAWING NUMBER
ESC-07



LEGEND

PROPERTY LINE		SILT FENCE	SF
EXISTING RAIL LINE		TURBIDITY CURTAIN	TC
EXISTING TREE LINE		WETLAND AREA	
DITCH CENTERLINE		WETLAND AREA PERMANENT IMPACTS	
ROADSIDE SWALE			

GENERAL PLAN

SCALE: 1" = 20'

0 20 40 60 FT

SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
PERMIT SKETCHES

NO.	DATE	DESCRIPTION

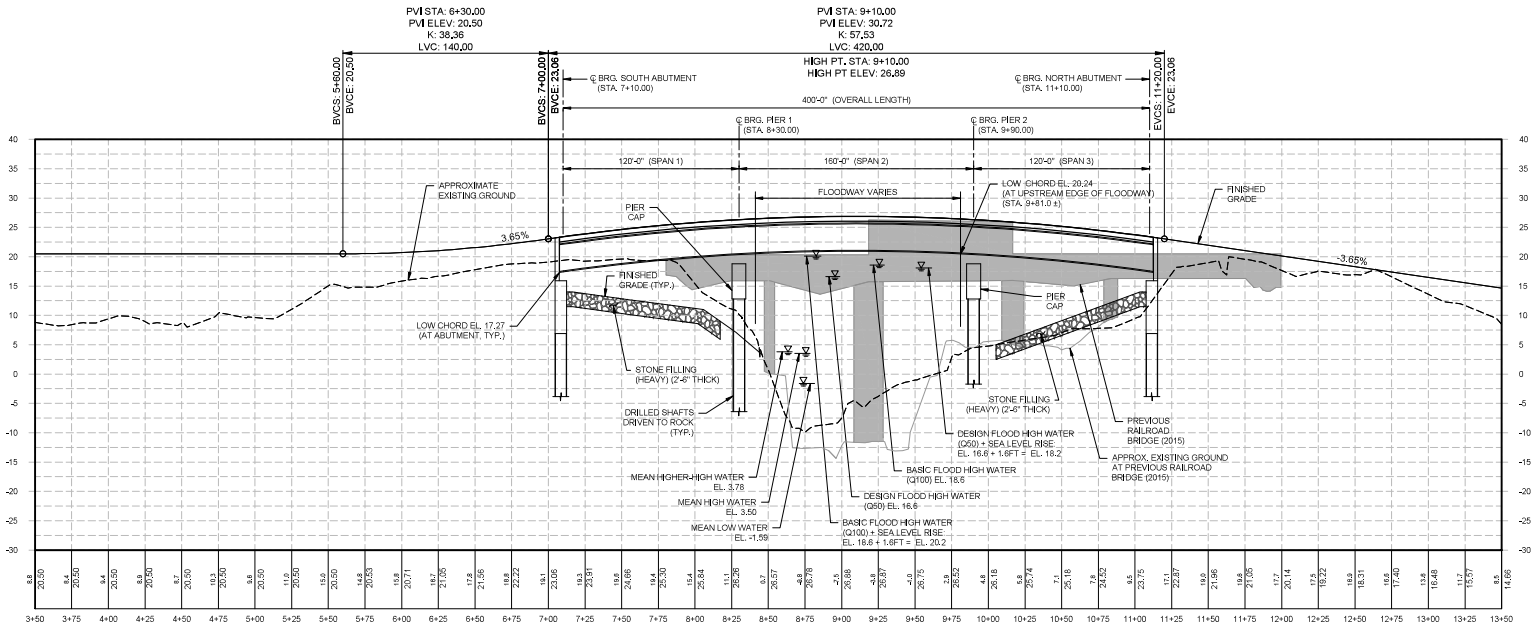
CLIENT:
ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK

PROJECT:
PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS

DRAWN	SLM
DESIGNED	JLR
CHECKED	RLJ
SCALE	1" = 20'
DATE	JULY 2021
PROJECT	18461.00

DRAWING TITLE
BRIDGE
GENERAL PLAN

DRAWING NUMBER
ST-01



BRIDGE PROFILE

HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 10'

NOTE:

1. FINAL BRIDGE GRADING AND LIMITS AND TYPE OF SCOUR PROTECTION AT ABUTMENTS AND PIERS TO BE DEVELOPED DURING FINAL DESIGN.

McFarland Johnson
651 HOLIDAY DRIVE
PLAZA 5, SUITE 400
PITTSBURGH, PENNSYLVANIA 15220
P: 412-285-1206
PittsburghROM@mjinc.com

PROJECT MILESTONE
PERMIT SKETCHES

NO.	DATE	DESCRIPTION

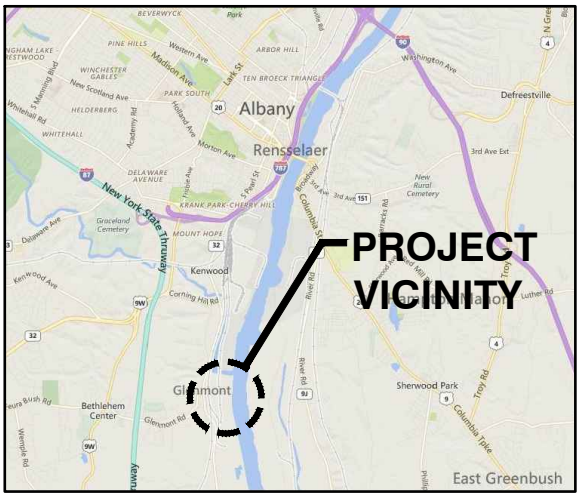
CLIENT:
ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK

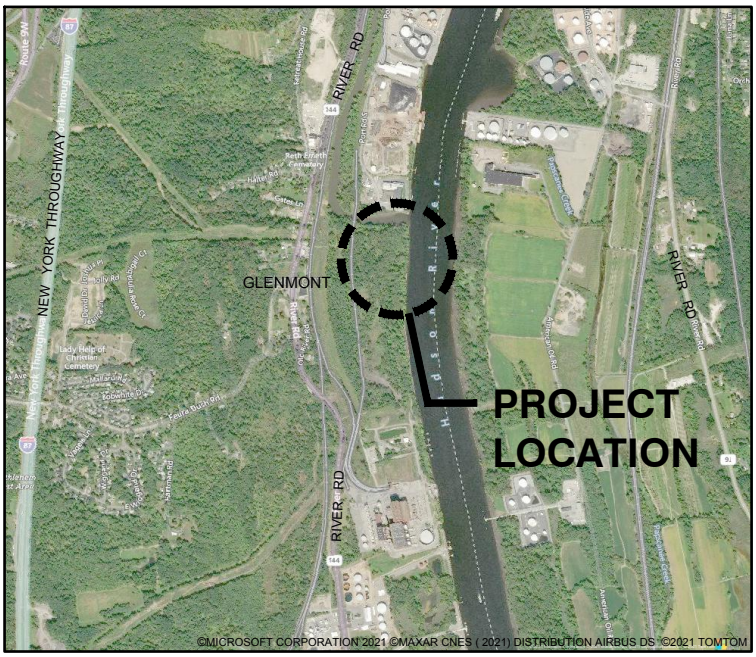
PROJECT:
PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS

DRAWN	SLM
DESIGNED	JLR
CHECKED	RLJ
SCALE	Varies
DATE	JULY 2021
PROJECT	18461.00

DRAWING TITLE
BRIDGE PROFILE

DRAWING NUMBER
ST-03





VICINITY AND LOCATION MAP

SCALE: N.T.S.

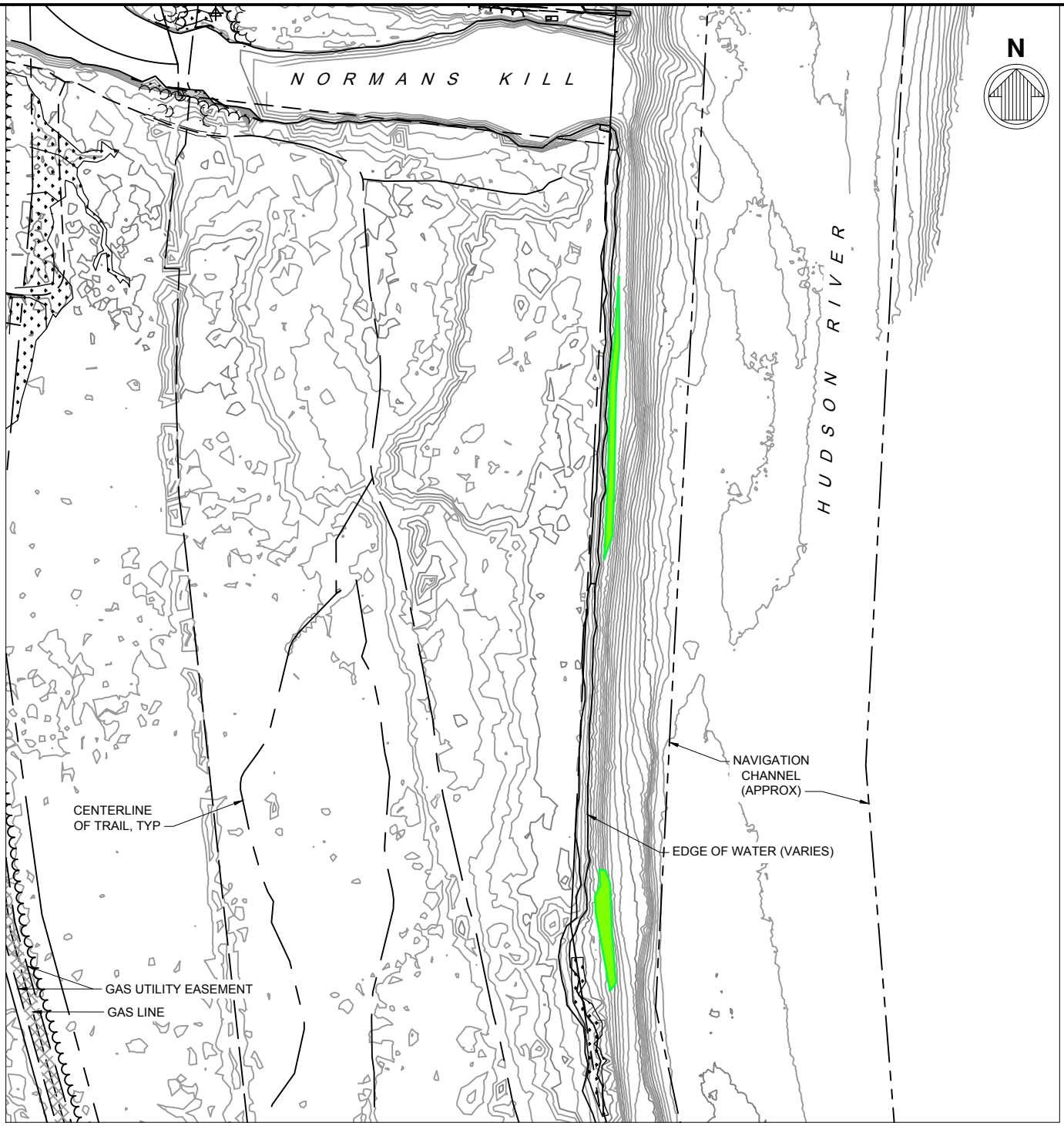
NOTES:

1. HORIZONTAL CONTROL REFERENCED TO NORTH AMERICAN DATUM OF 1983, STATE PLANE COORDINATE SYSTEM, NEW YORK, EAST ZONE, IN FEET.

2. WATER LEVEL DATUM IS BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), AS FOLLOWS:

- MEAN HIGHER HIGH WATER LEVEL (MHHW) = +3.78 (NAVD88)
- MEAN HIGH WATER LEVEL (MHW) = +3.40 (NAVD88)
- MEAN TIDE LEVEL (MTL) = +0.91 (NAVD88)
- MEAN LOW WATER LEVEL (MLW) = -1.59 (NAVD88)
- MEAN LOWER LOW WATER LEVEL (MLLW) = -1.81 (NAVD88)

PURPOSE: WHARF CONSTRUCTION PERMIT SUBMITTAL-NOT TO BE USED FOR CONSTRUCTION DATUM: NAVD88 m&n engineering, p.c.	OWNER/APPLICANT: ALBANY PORT DISTRICT COMMISSION PORT OF ALBANY IN: HUDSON RIVER NEAR: SOUTH OF ALBANY LOCATION: PORT OF ALBANY 106 SMITH BOULEVARD ALBANY, NEW YORK 12202	WHARF DREDGING AND CONSTRUCTION **VICINITY AND LOCATION** SHEET 1 OF 5 DATE: (REV1) 2021-10-11



PLAN - EXISTING CONDITIONS

150' 0' 150' 300'

SCALE: 1"=300'

PURPOSE: WHARF CONSTRUCTION
PERMIT SUBMITTAL-NOT TO BE USED FOR CONSTRUCTION
DATUM: NAVD88

m&n engineering, p.c.

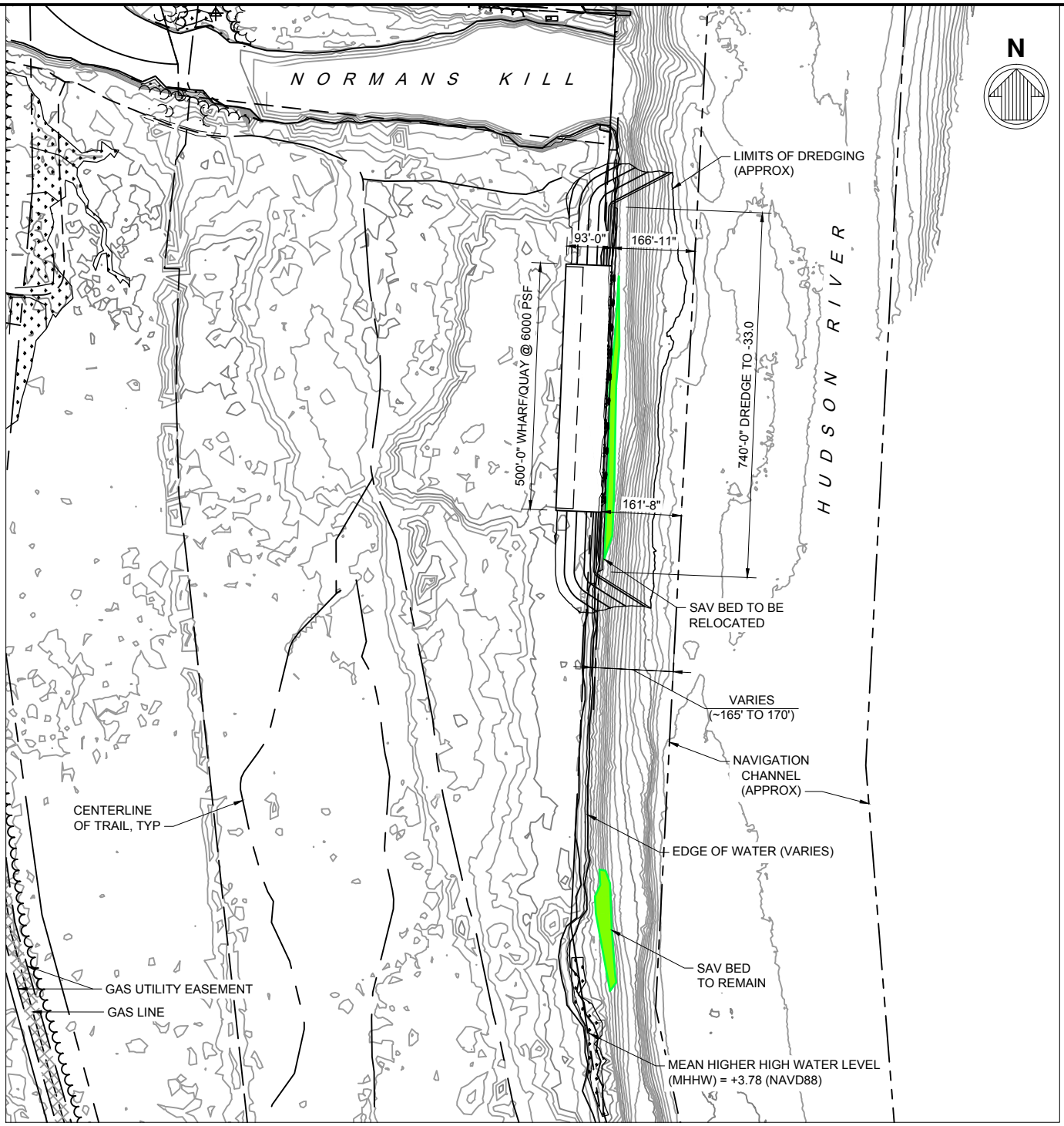
OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

PLAN - EXISTING CONDITIONS

SHEET 2 OF 5 DATE: (REV1) 2021-10-11



PLAN - PROPOSED CONDITIONS

150' 0' 150' 300'

SCALE: 1"=300'

PURPOSE: WHARF CONSTRUCTION
PERMIT SUBMITTAL-NOT TO BE USED FOR CONSTRUCTION
DATUM: NAVD88

m&n engineering, p.c.

OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

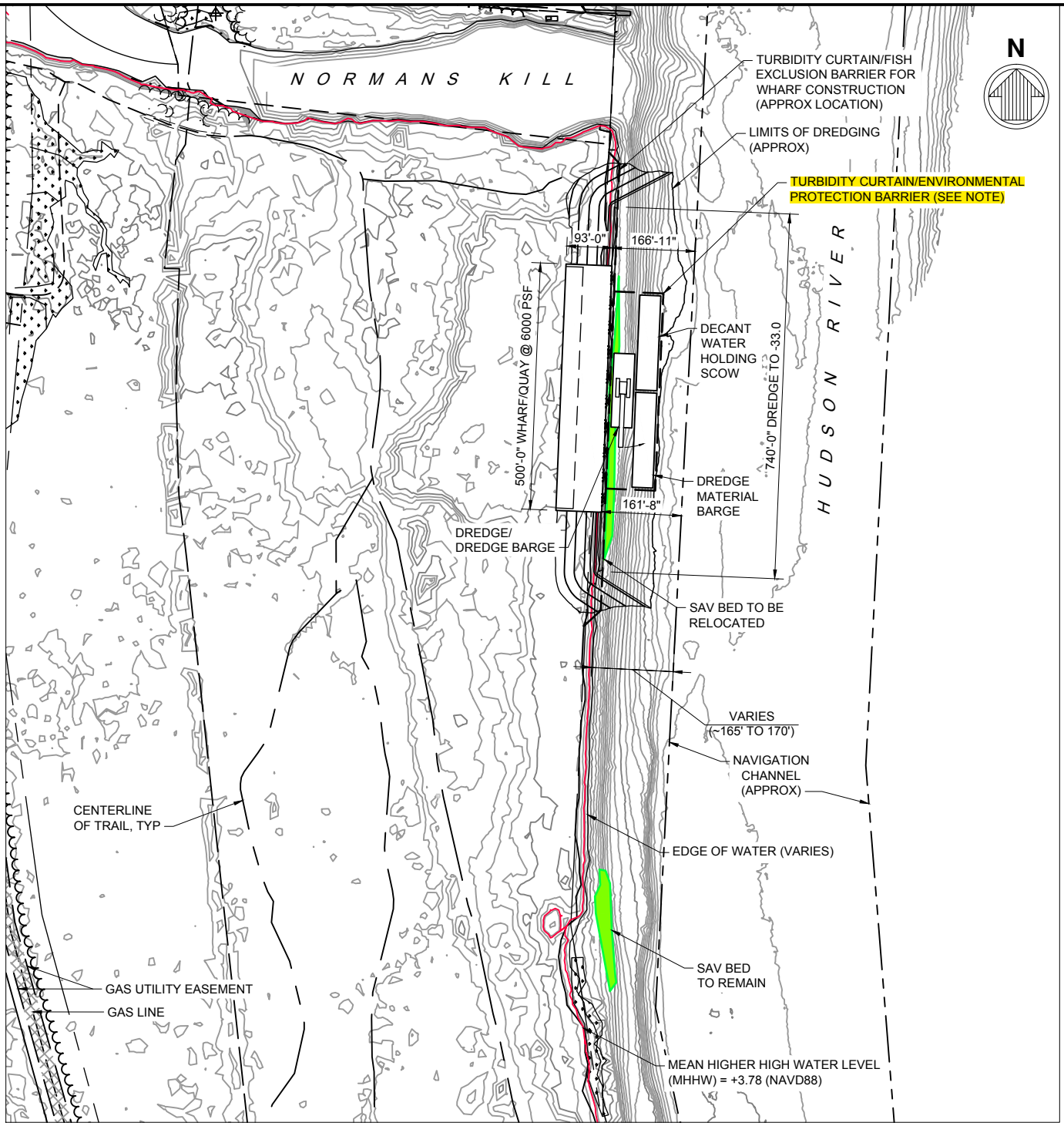
IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

PLAN - PROPOSED CONDITIONS

SHEET 3 OF 5 DATE: (REV1) 2021-10-11

File: Q:\NY\10949-01\20 CADD_Active_Permits\1094901P-03 ; Plotted: 10/14/2021 9:47 AM by COKER, MAEVE ; Saved: 10/13/2021 2:09 PM by MCOKER



NOTE: DREDGE EQUIPMENT AND ASSOCIATED TURBIDITY CURTAIN/ ENVIRONMENTAL PROTECTION BARRIER LOCATIONS VARY.

PLAN - PROPOSED TEMPORARY ENVIRONMENTAL PROTECTION

150' 0' 150' 300'

SCALE: 1"=300'

PURPOSE: WHARF CONSTRUCTION
PERMIT SUBMITTAL-NOT TO BE USED FOR CONSTRUCTION
DATUM: NAVD88

m&n engineering, p.c.

OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

PLAN - PROPOSED TEMPORARY ENVIRONMENTAL PROTECTION

SHEET 4 OF 5 DATE: (REV1) 2021-10-11

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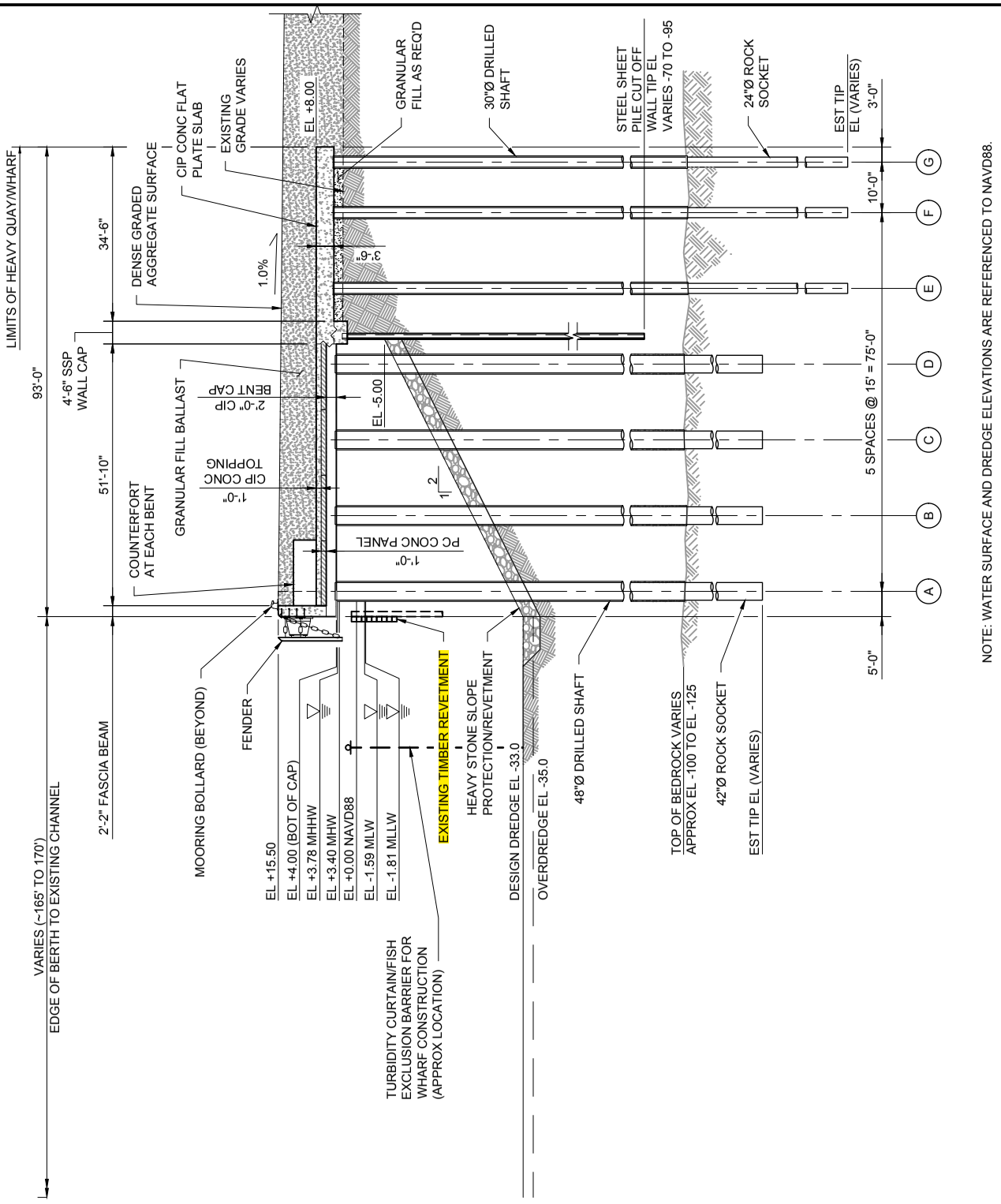

SECTION - WHARF AND DREDGING

SCALE: N.T.S.

PURPOSE: WHARF CONSTRUCTION
PERMIT SUBMITTAL-NOT TO BE USED FOR CONSTRUCTION
DATUM: NAVD88

m&n engineering, p.c.

OWNER/APPLICANT:
ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY

IN: HUDSON RIVER
NEAR: SOUTH OF ALBANY
LOCATION: PORT OF ALBANY
106 SMITH BOULEVARD
ALBANY, NEW YORK 12202

WHARF DREDGING AND CONSTRUCTION

SECTION - WHARF AND DREDGING

SHEET 5 OF 5 DATE: (REV1) 2021-10-11

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Exhibit 2: List of Anticipated Permits & Permitting Schedule

PORT OF ALBANY

Joint Permit Application Package
Albany Port District Commission

Port of Albany Expansion Project

McFarland Johnson

McFarland Johnson
Innovative Solutions / Sustainable Results

60 Railroad Place • Suite 402 • Saratoga Springs, NY 12866
Phone: 518-580-9380 • Fax: 518-580-9383
www.mjinc.com

Albany Port District Commission (APDC)

proposed

Marmen Welcon Offshore Wind Tower Manufacturing Plant

Town of Bethlehem & City of Albany, Albany County, NY

Just Cause to consider issuance of a phase permit process:

According to 6 CRR-NY 621.3 (General Requirements for Applications), if a project requires more than one permit from NYSDEC, the applicant must simultaneously submit all the necessary applications, or demonstrate to the NYSDEC's satisfaction that there is good cause not to do so. Considering the committed schedule submitted by the Port of Albany in support to Equinor's proposal to NYSERDA to achieve the States renewable energy goals, it is not feasible to submit simultaneously to NYSDEC all necessary permit applications due to the following:

- A phased approach is required for the site preparation to allow building construction including implementation of a 3-month surcharge program to address poor soils and settlement concerns.
- Project construction and development activities are required to follow multiple timing restriction (e.g., tree clearing, dredging window).
- Some of the permits are related to the operational components (not construction) of the Manufacturing Plant and subject to selection of manufacturing and processing equipment that must follow the Port of Albany procurement process and therefore, not all information is available prior construction bid.

Following details, the site surcharge program that is required to prepare the site for the construction phase.

Due to the poor on site soils, coupled with the very heavy dead and live loads associated with the weights of the manufactured tower and transition pieces, the geotechnical engineering recommendation is such that pre-loading the native soils is required. The weights of these components are such that surface compaction utilizing industry standard compaction equipment and or the implementation of deep dynamic compaction techniques will not adequately compact the deep layers of clay that exists 30-35 feet below the surface. Therefore, the geotechnical engineering recommendation is to surcharge (pre-load) the site by importing fill material and stockpiling material

to a height of 6-7 feet above the final grade to establish a heavy dead weight load to allow gravity to compact the native soils and deep layer of clay. The geotechnical engineer anticipates that this process could take up to 3 months.

During this 3-month period no construction work can progress. The on-site soils need to completely compact before commencing construction. The ramifications of not allowing the soils to adequately compact will cause excessive settlement to the site and buildings which could potentially cause failure of the structural components of the project.

The other alternative (determined not feasible) is to support the entire site on piles driven to bed rock. Bed rock has been determined to be approximately 80 feet to 150 feet deep and given depth and shear number of piles needed to support 570,000 square feet of buildings, this alternative is cost prohibited.

The sequence of operations is to first install all erosion & sedimental controls as described in the approved SWPPP. The site then can be cleared and grubbed, then mass earthwork operations would commence to perform cuts and fills using the on-site material to establish a level working subgrade. See attached color coded grading plan illustrating the locations of cut and fill. The total earthwork needed for the project is such that there is a shortage of on-site material and therefore, import is necessary to achieve a balanced site. Therefore, no material will be removed from the site (except for topsoil).

Once the mass earthwork operations have been completed, fill material would be imported and placed over all building footprints and connecting concrete apron areas to a height of approximately 6-7 feet above the design finished floor elevation. The balance of the site (storage yard, parking lot and access roadway) would remain untouched in its cleared and leveled condition sitting idle from construction activity.

Once the 3-month period has elapsed, the 6-7 feet of excess material will be moved from the building pads/footprints to the balance of the site (i.e., storage yard) for final placement and compaction (surcharging). No excess import material is anticipated as the required fill needed to surcharge is approximately the same quantity needed to bring the storage yard up to grade. While the storage yard portion of the site is sitting idle allowing for gravity compaction to take place, construction of the buildings can progress.

All work associated with surcharging the site will occur upland, not impacting below the MHHW elevation, nor wetlands, (unless authorization is granted by the DEC and USACE). Adequate erosion & sediment control will be installed pursuant to an approved NYSDEC General Permit for Stormwater Discharge prior to clearing and grubbing operations. Both the bridge and wharf structures are being supported on drilled piles to bedrock, and therefore surcharging the soils is not required for those portions of the project.

The operational permits required for the project such as the Air Emissions permit for the paint booths and SPDES for the wastewater package treatment plant, require specific controls and equipment to be selected for the permit application. However, due to the Port of Albany procurement law, the specific controls and equipment must be competitively bid to comply with the procurement process. In addition, given that these components of the project are not needed to commence site preparation,

and construction of the building, bridge and wharf, these permits are scheduled to be applied for after the competitive bid process to incorporate the specific controls and equipment to be installed.

Allowing for construction and operational permits to be issued in phases will allow this project to proceed on schedule and avoid costly schedule delays associated with waiting for all permits to be issued before construction can commence. As demonstrative above, there is a 3-month timeframe where no construction work can occur while the soils are being compacted through natural gravity, and as such no other permits are needed during this time. As shown below, the buildings must be operational by October 1, 2023, which requires us to surcharge the soils while the balance of the permits are issued.

The latest site plan is attached for reference.

