Former Adirondack Steel Site
Operable Units 1, 2, and 3
Albany County
Colonie, New York

Periodic Review Report
19 May 2023 – 19 September 2024
NYSDEC Site No. 401039
(Work Assignment No. D009806-34)

Prepared for

New York State Department of Environmental Conservation
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Albany, New York 12233

Prepared by

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February 2026
Version: FINAL
EA Project No. 16025-34-00-CP

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LIST OF ACRONYMS AND ABBREVIATIONS

%	Percent
CPR	Canadian Pacific Railroad
DER	Division of Environmental Remediation
EA	EA Engineering and Geology, P.C.
EC	Engineering control
EEE	Ecology and Environment Engineering, P.C.
IC	Institutional control
NWP	Nationwide Permit
NYSDEC	New York State Department of Environmental Conservation
OU	Operable unit
PCB	Polychlorinated biphenyl
PE	Professional Engineer
ppm	Part(s) per million
PRR	Periodic Review Report
RA	Remedial action
RAO	Remedial action objective
RI	Remedial investigation
ROD	Record of Decision
Site	Former Adirondack Steel Site
SMP	Site Management Plan

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ES. EXECUTIVE SUMMARY

The Former Adirondack Steel Site (Site No. 401039; hereinafter referred to as the Site) is located at 191 Watervliet-Shaker Road in Colonie, Albany County, New York (**Figure 1-1**). The Site is a New York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal site that requires continued site management consisting of operation, maintenance and/or monitoring.

The Site was a steel casting company that produced steel casting for various industrial customers. Transformers associated with the steel mill were the source of polychlorinated biphenyls (PCBs), which are understood to have impacted on-site soil through routine maintenance of transformers, poor handling of used fluids, and/or unauthorized scavenging. The property contains dilapidated, unoccupied buildings (two of which are on the Class 4 Site), foundation slabs of the original production buildings, deteriorating access roads, and emerging tree growth (**Figure 1-2**). The northern end of the property (outside of the Site boundary) contains a 9-acre landfill that received spent foundry and core sands, furnace slag and refractories, and dust from collector furnace and slag. The Site was divided into three operable units (OUs): OU-1 (0.4 acres on-site), OU-2 (2.1 acres off-site), and OU-3 (3.8 acres on-site).

An Emergency Removal Action was initiated in 1993 by the U.S. Environmental Protection Agency, in which contaminated soil was excavated from around the north transformer pad and stored in a secured warehouse building on-site. A second interim remedial measure was performed in OU-1 to excavate and dispose of PCBs and volatile organic compound source areas from the immediate vicinity of the Former Noth Power Station and Metal Building. OU-1 remedial work was completed, and a No Further Action Record of Decision (ROD) was signed on 31 March 2010 (NYSDEC 2010a).

Remedial investigations were conducted in OU-2 and OU-3 from 2005 to 2014. These investigations identified widespread PCB contamination in surface and subsurface soils, sediments in the adjacent creek, and off-site drainage swale. Concentrations ranged from 0.1 to greater than 1,000 parts per million. A ROD for OU-3 was signed in March 2015, and a ROD for OU-2 was finalized in March 2016. The RODs called for excavation and off-site disposal of PCB-contaminated soil, sediment, and fill, followed by backfilling of the excavation with clean fill. The RODs established the following Remedial Action Objectives (RAOs) for the Site:

- Prevent ingestion/direct contact with contaminated soil, surface water, and sediment.
- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts of biota from ingestion/direct contact with soil, surface water, and sediment causing toxicity or impacts from bioaccumulation through the terrestrial food chain.
- Restore surface water to ambient water quality criteria for the contaminant of concern.

- Prevent releases of contaminants from sediments that would result in surface water levels in excess of ambient water quality criteria.

- Restore sediments to pre-release conditions to the extent feasible.

- Prevent contact or inhalation of contaminants from impacted water bodies.

The Remedial Action (RA), conducted between January 2022 and June 2023, removed PCB-impacted sediment and soil from OU-2 and OU-3. A total of 19,632 tons of impacted material were removed from the Site. The Site is now maintained under a Site Management Plan (SMP) (EA 2023a), which outlines the controls established to meet the RAOs.

Residual contamination in the subsurface soil is being managed under an SMP, which outlines the controls established to meet the RAOs. Because remaining contaminated soil exists in an area of the Site, Engineering Controls (ECs)/Institutional Controls (ICs) are required to protect human health and the environment. EC systems at the Site include: the soil cover system and site access controls. Site management consists of the following:

- Annual sitewide inspections
- Semi-annual inspection of Gas House Creek Corridor
- Semi-annual inspection of the OU-2 Drainage Channel
- Annual wetland inspection (2024-2028).

Table ES-1. Site Summary (NYSDEC Site No. 401039)

Category	Summary/Results
ICs:	1. The property may be used for: • "Industrial Use" as defined in NYSDEC Regulations Title 6 of the New York Codes, Rules, and Regulations Part 375 – 1.8(g)(2)(iii) and (iv).
	2. ICs for the site are: • The Owner shall perform excavation or ground disturbance in the remedial area in accordance with the excavation work plan (EA 2023a). • The Owner shall prohibit the property from use for purposes other than commercial or industrial uses as described in 6 New York Codes, Rules, and Regulations Part 375-1.8(g)(2)(iii and iv). • The Owner shall prohibit the use of groundwater underlying the property without treatment as determined by the New York State Department of Health or Albany County Department of Health rendering it safe for drinking water or industrial purposes; and the Owner must first notify and obtain written approval from NYSDEC. • The Owner shall protect wetland mitigation areas to prohibit activities including construction, grading, filling, excavating, ditching, and draining, as well as the removal, cutting, mowing, burning, or harming of vegetation unless otherwise approved by both U.S. Army Corps of Engineers and NYSDEC. • The Owner shall continue any required institutional and engineering controls unless expressed permission is obtained from the relevant agency. • The Owner shall provide an annual certification that the institutional and engineering controls are still in place. • The Owner shall provide access to the property for agents, employees, or other representatives of the State of New York to assume compliance with the 2015 Environmental Easement.

Table ES-1. Site Summary (NYSDEC Site No. 401039)

Category	Summary/Results
	• Maintain site cover including structures such as buildings, pavement, sidewalks, concrete slabs, etc. These cover systems include portions of OU-1 and OU-3 where subsurface investigation was not possible due to site conditions. Demolition or disruption of these cover systems will require further characterization to refine the nature and extent of contamination including: – The Power House/North Pattern Storage Building if and when the building is demolished. – Storage Building 2 (Metal Building) if and when the building is demolished. – The existing concrete pad of the former furnaces and forge shop building if demolished.
	3. ECs must be inspected at a frequency and in a manner defined in the SMP.
ECs:	1. Site Cover across all OUs includes • Former furnace shop slab and slab of metal building and former north power station. • A minimum of 2 ft of clean backfill/restoration materials was placed over PCBs remaining in subsurface soils in OU-3. • Concrete cover installed in OU-2 drainage channel. 2. Site Access Controls including fencing along the eastern boundary of OU-3 and 1024 Barker Lane to restrict access to OU-2.

Table ES-2. Inspections, Monitoring, Maintenance, and Reporting Frequency

Inspections	Responsible for Certifying	Frequency
1. OU-1 and OU-3 Inspection	Owner	Annually; post major storm event as needed
2. Gas House Creek Corridor Inspection	EA	Semi-annually; post major storm event as needed
3. Operable Unit 2 Drainage Channel Corridor Inspection	EA	Semi-annually; post major storm event as needed
4. Wetland Monitoring	EA	Annually, and after major storm events as needed, for a period of five years (2024-2028)
5. Cover System Restoration	Owner	Annually inspected; as needed restoration
6. Phragmites Management	EA	Annually inspected; management (as needed)
7. Fencing/Access Control System	Owner	Annual inspected, maintenance (as needed)
Reporting	**Responsible for Reporting**	**Frequency**
Inspection Report	EA/Owner	Annually
Wetland Report	EA	Annually
Periodic Review Report	EA	Every three years

This Periodic Review Report summarizes site management activities completed at the Site from 19 May 2023 through 19 September 2024. Based on activities completed during this period, the site use and activities are in compliance with the SMP requirements, and the ICs/ECs remaining in-place are effective in protecting public health and the environment. The Owner has certified that all ICs and ECs they are responsible for are still in place. EA certified all ICs are in compliance, evaluated the integrity of the cover systems, ensured that wetland and riparian buffer areas are appropriately maintained, and conducted wetland monitoring.

The recommendations for the Site following the completion of this Period Review Report include the installation of deer protection around any existing surviving tree or shrub to ensure survivability.

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1. INTRODUCTION

EA Engineering and Geology, P.C. (EA) was tasked by the New York State Department of Environmental Conservation (NYSDEC) under State Superfund Standby Contract Work Assignment Number D009806-34 to prepare a Periodic Review Report (PRR) for the Former Adirondack Steel Site (Site) (Site No. 401039) that covers activity from 19 May 2023 through 19 September 2024. The purpose of this PRR is to certify the engineering controls (ECs) and institutional controls (ICs) required by the remedy, report the results of the site inspection, and summarize and evaluate the remedy implemented at the Site, relative to the requirements of the Records of Decision (RODs) for all operable units (OUs). The No Further Action ROD for OU-1 was issued 31 March 2010 (NYSDEC 2010a). The ROD for OU-2 was approved in March 2016 (NYSDEC 2016), and the ROD for OU-3 is dated March 2015 (NYSDEC 2015). This report was prepared in accordance with the NYSDEC Division of Environmental Remediation (DER)-10, Technical Guidance for Site Investigation and Remediation (NYSDEC 2010b). This report was originally submitted in August 2025. This report was finalized upon receipt of the revised IC/EC certification form from NYSDEC on 3 December 2025.

1.1 SITE LOCATION, OWNERSHIP, AND DESCRIPTION

The Site, which has a Classification Code of 4 (Site Management), is a former steel mill located at 191 Watervliet-Shaker Road, Colonie, New York (**Figure 1-1**). The Former Adirondack Steel Site property is located on 4.25 acres (OUs 1 and 3) of the 38.5-acre former industrial property in a mixed industrial-residential area bounded on the south by Watervliet-Shaker Road, on the east by Canadian Pacific Railroad (CPR); and on the north and west by undeveloped and residential properties (**Figure 1-2**). The site has been divided into three OUs: OU-1 (0.4 acres on-site), OU-2 (2.1 acres off-site), and OU-3 (3.8 acres on-site).

OU-1 is comprised of the soil in the vicinity of the North Power Station and South Power Station where electrical equipment containing polychlorinated biphenyls (PCBs) and volatile organic compounds was maintained or damaged resulting in releases of fluid to the ground surface. These releases resulted in the contamination of the soil in three locations over a portion of the Former Adirondack Steel Site property. OU-1 included the former excavation areas near the former power station buildings and foundation slabs and was contained within the boundaries of OU-3. OU-1 remedial work was completed, and a No Further Action ROD was signed on 31 March 2010 (NYSDEC 2010a).

OU-2 contains the off-site channelized portion of Gas House Creek and a drainage ditch running south to north along the eastern boundary of the Adirondack Steel property. OU-2 is bordered to the west by the CPR right-of-way. The channelized stream and drainage ditch consists of a concrete- and rip-rap-lined swale extending the full length of the Site that conveys surface water runoff and discharge from OU-3. OU-2 begins at a point to the southeast of Lincoln Avenue/Watervliet Shaker Road and extends north past a road crossing for Barker Lane. The water in the ditch is stagnant in some locations but generally flows north starting at the confluence of Gas House Creek with the railroad ditch. At a point east of a residential area near Early Drive the ditch turns east and crosses below the CPR right-of-way. OU-2 contained PCB-contaminated sediments, with higher levels of contamination occurring near the confluence of Gas House Creek.

OU-3 is comprised of the on-site stream (Gas House Creek) and adjacent uplands consisting primarily of fill material and associated surface debris piles as well as the area around the former power station. It contained portions of the site with PCB-contaminated soil not included in OU-1. OU-1 is within the boundary of OU-3. To the west and north, OU-3 borders a large foundation slab of the former furnace and forge shot and other unused buildings, and CPR is adjacent to OU-3 to the east.

1.2 INVESTIGATION AND REMEDIAL HISTORY

Adirondack Steel Casting Company, Inc. produced steel castings for various industrial customers. The Site contained transformers associated with the steel mill that were the source of the known PCB contamination at the Site. A variety of tenants also occupied the property while it was known as the Adirondack Industrial Park. PCBs are understood to have reached soil at the Site through routine maintenance of transformers, poor handling of used fluids, and/or unauthorized scavenging. The property contains eight dilapidated and unoccupied buildings (two of which are on the Class 4 site), foundation slabs of the original production buildings, deteriorating access roads, and emerging tree growth (**Figure 1-2**). The northern end of the property (outside the Site boundary) contains a 9-acre landfill that received spent foundry and core sands, furnace slag and refractories, and dust from collector furnace and slag.

1.2.1 Interim Remedial Measures

In 1992 the NYSDEC referred the Site to the U.S. Environmental Protection Agency for immediate action under the Emergency Response Program to alleviate surficial PCB contamination at and around the north transformer pad. The Emergency Removal Action was initiated in 1993, and contaminated soil was excavated and stored in a warehouse building on-site. The excavated material was disposed off-site by the U.S. Environmental Protection Agency in 1999. A second interim remedial measure was performed in OU-1 in 2009 by Ecology and Environment Engineering, P.C. (EEE) and included the excavation and disposal of PCBs and newly discovered volatile organic compound source areas from the Site in the immediate vicinity of the Former North Power Station and Metal Building. OU-1 remedial work was completed, and a No Further Action ROD was signed on 31 March 2010 (NYSDEC 2010a).

1.2.2 Site Investigation History

A Remedial Investigation (RI) was conducted for OU-3 between 2005 and 2008 by EEE. This included an assessment of the lateral extent of the PCB contamination in sediment within and surrounding the CPR right-of-way. A supplemental RI for OU-3 was performed in 2014 to further delineate the contamination and identify data gaps as well as to remove and dispose of debris piles located within OU-3. In 2011, additional PCB delineation sampling was conducted in OU-2 and included in a separate RI report by EEE. The report concluded that PCBs were pervasive throughout the stream in sediment and subsurface soil, with the highest concentrations near the confluence of the stream between OU-2 and OU-3 (EEE 2008).