Civil Design Schedule & List of Approvals & Permits

10/07/21

Attend Town Planning Board Meeting *6/15*

Introduction to the Project

Supplemental EIS & SEQRA Compliance & Site Plan Design and Approval

Applicant prepare the following:

- *Supplemental EIS*
- *Preliminary design & site plan*
- *SWPPP Report*
- *Visual Assessment*
- *Traffic impact study*
- *Wetland Impacts & mitigation report*
- *SAV mitigation report*
- *Utility Analysis*
- *Water and Sewer Extension Map Plan and Report*
- *SEQRA Compliance narratives*

Attend / Present to Town Planning Board (Meeting) *7/6*

Re-establish Lead Agency
Request Supplemental EIS (SEIS)
Set SEIS Scoping

Submit SEIS *7/9*

Attend / Present to Town Planning Board (Meeting) *7/20*

Full Project Presentation

Submit JAP *7/29*

ACOE, NOAA & NMFS Meeting *8/10*

Agency Review meeting on site *8/ 11*

ACOE, SHPO & Stockbridge-Munsee Mohican Tribal Historic Preservation Office (THPO) Meeting *9/13*

NYSDOT meeting *9/16*

JAP Agency review meeting 10/20

Additional Supplemental EIS scope due to TP's, DEC 8/13 letter & 8/30 Town Letter 10/27

Site Plan
Utility Plan
Grading Plan
Erosion & Sedimentation Control
Vegetation & Wildlife
Floodplains & Floodways
Climate & Air
Updated Traffic Impact Study, Appendix

Updated Drainage Report
Updated SWPPP
EIS Traffic & Transportation
Environmental Justice Policy
Updated Visual Photo Simulations
Power Point presentation

JAP Address comments & submit responses due to 9/30 letter	10/27
Attend Town Planning Board Meeting Present updates	**11/2**
Attend Meeting with Ezra Prentice Present project	11/10 or 11
Receive Town review comments regarding completeness	11/12
Attend Planning Board Meeting **POTENTIALLY Declare SEIS as completed, set public hearing for 12/7**	**11/16**
Submit ZBA application	11/17
Submit water district extension application	11/18
Attend City of Albany Planning Commission Present project	**11/23**
JAP Agency review meeting	11/30
ZBA Board Meeting **Accept application & set public hearing for 12/15**	**12/1**
Town Planning Board ***Public Hearing*	**12/7**
Attend Town Board Meeting – Water District Extension **Accept application & set public hearing for 12/22**	**12/8**
ZBA Board meeting ***Public Hearing*	**12/15**
Close Planning Board Public Comment	**12/17**
Attend Town Planning Board Meeting Review progress	**12/21**

Attend Town Board Meeting * Public Hearing ***** Water District Extension	**12/22**
JAP Address comments & submit responses	12/23
Attend Town Planning Board Meeting Address comments	**1/4/22**
Issue clear and grub / earthwork bid documents	1/4/22
Address comments & Prepare FEIS & Final Site Plans- Submit	1/7/22
Attend Town Planning Board Meeting **POTENTIALLY Declare FSEIS complete**	**1/18/22**
Attend City of Albany Planning Board Meeting **POTENTIALLY Grant site plan approval**	**1/25/22**
JAP Agency review meeting	1/27/22
Attend Town Planning Board Meeting **Review progress / Declare FSEIS complete**	**2/1/22**
Attend ZBA Board meeting **POTENTIALLY VARIANCES GRANTED**	**2/2/22**
Attend Town Board Meeting Water District Extension **POTENTIALLY receive Approval**	**2/9/22**
Attend Town Planning Board Meeting **POTENTIALLY Grant SEQRA & Site Plan approval**	**2/15/22**
POTENTIALLY Begin Clear & Grub	2/16/22
JAP Address comments & submit responses	2/17/22
Begin Surcharge building footprints	3/1/22
JAP Agency review meeting	3/17/22
Issue Site, Buildings, Bridge & Wharf Construction Documents for Bid	3/1/22
Bid	March

Bids Due	3/31/22
Award construction contract	4/15/22
JAP issued	4/17/22
Break Ground	**4/22/22**
Commence Bridge & Wharf	**4/22/22**
Commence Building Foundations	**6/1/22**
Submit for SPDES permit for WWTP & Air Permit	**7/1/22**

The following completion dates are subject to change pending input from the CM advisor Team:

Complete Bridge	***5/15/23***
Complete Buildings & Site	***10/01/23***
Complete Wharf	***12/31/23***

List of Approvals & Permits:

The project will require federal, state, and local agency permits and board actions. Implementation of the project involves several approvals including the following:

1. Coordinated SEQRA review by the Town of Bethlehem Planning Board (Lead Agency) & issuance of findings statement. See Supplemental and Generic EIS for list of involved and interested agencies
2. Albany County Planning, 239 site plan review recommendation
3. Town of Bethlehem Planning Board Site Plan Approval
4. City of Albany Planning Commission, Site Plan approval
5. Town of Bethlehem Zoning Board of Appeals for height and floodplain development area variances
6. Bethlehem Town Board approval for the extension of the existing water district
7. New York State Department of Transportation review and approval of the Traffic Impact Study.
8. Town of Bethlehem work permits for connection to the Town water main.
9. Town of Bethlehem (MS4) approval and acceptance of the Stormwater Pollution Prevention Plan (SWPPP), which is to be prepared in compliance with the NYSDEC General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002), as well as approval for disturbing more than five (5) acres of land at one time.

The following is a list of permits:

1. Town of Bethlehem
    a. NYSDEC General Permit for SWPPP and 5-acre Waiver approval
    b. Water main connection permit
    c. Building permit
    d. Development Permit for construction within a FEMA regulated floodplain per Town Code
2. New York State Department of Environmental Conservation
    a. SEQRA Findings Statement
    b. Protection of Waters permit approval for proposed shoreline features
    c. General Permit for Stormwater Discharges
    d. SPDES Wastewater Discharge permit for the package treatment plant
    e. Article 15 Protection of Waters Permit
    f. Section 401 Water Quality Certification
    g. Air Emissions Permit
    h. Soil Management Plan
3. New York State Department of Transportation
    a. Highway work permit
4. NYS Department of State
    a. Consistency with Coastal Zone Management Program
5. U. S. Army Corps of Engineers
    a. Section 404 Permit
    b. Section 10 Permit

Exhibit 3: Previous SHPO No Effect Determination

PORT OF ALBANY

Joint Permit Application Package
Albany Port District Commission

Port of Albany Expansion Project

McFarland Johnson

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

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

March 14, 2019

Mr. Andrew Dangler
USACE Update Regulatory Field Office
1 Buffington Street
Building 10, 3rd Floor North
Watervliet, NY 12819

Re: USACE
Albany Port District Commission Industrial Park Project
City of Albany, Town of Bethlehem, Albany County, NY
18PR07273

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the February 12, 2019 McFarland and Johnson Letter and the enclosed Area of Potential Effects Map in accordance with Section 106 of the National Historic Preservation Act of 1966. The February 12, 2019 letter includes information regarding proposed construction depths, depth of fill and recent alluvium, and the potential visual impacts of the proposed project on the Papscanee Island Historic District (08303.000130). These comments are those of the SHPO and relate only to Historic/Cultural resources.

Based on this review, it is the opinion of the SHPO that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be adversely affected by this undertaking with the condition that final construction design not exceed the design specifications noted on Concept Plan A *(enclosed).*

If you have any questions, I can be reached at (518) 268-2179.

Sincerely,

Nancy Herter

Nancy Herter
Archaeology Unit Program Coordinator

Legend

Area of Potential Effect (APE)

0 750 1,500

Feet

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

PORT OF ALBANY DEVELOPMENT

TOWN OF BETHLEHEM, ALBANY COUNTY, NEW YORK

Area of Potential Effect (APE)

SCALE :	DATE :	FIGURE :
AS SHOWN	MARCH 2019	1

McFarland Johnson

N:\18437.00 Port of Albany\Draw\GIS\APE Limits.mxd

PROJECT DATA

1. APPLICANT:
ALBANY PORT DISTRICT COMMISSION
106 SMITH BOULEVARDS
ALBANY, NEW YORK 12205

2. CURRENT LAND OWNER:
BEACON HARBOR, LLC, C/O JAMES G. HORVATH
PO BOX 932
LATHAM, NEW YORK 12110

2. EXISTING ZONING: HEAVY INDUSTRIAL

3. LOT AREA: 81.62 ACRES (3,555,289 SF)

INDUSTRIAL BUILDING PARKING:

1 SPACE FOR EACH 1,0000 SQUARE FEET OF GROSS FLOOR AREA

TOTAL SQUARE FEET PROPOSED = 1,130,000

REQUIRED:
1100 TOTAL SPACES REQUIRED

PROVIDED:
CAR PARKING 600 TOTAL SPACES PROVIDED
TRUCK PARKING 500 TOTAL SPACES PROVIDED
1100 TOTAL SPACES PROVIDED

ADA SPACES REQUIRED:
PER 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

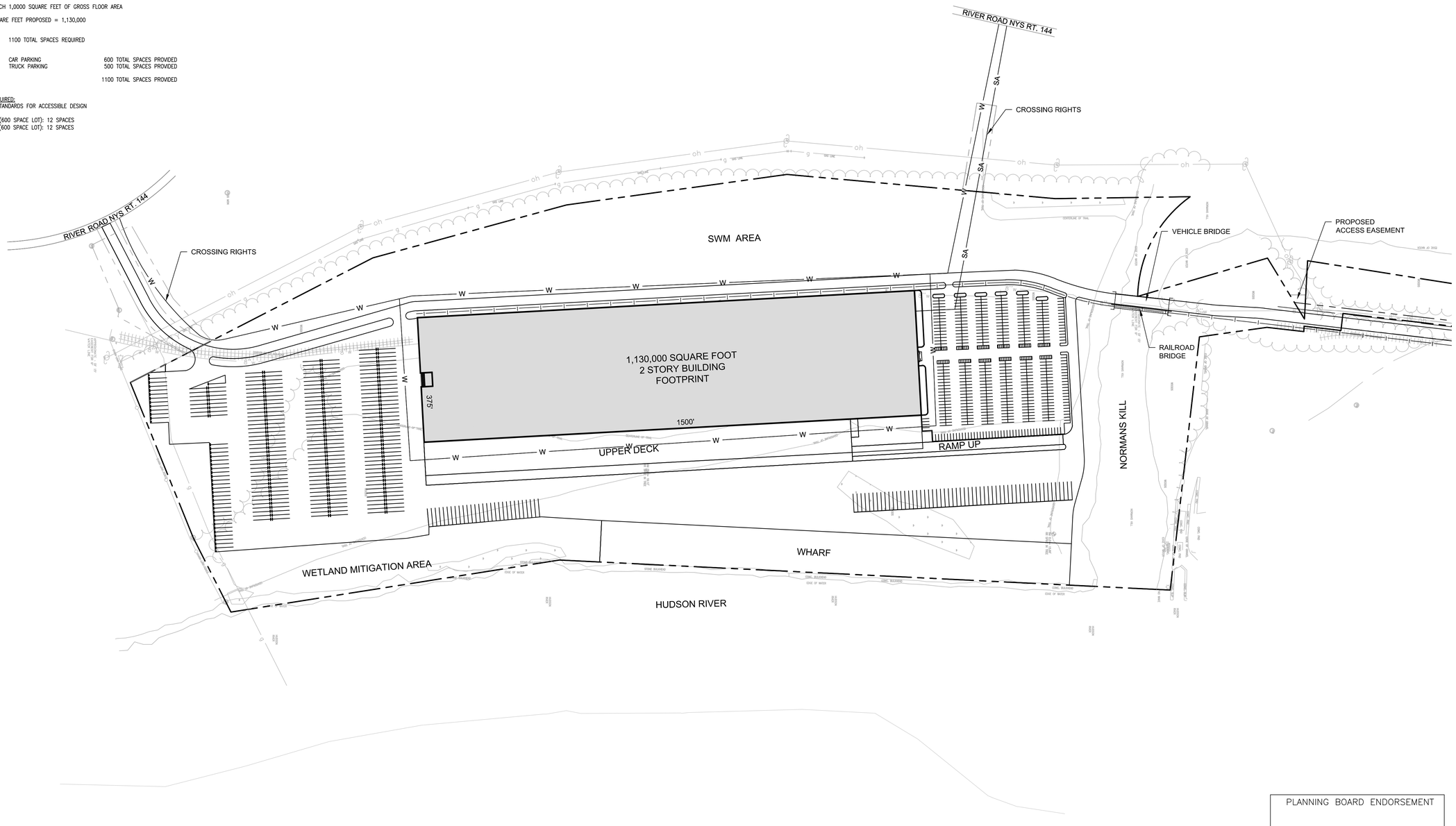
REQUIRED (600 SPACE LOT): 12 SPACES
PROVIDED (600 SPACE LOT): 12 SPACES

ZONING:

EXISTING: ±81.62 ACRES HEAVY INDUSTRIAL

PROPOSED: ±81.62 ACRES HEAVY INDUSTRIAL

TAX ACCOUNT NUMBERS: 98.00-2-10.23
98.01-2-1



IN ASSOCIATION WITH:
LOUIS BERGER GROUP, INC.

0 150 300 450 FT
SCALE

PLANNING BOARD ENDORSEMENT

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
CONCEPT SITE PLAN

NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION

BETHLEHEM, NEW YORK

PROJECT:
PORT OF ALBANY EXPANSION
BEACON ISLAND, SOUTH PORT ROAD

DRAWN	NSO
DESIGNED	NSO
CHECKED	SMB
SCALE	1"=150'
DATE	OCTOBER 2018
PROJECT	18437.00

DRAWING TITLE
CONCEPT A

DRAWING NUMBER
G-03

Exhibit 4: Revised WQC-1 and FACF Forms

PORT OF ALBANY

Joint Permit Application Package
Albany Port District Commission

Port of Albany Expansion Project

McFarland Johnson

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

APPLICATION FOR PERMIT FOR SECTION 401 STATE WATER QUALITY CERTIFICATION

Supplement WQC-1

DEC ID (if known): _____

Applicant Information:

Name of Applicant (from Joint Application Form): Albany Port District Commission (Richard Hendrick)			
Email: rhendrick@portofalbany.us		Phone: (518) 463-8763	
Mailing Address: Street: 106 Smith Boulevard	City: Albany	State: NY	Zip: 12202
Project Location (from Joint Application Form): Beacon Harbor Parcel			
Town (where property taxes paid): Bethlehem		County: Albany	
Street Address: River Road (NYS Road 144)	City:	State: NY	Zip:

To comply with federal requirements at 40 CFR §121.5(b) for New York State Section 401 Water Quality Certification, all items below must be completed and the applicant must sign page 2 of this form.	
1.	By signing this form, the applicant affirms that the project proponent(s) and a point of contact were accurately identified in the Joint Application for Permit provided with this supplement.
2.	By signing this form, the applicant affirms that the proposed project is accurately and completely identified in the Joint Application for Permit provided with this supplement, and in any supporting plans, photos, reports or other project information.
3.	Identify here the applicable federal license or permit for this request: USACE Section 404 / Section 10 Permit. If this request relates to a Section 404 Nationwide Permit administered by the US Army Corps of Engineers, please identify the appropriate Nationwide Permit number(s):
4.	Please identify the location and nature of any potential discharge that may result from the proposed project and the location of receiving waters (attached additional information as needed): See Section 4 of Joint Application Package. The site would convey stormwater runoff to outlets into both the Normans Kill and the Hudson River. The western portion of the site with paved employee parking lots would sheet flow pavement runoff into bio retention infiltration areas and/or through green infrastructure filtration practices with overflow spillways into the exiting wetlands areas (Wetland 1). The Wetland 1 is currently drained via a 40" culvert into the Normans Kill. Building rooftop runoff and yard area runoff would be directed through a closed drainage system to hydrodynamic separators prior to discharge into the Normans Kill and Hudson River.
5.	Please provide a description of any methods and means proposed to monitor the discharge and the equipment or measures planned to treat, control, or manage the discharge (attach additional information as needed): See Section 5 of Joint Application Package. A Stormwater Pollution Prevention Plan would be prepared for the construction and operation phase of the Project, in accordance with New York State regulations. Also during the dredging activities floating turbidity barriers will be installed to control potential increase in turbidity above current background levels.

6.	Please provide a list of all other federal, interstate, tribal, state, territorial, or local agency authorizations required for the proposed project, including all approvals or denials already received: See Section 2 of Joint Permit Application Package. A Generic Environmental Impact Statement (GEIS) was prepared by the APDC, which analyzed and evaluated potential environmental impacts equally with social and economic factors associated to the conceptual development of the Project. The Final GEIS (FGEIS) was accepted by the Town of Bethlehem (Lead Agency) on May 05,2020. Nationwide General Permit No. 6 was obtained for sediment sampling. Sediment sampling plan was reviewed and approved by NYSDEC under case DEC #4-0122-00322/00001. No effect determination was issued by SHPO under case # 18PR07273.
7.	Please indicate the date a Section 401 Water Quality Certification pre-filing meeting request was submitted to DEC and attach a copy of the request to this form. The pre-filing meeting request must have been made at least 30 days prior to submitting application for Section 401 Water Quality Certification. Interagency Pre-Applications meetings were conducted on June 03, 2021, and July 20, 2021.
8.	By signing below the applicant is providing the following statement: "*The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief*"
9.	By signing below the applicant is providing the following statement: "*The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.*"

Certification:

In addition to the Joint Application Form provided with this supplement, I hereby submit this form and the attachments indicated to request a Section 401 Water Quality Certification from DEC. The project proponent hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief. The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.

Richard J Hendrick — Project Applicant/Proponent Signature

10-22-2021 — Date

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Federal Consistency Assessment Form

An applicant, seeking a permit, license, waiver, certification or similar type of approval from a federal agency which is subject to the New York State Coastal Management Program (CMP), shall complete this assessment form for any proposed activity that will occur within and/or directly affect the State's Coastal Area. This form is intended to assist an applicant in certifying that the proposed activity is consistent with New York State's CMP as required by U.S. Department of Commerce regulations (15 CFR 930.57). It should be completed at the time when the federal application is prepared. The Department of State will use the completed form and accompanying information in its review of the applicant's certification of consistency.

A. **APPLICANT** (please print)

1. Name: Richard Hendrick - Albany Port District Commission
2. Address: 106 Smith Boulevard
3. Telephone: Area Code ( ) (518) 463-8763

B. **PROPOSED ACTIVITY:**

1. Brief description of activity:

See Section 2 of Joint Application Package. The APDC proposes the development of an industrial site, to expand and provide additional port infrastructure, warehouse space, cargo and wharf capacity ("the Project").

2. Purpose of activity:

Manufacture and facilitate the marine-based import and export of materials and components to be used in the development of Offshore Wind (OSW) facilities.

3. Location of activity:

Albany	Bethlehem	East of River Road
County	City, Town, or Village	Street or Site Description

4. Type of federal permit/license required: Section 404 / Section 10 Permit

5. Federal application number, if known: _____

6. If a state permit/license was issued or is required for the proposed activity, identify the state agency and provide the application or permit number, if known:

DEC#4-0122-00322/00001

C. **COASTAL ASSESSMENT** Check either "YES" or "NO" for each of these questions. The numbers following each question refer to the policies described in the CMP document (see footnote on page 2) which may be affected by the proposed activity.

1. Will the proposed activity result in any of the following:	YES	NO
a. Large physical change to a site within the coastal area which will require the preparation of an environmental impact statement? (11, 22, 25, 32, 37, 38, 41, 43)	✓	
b. Physical alteration of more than two acres of land along the shoreline, land under water or coastal waters? (2, 11, 12, 20, 28, 35, 44)	✓	
c. Revitalization/redevelopment of a deteriorated or underutilized waterfront site? (1)	✓	
d. Reduction of existing or potential public access to or along coastal waters? (19, 20)		✓
e. Adverse effect upon the commercial or recreational use of coastal fish resources? (9,10)		✓
f. Siting of a facility essential to the exploration, development and production of energy resources in coastal waters or on the Outer Continental Shelf? (29)		✓
g. Siting of a facility essential to the generation or transmission of energy? (27)		✓
h. Mining, excavation, or dredging activities, or the placement of dredged or fill material in coastal waters? (15, 35)	✓	
i. Discharge of toxics, hazardous substances or other pollutants into coastal waters? (8, 15, 35)		✓
j. Draining of stormwater runoff or sewer overflows into coastal waters? (33)	✓	
k. Transport, storage, treatment, or disposal of solid wastes or hazardous materials? (36, 39)		
l. Adverse effect upon land or water uses within the State's small harbors? (4)		

2. Will the proposed activity affect or be located in, on, or adjacent to any of the following:	YES	NO
a. State designated freshwater or tidal wetland? (44)		✓
b. Federally designated flood and/or state designated erosion hazard area? (11, 12, 17)	✓	
c. State designated significant fish and/or wildlife habitat? (7)	✓	
d. State designated significant scenic resource or area? (24)		✓
e. State designated important agricultural lands? (26)		✓
f. Beach, dune or Barrier Island? (12)		✓
g. Major ports of Albany, Buffalo, Ogdensburg, Oswego or New York? (3)	✓	
h. State, county, or local park? (19, 20)		✓
i. Historic resource listed on the National or State Register of Historic Places? (23)		✓

3. Will the proposed activity require any of the following:	YES	NO
a. Waterfront site? (2, 21, 22)	✓	
b. Provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (5)		✓
c. Construction or reconstruction of a flood or erosion control structure? (13, 14, 16)		✓
d. State water quality permit or certification? (30, 38, 40)	✓	
e. State air quality permit or certification? (41, 43)	✓	

4. Will the proposed activity occur within and/or affect an area covered by a State-approved local waterfront revitalization program, or State-approved regional coastal management program? (see policies in program document*)	YES	NO
	✓	

D. **ADDITIONAL STEPS**

1. If all of the questions in Section C are answered "NO", then the applicant or agency shall complete Section E and submit the documentation required by Section F.

2. If any of the questions in Section C are answered "YES", then the applicant or agent is advised to consult the CMP, or where appropriate, the local waterfront revitalization program document*. The proposed activity must be analyzed in more detail with respect to the applicable state or local coastal policies. On a separate page(s), the applicant or agent shall: (a) identify, by their policy numbers, which coastal policies are affected by the activity, (b) briefly assess the effects of the activity upon the policy; and, (c) state how the activity is consistent with each policy. Following the completion of this written assessment, the applicant or agency shall complete Section E and submit the documentation required by Section F.

E. **CERTIFICATION**

The applicant or agent must certify that the proposed activity is consistent with the State's CMP or the approved local waterfront revitalization program, as appropriate. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: Richard Hendrick- Albany Port District Commission

Address: 106 Smith Boulevard, Albany, NY

Telephone: Area Code ( ) (518) 463-8763

Applicant/Agent's Signature: Richard J Hendrick Date: 10-22-2021

F. **SUBMISSION REQUIREMENTS**

1. The applicant or agent shall submit the following documents to the **New York State Department of State, Office of Planning and Development, Attn: Consistency Review Unit, One Commerce Plaza-Suite 1010, 99 Washington Avenue, Albany, New York 12231.**

a. Copy of original signed form.
b. Copy of the completed federal agency application.
c. Other available information which would support the certification of consistency.

2. The applicant or agent shall also submit a copy of this completed form along with his/her application to the federal agency.

3. If there are any questions regarding the submission of this form, contact the Department of State at (518) 474-6000.

*These state and local documents are available for inspection at the offices of many federal agencies, Department of environmental Conservation and Department of State regional offices, and the appropriate regional and county planning agencies. Local program documents are also available for inspection at the offices of the appropriate local government.

Exhibit 5: SAV Transplanting Plan

PORT OF ALBANY

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6. ENVIRONMENTAL MITIGATION PLANS

6.1 WETLAND COMPENSATORY MITIGATION PLAN

The overall freshwater wetland impacts are estimated as follow:

- Permanent Impacts: 0.86 acre
  - Wetland 1
    - PEM: 0.30 acre
    - PFO: 0.51 acre
  - Wetland 9
    - PEM: 0.04
- Temporary Impacts: 0.33 acre

Wetland impacts are limited to Wetland 1 and Wetland 9, which are located in low quality habitats. The wetland area located within the Project limits does not show characteristics of high-quality habitat and does not play a key role in supporting diverse or protected species. The wetland has no recreational value, and the area to be impacted does not represent a pristine ecological community.

Compensatory mitigation for permanent wetland impacts would be satisfied via In-Lieu Fee Mitigation (ILF) Program. Wetland credits would be purchase from The Wetland Trust[7] mitigation bank, which has a service area within the same drainage basin and is federally approved under the ILF program. Wetland credits would be purchased at a ratio equivalent to wetland habitats (function and value) as per the USACE New England District Compensation Mitigation Guidance[8], based on permanent impacts shown in **Appendix 1** (Permit Sketches). Mitigation credits are anticipated to be purchased within six (6) months from the date the Joint Permit Application is approved by the USACE and NYSDEC.

Once construction is complete, temporary construction impacts as a result of this Project would be restored to pre-construction conditions, removing debris and fill material resulting from earthwork activities, and allowing the area to revegetate. Therefore, no further compensatory mitigation is required for temporary impacts.

6.2 SUBMERGED AQUATIC VEGETATION MITIGATION PLAN

One of the first priority of the Project design was avoidance and minimization impacts to SAV bed. ADPC has avoided and minimized project impacts to the maximum extent practicable by conducting project reconfiguration, design changes, the addition of stabilization features to protect nearby resources, and the incorporation of BMPs into the project construction requirements.

Currently, the Project avoids impacts to two (2), out of the three (3), SAV patches or beds originally planned to be impacted by proposed wharf. Construction of the wharf and associated dredging in the Hudson River

[7] https://www.thewetlandtrust.org/in-lieu-fee-wetland-mitigation/

[8] https://www.nae.usace.army.mil/portals/74/docs/regulatory/Mitigation/2016_New_England_Compensatory_Mitigation_Guidance.pdf

is now limited to approximately 4.4 acres with only 0.21 acre of SAV consisting of a long narrow shallow shelf along the edge of the concrete armored shoreline, with very low density of *V. americana*, *T. natans*, and *P. crispus* growing in shallow water no farther than approximate 16 feet from the mean low water (MLW) line. In the following section is presented the Transplanting Plan for *V. americana*.

6.2.1 Transplanting Plan for *V. americana* and Protection of SAV beds

In accordance with NYSDEC letter dated August 29, 2020 (DEC #4-0122-00322/00001), *V. americana* from SAV patch # 3 would be transplanted to SAV beds and adjoining areas (FSM Sections 1 to 7) outside the project limits, seeking to promote a continuous bed. SAV beds (patches 1 and 2) are to remain and not to be impacted by the Project. See **Appendix 1** (Permit Sketches). Following is describe the transplanting approach for *V. americana*. See **Figure 3-1** for SAV areas and **Figure 3-2** for location of FSM Sections.

6.2.2 Qualified Personnel

The APDC would procure the services of a qualified consultant, licensed by NYSDEC and with proven experience in successfully completing SAV surveys, habitat assessment and mitigation. Once selected, this consultant would review project details and finalize the mobilization, coordination and overall plan for SAV relocation.

6.2.3 Suitable SAV Relocation Areas (Transplant Sites)

Considerations for suitable relocation areas are as follow:

- Within the same waterbody (Hudson River)
- Recipient site (habitat) equal or similar than the impact site
- Adjacent areas where SAVs are present, and not anticipated to be subject to and potential threats from the Project
- Suitable space for settlement ("re-planting")

Based on the SAV Survey (**Appendix 8**) location of SAV Patch # 1, Patch # 2 and adjoining areas are ideal due to its similar conditions, proximity to the Project and minimize holding time for the species to be relocated.

6.2.3.1 SAV Pre-Transplanting Survey

Prior to transplanting activities, the qualified consultant would carry out a pre-transplanting survey to document quantities of plants to be collected and transplanted from the dredging site, and existing conditions of SAV recipient sites. The Pre-Transplanting Survey is expected to be conducted in early summer, during the no dredging window. The information gathered would be utilized to determine appropriate placement and planting location within the recipient sites and immediate adjacent areas. The areas would be marked at the surface to assist the relocation crew with SAV distribution. Findings would be summarized in a SAV Pre-Transplanting Report to be prepared and submitted to the agencies for coordination and documentation purposes. During this process the specific details of the SAV Transplanting Plan would be finalized and further coordinated with NYSDEC and the USACE.

6.2.4 SAV Removal and Transplant (*V. americana*)

The SAV transplanting efforts would be conducted between late spring and early summer, ahead of the dredging schedule. It is anticipated that the SAV relocation would be conducted in one mobilization outside the dredging work window. The relocation team would mobilize prior to any in-water work construction activities (e.g., dredging) to complete the collection of SAV and relocation of the species to the SAV patch # 1 and patch # 2. The qualified personnel would conduct and supervise the overall SAV relocation activities. See **Figure 3-1** for SAV Areas and **Figure 3-2** for location of FSM Sections.

The APDC proposes to remove and transplant *V. americana* (SAV) the same day or within 48 hours of collection as permitted by weather, site conditions and next low tide. The **removal method** would consist of uproot the entire plant by digging under it by spade and then snapping the rhizome to remove the plant, placing the spade entry adequately away from the targeted plant to obtain the entire root system. As an alternate method, custom transplanting core devices would be utilized to extract the SAV making SAV pots / plugs for replanting at new location. The entire root system and plant with sediment is then to be gently placed in a porous bucket or six (6) inch PVC cores and then transported to its new location via shallow draft vessel. It is noted that fine sediments would cloud the water immediately when the digging began and so collectors would have exercise caution. Therefore, plants may also need to be harvested by hand and small spade by pressing the spade into the soft sediment approximately four (4) to six (6) inches away from the plant, and then pressing fingers beneath the plant rhizomes, creating with minimal damage.

6" PVC Cores with transplanted "SAV pots / plugs".
Photo courtesy of AquaTech Eco Consultants

For **transplanting**, the SAV pots (6-inch PVC cores) with *V. americana* will be replanted at the designated location. This method minimizes stress to the plant and would not require additional anchoring system. However, in the event the SAV pots cannot be replanted using 6-inch PVC dues to site conditions, iron "T" bars (welded) would be used as anchoring method where transplanted plants would be bound to the bar legs employing a jute string. The method considers attaching the plant root wads to six (6) to 12 inch-lengths of rebar and placed into a pre-dug hole. Hole would be dug with a spade. For the small rebars (6 inches in length) staples (bamboo) may be needed could be pressed through the sediment at about 30 to 45 degrees from horizontal to secure the wad/rebar system from wave action or wake. It is anticipated that plants would be attached to the "T" bar in bunches ranging from four (4) to 15 plants ("SAV plugs"), depending on the pre-relocation survey. Each "SAV plug" would be planted by placing the pointer and index finger over the rhizome while grasping the plug and pressing it into the soft sediment. The top of the rebar "T" would be then pressed in the mudline, keeping the crown of the plant (where the leaves grow) out of the substrate.

The plugs are expected to be spaced approximately 3' X 3' in the recipient sites. However, spacing would be adjusted according to the pre-relocation survey. The intent is to that the number of transplanted plants match density from SAV # 1, and meet a 50% survival rate.

In the event that transplanting could not occur in a single day, collected species or "SAV plugs" would be placed in plastic totes or buckets, and then river water would be poured until all plants are completely submerged. These would be stored and secured in the Project Site or at nearby APDC facility, and then continue the planting the following morning taking into consideration the next low tide.