The RODs for OU-3 (NYSDEC 2015) and OU-2 (NYSDEC 2016) were issued with the selected remedy being excavation and off-site disposal of PCB-contaminated soil, sediment, and fill from

both OUs followed by the backfilling of the excavation with clean fill, abandonment of on-site groundwater monitoring wells, imposition of institutional controls, and the development of a Site Management Plan (SMP). A Pre-Design Investigation was conducted in 2016 and 2017 (EA 2017a and 2017b) with additional samples collected in 2020 to delineate the contamination in OU-3 and OU-2 prior to the start of the remedial action (RA) (EA 2023b).

1.2.3 Remedial Action Objectives

The RODs for OU-2 and OU-3 established the following Remedial Action Objectives for the Site:

- Prevent ingestion/direct contact with contaminated soil, surface water, and sediment
- Prevent migration of contaminants that would result in groundwater or surface water contamination
- Prevent impacts of biota from ingestion/direct contact with soil, surface water, and sediment causing toxicity or impacts from bioaccumulation through the terrestrial food chain
- Restore surface water to ambient water quality criteria for the contaminant of concern
- Prevent releases of contaminants from sediments that would result in surface water levels in excess of ambient water quality criteria
- Restore sediments to pre-release conditions to the extent feasible.
- Prevent contact or inhalation of contaminants from impacted water bodies

The RODs defined cleanup criteria for the various media at the Site (NYSDEC 2015 and 2016), which are summarized below:

- Soils, sediments, and fill with PCB concentrations exceeding 50 parts per million (ppm) will be disposed or treated at facility permitted to accept hazardous waste.
- Soils, sediment, and fill with PCB concentrations below 50 ppm will be disposed or treated at a facility permitted to accept PCB-contaminated soil.
- All on-site soil, sediment, and fill which exceeds 1 ppm of PCBs in the top foot and 10 ppm of PCBs below the top foot will be excavated and transported off-site for disposal.
- All on-site drainageway sediment which exceed 1 ppm PCBs will be excavated and transported off-site for disposal.
- Soil, sediment, and fill adjacent to the railroad which exceed 1 ppm PCBs will be excavated to the extent feasible as limited by the proximity of the active railroad and disposed off-site.

- Any off-site areas that are excavated will attain 1 ppm PCBs.

1.2.4 Site Remediation History

Remedial and restoration activities were completed for OU-2 and OU-3 by Land Remediation, Inc. under Contract No. D010731. The RA was completed between January 2022 and June 2023. Surface debris piles containing building debris and PCBs were first removed and disposed off-site as asbestos-containing material. Excavation work to remove PCB-impacted sediment and soil from OU-2 and OU-3 was performed. The surface water in Gas House Creek was re-routed around the work area and active excavations were dewatered to allow the work to be performed in the dry. PCB-impacted soil, sediment, and debris removal at the site began in May 2022, and the last of the impacted material was transported off-site for disposal on 15 November 2022. During the RA, 19,632 tons of impacted material were removed from the Site.

Restoration work followed the remedial excavation and included the placement of clean backfill materials, restoration of the OU-2 and OU-3 channels, casting seed grass mixes, and planting riparian and upland species of trees and shrubs. Additionally, a fence was installed along the eastern property boundary of OU-3 and along the eastern property boundary of 1024 Barker Lane. Further details of the RA are presented in the Final Engineering Report (EA 2023b).

1.3 OBJECTIVES OF THE PERIODIC REVIEW

The periodic review process is used to determine whether a remedy is being managed properly, as set forth in the RODs (NYSDEC 2010, 2015, and 2016). The objectives of the periodic review for sites in the State Superfund Program are as follows:

- Determine if the ECs, and associated ICs are in place, performing properly, and remain effective.

- Evaluate compliance with the decision document(s) including ongoing monitoring program, and operation and maintenance activities.

- Certify, if appropriate, that the intent of ICs continues to be met, and that ECs remain in place and are effective and protective of public health and the environment.

- Present recommendations for changing or discontinuing any elements for the Site Management Plan (SMP), ECs, or ICs.

- In the case that IC/EC certification cannot be provided, present notification of failures of ICs/ECs at achieving remedial objectives and recommendation for corrective measures.

2. INSTITUTIONAL AND ENGINEERING CONTROL PLAN COMPLIANCE

Due to remaining PCB contamination in subsurface soils at the Site, IC/ECs are required to protect human health and the environment. ICs are required to: 1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination; and (3) limit the use and development of the site to commercial or industrial uses only. An SMP presenting the ICs and ECs for the Site was approved by NYSDEC in August 2023 (EA 2023a). The SMP includes an Institutional and Engineering Control Plan, Long-Term Monitoring Plan, and a Site Management Reporting and Certification Plan. The IC and EC Certification is included in **Appendix A**.

2.1 INSTITUTIONAL CONTROLS

The ICs established for the Site include the following:

- The Owner shall perform excavation or ground disturbance in the remedial area in accordance with the excavation work plan (EA 2023a).

- The Owner shall prohibit the property from use for purposes other than commercial or industrial uses as described in 6 New York Codes, Rules, and Regulations Part 375-1.8(g)(2)(iii and iv).

- The Owner shall prohibit the use of groundwater underlying the property without treatment as determined by the New York State Department of Health or Albany County Department of Health rendering it safe for drinking water or industrial purposes; and the Owner must first notify and obtain written approval from NYSDEC.

- The Owner shall protect wetland mitigation areas to prohibit activities including construction, grading, filling, excavating, ditching, and draining, as well as the removal, cutting, mowing, burning, or harming of vegetation unless otherwise approved by both U.S. Army Corps of Engineers and NYSDEC.

- The Owner shall continue any required ICs and ECs unless expressed permission is obtained from the relevant agency.

- The Owner shall provide an annual certification that the ICs and ECs for OU1 and OU3, excluding the portion of OU3 that is jurisdictional wetland, are still in place.

- The NYSDEC engineering consultant shall provide an annual certification that the ICs and ECs for the cover system in OU2 and the jurisdictional wetland portion of OU3 are still in place.

- The Owner shall provide access to the property for agents, employees, or other representatives of the State of New York to assure compliance with the 2015 Environmental Easement.

2.2 ENGINEERING CONTROLS

The following ECs have been established for the Site:

- Site cover:
  - an area of the site that could not be excavated, was capped with 10 inches of concrete, compliant with 40 CFR 761.61(a)(7).
  - A minimum of 2 feet (ft) of clean backfill/restoration materials was placed over PCBs remaining in subsurface soils.
  - Building foundation/slabs including those for the Metal Building, Block Building, and Forge Shop slab.
- Site access controls

Exposure to PCBs in soil/fill at the site is prevented by existing buildings, concrete, asphalt, and soil cover systems. A site cover currently exists in the form of clean fill, building pads, and a concrete cap at the confluence of the creek and will be maintained to allow for commercial/industrial use of the site and prevent exposure to any remaining contamination (**Figure 2-1**).

The Site is partially fenced with a 6-foot chain link fence to restrict Site access. Access gates are locked, and keys are possessed by the property owner, NYSDEC, and its NYSDEC representatives. The Site access shall remain controlled and restricted to the property owner and its tenants, NYSDEC, and NYSDEC representatives.

2.3 LONG-TERM MONITORING PLAN

A Monitoring Plan is in place for the Site and describes methods to be used for periodically evaluating site information to confirm that the remedy continues to be effective in protecting public health and the environment. Elements of the Monitoring Plan include, but are not limited to:

- Requirements and protocols for inspection and maintenance
- Assessment of remedial performance
- Reporting and quality assurance/quality control requirements

There is no need for further sediment, surface water, or groundwater sampling. Regular site inspections will occur to evaluate the integrity of the implemented ECs within OU-2 and OU-3; this includes semi-annual monitoring to evaluate the wetland mitigation effort. Annual wetland inspections will occur to confirm compliance with the standards set forth for Nationwide Permit (NWP) 38.

3. EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

The SMP (EA 2023a) included requirements for site management activities, including site-wide inspections and soil cover monitoring. The subsections below present site management activities completed during the period from May 2023 through September 2024, including site inspections.

3.1 OPERATION, MONITORING, AND MAINTENANCE PLAN COMPLIANCE

The following summarizes the current Monitoring and Sampling Plan:

- Sitewide inspections are conducted annually or after a major storm as needed.
- Gas House Creek corridor inspections are conducted semi-annually or after a major storm as needed.
- OU-2 Drainage Channel corridor inspections are conducted semi-annually or after a major storm as needed.

EA completed the inspections from the reporting period in accordance with the SMP (EA 2023a). The condition of the cover systems, planting, and wetland areas are documented to ensure the Owner is appropriately maintaining these areas.

The following summarizes the current Operation and Maintenance Plan:

- The Owner conducts any needed site restoration activities, such as concrete/asphalt patching of the cover system. In addition, the Owner will ensure that no ongoing erosion is occurring on-site and will complete repairs as needed.
- The Owner will conduct any necessary restoration of vegetative coverage, trees, and wetland and will comply with NYSDEC and U.S. Army Corps of Engineers regulations and guidelines.

The owner performed the required inspection and completed the Certification of IC/EC Form, which is provided in **Appendix A**. EA does not certify the contents of the Owner IC/EC inspection.

3.1.1 Sitewide Inspection and Soil Cover Monitoring

ICs/ECs have been established for the Site and require inspection and certification. The sitewide inspection requires confirmation that ICs are adhered to and that ECs are evaluated, including:

- Site security – fencing, gates, and site access (annual)
- Integrity of site cover (annual)
- Wetland monitoring (annual)
- Gas House Creek Corridor inspection (semi-annual)
- OU-2 Drainage Channel Corridor inspection (semi-annual)

Site-wide inspections were conducted during the following months: December 2023 and June 2024. A wetland inspection was conducted in August 2024. Post-storm monitoring was not performed during the certification period. Observations and site evaluation include:

- Ensuring that no mowing or clearing of the wetland and riparian buffer areas has occurred and that the property owner is appropriately maintaining these areas.
- Inspecting integrity of the cover systems.
- Inspecting the area for any vandalism or unauthorized access.

Site inspection forms for December 2023 and June 2024 as well as the daily inspection reports from each visit are provided in **Appendix B**.

No evidence of major disturbances to the Site or changes to the designated Site use were observed during the site inspections. There has not been a change in property use during the certification period and the Site was in compliance with ICs. The ECs are in place; EC observations made during site inspections include:

- During the December 2023 inspection, no evidence of erosion, digging, or ponding was noted nor evidence of damage or vandalism to the area. A lack of riparian planting survival was noted. During the June 2024 inspection, some minor erosion was noted in Gas House Creek as well as some localized ponding in the OU-3 upland area. Evidence of some invasive species was noted along with low survivorship of riparian plantings. The concrete cap and site fence appeared to be intact. Site inspections have been conducted at the frequency set forth in the site SMP and Monitoring Plan.

3.1.2 Steam and Wetland Mitigation Monitoring

A stream and wetland monitoring inspection was conducted in August 2024. The inspection identified phragmites and purple loosestrife present along the lower portion of the stream channel. A total of approximately 6 percent (%) aerial coverage of invasive species was identified within the restored areas; this is below the 10% standard set by NWP-38. Although invasive species coverage is currently below the 10% cover standard in the NWP, it is recommended that these species be closely monitored annually to ensure their coverage area does not increase. If the invasive species cover exceeds the 10% standard, then an adaptive management plan for the control of invasive species will need to be developed and implemented in future monitoring years.

Vegetation was observed from eight different plots across the site in order to determine vegetation coverage, speciation, and survivability; all plots had vegetation coverage of 85% or more. Tree and shrub survivability in both riparian and upland areas combined was determined to be around 77%. It is recommended that if survivability begins to drop below the 75% requirement and additional trees are subsequently required to be planted, deer protection tubes should be installed on any new tree or shrub. Additionally, it may be beneficial to install deer protection around any existing surviving tree or shrub that currently does not have deer protection in order to ensure the survivability does not drop below 75%. A full summary of the inspection findings can be found in the wetland monitoring report presented in **Appendix C**.

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4. GREEN REMEDIATION AND CLIMATE CHANGE RESILIENCE

Consistent with NYSDEC DER-31 Green Remediation Policy (NYSDEC 2010c), this section provides a brief summary and qualitative assessment of the overall environmental impacts or environmental footprint of the Site for the current reporting period. In accordance with the NYSDEC's Executive Order Number 24, consideration has been given to reducing the consumption of energy and materials and thereby reducing the production of greenhouse gases in the operation and maintenance of the Site. Implementation of NYSDEC DER-31 and Executive Order Number 24 have not compromised the selected remedy's protectiveness of public health and the environment, nor has it hindered achievement of the remedial goals established for the site.

As each discrete step of any site operation and maintenance activity consumes resources and energy, consideration has been given to reducing/eliminating those activities which may not be critical to the protectiveness of the selected remedy.

A climate vulnerability assessment was not completed during this certification period. An assessment would generally be utilized to evaluate the potential consequences climate changes may have on a site, as well as any ongoing site management activities.

4.1 GREEN REMEDIATION ASSESSMENT

In accordance with the NYSDEC's DER-31 Green Remediation policy, the following section provides a qualitative assessment of the overall environmental impacts, or environmental footprint associated with the remedy.

4.1.1 Electric Usage

Implementation of the selected remedy uses negligible amounts of electricity.

4.1.2 Fossil Fuel Usage

Implementation of the selected remedy does not directly use fossil fuels as part of site management activities; however, fossil fuels are indirectly used during the completion of maintenance and monitoring activities.

Indirect fossil fuel use results from completion of the following site-related activities:

- Transportation to and from the Site for monitoring

4.1.3 Water Usage

Implementation of the selected remedy does not directly require the use of water at this Site.

4.1.4 Consumption of Materials and Generation of Waste

Monitoring, maintenance, and reporting activities associated with groundwater sampling events result in material consumption and the generation of waste. A summary of the current material consumption and waste generation activities for the Site are summarized below:

- Personal protective equipment associated with site-wide inspections, such as nitrile gloves, etc.

- Paper and office supplies associated with site logs, monitoring logs, and report preparation.

4.2 CLIMATE CHANGE VULNERABILITY ASSESSMENT

Increases in both the severity and frequency of storms and weather events, an increase in sea-level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuations, resulting from global climate change and instability, have the potential to significantly impact the performance, effectiveness, and protectiveness of a given site remedy. The intent of this vulnerability assessment is to provide information to allow the site remedy to better prepare for the impacts of the increasing frequency and intensity of severe storms, weather events, and associated flooding brought on by global climate changes and instabilities, in order to ultimately enhance the remedy's resilience to such events.

This section briefly summarizes the vulnerability of the Site and/or the remedy to severe storms, weather events and associated flooding.

This assessment included consideration of the following:

- ***Flood Plain***—The Site is susceptible to flooding. Downstream flooding is a known concern, concentrated off-site at an abandoned parking lot, just upstream of a culvert in OU-3. Flooding is also a concern at the very end of OU-3 where the culvert beneath Barker Lane ends.