During the dredging and construction activities, SAV beds would be protected by implementing BMPs such as installation of floating turbidity barriers, staked turbidity barriers and silt fence.

6.2.4.1 Modifications to Methodology Approach

During the transplanting activities modifications to field methodology could be required, based on additional discoveries or unforeseen conditions such as changes in bottom composition, conditions not previously detected due to high turbidity levels. As necessary, areas contiguous to existing SAV # 1 and SAV # 2 may be used in order to accommodate species to be transplanted. Methodology could also be adjusted (in coordination with USACE and NYSDEC) by the selected consultant based on other successful transplanting approach used in similar mitigations.

6.2.5 SAV Relocation Completion Report and Monitoring

The details of the transplanting activities would be provided in a SAV Relocation Completion Report. The documented activities would include:

- Results of the initial SAV and pre-relocation surveys
- The relocation area characteristics and details
- SAV collection, transport and relocation activities
- Limiting factors, as applicable

APDC would conduct monitoring of immediately post relocation, between two (2) weeks to one (1) month (subject to weather conditions) following transplanting to evaluate the success of the planting process. Monitoring information would include the number of planting units present, shoot density counts, percent cover and aerial extent, or other appropriate relative measure of abundance. Any other relevant field observations would be recorded which may help explain any potential failures (e.g., severe storm, evidence of human activities, erosion, etc.). After the monitoring event, the First SAV Mitigation Monitoring Report would be submitted to the USACE and NYSDEC for review and comments.

Subject and depending to weather condition, a second monitoring event would be conducted after the completion of the dredging activities. After the monitoring event, a Second SAV Mitigation Monitoring Report would be prepared and to be submitted to the USACE and NYSDEC for review and comments.

One (1) year after the completion of the SAV transplant, a final monitoring event would be conducted. After the monitoring event, a Final SAV Mitigation Monitoring Report would be prepared and to be submitted to the USACE and NYSDEC for review and comments. If transplanted SAV persists after one (1) full year (i.e., no less than 50% survival rate of planting units), the mitigation would be considered successful. If transplanting failure is revealed, the APDC would investigate potential measures for remedying the failure and loss of ecological function, in coordination with the NYSDEC and the USACE.

6.3 MUSSELS RELOCATION PLAN

In accordance with NYSDEC letter dated August 29, 2020 (DEC #4-0122-00322/00001), *L. fragilis* mussels and "old relic" shells of *A. implicata* found within the proposed dredging zone (FSM Sections 9, 10 and 11) need to be relocated to areas outside the footprint of the proposed dredging. As presented in **Table 3-4** (**Section 3.2.2.3**), the ADPC would perform relocation of *L. fragilis* mussels found within the limits of the proposed dredging area (i.e., FMS Sections 9, 10 and 11) to FMS Sections 1-8 and portions of Section 11). Relocation would be conducted in accordance with NYS Freshwater Mussel Survey Guidelines for Waterbody Disturbance Projects[9] (April 2021). See **Figure 3-2** for FSM sections outside the dredging area which qualify as proposed locations for mussel relocation.

Following is describe the relocation approach for the freshwater mussels within proposed dredging area.

6.3.1 Qualified Personnel

The APDC would procure the services of a qualified consultant, licensed by NYSDEC and with proven experience in successfully completing freshwater mussel surveys, habitat assessment and relocation activities. Once selected, this consultant would review project details and finalize the mobilization, coordination and overall plan for mussel relocation.

6.3.2 Suitable Relocation Areas (Recipient Site)

Considerations for suitable relocation areas are as follow:

- Upstream of the dredging site and other areas downstream where mussels are present, not anticipated to be subject to and potential threats or disturbances such as future maintenance (e.g., bridge/culvert sites, proposed dredging sites, stormwater outfalls)
- Within the same waterbody and no more than three (3) river miles from the Project Site
- In a location having the presence of a similar mussel population and assemblage
- In a location having no barriers to reproduction or dispersal
- Recipient site (habitat) equal or similar than the impact site
- Suitable space for settlement to avoid overcrowding and competition with resident mussels

Based on the FMS Survey (**Appendix 9**) live mussels are present at 11 locations or sections of the overall survey area along the shoreline of the Project Site. Dredging activities in connection to the Project are limited to the FSM Sections 9, 10 and 11 as shown on **Figure 3-2**. Therefore, due to the comparable mussels' presence and assemblage, FSM Sections in the Hudson River not to be impacted by the Project are considered suitable areas where mussels can be relocated. These locations are ideal due to its similar conditions, proximity to the Project and minimize the holding time for the mussels.

Prior relocation activities, the qualified consultant would carry out an underwater reconnaissance (spot checks) to document pre-relocation conditions. The information gathered would be utilized to determine

[9] https://www.dec.ny.gov/docs/wildlife_pdf/musselsurveyguide.pdf

appropriate mussel placement location areas within the recipient sites. After divers have verified the suitability of the relocation area(s), the areas would be marked at the surface to assist the relocation crew with mussel distribution. Findings would be summarized in a Mussels Pre-Relocation Report would be prepared and submitted to the agencies for documentation purposes.

6.3.3 Collection and Relocation of Mussels

The mussel relocation efforts would be conducted in coordination with the dredging and site development phases. It is anticipated that the mussel relocation would be conducted outside the dredging work window and following the final determination of the suitable relocation areas within FMS Sections 1 to 8, and portion of FSM Section 11. The relocation team would mobilize prior any in-water work construction activities to complete the collection subject mussels within the dredging zone and relocation of these within the designated suitable relocation areas.

A combination of wading and diving would be necessary in order to adequately execute the relocation of the subject mussels. Several factors may limit the overall relocation activities, such as turbidity and underwater visibility, and safety conditions.

The qualified personnel (mussel relocation expert) would conduct and supervise the overall mussel relocation activities. An effort would be made to survey and monitor the progress of the relocation activities.

The mussels would be gently removed, kept cool (at ambient conditions), leave in water or moist, and quickly transported to the designated suitable relocation area. Extreme fluctuations in temperature or other environmental factors would be avoided. Specific relocation activities include:

- Relocation activities would take place when the water temperature exceeds 55°F and air temperature exceeds 50°F
- Divers would thoroughly search each of the impact areas, removing all unionids encountered
    - Dive team would collect mussels in grid cells, diminishing returns.
    - Divers would place two parallel collecting lines (i.e., weighted rope) along the edge of the footprint spaced approximately three (3) feet apart and would crawl along the line and collect unionids within an arms-reach within the lines (+/- 3 feet), disturbing all substrate and debris and placing unionids in a mesh collecting bag.
    - Divers would traverse the line a second time to ensure double coverage and that the majority of unionids have been collected. One line would then be moved another three (3) feet and parallel to one line, and the process alternated (lines leap frogging each other) and repeated until the entire area is thoroughly searched twice.
    - All collected unionids would be placed into mesh bags and retrieved by the surface dive tenders.
- Mark mussels and sort according to relocations areas and Record Data
    - All collected unionids would be placed into mesh bags and retrieved by the surface dive tenders.
    - Bags would be labeled with the area, time searched, date, and diver.

  - Unionids would be sorted into species (and invasive species mussels removed if encountered).
- Transport mussels as soon as possible to designated suitable relocation areas
  - Unionids would be transported between the collection and relocation areas by boat in a flow through live well containing river water.
  - Animals would only be exposed to air briefly (less than five (5) minutes) during processing.
- Mussels would be correctly placed within the relocation area
  - The number and species of mussels being relocated would be documented.
  - Mussels to be relocated mainly consists of *L. fragilis* and it is expected to be placed by hand in a natural position. However, if allowed by site conditions and permitted by the NYSDEC, animals would be spread from a shallow draft vessel as it is navigating slowly through FSM Section 1 to 8, with the goal of scattering them evenly throughout the designated area.

6.3.3.1 Modifications to Methodology Approach

During the relocation activities modifications to field methodology could be required, based on additional discoveries or unforeseen conditions such as changes in bottom composition, conditions not previously detected due to high turbidity levels. Methodology could also be adjusted (in coordination with USACE and NYSDEC) by the selected consultant based on other successful transplanting approached using in similar mitigations.

6.3.4 Mussels Relocation Completion Report and Monitoring

The details of the mussel relocation activities would be provided in a Mussels Relocation Completion Report. The documented activities would include:

- Results of the initial project area surveying activities
- The relocation area characteristics and details
- Mussel collection, transport and relocation activities
- Limiting factors, as applicable

APDC would conduct monitoring of relocation areas between two (2) and one (1) month post relocation, and if needed one (1) year following relocation. The first monitoring effort would focus on ensuring that mussels generally survived relocation and were able to burrow into the substrate at the relocation sites. The second monitoring effort would focus on verifying survival through the first year. Results would be incorporated into Mussels Relocation Monitoring Report. Details for each event follow:

- First Monitoring Event
  - Divers would perform a visual inspection to the extent possible to qualitatively assess whether it appears that the majority of relocated mussels have burrowed into the substrate.

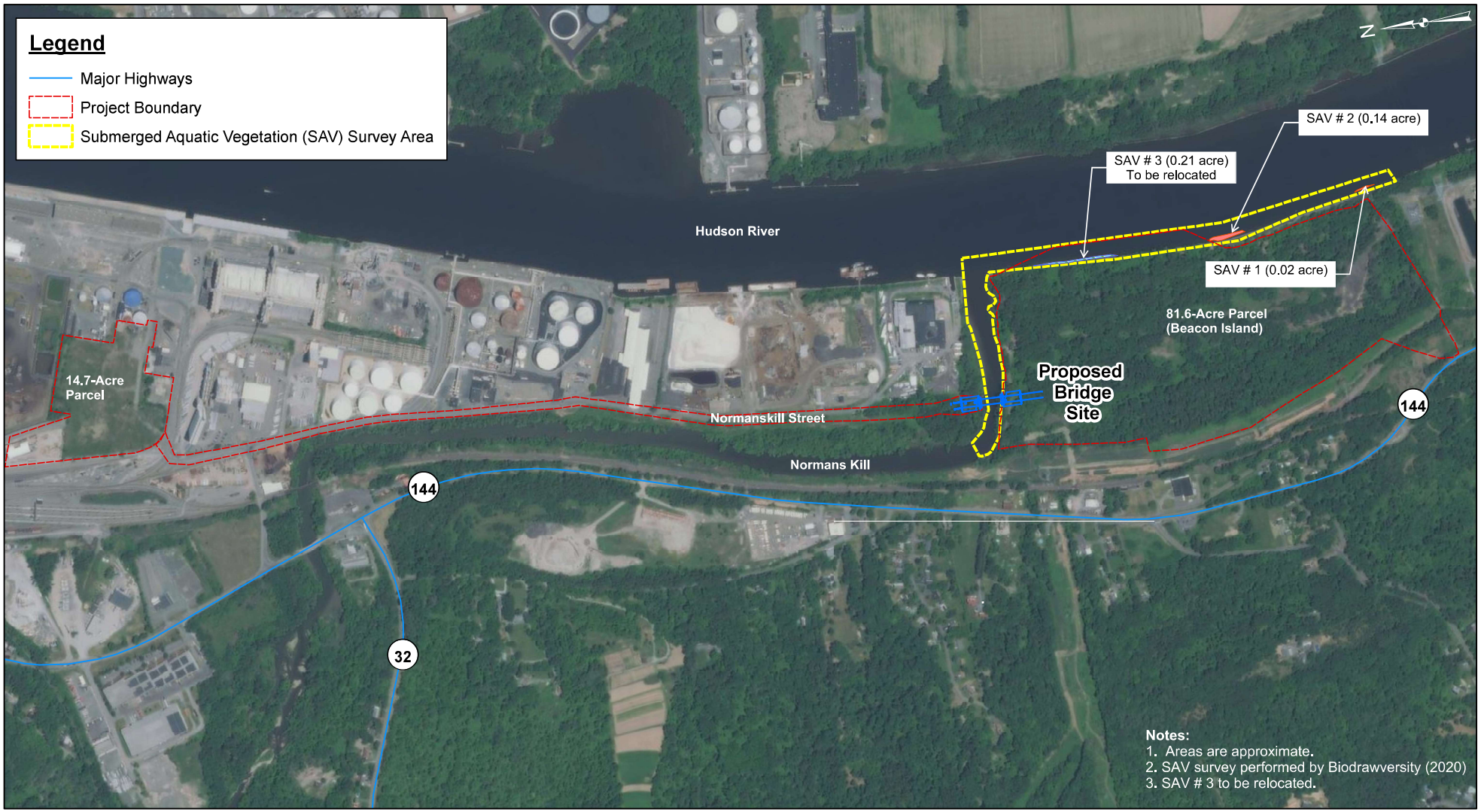
- A sample of marked mussels would be collected from substrate, taken to the water surface and assessed for mortality

- Second Monitoring Event (if needed)
  - A diver would perform a qualitative search a representative number of relocated (marked) mussels have been collected. All mussels collected would be identified and determined to be living or dead. The relocation would be determined to be successful if the overall average mortality of all relocation sites is below 15 percent.
    - If relocation failure is revealed, the APDC would investigate potential measures for remedying the failure and loss of ecological function, in coordination with the NYSDEC.

6.4 MITIGATION TO OFFSET POTENTIAL IMPACTS TO SHORTNOSE STURGEON HABITAT

Overall, the habitat to be affected by the Project is expected to be small compared to existing available habitat along the Hudson River. According to the Sediment Sampling Analysis, the proposed dredging will occur over a substrate consisting of silty clay, sand and some trace of gravel, including Class C sediments. The proposed mechanical dredging would remove of approximately 105,000 cubic yards containing concentrations of pesticides and PCBs contributing to the cleanup of the Hudson River.

Moreover, the APDC is committed to contribute and maintain collaborative actions with NYSDEC in finding a potential mitigation (e.g., restoration) project in accordance with The Hudson River Comprehensive Restoration Plan that could serve as mitigation for habitat modification due to dredging impacts. This mitigation project is expected to be defined, including required contribution from APDC, within one year from the date of the 401 Water Quality Certificate is issued by NYSDEC.