- ***Site Drainage and Storm Water Management***—The Site is susceptible to an increased rate of precipitation and heavy rainfall events. This will increase the rate of surface water and stormwater runoff. Contaminated sediment has either been removed from the site or capped with concrete, therefore vulnerability to climate change is low.

- ***Erosion***—This Site is susceptible to an increased rate of precipitation and heavy rainfall events. Impacts include increased scour and surface water flow velocity, which can act to mobilize contaminated sediment. Contaminated sediment has either been removed from the Site or capped with concrete, therefore vulnerability to climate change is low.

- ***High Wind***—The Site is susceptible to high wind which could lead to potential damage of Site integrity and cover systems.

- ***Extreme Weather***—The Site is susceptible to extreme temperatures. High temperatures can increase the mobilization of contaminants through soil, while freezing conditions may cause damage to the cover system, potentially exposing the remaining contamination on-site.

- ***Electricity***—The Site is not susceptible to power loss or surges in voltage during severe weather events.

4.3 CONSIDERATIONS FOR OPTIMIZATION OF PHYSICAL SYSTEMS

Environmental and energy conservation measures and other methods to reduce energy consumption, resource usage, waste generation, and water usage have been considered and are described below. During the certifying period, three site visits were conducted to complete the necessary site inspections, which required transportation to and from the site. For future events, the combination of site visits with other sites in the area would significantly reduce the amount of fossil fuels being used.

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5. CONCLUSIONS AND RECOMMENDATIONS

Current site management activities being conducted are in compliance with the requirements of the Site's SMP. Based on a review of the data collected during this reporting period, the remedy continues to be protective of public health and the environment and is in compliance with the Remedial Action Objectives established in the ROD.

Based on the findings presented in this PRR, the following recommendations are provided.

ICs/ECs Plan

With no major deficiencies of the ICs and ECs noted at the Site, it is recommended that inspections continue at the same frequency.

Periodic Review Reporting

The requirements for discontinuing site management activities have not been met. Therefore, the monitoring schedule set forth by the SMP (EA 2023a) for the Site will continue. The next PRR is expected in 2027.

Wetland and Waterway Monitoring

The 2024 wetland and waterway monitoring report documented the first of 5 years of annual monitoring. The report indicated that the restored wetlands, stream channel, and riparian areas appear to be functioning as designed, invasive species coverage is below the required 10%, and the stream channel is stable and functioning as designed. Recommendations in the forthcoming Annual Wetland and Waterway Monitoring Report will include installing deer protection around any existing surviving tree or shrub to ensure survivability does not drop below 75% (EA 2024).

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6. FUTURE SITE ACTIVITIES

Based on the recommendations in Section 5, the following site management activities will be completed during the next PRR reporting period (20 September 2024 to 19 September 2027):

- Site Inspection – Semi-annually; performed by NYSDEC contractor
- Wetland Inspection – Annually; performed by NYSDEC contractor
- On-site maintenance (e.g., fence repair, building structures, cover system repair, phragmites management) – as needed and performed by Owner
- PRR – Every three years (next reporting period 20 September 2024 to 19 September 2027); submitted by NYSDEC contractor

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7. REFERENCES

EA Engineering and Geology, P.C. (EA). 2017a. *Final Pre-Design Investigation Report Former Adirondack Steel Site Operable Unit 03 (Site No. 401039) Albany County, Colonie, New York.* April.

———. 2017b. *Final Pre-Design Investigation Report Former Adirondack Steel Site Operable Unit 02 (Site No. 401039) Albany County, Colonie, New York.* August.

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Ecology and Environment Engineering, P.C. (EEE). 2008. *Final Remedial Investigation Report for the Former Adirondack Steel Site, Colonie, New York, Site Number 4-01-039.* August.

New York State Department of Environmental Conservation (NYSDEC). 2010a. *Record of Decision, Former Adirondack Steel, Colonie, Albany County, New York, Site No. 401039*. March.

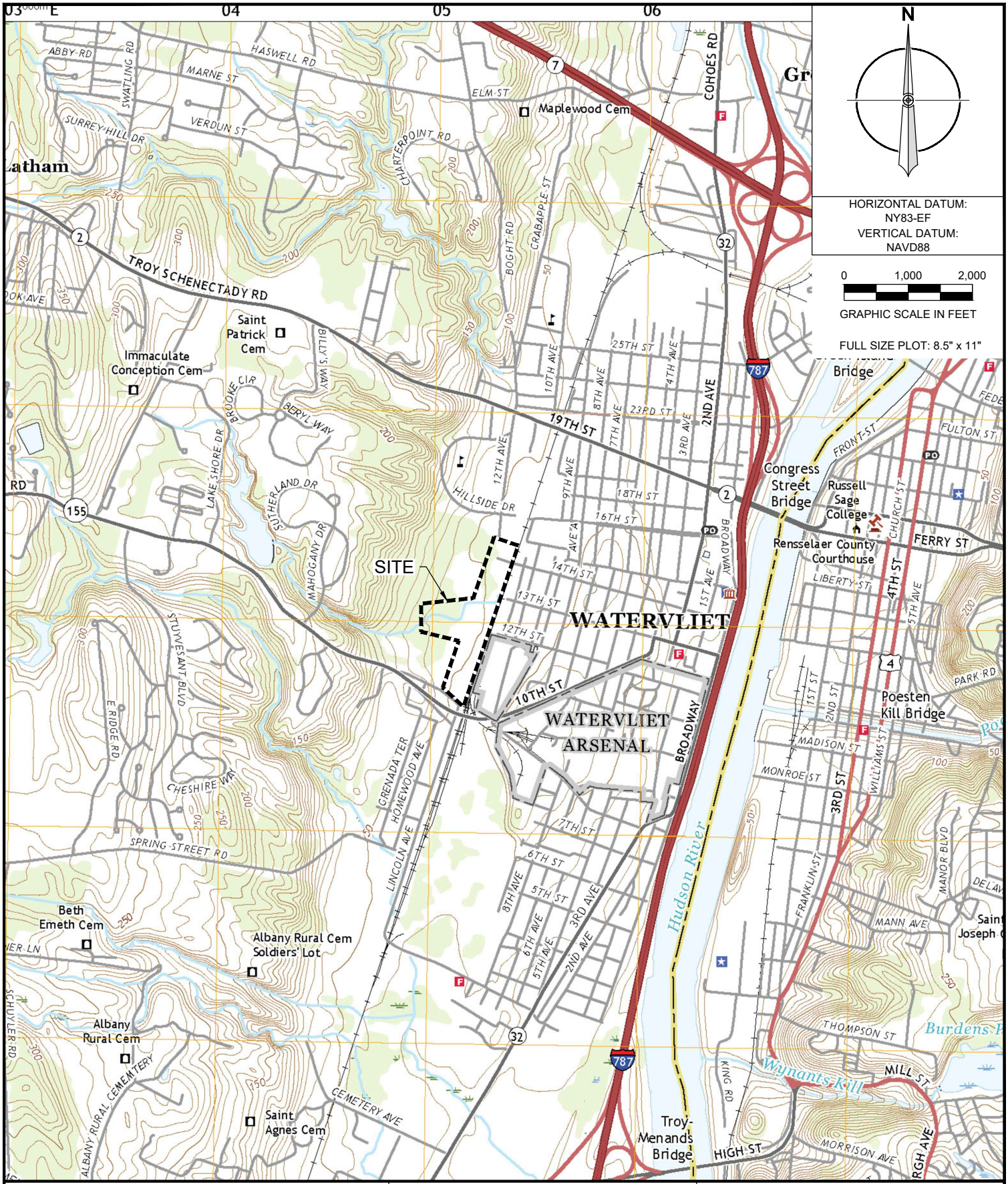
———. 2010b. *DER-10/Technical Guidance for Site Investigation and Remediation*. May.

———. 2010c. *DER-31/Green Remediation.* 11 August. Revised 20 January 2011.

———. 2015. *Record of Decision, Former Adirondack Steel, Operable Unit 03: On-site Drainageway and Adjacent Uplands, State Superfund Project, Colonie, Albany County, Site No. 401039*. March.

———. 2016. *Record of Decision, Former Adirondack Stee, Operable Unit 02: Off-site Drainageway, State Superfund Project, Colonie, Albany County, Site No. 401039.* March.

Figures



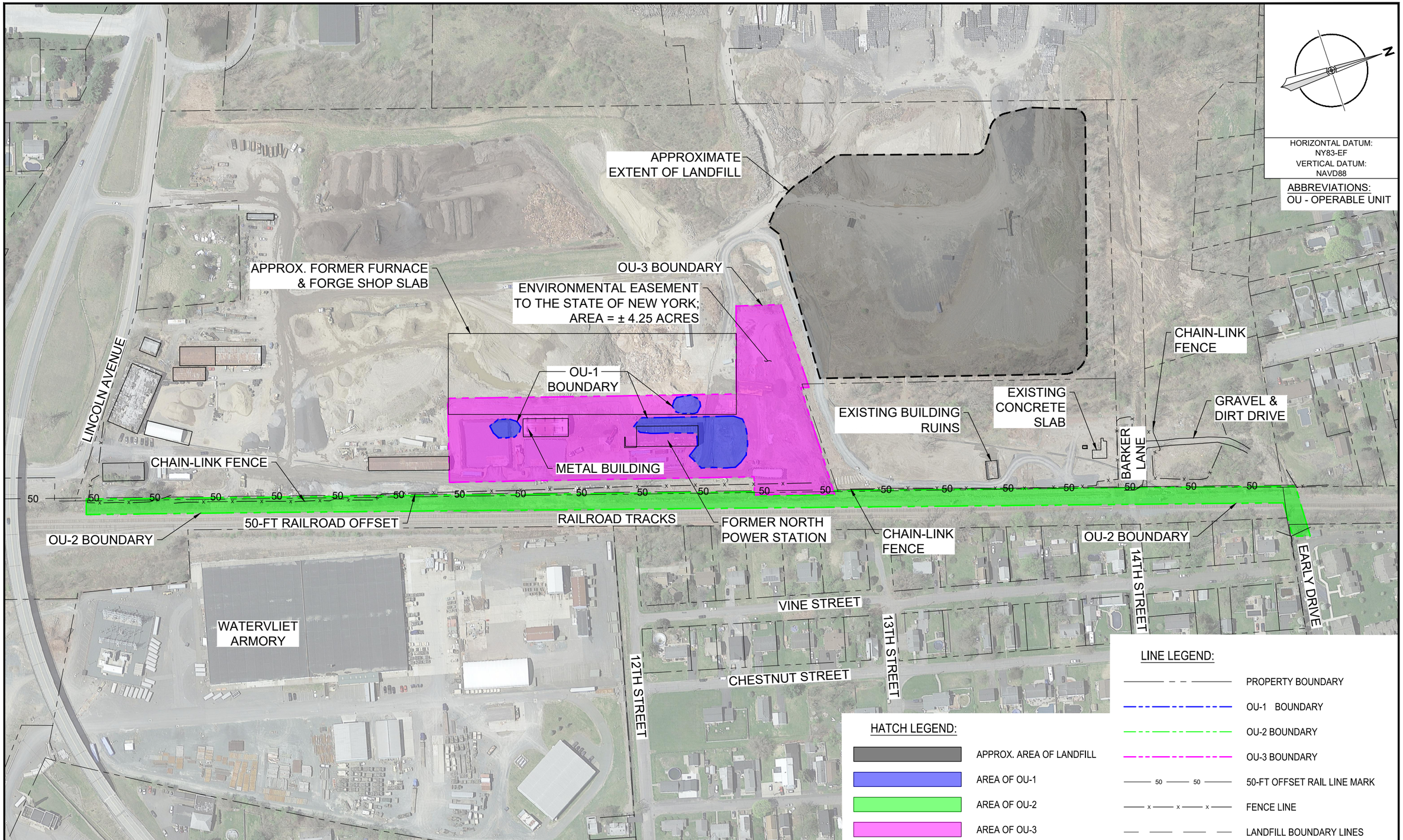
DATE: DECEMBER 2025	PROJECT NUMBER: 1602534.0028	DESIGNED BY: KK	DRAWN BY: DA	CHECKED BY: DC	PROJECT MGR.: EC	SHEET NUMBER: 1	FIGURE: 1-1

EA Engineering and Geology, P.C.
333 W Washington Street
Syracuse, New York 13202
(315) 431-4610
www.eaest.com

FORMER ADIRONDACK STEEL SITE REMEDIATION PROJECT PERIODIC REVIEW REPORT
WATERVLIET, NEW YORK

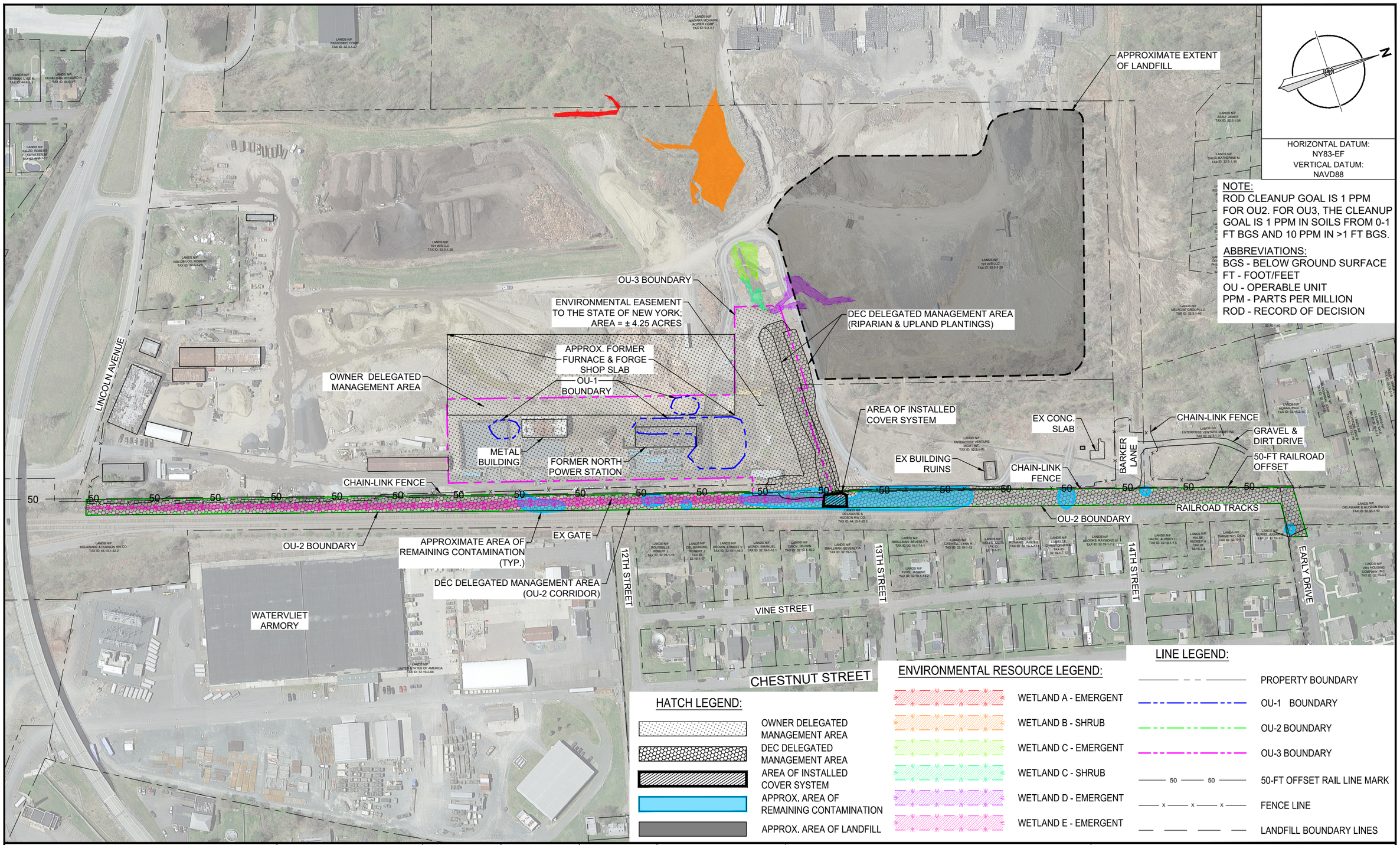
SITE LOCATION MAP

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EA Engineering and Geology, P.C. 333 W Washington Street Syracuse, New York 13202 (315) 431-4610 www.eaest.com	PROJECT NUMBER: 1602534.0028	DESIGNED BY: KK	DRAWN BY: DA	FIGURE: 1-2	0 100 200 GRAPHIC SCALE IN FEET FULL SIZE PLOT: 11" x 17"	**FORMER ADIRONDACK STEEL SITE REMEDIATION PROJECT PERIODIC REVIEW REPORT** WATERVLIET, NEW YORK
	DATE: DECEMBER 2025	CHECKED BY: DC	PROJECT MGR.: EC	SHEET NUMBER: 1		**SITE LAYOUT AND INSTITUTIONAL CONTROL BOUNDARIES MAP**



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EA Engineering and Geology, P.C. 333 W Washington Street Syracuse, New York 13202 (315) 431-4610 www.eaest.com	PROJECT NUMBER: 1602534.0028	DESIGNED BY: KK	DRAWN BY: DA	FIGURE: 2-1	0 100 200 GRAPHIC SCALE IN FEET FULL SIZE PLOT: 11" x 17"	**FORMER ADIRONDACK STEEL SITE REMEDIATION PROJECT PERIODIC REVIEW REPORT** WATERVLIET, NEW YORK
	DATE: DECEMBER 2025	CHECKED BY: DC	PROJECT MGR.: EC	SHEET NUMBER: 1		**REMAINING CONTAMINATION AND COVER SYSTEM**

Appendix A

IC and EC Certification

Enclosure 1
Engineering Controls - Standby Consultant/Contractor Certification Form

Site Details **Box 1**

Site No. 401039

Site Name Former Adirondack Steel

Site Address: 191 Watervliet-Shaker Road Zip Code: 12189
City/Town: Colonie
County: Albany
Site Acreage: 4.2

Reporting Period: May 19, 2023 to September 19, 2024

	YES	NO
1. Is the information above correct?	●	☐
If NO, include handwritten above or on a separate sheet.		
2. To your knowledge has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	●
3. To your knowledge has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	●
4. To your knowledge have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	●
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. To your knowledge is the site currently undergoing development?	☐	●

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	●	☐
7. Are all ICs/ECs in place and functioning as designed?	●	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

_____ _____
Signature of Standby Consultant/Contractor Date

SITE NO. 401039 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
32.3-1-29	Timothy Alund	Soil Management Plan Landuse Restriction Site Management Plan IC/EC Plan

Certification responsibilities are split between the site owner and NYSDEC engineering consultant. Based on the results of the remedial investigation for the Former Adirondack Steel site and the site conditions after performing multiple interim remedial measures (IRMs), the Department has selected No Further Action with institutional controls along with the placement of an environmental easement to restrict the use of soil from the site and development of a site management plan.

ICs:

1. environmental easement which requires: limiting the use and development of the site to commercial use or industrial use; compliance with the approved site management plan; and the property owner and NYSDEC engineering consultant to complete and submit to the Department a periodic certification of institutional controls until the Department notifies them that it is no longer necessary. The certification must contain: that the institutional controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications; allow the Department access to the site; and state that nothing has occurred that will impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the Department.

2. Compliance with the site management plan which contains a soils management plan that prevents the surfacing of subsurface soils. Excavated soil would be tested, properly handled to protect the health and safety of workers and the nearby community, and will be properly managed in a manner acceptable to the Department; identification of any use restrictions on the site.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
32.3-1-29	Fencing/Access Control Cover System

Certification responsibilities are split between the site owner and NYSDEC engineering consultant.

The Site Owner must certify:

-The ground cover system in OU1 and OU3 which includes the integrity of the soil and remaining buildings/building slabs.

-The fencing (access control) separating OU3 from OU2. OU2 is the portion of the site along near the railroad tracks.

The property owner does not certify OU2 or the portion of OU3 which is the jurisdictional wetland.

The NYSDEC engineering consultant must certify:

-The portion of OU3 that is the jurisdictional wetland

-The cover system in OU2 which functions as a cap for remaining PCB contamination near the railroad track

The NYSDEC engineering consultant does not certify the ground cover system in OU1 or OU3.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification, including data and material prepared by previous contractors for the current certifying period, if any;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
●	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) nothing has occurred that would constitute a failure to comply with the Site Management Plan, or equivalent if no Site Management Plan exists.

YES	NO
●	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and contact the DEC PM regarding the development of a Corrective Measures Work Plan to address these issues.

_____ _____

Signature of Standby Consultant/Contractor Date

Box 6

IC/EC CERTIFICATIONS

Professional Engineer Signature

I certify that all information in Boxes 2 through 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Donald Conan, P.E., P.G. at EA Engineering and Geology, P.C.
print name

333 W. Washington Street, Suite 300

Syracuse, NY 13202,
(print business address)

am certifying as a Professional Engineer.

Signature of Professional Engineer

Stamp (Required for PE)

2/2/26
Date



Advance Engineering & Surveying, PLLC

Consulting in: Civil & Environmental Engineering • Land Surveying • Land Dev.
11 Herbert Drive
Latham, N.Y. 12110
Nicholas Costa, PE
Phone: (518) 698-3772
Email:ncostape@gmail.com

September 13, 2024

Jasmine Stefansky, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURE
625 Broadway
Albany, NY 12233-7017

Re: Property Owner Survey: Site Management Periodic Review
Parcel: 32.3-1-29
Site No.: Former Adirondack Steel
Site Address:191 Watervliet Shaker Road
Colonie, NY 12189

Dear Jasmine Stefansky,

Enclosed are the completed Institutional and Engineering Controls – Property Owners Survey (Enclosure 1) and associated pictures constituting the Periodic Review Report (PRR) as required by the Site Management Plan . These documents summarize the observations made during a site inspection done on September 6, 2024.

Overall, the existing site conditions were satisfactory. The site currently appears to be following the Site Management Plan and no issues were present at the time of inspection. Please do not hesitate to contact me at 518-265-1416 if there are any questions with these documents.

Sincerely,

John Dzialo
Advance Engineering & Surveying, PLLC

Cc: Jeffrey Dyber, Section Chief

Enclosure 1
Institutional and Engineering Controls - Property Owner Survey

Department of Environmental Conservation

Site Details **Box 1**

Site No. **401039**

Site Name Former Adirondack Steel

Site Address: 191 Watervliet-Shaker Road Zip Code: 12189
City/Town: Colonie
County: Albany
Site Acreage: 4.2

Reporting Period: May 19, 2023 to September 19, 2024

	YES	NO
1. Is the information above correct?	■	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		■
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		■
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		■
If you answered YES to questions 2, 3 or 4, include documentation with this form.		
5. Is the site currently undergoing development?		■

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	■	
7. Are all Institutional Controls (ICs) in place and functioning as designed?	■	

Signature of Property Owner

9-15-24
Date

SITE NO. 401039 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
32.3-1-29	Timothy Alund	Soil Management Plan Landuse Restriction Site Management Plan

From ROD:

Based on the results of the remedial investigation for the Former Adirondack Steel site and the site conditions after performing multiple interim remedial measures (IRMs), the Department has selected No Further Action with institutional controls. The IRMs were conducted to remove sources of hazardous waste from the site, thus preventing migration of additional waste to the environment and reducing the threat of human exposure to on-site contamination. Therefore, the Department has selected No Further Action along with the placement of an environmental easement to restrict the use of soil from the site and development of a site management plan. The elements of the IRMs already completed and the institutional controls are listed below:

1. The following activities were conducted as IRMs: a) waste in the form of PCB-contaminated transformers and electrical equipment was removed and disposed off-site; (b) drums containing petroleum wastes were disposed off-site; (c) asbestos containing material in the form of a steel-jacketed, refractory-lined smoke stack was removed and disposed of off-site; and (d) PCB-contaminated soil was removed from, and adjacent to the site and disposed of at a permitted facility.

2. Imposition of an institutional control in the form of an environmental easement that will require (a) limiting the use and development of the site to commercial use, which will also permit industrial use; (b) compliance with the approved site management plan; and (c) the property owner to complete and submit to the Department a periodic certification of institutional controls.

3. Development of a site management plan which will include the following controls: (a) development of a soils management plan that will prevent the surfacing of subsurface soils. Excavated soil would be tested, properly handled to protect the health and safety of workers and the nearby community, and will be properly managed in a manner acceptable to the Department; (b) identification of any use restrictions on the site.

4. The property owner will provide a periodic certification of institutional controls, prepared and submitted by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submittal will: (a) contain certification that the institutional controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and (c) state that nothing has occurred that will impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the Department.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
32.3-1-29	Fencing/Access Control Cover System

Box 5

Periodic Review Report (PRR) Survey Statements

For each Institutional or Engineering control listed in Boxes 3 and/or 4, by checking "YES" below I believe all of the following statements to be true:

(a) the Institutional Control(s) and/or Engineering Control(s) employed at this site remain unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control; and

(d) if a Site Management Plan (SMP) exists, nothing has occurred that would constitute a violation or failure to comply with the SMP for this Control.

YES	NO
■	–

Signature of Property Owner

9-15-21
Date

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Nicholas Costa, PE
Phone: (518) 698-3772
Email: ncostape@gmail.com



OU-2 area.



OU-2 area

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OU-1 area.



OU-1 area

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Nicholas Costa, PE
Phone: (518) 698-3772
Email: ncostape@gmail.com



OU-1 area.



OU-3 area and Gas House Creek.

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Nicholas Costa, PE
Phone: (518) 698-3772
Email: ncostape@gmail.com



OU-3 area and Gas House Creek.



OU-2 area.

Appendix B

Field Forms, Daily Inspection Reports, and Photographic Log

ADK Steel (401039)

WX: 27°F, 12 mph S, Sunny

1020 H. Bedell & C. Zook (EA) onsite for site inspection

1030 Inspected Gas House Creek Corridor

1040 Inspected OU-2 corridor

1050 Inspected OU-3 cover

1115 H. Bedell, C. Zook (EA) offsite

Han Bedell

12.21.23

Rite in the Rain

Former Adirondack Steel Site , Colonie, New York





Culvert pipe facing downstream, obvious pooling around culvert, no blockage. Lack of growth on Northern bank of stream

Former Adirondack Steel Site , Colonie, New York





Culvert pipe facing upstream

Former Adirondack Steel Site , Colonie, New York





Signs of erosion on-site, surface soil/stone erosion along fence facing East (left) and stone barrier eroded on Northern side facing riparian buffer (right)

Former Adirondack Steel Site , Colonie, New York





Pooling of water in OU-3 next to wood pile and Power Station (left) and next to railroad tracks in OU-2 (right)

Former Adirondack Steel Site , Colonie, New York





Cardboard and other debris found on-site

Former Adirondack Steel Site , Colonie, New York





Growth of riparian buffer plants on Southern side of culvert

Former Adirondack Steel Site , Colonie, New York





Images depicting stone barrier ending riparian buffer, taken to the West (left) and the East (right)- presence of tire and other debris visible in the photo to the right

Former Adirondack Steel Site , Colonie, New York





Riparian buffer and stream bank located in the Eastern end of OU-3 and start of OU-2. Area of Installed Cover System (left)

Former Adirondack Steel Site , Colonie, New York







Metal Building and Power Station found in OU-3; hole in concrete slab found on Northwestern corner of Metal Building

SITE-WIDE INSPECTION

Date: 12/21/2023

Adirondack Steel Site (401036)	Temperature: (°F)	27°F	(am)	28°F	(pm)
Site Owner: SM Gallivan Current Site Use: Fracking/material Business	Wind Direction/Speed:	12mph S	(am)	12 mph S	(pm)
	Weather:	(am) Sunny (pm) Sunny			
	Arrival Time	1015	(am)		
	Departure Time	1130 15	am ~~pm~~		
	Inspection conducted by:	H. Bedell			

Site Appearance and Condition

Is there evidence of vandalism or unauthorized entry?

No

Is there evidence of erosion or digging?

No evidence of erosion or digging

Is there evidence of illegal disposal? Is there uncontrolled vegetative growth?

No illegal disposal

No uncontrolled vegetative growth

Additional Comments:

SITE-WIDE INSPECTION **Date:** 12/21/2023

Cover [redacted] System

Are there any visible cracks in the concrete surface? Is there damage to the concrete surface?

No visible cracks, a small area was visible where the concrete slab had collapsed in one of the buildings but everything else was intact. No other damage visible

Is there evidence of uneven settling or ponding of water?

No uneven settling, ponding of water just north of power station building

Additional Comments:

Gas House Creek Corridor

Site Appearance: Is there evidence of vandalism? Is there any damage to the fence? Are there any signs of erosion, digging, or disposal? Is there evidence of unauthorized access (e.g. ATV tire tracks)

No vandalism or damage to fence

No significant erosion along creek, some slight water erosion along fence line.