0 620 1,240
Feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
SAV Survey Area, Proposed Bridge, Project Boundary and Property Boundary data provided by McFarland Johnson

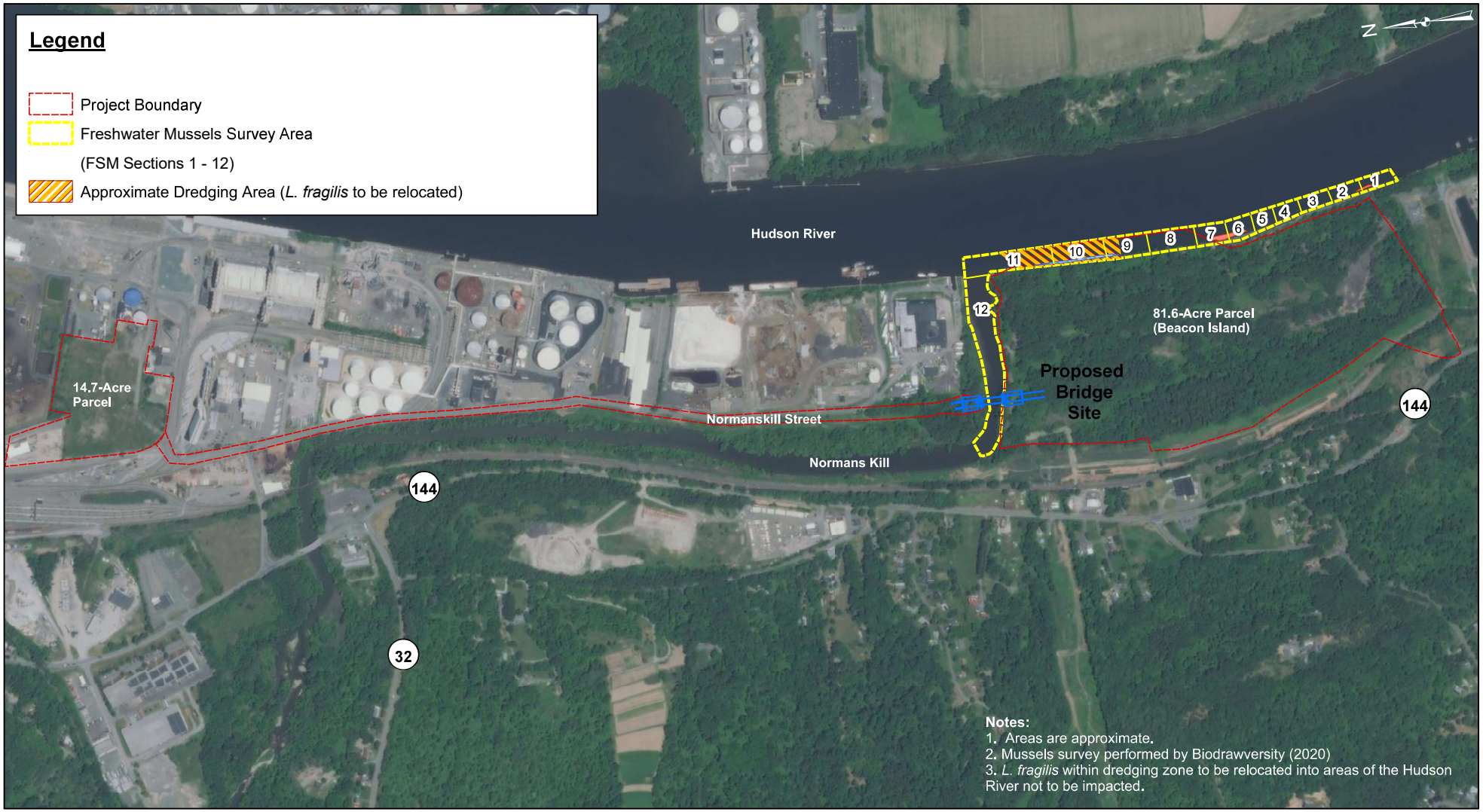
ALBANY PORT DISTRICT COMMISSION
BETHLEHEM, NEW YORK

SAV Areas

SCALE :	DATE :	FIGURE :
AS SHOWN	JULY 2021	3-1

McFarland Johnson

N:\18641.00 Albany Port Expansion\Draw\GIS\SAV Areas.mxd



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Feet

Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
SAV Survey Area, Proposed Bridge, Project Boundary and Property Boundary data provided by McFarland Johnson

ALBANY PORT DISTRICT COMMISSION
BETHLEHEM, NEW YORK

Mussels Survey Area

SCALE :	DATE :	FIGURE :
AS SHOWN	JULY 2021	3-2

McFarland Johnson

N:\18641.00 Albany Port Expansion\Draw\GIS\SAV Areas and Dredging Zones.mxd

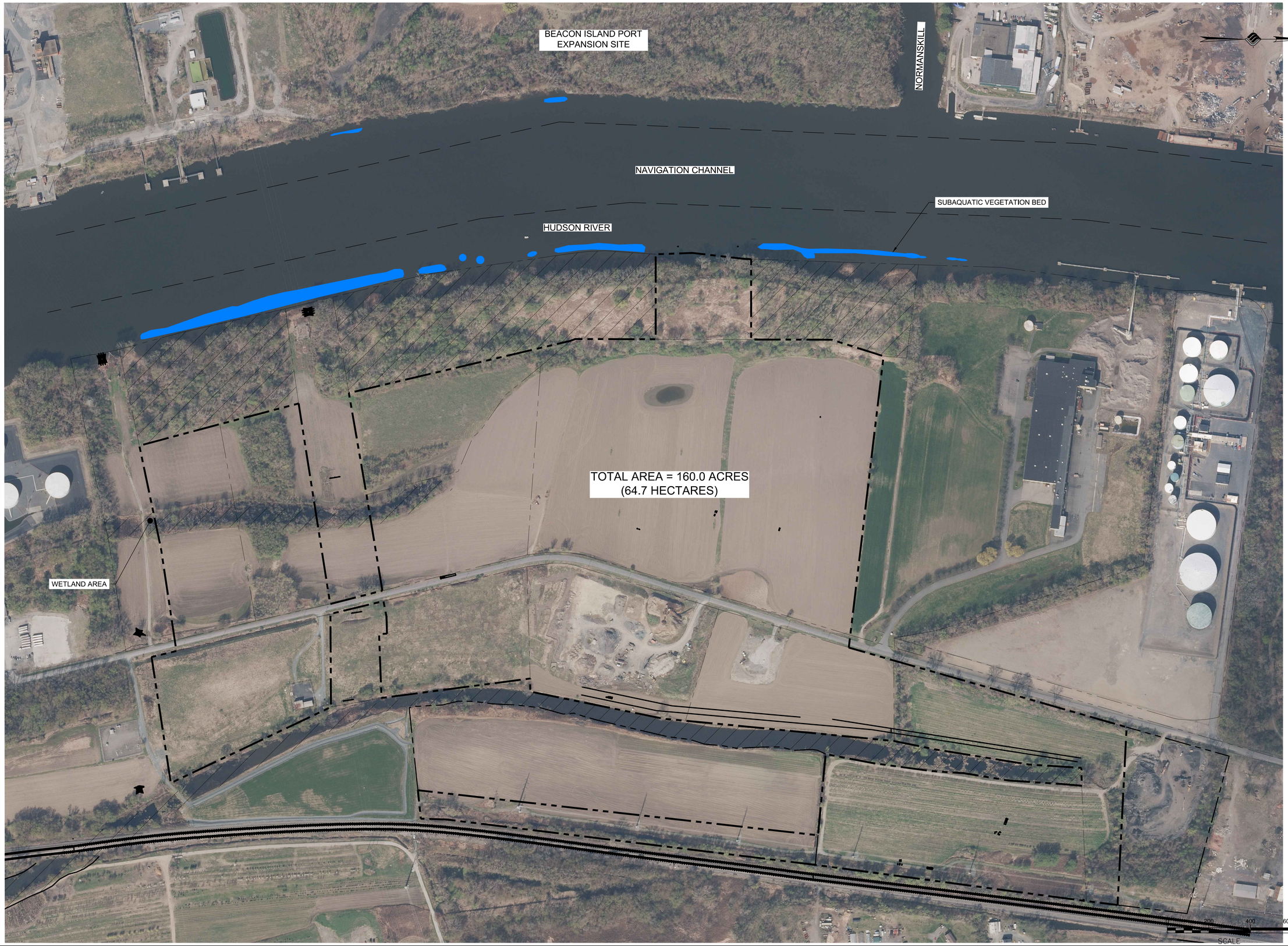
Exhibit 6: Alternate Site

PORT OF ALBANY

Joint Permit Application Package
Albany Port District Commission

Port of Albany Expansion Project

McFarland Johnson



McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

CLIENT: ALBANY PORT DISTRICT COMMISSION

PROJECT: BETHLEHEM, NEW YORK

DRAWN	NSO
DESIGNED	NSO
CHECKED	SMB
SCALE	1"=200'
DATE	SEPTEMBER 2020
PROJECT	18572.00

DRAWING TITLE

DRAWING NUMBER

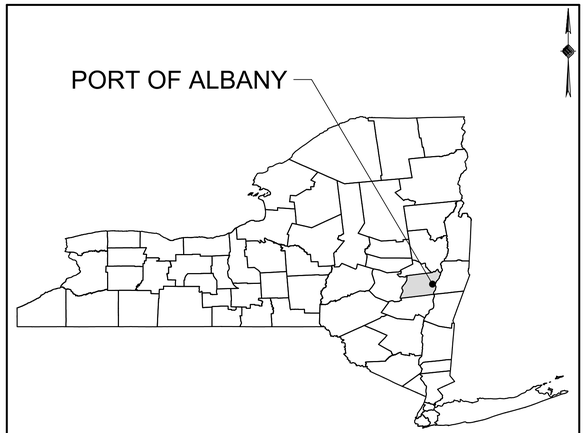
G-01

Exhibit 7: Previous Conceptual Layouts

Joint Permit Application Package
Albany Port District Commission

Port of Albany Expansion Project

ALBANY PORT DISTRICT COMMISSION
PORT OF ALBANY EXPANSION

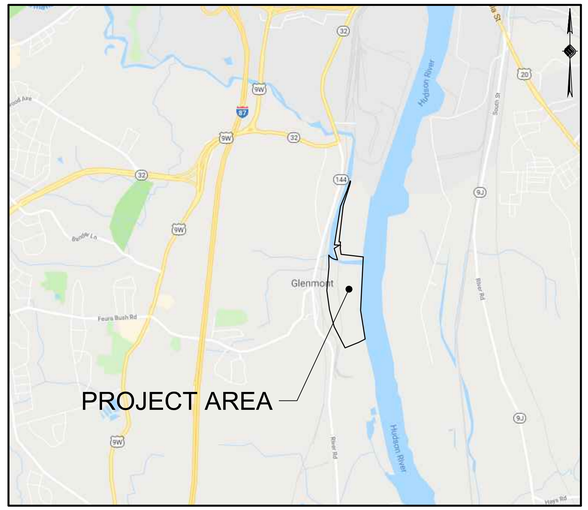


LOCATION MAP

JUNE 2019

TOWN OF BETHLEHEM
COUNTY OF ALBANY
NEW YORK

SITE LAYOUT CONCEPTS



VICINITY MAP

PREPARED FOR:

PORT OF ALBANY

ALBANY PORT DISTRICT COMMISSION
106 SMITH BOULEVARD
ALBANY, NEW YORK
(518) 463-1568
WWW.PORTOFALBANY.US

UTILITY CONTACTS

WATER/ SEWER/ STORM/ ROADS
TOWN OF BETHLEHEM DEPARTMENT OF PUBLIC WORKS
GEORGE S. KANSAS, P.E., COMMISSIONER
445 DELAWARE AVENUE
DELMAR, NY 12054
(518) 439-4955

NYSDOT REGION 1
MARK PYSKADIO, P.E. , REGIONAL TRAFFIC ENGINEER
50 WOLF ROAD
ALBANY, NY 12232
(518) 457-5283

FIRE DEPARTMENT
JOE MICHANIW, FIRE CHIEF
301 GLENMONT ROAD
GLENMONT, NY 12077
(518) 436-8203

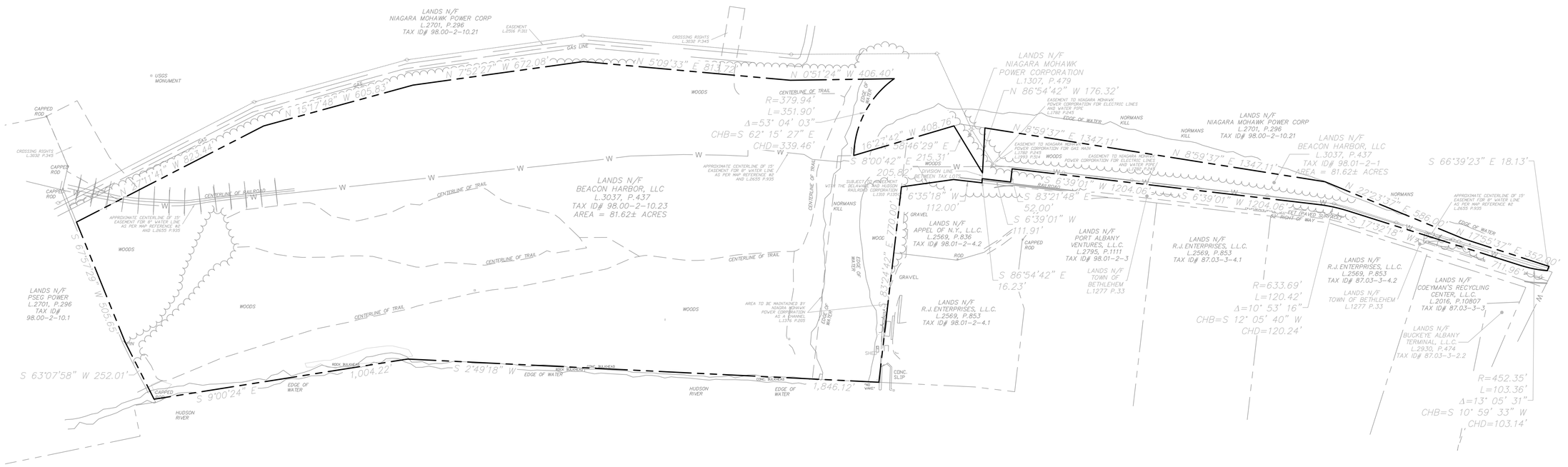
BUILDING DEPARTMENT
JUSTIN HARBINGER, BUILDING INSPECTOR
445 DELAWARE AVENUE
DELMAR, NY 12054
(518) 439-4955

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
--	COVER SHEET
G-01	SURVEY
G-02	TOPOGRAPHY
G-03	CONCEPT A
G-04	CONCEPT B
G-05	CONCEPT C
G-06	CONCEPT D
G-07	CONCEPT D.1

PREPARED BY:

McFarland Johnson
60 RAILROAD PLACE, SUITE 402
SARATOGA SPRINGS, NEW YORK 12866

18437.00



GENERAL NOTES:

1. THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THESE PLANS HAVE BEEN PLOTTED FROM A SURVEY PREPARED BY MASER CONSULTING P.A. 18 COMPUTER DRIVE EAST SUITE 203, ALBANY, NY 12205. DATED SEPTEMBER 28, 2018 AND AVAILABLE SURVEYS AND RECORD MAPS BY OTHERS. MCFARLAND JOHNSON DOES NOT CERTIFY TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES FIELD STAKED BEFORE STARTING WORK BY CALLING 1-800-962-7962.