Vegetation and Wildlife: Are there any signs of inadequate coverage in the grassy areas? Does any of the vegetation look stressed or withered? Is there any evidence of invasive species? Are there any signs of ground-burrowing animals, insects, or nests?

Adequate grass coverage.

Planted vegetation on northside of creek has not grown

No invasive species visible

No animal or insect nests

SITE-WIDE INSPECTION **Date:** 12/21/2023

Drainage Pipes: Is there any evidence of damage to drainage pipes or outfall areas? Is there any debris, buildup, or obstructions in the drainage pipes? Is there any overgrown or unwanted vegetation in the outfall areas? Are there any signs of erosion around the outfall areas?

No damage to drainage pipes, or obstructions, creek is flowing

Additional Comments:

Riparian plantings are lacking

OU-2 Drainage Channel Corridor

Site Appearance: Are there any signs of erosion or digging in the bank along the OU-2 drainage channel? Is the vegetation on the bank stressed or withered?

No signs of erosion, vegetation is intact

Additional Comments:

NYSDEC
Division of Environmental Remediation

NEW YORK STATE | Department of Environmental Conservation

Contract No. 009806-27
DEC PM – Lisa Gorton,
Engineer PM – Emily Cummings
Engineer Insp. – Hannah Bedell

Site Location: Former Adirondack Steel, Colonie, New York

Weather Conditions				
General Description	Sunny	AM	N/A	PM
Temperature	27 F	AM	N/A	PM
Wind	12 mph S	AM	N/A	PM

Health & Safety
If any box below is checked "Yes", provide an explanation under "Health & Safety Comments".

Were there any changes to the Health & Safety Plan?	*Yes	No X	NA
Were there any exceedances of the perimeter air monitoring reported on this date?	*Yes	No X	NA
Were there any nuisance issues reported/observed on this date?	*Yes	No X	NA

Health & Safety Comments

- N/A

Summary of Work Performed	Arrived at the site:	1015	Departed Site:	1115

- H. Bedell and C. Zook onsite for bi-annual IC/EC inspection
- Inspected cover system for digging and erosion
- Inspected gas house creek corridor and OU-2 for debris disposal and erosion

Equipment/Material Tracking
If any box below is checked "Yes," provide an explanation under "Material Tracking Comments."

Were there any vehicles that did not display proper D.O.T. numbers and placards?	*Yes	No X	NA
Were there any vehicles that were not tarped?	* Yes	No X	NA
Were there any vehicles that were not decontaminated before exiting the work site?	* Yes	No X	NA

Personnel and Equipment

Individual	Company	Trade	Total Hours
Hannah Bedell	EA	Engineer	1
Clara Zook	EA	Intern	1

Equipment Description	Contractor/Vendor	Serial Number	Decon Req'd?	Quanti ty	Used

Material Description	Imported/ Delivered to Site	Exported off Site	Waste Profile (If Applicable)	Source or Disposal Facility (If Applicable)	Daily Loads	Daily Weight

*On-Site scale for off-site shipment, a delivery ticket for material received

Visitors to Site

Name	Representing	Entered Exclusion/CRZ Zone	
		Yes	No
		Yes	No
		Yes	No
		Yes	No
		Yes	No

Site Representatives

Name	Representing
Hannah Bedell	EA

Project Schedule Comments

Issues Pending

Interaction with the Public, Property Owners, Media, etc.
N/A

Site Photographs (Attached as separate file)	
Comments	
None.	
Site Inspector(s): Hannah Bedell	**Date: 12/21/2023**

DAILY HEALTH CHECKLIST

Is social distancing being practiced?	Yes ☒	No ☐
Is the tailgate safety meeting held outdoors?	Yes ☒	No ☐
Are remote/call-in job meetings being held instead of in-person meetings where possible?	Yes ☒	No ☐
Were personal protective gloves, masks, and eye protection being used?	Yes ☒	No ☐
Are sanitizing wipes, wash stations or spray available?	Yes ☒	No ☐
Have any workers/visitors been excluded based on close contact with individuals diagnosed with COVID-19, have recently traveled to restricted areas or countries, or are symptomatic (fever, chills, cough/shortness of breath)?	Yes ☐	No ☒
Comments:		

REMEDIAL ACTIVITIES AT PROPERTIES

1. Have anyone at this location been tested and confirmed to have COVID-19?	Yes ☐	No ☒
2. Is anyone at this location isolated or quarantined for COVID-19?	Yes ☐	No ☒
3. Has anyone at this location had to contact with anyone known to have COVID-19 in the past 14 days?	Yes ☐	No ☒
4. Does anyone at this location have any respiratory infection symptoms (e.g., cough, sore throat, fever, or shortness of breath)?	Yes ☐	No ☒
5. Does the Department and its contractors have your permission to enter the property now?	Yes ☐	No ☒
If Yes to any of 1-4 above: • If it is not critical that service/entry be carried out immediately and postponed until the risk of COVID-19 is lower or can be accomplished remotely/without access, postpone or conduct service without entry. • If it is critical that service/entry be carried out immediately, advise occupants that as a precaution and for our protection, project personnel will be donning appropriate PPE* (including respiratory protection) - and do so before entry.	Yes ☐	No ☒
Comments: Not applicable.		

ON-SITE WASTE STORAGE

Drums, roll-offs, and piles are staged in secure areas?	Yes ☐	No ☐	N/A☒
Have liners and berms been installed if necessary to prevent cross-contamination of clean areas?	Yes ☐	No ☐	N/A☒
Are containers in good condition or properly overpacked?	Yes ☐	No ☐	N/A☒
Are waste materials scheduled to be properly characterized and disposed of before	Yes ☐	No ☐	N/A☒

demobilization?			
Complying with RCRA's 90-day storage limitation for hazardous waste?	Yes ☐	No ☐	N/A☒
Piles are they securely covered when not in use?	Yes ☐	No ☐	N/A☒
Containers are closed when not in use?	Yes ☐	No ☐	N/A☒
Staging areas should be inspected periodically, and any issues addressed immediately?	Yes ☐	No ☐	N/A☒
Does signage and labeling comply with RCRA requirements for all staging areas and containers?	Yes ☐	No ☐	N/A☒
If any issues are noted, has the Contractor been notified?	Yes ☐	No ☐	N/A☒
Comments: Not applicable.			

NUISANCE CHECKLIST

Were there any community complaints related to work on this date?	Yes ☐	No ☐	N/A☒
Were there any odors detected on this date?	Yes ☐	No ☐	N/A☒
Was noise outside specification and/or above background on this date?	Yes ☐	No ☐	N/A☒
Were vibration readings outside specification and/or above background on this date?	Yes ☐	No ☐	N/A☒
Was any visible dust observed beyond the work perimeter on this date?	Yes ☐	No ☐	N/A☒
Any visible contrast (turbidity) beyond engineering controls observed on this date?	Yes ☐	No ☐	N/A☒
Was turbidity checked at the outfall(s)?	AM ☐	PM ☐	N/A☒
Were any property owners NOT provided advance notice for work performed on this property on this date?	Yes ☐	No ☐	N/A☒
Was the temporary fabric structure closed at the end of the day?	Yes ☐	No ☐	N/A☒
Has the Contractor failed to protect all foundations and structures adjacent to and adjoining the site affected by the excavations or other operations connected with the performance of the Work?	Yes ☐	No ☐	N/A☒
If yes, has the Contractor been notified?	Yes ☐	No ☐	N/A☒
Comments: Not applicable.			

RESILIENCE/GREEN REMEDIATION CHECKLIST

Is site power procured from renewable energy sources (e.g., solar, wind, geothermal, biomass and biogas)?	Yes ☐	No ☐	N/A☒
Is the Contractor employing 2007 or newer or retrofitted (BART*) diesel on-road trucks and non-road equipment?	Yes ☐	No ☐	N/A☒
Is vehicle idling adequately reduced per 6NYCRR Part 217-3?	Yes ☐	No ☐	N/A☒

Have equipment operators been trained in the idling requirements of 6NYCRR Part 217-3?	Yes ☐	No ☐	N/A☒
Is BART-equipped equipment properly maintained and working?	Yes ☐	No ☐	N/A☒
Is work being sequenced to avoid double handling?	Yes ☐	No ☐	N/A☒
Is an onsite recycling program for CONTRACTOR-generated wastes, and is it complied with?	Yes ☐	No ☐	N/A☒
Are office trailer heating and cooling systems maintained at efficient set points, and have programable thermostats been installed?	Yes ☐	No ☐	N/A☒
Are our products and materials used in the performance of the work appropriately certified (e.g., LEED, Energy Star, Sustainable Forestry Initiative®, etc.)?	Yes ☐	No ☐	N/A☒
Are resiliency features included in the design or completed remedy properly installed and/or maintained (flood control, stormwater controls, erosion measures, etc.)?	Yes ☐	No ☐	N/A☒
Are green remediation elements included in the design or completed remedy properly installed and/or maintained (e.g., porous pavement, geothermal, variable speed drives, native plantings, natural stream bank restoration, etc.)?	Yes ☐	No ☐	N/A☒
By the Contractor, are appropriate metrics documented for inclusion in Form A, Summary of Green Remediation Metrics?	Yes ☐	No ☐	N/A☒
Has the Contractor been notified of any deficiencies?	Yes ☐	No ☐	N/A☒
Comments: Not applicable.			

* BART – Best Available Retrofit Technology

Former Adirondack Steel Site , Colonie, New York





Culvert pipe facing downstream, obvious pooling around culvert, no blockage. Lack of growth on Northern bank of stream

Former Adirondack Steel Site , Colonie, New York





Culvert pipe facing upstream

Former Adirondack Steel Site , Colonie, New York





Signs of erosion on-site, surface soil/stone erosion along fence facing East (left) and stone barrier eroded on Northern side facing riparian buffer (right)

Former Adirondack Steel Site , Colonie, New York





Pooling of water in OU-3 next to wood pile and Power Station (left) and next to railroad tracks in OU-2 (right)

Former Adirondack Steel Site , Colonie, New York





Cardboard and other debris found on-site

Former Adirondack Steel Site , Colonie, New York





Growth of riparian buffer plants on Southern side of culvert

Former Adirondack Steel Site , Colonie, New York





Images depicting stone barrier ending riparian buffer, taken to the West (left) and the East (right)- presence of tire and other debris visible in the photo to the right

Former Adirondack Steel Site , Colonie, New York





Riparian buffer and stream bank located in the Eastern end of OU-3 and start of OU-2. Area of Installed Cover System (left)

Former Adirondack Steel Site , Colonie, New York







Metal Building and Power Station found in OU-3; hole in concrete slab found on Northwestern corner of Metal Building

ADK Steel (401039) 6/26/24

Wx: 79°F, 7 mph W, Sunny

1010 H. Bedell & E. Cummings (EA) onsite for site inspection

1030 J. Melsom (SM Gulliver) onsite

1035 Begin Site inspection

1045 Conducted inspection of Gas House Creek and OU-2

1120 EA offsite

06.26.2024.

Rite in the Rain.

OU-3 Upland Area





Onsite buildings acting as site cover; Block building (left), Metal building (right)

OU-3 Upland Area







Looking north along OU-2 (left), NE corner of OU-3 (middle), NW towards Gas House Creek (right)

Gas House Creek







Upstream area of Gas House Creek: Upstream side of culvert (left), downstream side of culvert (middle), erosion from backflow around culvert outlet (right)

Gas House Creek







Southern bank of Gas House Creek riparian plantings and vegetative growth (left, middle, and right)

Gas House Creek







Erosion visible on southern bank of Gas House Creek. Erosion localized around tree plantings (left); rivulets forming along slope (middle); undermining of channel stone soil at interface with soil (right)

Gas House Creek







Transport of material from OU-3 into riparian zone and channel (left and middle); thin vegetation in southern bank riparian zone

Gas House Creek





Transport of material from outside of OU-3 into riparian zone and channel (left); sediment/material transported from northern area of property (sand management area) to Gas House Creek

Gas House Creek







Looking west towards upstream portion of Gas House Creek (left); Presence of debris visible in channel along Gas House Creek (middle and right)

Gas House Creek





Confluence of Gas House Creek and OU-2, looking NE. Thin vegetative coverage along top of slope of riparian zone.

OU-2: Gas House Creek & Rail Drainage Channel





Restoration area in rail drainage channel (left); Vegetative growth in rail drainage channel (right)

OU-2: Gas House Creek & Rail Drainage Channel





Concrete Cap along rail ballast (left); OU-2 at confluence with Gas House Creek, looking south (right)

OU-2: Gas House Creek & Rail Drainage Channel





Fence and riparian plantings on Barker Lane property (left); Channelized portion of Gas House Creek looking north (right)

OU-2: Gas House Creek & Rail Drainage Channel





Culvert under Barker Lane (left); Channelized portion of Gas House Creek looking south (right)

NYSDEC
Division of Environmental Remediation

NEW YORK STATE | Department of Environmental Conservation

Contract No. 009806-27
DEC PM – Lisa Gorton,
EA PM – Emily Cummings
Engineer Insp. – Hannah Bedell

Site Location: Former Adirondack Steel, Colonie, New York

Weather Conditions				
General Description	Sunny	AM	N/A	PM
Temperature	79 F	AM	N/A	PM
Wind	7 mph W	AM	N/A	PM

Health & Safety
If any box below is checked "Yes", provide an explanation under "Health & Safety Comments".

Were there any changes to the Health & Safety Plan?	*Yes	No X	NA
Were there any exceedances of the perimeter air monitoring reported on this date?	*Yes	No X	NA
Were there any nuisance issues reported/observed on this date?	*Yes	No X	NA

Health & Safety Comments

- N/A

Summary of Work Performed	Arrived at the site:	1010	Departed Site:	1120

- (1010) H. Bedell and E. Cummings onsite for bi-annual IC/EC inspection. Sign in at SM Gallivan office.
- (1030) J. Melsom (SM Gallivan) onsite
- (1035) Inspected cover system for digging and erosion
- (1045) Inspected gas house creek corridor and OU-2 for debris disposal and erosion
- (1120) EA and SM Gallivan offsite
- See separable inspection report form.

Equipment/Material Tracking
If any box below is checked "Yes," provide an explanation under "Material Tracking Comments."