0 200 400 600 FT

SCALE

PLANNING BOARD ENDORSEMENT

McFarland Johnson
60 RAILROAD PLACE
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mjinc.com

PROJECT MILESTONE
CONCEPT SITE PLAN

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION

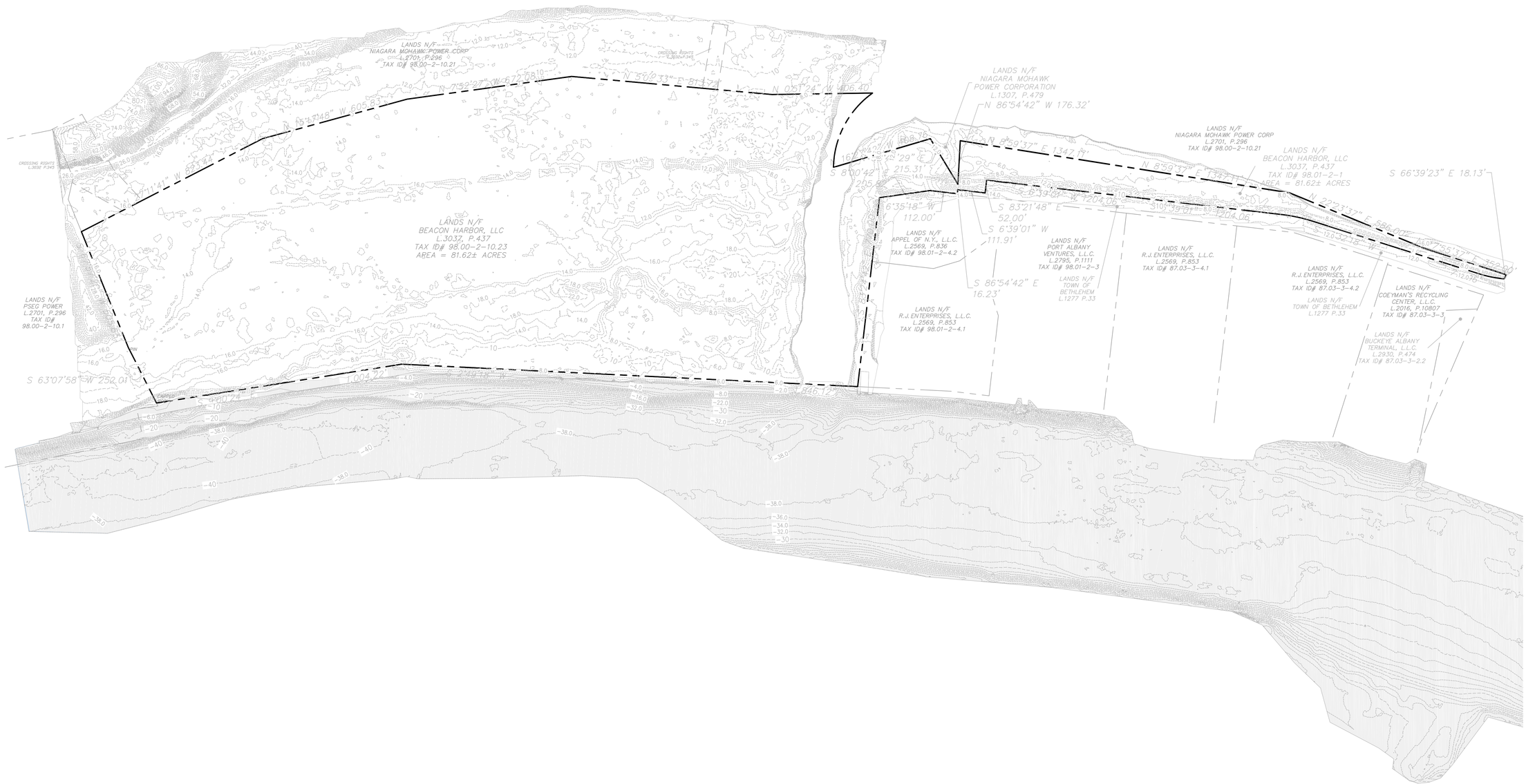
BETHLEHEM, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	NTS
DATE	MAY 2019
PROJECT	18437.00

DRAWING TITLE
BOUNDARY SURVEY

DRAWING NUMBER
G-01



LEGEND

PROPERTY LINE

HUDSON RIVER BATHYMETRY

GENERAL NOTES:

1. THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THESE PLANS HAVE BEEN PLOTTED FROM A SURVEY PREPARED BY MASER CONSULTING P.A. 18 COMPUTER DRIVE EAST SUITE 203, ALBANY, NY 12205. DATED SEPTEMBER 28, 2018 AND AVAILABLE SURVEYS AND RECORD MAPS BY OTHERS. MCFARLAND JOHNSON DOES NOT CERTIFY TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES FIELD STAKED BEFORE STARTING WORK BY CALLING 1-800-962-7962.

0 200 400 600 FT

SCALE

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PROJECT MILESTONE

CONCEPT DESIGN

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION

BETHLEHEM, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION

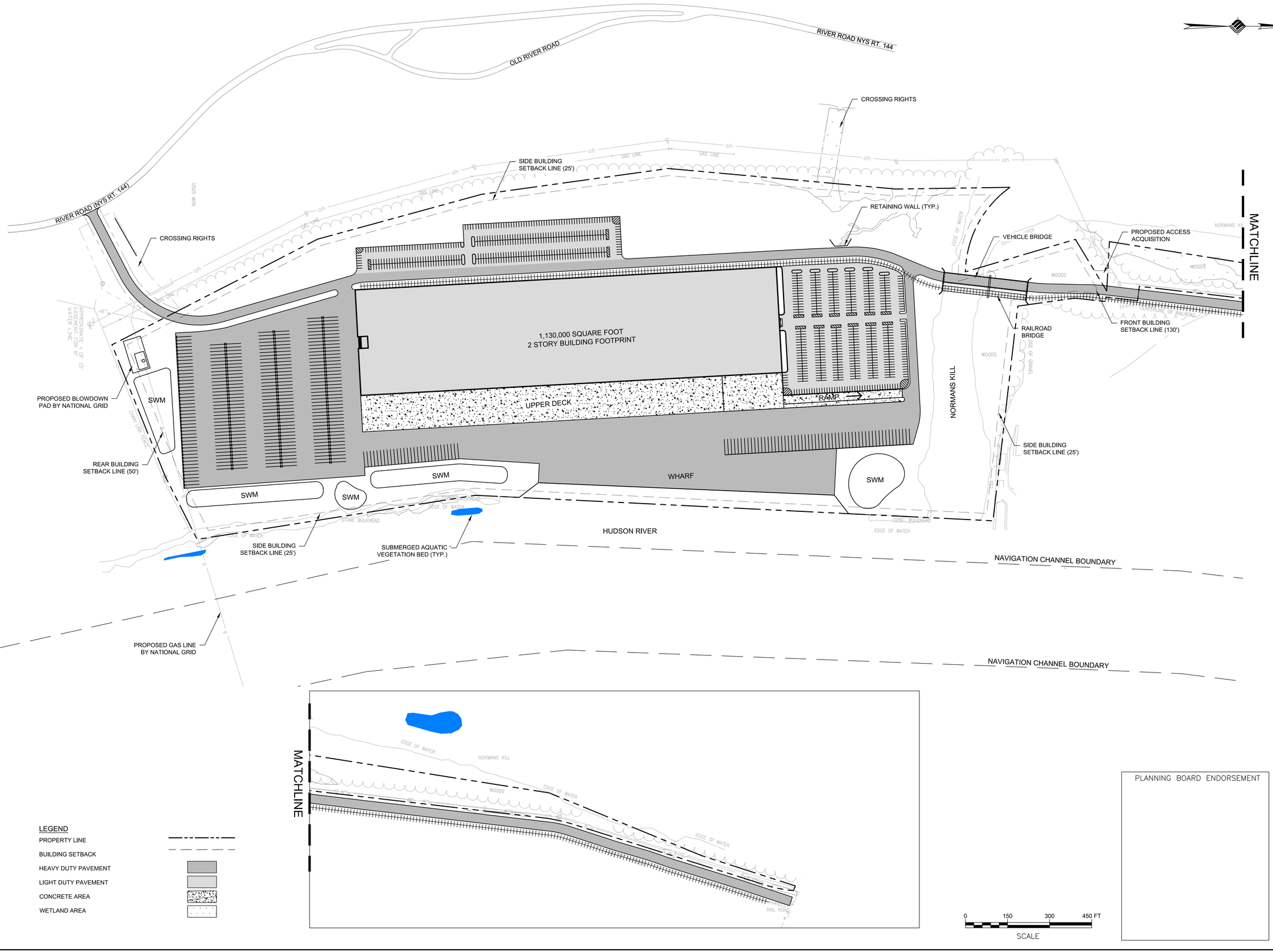
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=200'
DATE	JUNE 2019
PROJECT	18437.00

DRAWING TITLE

TOPOGRAPHY

DRAWING NUMBER

SURV-02



LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- HEAVY DUTY PAVEMENT
- LIGHT DUTY PAVEMENT
- CONCRETE AREA
- WETLAND AREA

PLANNING BOARD ENDORSEMENT

McFarland Johnson
60 RAILROAD PLACE
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PROJECT MILESTONE
CONCEPT SITE PLAN

NO.	DATE	DESCRIPTION

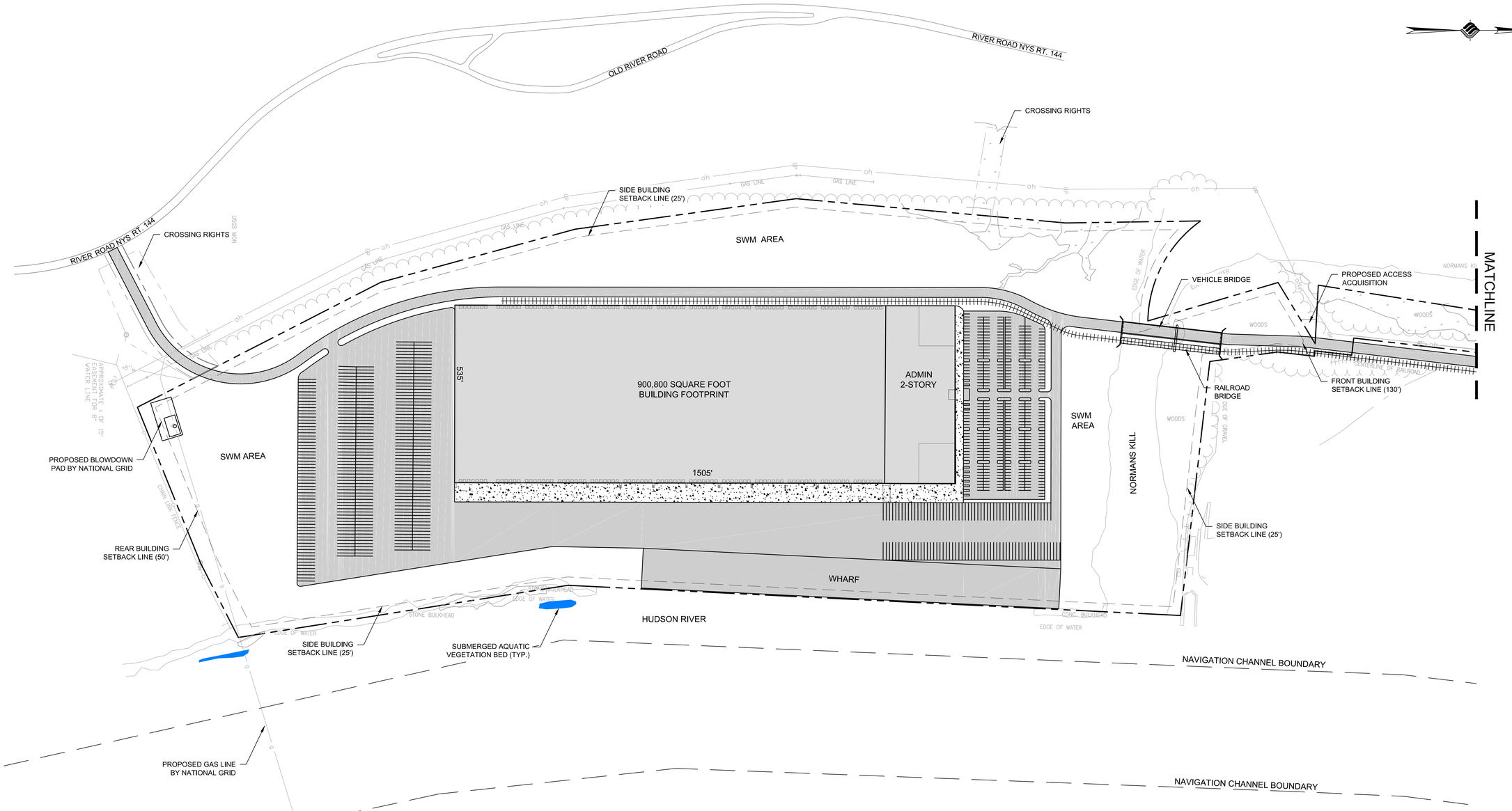
CLIENT: ALBANY PORT DISTRICT COMMISSION

PROJECT: PORT OF ALBANY EXPANSION
BETHLEHEM, NEW YORK

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	NOT TO SCALE
DATE	MAY 2019
PROJECT	18437.00

DRAWING TITLE
CONCEPT A

DRAWING NUMBER
G-03



LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- PAVEMENT AREA
- CONCRETE AREA
- WETLAND AREA

IN ASSOCIATION WITH:
LOUIS BERGER GROUP, INC.

0 150 300 450 FT
SCALE

PLANNING BOARD ENDORSEMENT

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
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PROJECT MILESTONE
CONCEPT SITE PLAN

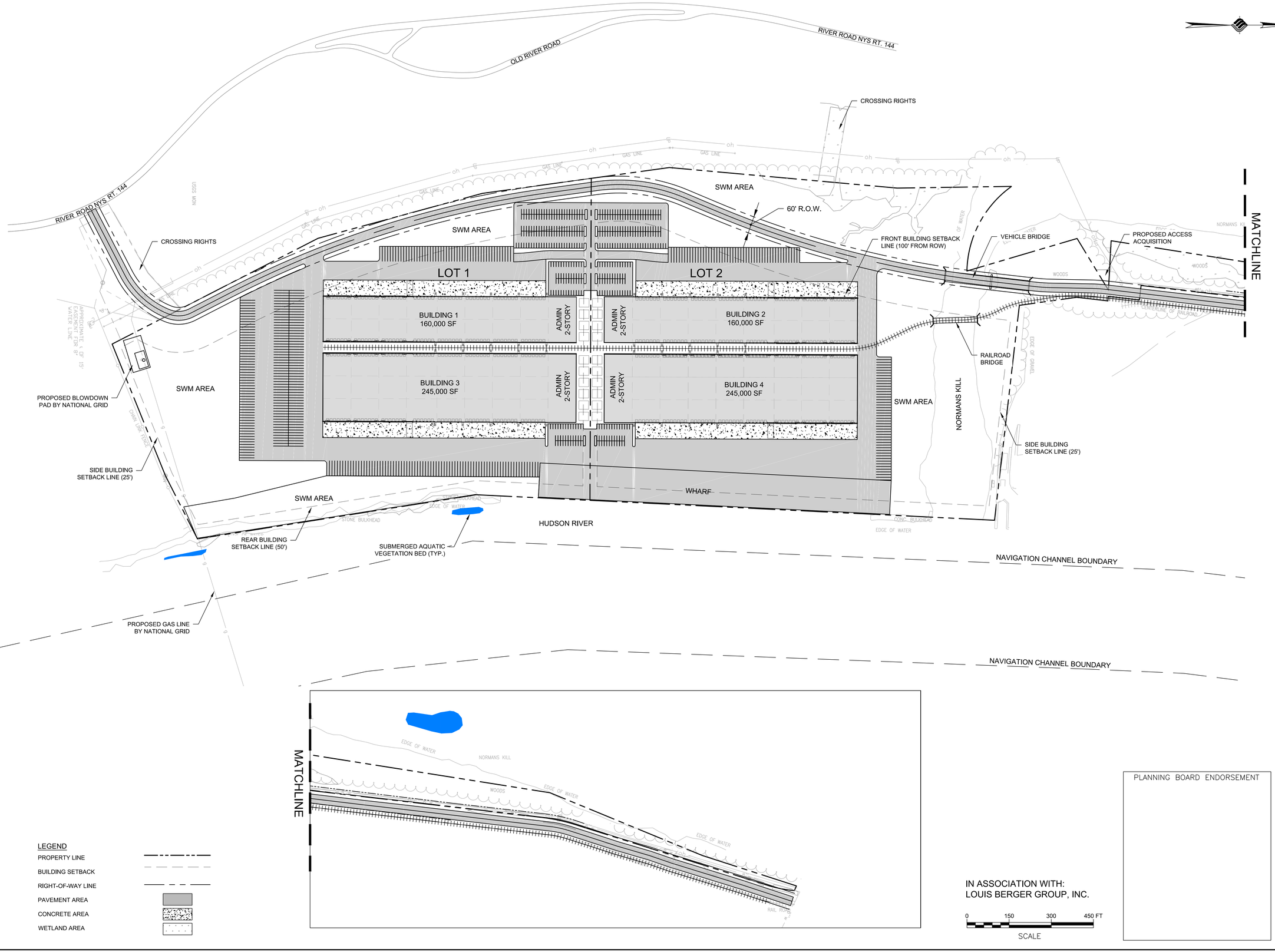
NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION
BETHLEHEM, NEW YORK
PROJECT: PORT OF ALBANY EXPANSION