Were there any vehicles that did not display proper D.O.T. numbers and placards?	*Yes	No X	NA
Were there any vehicles that were not tarped?	* Yes	No X	NA
Were there any vehicles that were not decontaminated before exiting the work site?	* Yes	No X	NA

Personnel and Equipment

Individual	Company	Trade	Total Hours
Hannah Bedell	EA	Engineer	1
Emily Cummings	EA	Engineer	1

Equipment Description	Contractor/Vendor	Serial Number	Decon Req'd?	Quanti ty	Used

Material Description	Imported/ Delivered to Site	Exported off Site	Waste Profile (If Applicable)	Source or Disposal Facility (If Applicable)	Daily Loads	Daily Weight

*On-Site scale for off-site shipment, a delivery ticket for material received

Visitors to Site

Name	Representing	Entered Exclusion/CRZ Zone	
Jack Melsom	SM Gallivan	Yes	No X
		Yes	No
		Yes	No
		Yes	No
		Yes	No

Site Representatives

Name	Representing
Hannah Bedell	EA

Project Schedule Comments

Issues Pending

Minor erosion found along soil/stone interface along southern bank of Gas House Creek; debris in stream channel; run on of debris / composting materials from SM Gallivan operation to OU-3 and Gas House Creek. See separable inspection form for additional details.

Interaction with the Public, Property Owners, Media, etc.

N/A

Site Photographs (Attached as separate file)

Comments

None.

Site Inspector(s): Hannah Bedell	Date: 06/26/2024

DAILY HEALTH CHECKLIST

Is social distancing being practiced?	Yes ☒	No ☐
Is the tailgate safety meeting held outdoors?	Yes ☒	No ☐
Are remote/call-in job meetings being held instead of in-person meetings where possible?	Yes ☒	No ☐
Were personal protective gloves, masks, and eye protection being used?	Yes ☒	No ☐
Are sanitizing wipes, wash stations or spray available?	Yes ☒	No ☐
Have any workers/visitors been excluded based on close contact with individuals diagnosed with COVID-19, have recently traveled to restricted areas or countries, or are symptomatic (fever, chills, cough/shortness of breath)?	Yes ☐	No ☒
Comments:		

SITE-WIDE INSPECTION **Date:** 6/26/24

Adirondack Steel Site (401036)	Temperature: (°F)	79	(am)	N/A	(pm)
Site Owner: SM Gallivan/Tim Allund Current Site Use: Green Renewables/Composting	Wind Direction/Speed:	7 mph W	(am)	N/A	(pm)
	Weather:	(am) Sunny (pm) N/A			
	Arrival Time	1010	(am)		
	Departure Time	1120	(am)		
	Inspection conducted by:	E. Cummings / H. Bedell			

Site Appearance and Condition

Is there evidence of vandalism or unauthorized entry?

Yes, evidence of graffiti on buildings, property owner equipment. North gate on Barker Lane property found open with locking mechanism broken.

Is there evidence of erosion or digging?

Erosion observed in Gas House Creek, none in OU-3 upland areas

Is there evidence of illegal disposal? Is there uncontrolled vegetative growth?

No.

Additional Comments:

Site Cover Inspection

Are there any visible cracks in the concrete surface? Is there damage to the concrete surface?

Could not observe, concrete foundation covered with SM Gallivan piles. Buildings were not entered, however superstructure was still in place.

Is there evidence of uneven settling or ponding of water?

Not observed in areas of concrete / building cover due to property owner equipment / material obstructing view. Some localized ponding observed along OU-3 upland area/access road.

Additional Comments:

Gas House Creek Corridor

Site Appearance: Is there evidence of vandalism? Is there any damage to the fence? Are there any signs of erosion, digging, or disposal? Is there evidence of unauthorized access (e.g. ATV tire tracks)

Localized areas of erosion present on South bank and along soil/stone interface. Erosion on bank around some planted trees/shrubs, evidence of material washout from OU-3 upland area into channel. Trash/debris in channel

Vegetation and Wildlife: Are there any signs of inadequate coverage in the grassy areas? Does any of the vegetation look stressed or withered? Is there any evidence of invasive species? Are there any signs of ground-burrowing animals, insects, or nests?

Upper part of riparian zone lacking grass coverage. Several smaller trees and shrubs did not appear to survive. Evidence of some invasive including buckthorn, knotweed, and phragmites.

Drainage Pipes: Is there any evidence of damage to drainage pipes or outfall areas? Is there any debris, buildup, or obstructions in the drainage pipes? Is there any overgrown or unwanted vegetation in the outfall areas? Are there any signs of erosion around the outfall areas?

Erosion present on downstream side of culvert at the west end of Gas House Creek. Deposition/transport of soil and materials from OU-3 upland and Sand Management Area to Gas House Creek

Additional Comments:

OU-2 Drainage Channel Corridor

Site Appearance: Are there any signs of erosion or digging in the bank along the OU-2 drainage channel? Is the vegetation on the bank stressed or withered?

Riparian trees and shrubs exhibiting low survivorship along Barker Lane property. Invasive species observed in OU-2 Channel south of confluence with Gas House Creek.

Additional Comments:

Concrete cap placed at confluence of Gas House Creek and OU-2 channel intact. Fencing intact.

OU-2 & OU-3 (only after major storm event)

Inspection: conduct a visual inspection of areas inundated by major storm surge. If sediment been deposited on the floodplain, document extents. Are there any areas of erosion or scour? Have any bulkheads been compromised?

N/A

Additional comments:

N/A

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 1: Overview of vegetation sample plot #1.



Photograph 2: Overview of vegetation sample plot #2.



Photograph 3: Overview of vegetation sample plot #3.



Photograph 4: View facing upstream of the riparian planting zone along the north side of the stream channel.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 5: View facing downstream from the upper stream crossing.



Photograph 6: View facing upstream at the upper portion of the site.



Photograph 7: View facing downstream along the upland planting zone on the south side of the stream channel.



Photograph 8: Overview of vegetation sampling plot #4.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 9: Overview of vegetation sampling plot #5.



Photograph 10: Overview of vegetation sampling plot #6.



Photograph 11: confluence of stream channel and wetland swale along the existing railroad embankment.



Photograph 12: overview of emergent wetland restoration area at the confluence with the existing stream channel.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 13: Phragmites and Purple loosestrife along the lower portion of the stream channel.



Photograph 14: Overview of vegetation sampling plot #7.



Photograph 15: Emergent wetland fill area 1.



Photograph 16: Emergent wetland fill area 2.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 17: Overview of the upland restored area along the wetland swale.



Photograph 18: Emergent wetland fill area 3.



Photograph 19: Emergent wetland fill area 4.



Photograph 20: Emergent wetland fill area 5.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 21: Monarch butterfly observed on milkweed within the riparian planting zone.



Photograph 22: View facing upstream from the lower portion of the stream channel.



Photograph 23: Riparian planting zone along the newly installed chain-link fence.



Photograph 24: Emergent wetland fill area 6.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 25: Emergent wetland fill area 7.



Photograph 26: Emergent wetland fill area 8.



Photograph 27: Emergent wetland fill area 9.

Appendix C

Wetland Monitoring Report

2024 Annual Wetland and Waterway Monitoring Report
Former Adirondack Steel Site
Operable Units 02 and 03
NYSDEC Site No. 401039
Colonie, New York

Prepared for

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7017

Prepared by

EA Engineering and Geology, P.C.
Washington Station
333 West Washington Street, Suite 300
Syracuse, New York 13202
315-431-4610

June 2025
Version: FINAL
EA Project No. 16025-27-00-CP

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Figure 6a. North Photograph Locations

Figure 6b. South Photograph Locations

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Appendix B. Design Drawings/As Built Plans

Appendix B. On-site Photographs

LIST OF ACRONYMS AND ABBREVIATIONS

%	Percent
AOR	Area of Review
EA	EA Engineering and Geology, P.C.
EPA	U.S. Environmental Protection Agency
FAC	Facultative
ft^2	Square Feet
GPS	Global Positioning System
No.	Number
NWP	Nationwide Permit
NYSDEC	New York State Department of Environmental Conservation
OU	Operable Unit
PCB	Polychlorinated Biphenyl
RA	Remedial Action
RCM	Recycled Concrete Material
USACE	U.S. Army Corps of Engineers

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1. INTRODUCTION

EA Engineering and Geology, P.C. (EA) was retained by the New York State Department of Environmental Conservation (NYSDEC) to perform annual waterway and wetland monitoring associated with the remedial action (RA) conducted at the Former Adirondack Steel Site (NYSDEC Site Number [No.] 401039) in Colonie, New York (**Figure 1**).

In June 2023, NYSDEC completed remediation of polychlorinated biphenyls (PCBs) at two Operable Units (OU), OU-2 and OU-3, under a self-implementation agreement between NYSDEC and the U.S. Environmental Protection Agency (EPA). The RA required work within wetlands and waterways which was authorized under a United States Army Corps of Engineers (USACE) Nationwide Permit (NWP) 38. The permit dated 25 November 2020 (No. NAN 2020-00365-UDA) authorized temporary impacts to 0.18-acres of wetland and 1,170 linear feet of waterway (**Appendix A**).

It should be noted that changes to the upland, riparian, and wetland planting design were issued as Field Orders during construction due to future site use conditions and constructability. The remedial design originally included restoration of upland areas in OU-3 with topsoil and seed. The OU-3 upland area is currently used as a composting/green renewables facility. Due to planned expansion of the facility, upland areas of OU-3 within the expansion footprint impacted during the RA were not restored with topsoil and seed. Additionally, emergent wetland areas in OU-2 were not restored with wetland topsoil and plantings due to the presence of groundwater that was encountered during construction. Further details of the RA are provided in the Final Engineering Report (EA 2023). Final as-built drawings are provided in **Appendix B**.

This report fulfills monitoring requirements in the Nontidal Wetland/Waterways Restoration Plan (EA 2020) in accordance with guidance provide in the Regulator Guidance Letter No. 08-03 (USACE 2008). This report presents a summary of the 2024 annual monitoring activities conducted within the area of review (AOR) (**Figure 2**) to ensure the long-term success of the restored wetland, stream, and revegetated upland and riparian areas. This 2024 report documents the first (Year 1) of five years of annual monitoring.

1.1 GOALS AND OBJECTIVES

Annual monitoring is conducted to ensure the permittee successfully restored 1,170 linear feet of stream channel (0.48 acres) and 0.18 acres of emergent wetland. In addition to restoration of the stream channel and wetlands, site restoration included 0.35 acres of riparian plantings and 0.22 acres of upland plantings. An additional 1.03 acres of the site was restored with no planting.

Per the approved Nontidal Wetland/Waterway Mitigation Plan (EA 2020), the following criteria shall be met for successful restoration of the site:

- 85 percent (%) groundcover of seeded/planted areas including wetlands and upland riparian planting zones.
- 75% survival rate of planted trees and shrubs across all planting zones.

- Positive growth and vitality of planted vegetation.
- No more than a total of 10% areal coverage of invasive species across the restoration area.
- Presence of wetland hydrology indicators throughout the restored wetland areas.
- No net loss of stream length.

In order to determine if these goals and objectives are being met within the restored areas, annual monitoring will be conducted annually for a period of 5 years. Following the monitoring period, it will be determined if additional monitoring should be conducted or if monitoring can be terminated.

2. METHODS

To satisfy both USACE and NYSDEC monitoring requirements, the restoration monitoring efforts include the collection of specific data for reporting, including:

- Wetland, Riparian, and Upland vegetation monitoring
- Documentation of invasive species coverage across the restored areas
- Documentation of wetland hydrology within restored wetland areas
- Current site conditions at fixed photographic points across the site
- Inspection of stream bank stabilization and identification of erosion areas.

For the annual monitoring, the project site was separated into four distinct areas as shown on **Figures 3a and 3b** which include the following Monitoring Areas:

- Emergent wetland planting area
- Riparian planting area
- Upland planting area
- Stream channel.

The areas that were restored with recycled concrete material (RCM) only and not re-vegetated are not included in the monitoring effort.

2.1 UPLAND, RIPARIAN, AND WETLAND VEGETATION MONITORING

Vegetation monitoring consisted of two parts. The first part included inspecting all planted trees and shrubs across the site and documenting survival rates. Survivability was documented by counting all living planted stems compared to the number of total planted stems. In addition, EA noted any native woody pioneer stems that were greater than 10-inches in height to be included in the total woody stem count. The second part of the vegetation monitoring included the establishment of fixed vegetation plots throughout the planting areas to document percent ground cover by native herbaceous vegetation and documenting dominant species within each plot.

A total of eight vegetation sample plot locations were established within the restored areas (**Figure 4**) prior to conducting the 2024 monitoring event. Each sample plot consisted of a 1 square meter area which was assessed using a polyvinyl chloride frame. The PVC frame was placed at the center of each sample plot and the ground cover was assessed within the frame. Five plots were located within the riparian planting area, two plots within the upland planting area, and one plot within the emergent wetland planting area. Upon initiation of the field monitoring, it was determined that vegetation plot V3 was located in an area that was determined to be restored with RCM only as a field change during construction and therefore this plot was removed from monitoring in 2024.

2.2 INVASIVE SPECIES DOCUMENTAION

In addition to documenting the vegetation within the restored areas as discussed above, invasive species throughout the entire AOR were documented and mapped to determine the total aerial coverage of invasive plant species.

The site was surveyed from the upstream extent of the project site in OU-3 and continued downstream to the northern and southernmost extent of the remediation area in OU-2. When invasive species were observed, field personnel delineated the extent of the species coverage by collecting Global Positioning System (GPS) boundaries on invasive species areas greater than 100 square feet (ft^2) or a single GPS point for areas less than or equal to 100 ft^2 (**Figures 5a and 5b**).

2.3 WETLAND HYDROLOGY MONITORING

All wetland areas that were restored as part of the remediation effort were monitored to ensure the successful re-establishment of wetland hydrology. Wetland hydrology supplies the moisture required to support wetland vegetation and creates the conditions necessary for the formation of hydric soils. Primary indicators of wetland hydrology include, but are not limited to, observed inundation or saturation, watermarks, drift deposits, sediment deposits, aquatic fauna, oxidized rhizospheres on living roots, and water-stained leaves. Secondary indicators of wetland hydrology include, but are not limited to, drainage patterns, dry season water table, crayfish burrows, and the Facultative (FAC)-Neutral Test. The FAC-Neutral Test involves comparing the number of obligate and facultative wetland plant species to the number of facultative upland and upland plant species, with FAC species being neutral. If 50% or more of the plant species are obligate or facultative wetland, the FAC-Neutral Test is met. Meeting the FAC-Neutral Test is considered a secondary indicator of wetland hydrology. An area must contain at least one primary indicator or two secondary indicators of wetland hydrology for the parameter of wetland hydrology to be met.

2.4 STREAM MONITORING

Field personnel walked the length of the restored stream channel to document any observations of stream instability and erosion that may have occurred over the year. Areas of concern along the stream channel if found were GPS located and photographed. EA took photographs at established photograph location which were established during this first year monitoring effort. Fixed photograph locations for the stream channel as well as other areas across the AOR are depicted on **Figures 5a and 5b**, and photographs are included in **Appendix C** of this report.

3. RESULTS

Year 1 annual monitoring was performed on 14 August 2024. Field observations and results are discussed in the following sections.

3.1 UPLAND, RIPARIAN, AND WETLAND VEGETATION MONITORING

EA identified planted trees and shrubs across the upland planting area and the riparian planting area. A total count of live and dead stems was conducted across both planting areas to document survivability (**Table 1**). A total survivability for all woody stems was estimated at 73.3% without taking native pioneer stems into account and 77.7% when considering each established native stem replacement for dead stems, which exceeds the 75% survivability requirement.

Table 1. Tree and Shrub Survivability by Planting Area

Monitoring Area	Live Planted Stems	Dead Planted Stems	No. Native Pioneer Stems	Percent Survivability w/o Pioneer	Percent Survivability w/ Pioneer[1]
Upland	52	10	1	83.9%	84.1%
Riparian	131	57	15	69.7%	71.9%
Combined	183	67	16	73.2%	77.7%

Notes:
1. Percent survivability if each identified native pioneer stems over 10 inches in height replaces each dead stem.
No. = Number

Percent ground cover across the upland planting area, riparian planting area and emergent wetland area was documented through the establishment of eight vegetation plots (**Table 2**). All vegetation plots had a percent cover of 85% or more which meets the requirement outlined in Section 1.1.

Table 2. Vegetation Plot Data

Plot	Monitoring Area	Percent Native Cover	Dominant Species
V1	Riparian	95%	Boneset, Green Foxtail, Blue vervain, and Soft rush
V2	Riparian	85%	Green foxtail and Blue vervain
V3	Restored with RCM only		
V4	Upland	95%	Red clover, White clover, Green foxtail
V5	Riparian	95%	Red clover, Green foxtail, and Bonset
V6	Upland	95%	Tall goldenrod, Red clover and White clover
V7	Riparian	90%	Green foxtail, Blue vervain
V8	Wetland	90%	Lady's thumb, Torrey's rush, and Barnyard grass

Notes:
RCM = Recycled concrete material

3.2 INVASIVE SPECIES DOCUMENTAION

Three invasive species of concern were identified within the project site. Common reed, purple loosestrife, and mugwort were identified in multiple locations throughout the restored areas and were GPS located to determine the aerial extent of each species (**Figures 5a and 5b**).

Purple loosestrife was identified at a total of 45 locations with 40 of those locations in small populations less than 100 ft^2 per location and 5 locations covering between 100 ft^2 and 581 ft^2. A total of 2,238 ft^2 of purple loosestrife was delineated across the 54,317 ft^2 of revegetated areas and stream channel for a total aerial coverage of 4.01%. Many of the populations of purple loosestrife were identified along the stream banks along the existing rip-rap edge.

Common reed was identified at a total of 15 locations with 12 of those locations in small populations less than 100 ft^2 per location and 3 locations covering between 177 ft^2 and 524 ft^2. A total of 1,177 ft^2 of common reed was delineated across the 54,317 ft^2 of revegetated areas and stream channel for a total aerial coverage of 2.17%.

Mugwort was identified at a total of 3 locations with all three of those locations in small populations less than 100 ft^2 per location. A total of 20 ft^2 of mugwort was delineated across the 54,317 ft^2 of revegetated areas and stream channel for a total aerial coverage of 0.03%.

Therefore, a total of 6.21% aerial coverage of invasive species was identified within the restored areas during the 2024 monitoring effort, which is below the 10% standard required by the Nontidal Wetland/Waterway Mitigation Plan (EA 2020).

3.3 WETLAND HYDROLOGY MONITORING

In general, the areas to be restored as emergent wetlands in OU-2 were restored with pea gravel due to constructability issues as documented during construction. Field changes to the restoration of these areas were issued due the presence of groundwater; clean, washed stone was used in place of common fill and wetland topsoil. This field change has reduced the majority of these emergent areas to a narrow vegetated drainage feature. All emergent wetland planting areas appear to have signs of wetland hydrology with the exception of one wetland area identified as Emergent wetland fill area 2, which is identified in the vicinity of photograph location 16 (**Figure 6b**). Signs of wetland hydrology include inundation, saturated soils, and drainage patterns.

3.4 STREAM MONITORING

During the monitoring effort, EA personnel did not observe areas of stream bank erosion or signs of stream instability along the channel. The stream channel appears to be well stabilized with rip-rap and photographic documentation of the current channel conditions are provided in **Appendix C**.

4. CONCLUSIONS AND RECOMMENDATIONS

In general, the restored wetlands, stream channel, and riparian areas appear to be functioning as designed. Many of the areas identified originally as emergent wetland areas in the southern portion of OU-2 were restored with clean stone only and not replanted, and do not exhibit emergent wetland growth with the exception of a narrow-vegetated drainage feature which has become vegetated with natural revegetation. Invasive species are below the required 10%, and the stream channel is stable and functioning as designed.

Planted woody tree and shrub survivability is above the required 75% with a total of 67 dead tree and shrubs identified across the site. Many of these dead trees appear to have been fully browsed by deer and were identified as woody stems that did not have the deer protection tubes around them, while the majority of the trees and shrubs with deer protection appear to be surviving. If the woody stem survivability begins to drop below the 75% requirement and additional trees are required to be planted, deer protection tubes should be installed on any new tree or shrub. Additionally, it may be beneficial to install deer protection around any existing surviving tree or shrub that currently does not have deer protection in order to ensure the survivability does not drop below 75%.

Although invasive species coverage is currently below the 10% cover standard in the NWP, these species should be closely monitored annually to ensure the cover does not increase. If the invasive species cover exceeds the 10% standard, then an adaptive management plan for the control of invasive species should be developed and implemented in future monitoring years.

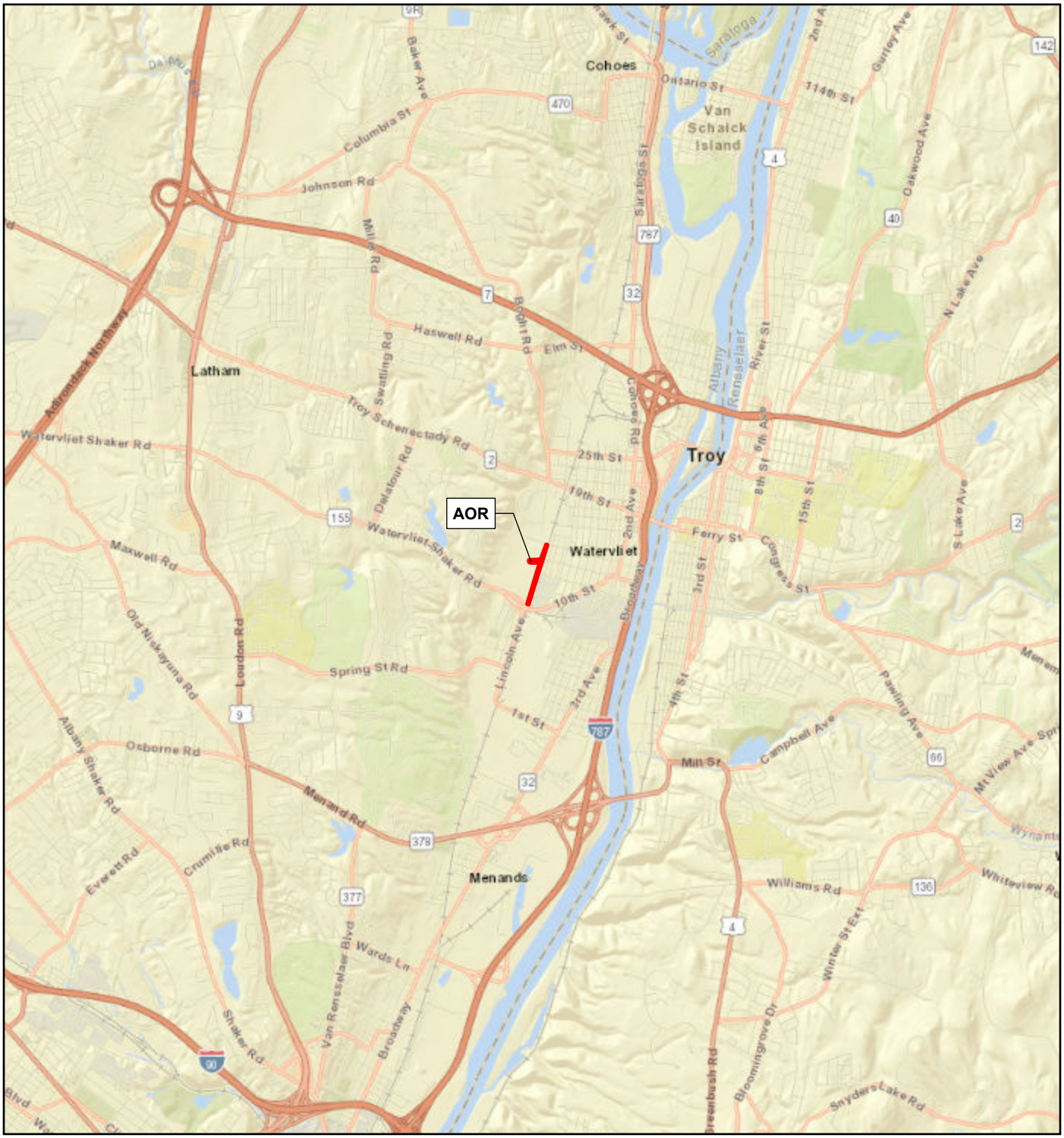
5. REFERENCES

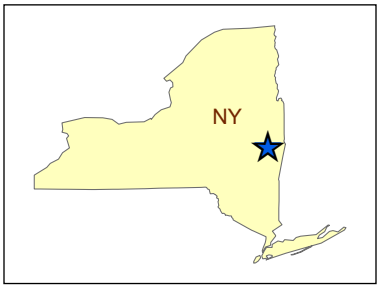
EA Engineering, P.C.. 2020. *Former Adirondack Steel Site (401039) Operable Units 02 and 03, Nontidal Wetland/Waterways Restoration Plan, Colonie, New York*. May.

———. 2023. *Final Engineering Report, Former Adirondack Steel Site, Operable Unites 02 and 03, Colonie, New York*., *Site No. 401039.* September.

U.S. Army Corps of Engineers (USACE). 2008. *Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving the Restoration, Establishment, and/or Enhancement of Aquatic Resources.* Regulatory Guidance Letter No. 08-03. 10 October.

Figures





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Area of Review (AOR)

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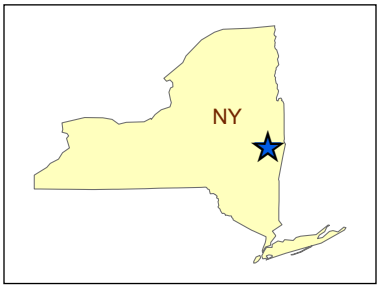
Figure 1
SITE LOCATION
Former Adirondack Steel OU-2
and OU-3 (Site No. 401039)
Colonie, New York

Map Date: 1/10/2025
Projection: State Plane NAD83 New York East (feet)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation



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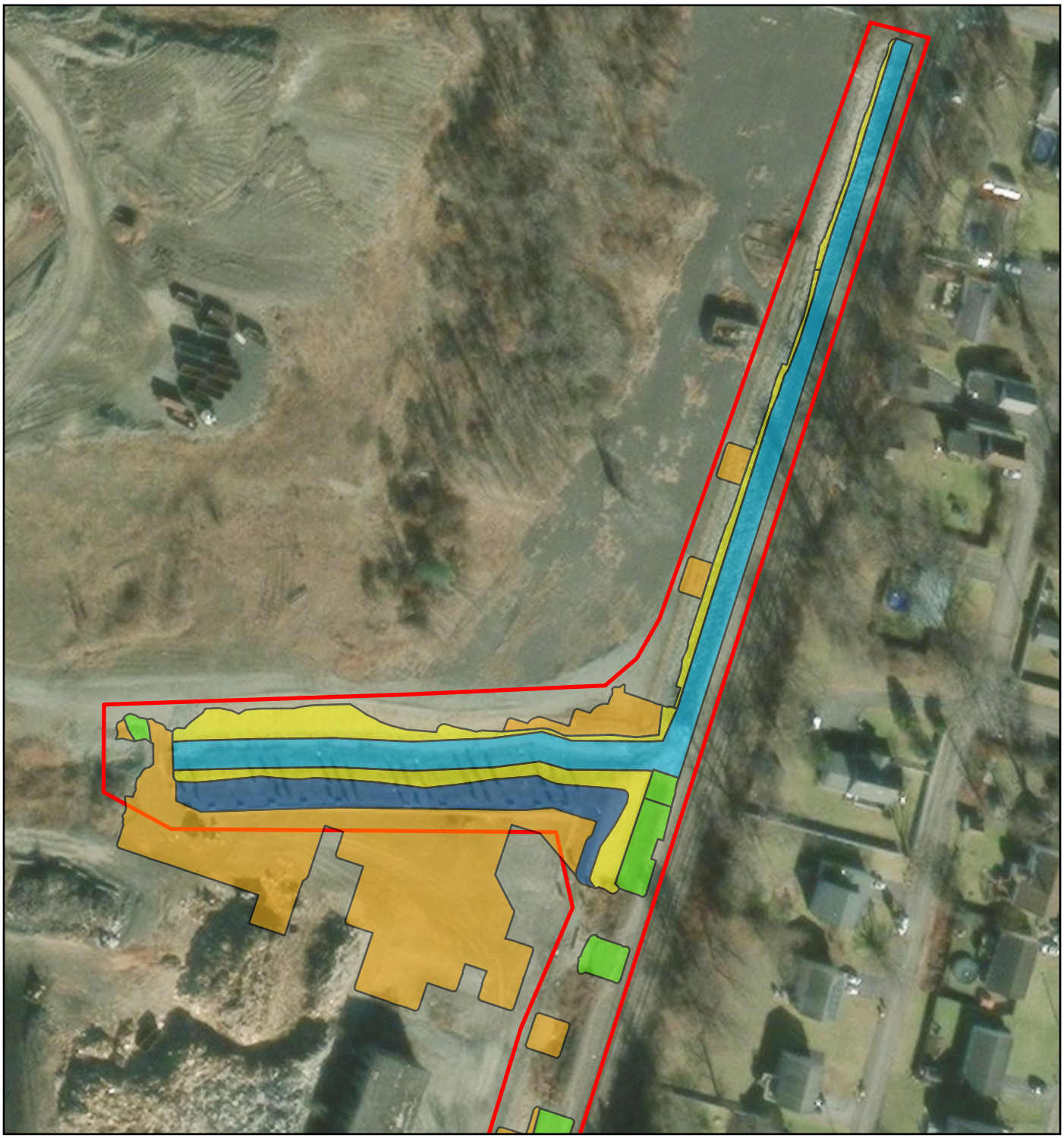
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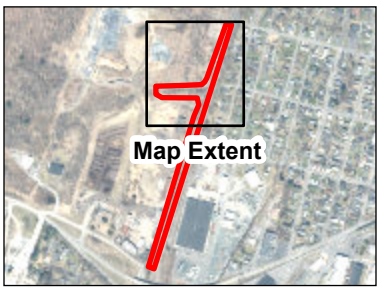
Area of Review (AOR)