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	NOT TO SCALE
DATE	JUNE 2019
PROJECT	18437.00

DRAWING TITLE
CONCEPT B

DRAWING NUMBER
G-04



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PROJECT MILESTONE
CONCEPT SITE PLAN

NO.	DATE	DESCRIPTION

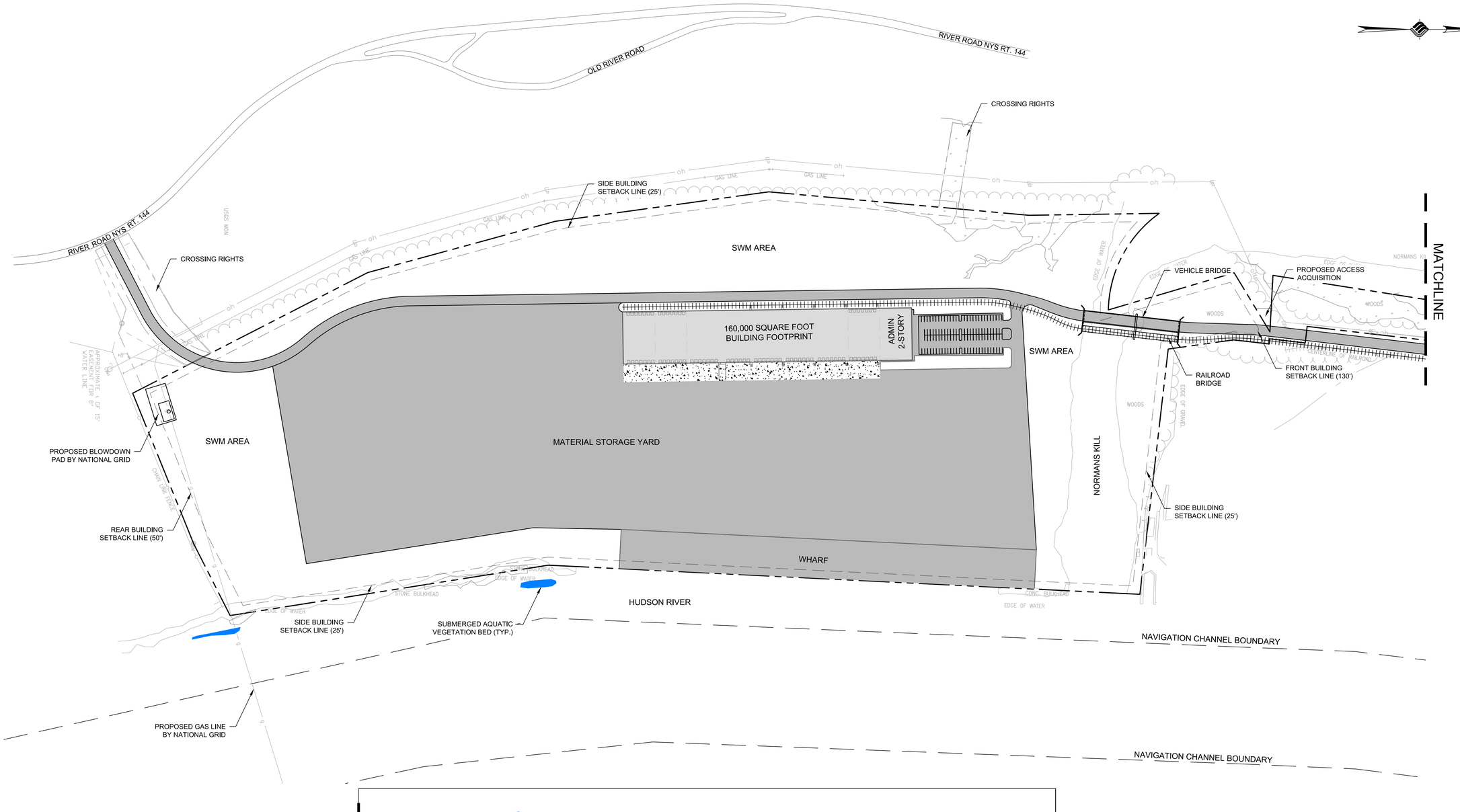
CLIENT: ALBANY PORT DISTRICT COMMISSION

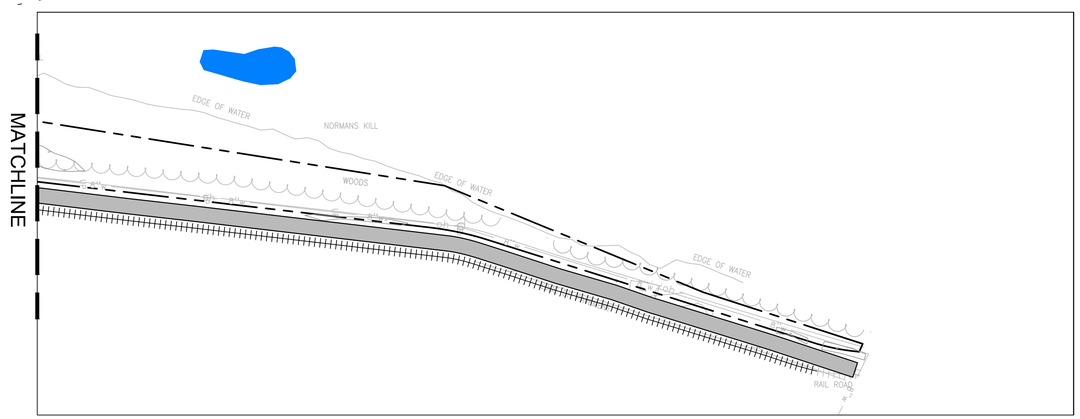
PROJECT: PORT OF ALBANY EXPANSION
BETHLEHEM, NEW YORK

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	NOT TO SCALE
DATE	JUNE 2019
PROJECT	18437.00

DRAWING TITLE
CONCEPT C

DRAWING NUMBER
G-05





LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- PAVEMENT AREA
- CONCRETE AREA
- WETLAND AREA

IN ASSOCIATION WITH:
LOUIS BERGER GROUP, INC.

0 150 300 450 FT
SCALE

PLANNING BOARD ENDORSEMENT

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
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PROJECT MILESTONE
CONCEPT SITE PLAN

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION

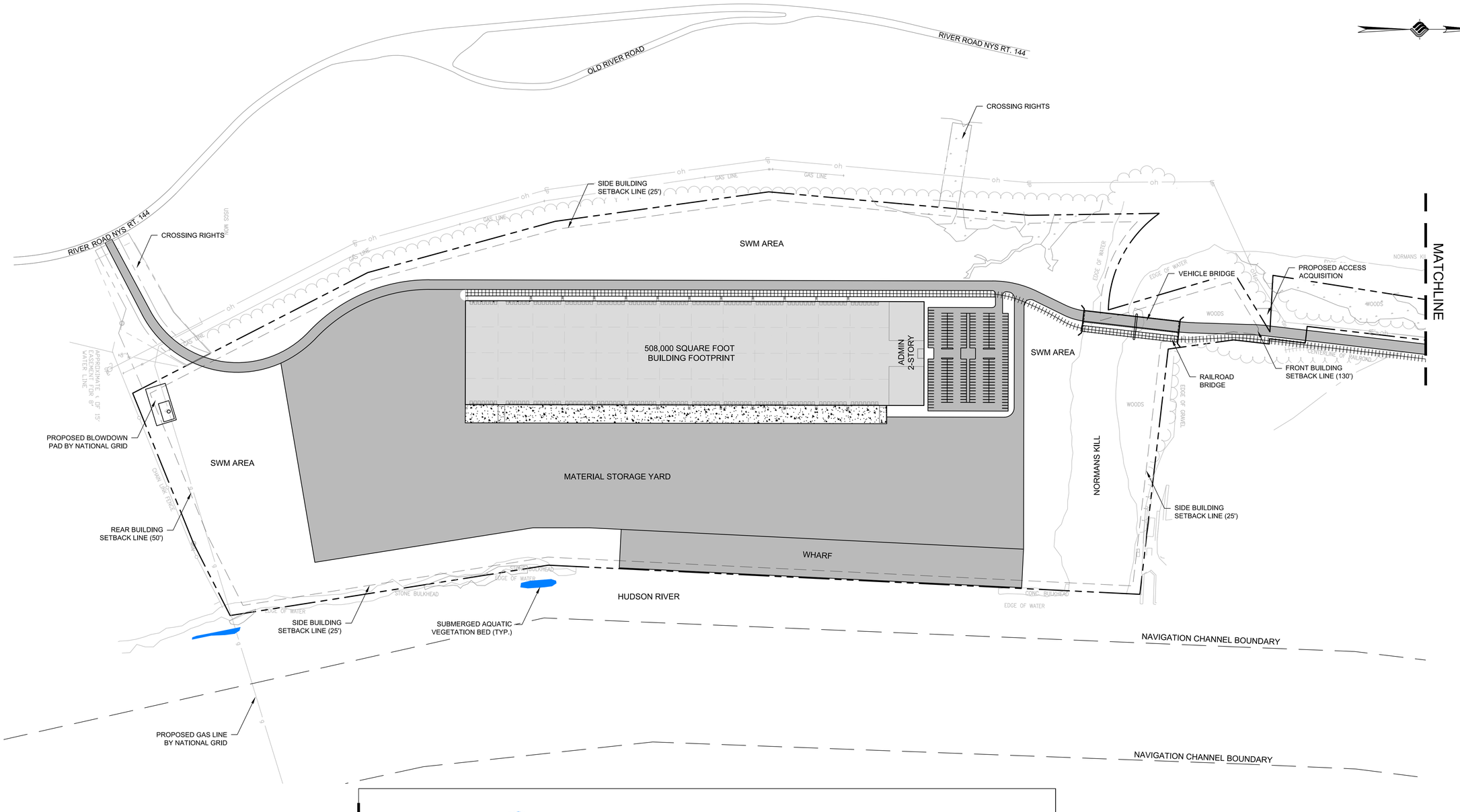
BETHLEHEM, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	NOT TO SCALE
DATE	JUNE 2019
PROJECT	18437.00

DRAWING TITLE
CONCEPT D

DRAWING NUMBER
G-06



LEGEND

- PROPERTY LINE
- BUILDING SETBACK
- PAVEMENT AREA
- CONCRETE AREA
- WETLAND AREA

IN ASSOCIATION WITH:
LOUIS BERGER GROUP, INC.

0 150 300 450 FT
SCALE

PLANNING BOARD ENDORSEMENT

McFarland Johnson
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SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
CONCEPT SITE PLAN

NO.	DATE	DESCRIPTION

CLIENT: ALBANY PORT DISTRICT COMMISSION

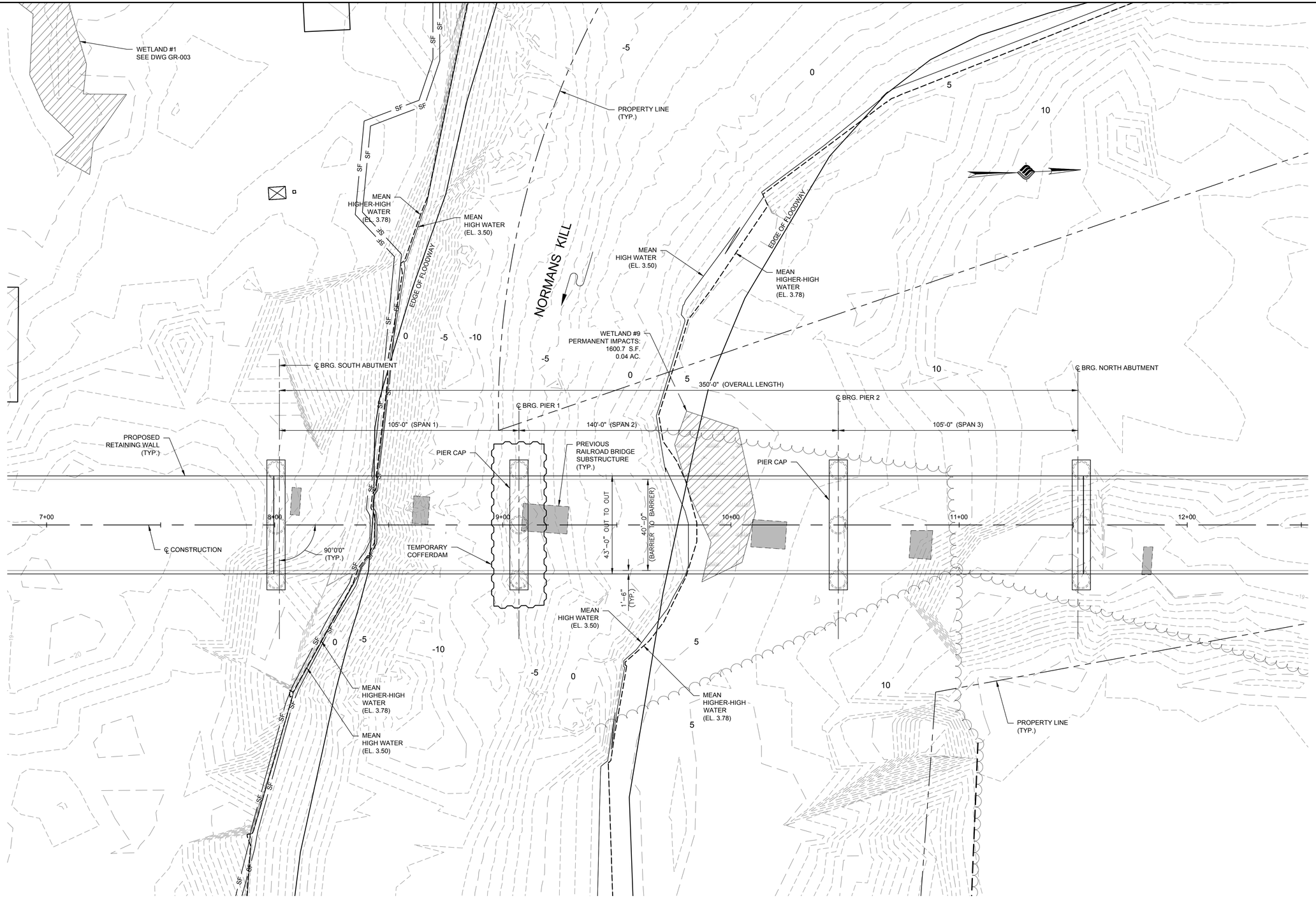
BETHLEHEM, NEW YORK

PROJECT: PORT OF ALBANY EXPANSION

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	NOT TO SCALE
DATE	JUNE 2019
PROJECT	18437.00

DRAWING TITLE
CONCEPT D.1

DRAWING NUMBER
G-07



LEGEND

PROPERTY LINE		SILT FENCE	SF
EXISTING RAIL LINE		TURBIDITY CURTAIN	TC
EXISTING TREE LINE		WETLAND AREA	
DITCH CENTERLINE		WETLAND AREA PERMANENT IMPACTS	
ROADSIDE SWALE			

GENERAL PLAN

SCALE: 1" = 20'

0 20 40 60 FT

SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE

PERMIT PLANS

NO.	DATE	DESCRIPTION

CLIENT:
ALBANY PORT DISTRICT COMMISSION

ALBANY, NEW YORK

PROJECT:
PORT OF ALBANY SITE INFRASTRUCTURE IMPROVEMENTS

DRAWN	SLM
DESIGNED	JLR
CHECKED	RLJ
SCALE	1" = 20'
DATE	XXXXX 2021
PROJECT	18461.00

DRAWING TITLE

BRIDGE
GENERAL PLAN

DRAWING NUMBER

ST-01

N:\18461.00 ALBANY PORT EXPANSION\DRAWING\DRAWINGS\SHEET FILES - BRIDGE PERMIT PLANS\SUBSHEEDED\18461.00-B-GEN-LAYO 3 SPAN 105-140-105.DWG