Figure 2
AREA OF REVIEW
Former Adirondack Steel OU-2
and OU-3 (Site No. 401039)
Colonie, New York

Map Date: 1/10/2025
Projection: State Plane NAD83 New York East (feet)

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Legend

- Area of Review (AOR)

Restoration Area

- Emergent Wetland Planting Area
- No Planting in these Areas - Restored with RCM
- Riparian Planting Area
- Stream Channel
- Upland Planting Area

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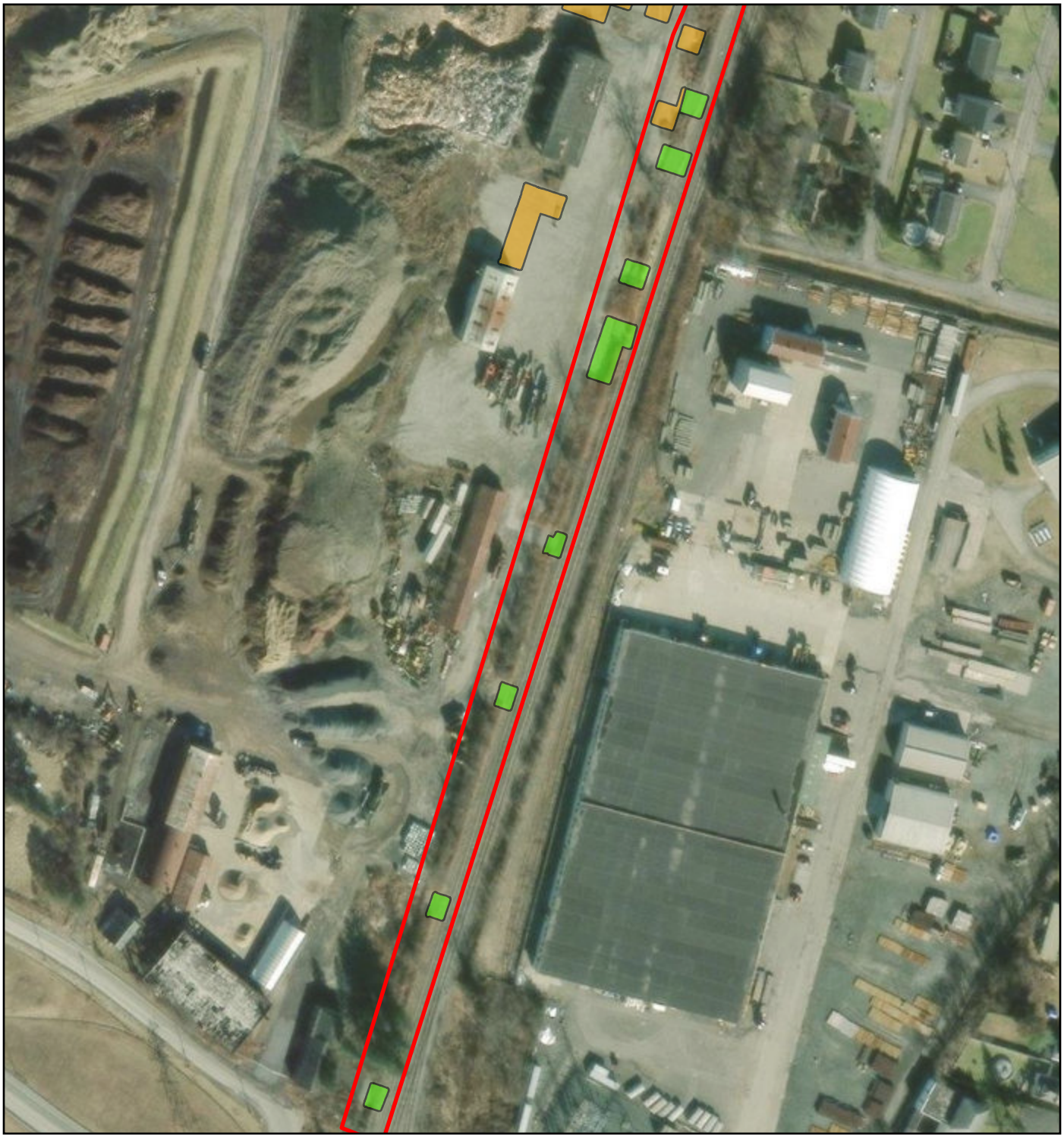
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Figure 3a
RESTORATION AREA - NORTH
Former Adirondack Steel OU-2
and OU-3 (Site No. 401039)
Colonie, New York

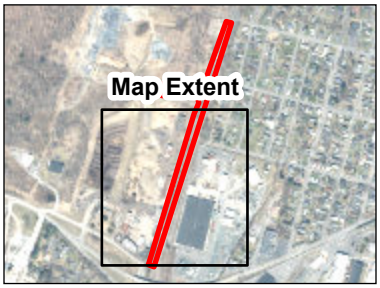
Map Date: 1/10/2025
Projection: State Plane NAD83 New York East (feet)

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Area of Review (AOR)

Restoration Area

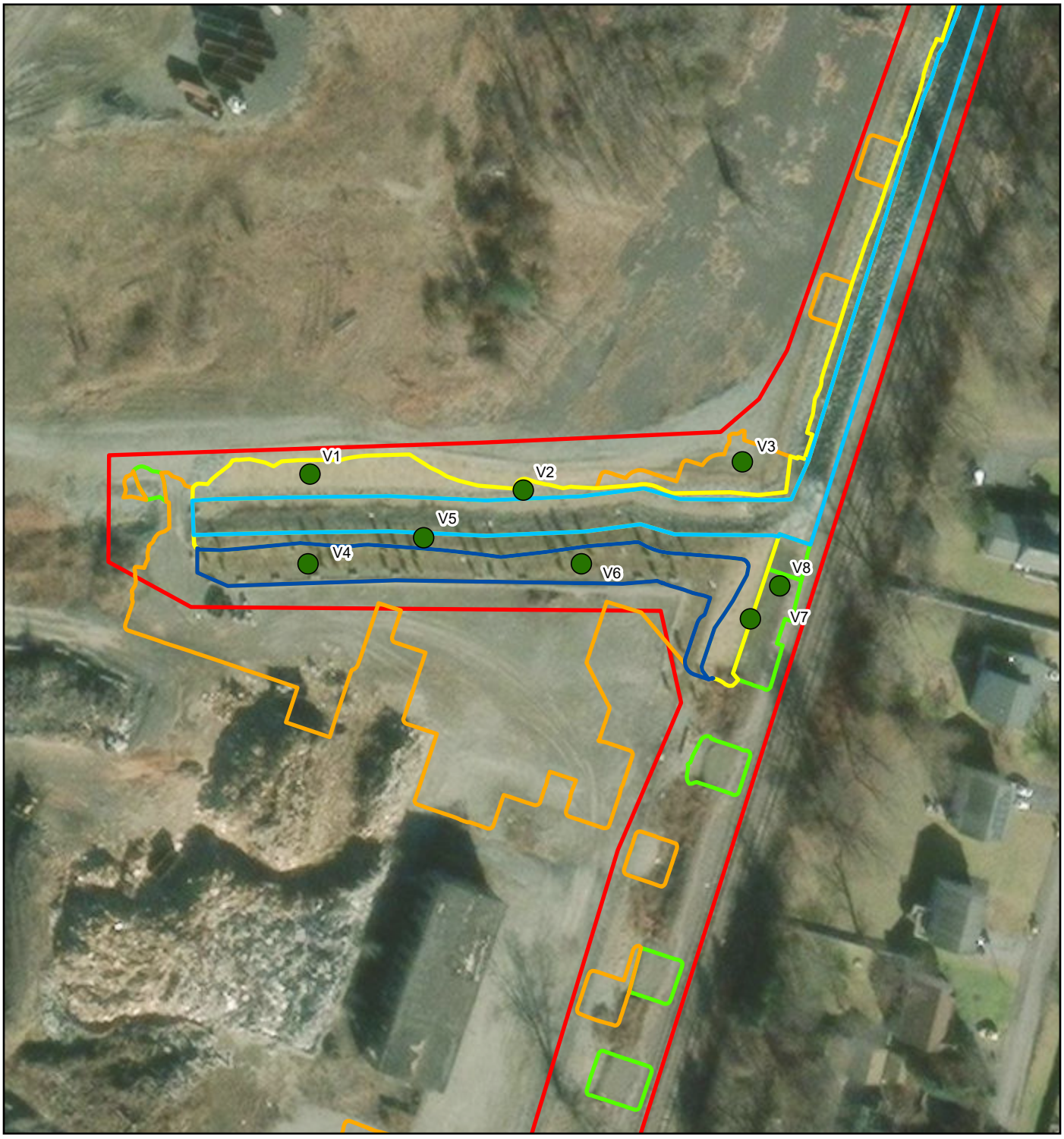
Emergent Wetland Planting Area

No Planting in these Areas - Restored with RCM

Figure 3b
RESTORATION AREA - SOUTH
Former Adirondack Steel OU-2
and OU-3 (Site No. 401039)
Colonie, New York

Map Date: 1/10/2025
Projection: State Plane NAD83 New York East (feet)

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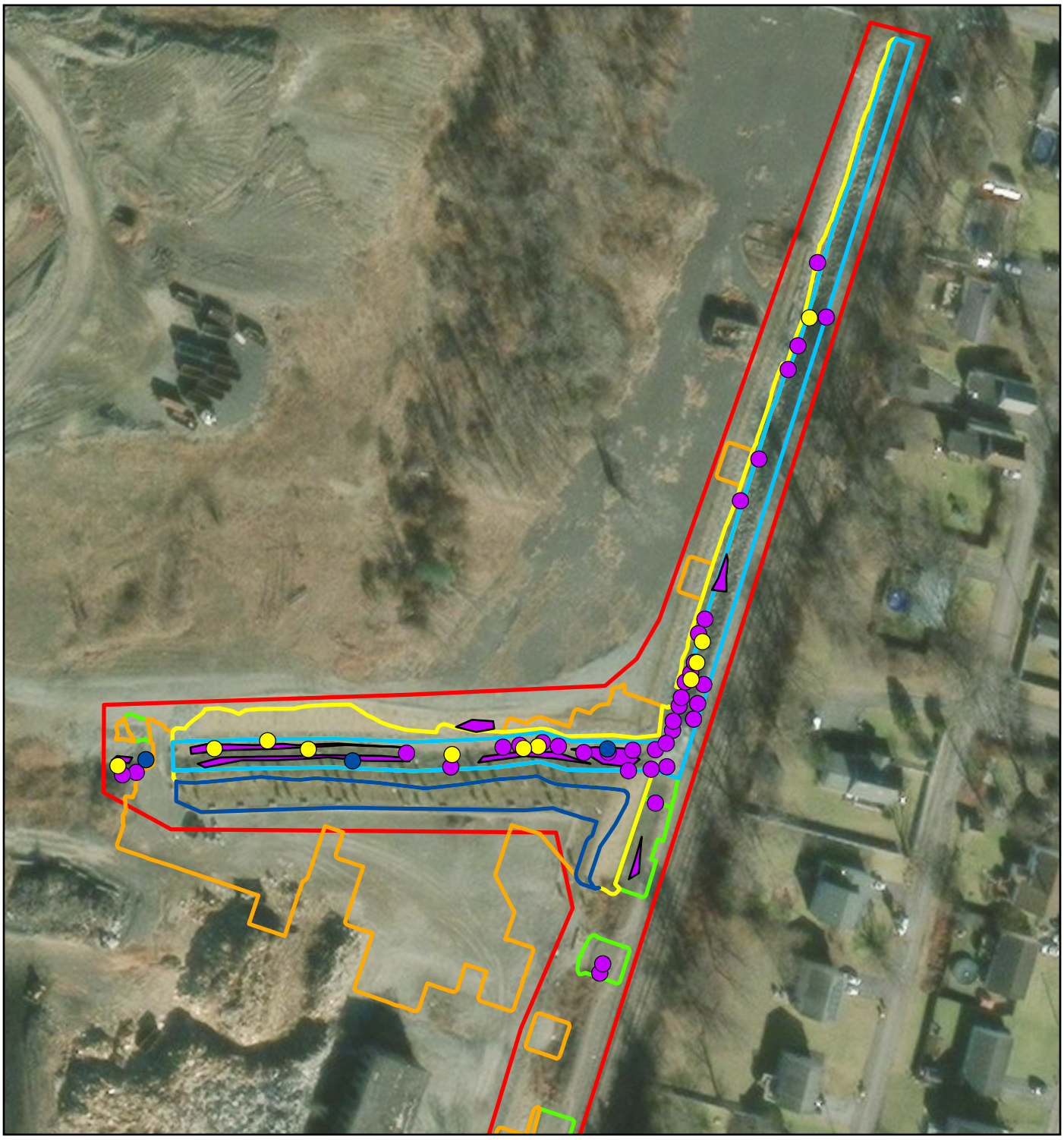
Restoration Area

- Emergent Wetland Planting Area
- No Planting in these Areas - Restored with RCM
- Riparian Planting Area
- Stream Channel
- Upland Planting Area
- Vegetation Sampling Plot Location

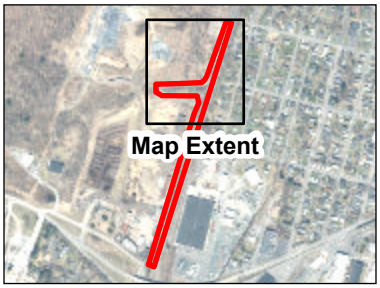
Figure 4
VEGETATION SAMPLE LOCATIONS
Former Adirondack Steel OU-2
and OU-3 (Site No. 401039)
Colonie, New York

Map Date: 1/10/2025
Projection: State Plane NAD83 New York East (feet)

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- Area of Review (AOR)

Restoration Area

- Emergent Wetland Planting Area
- No Planting in these Areas - Restored with RCM
- Riparian Planting Area
- Stream Channel
- Upland Planting Area

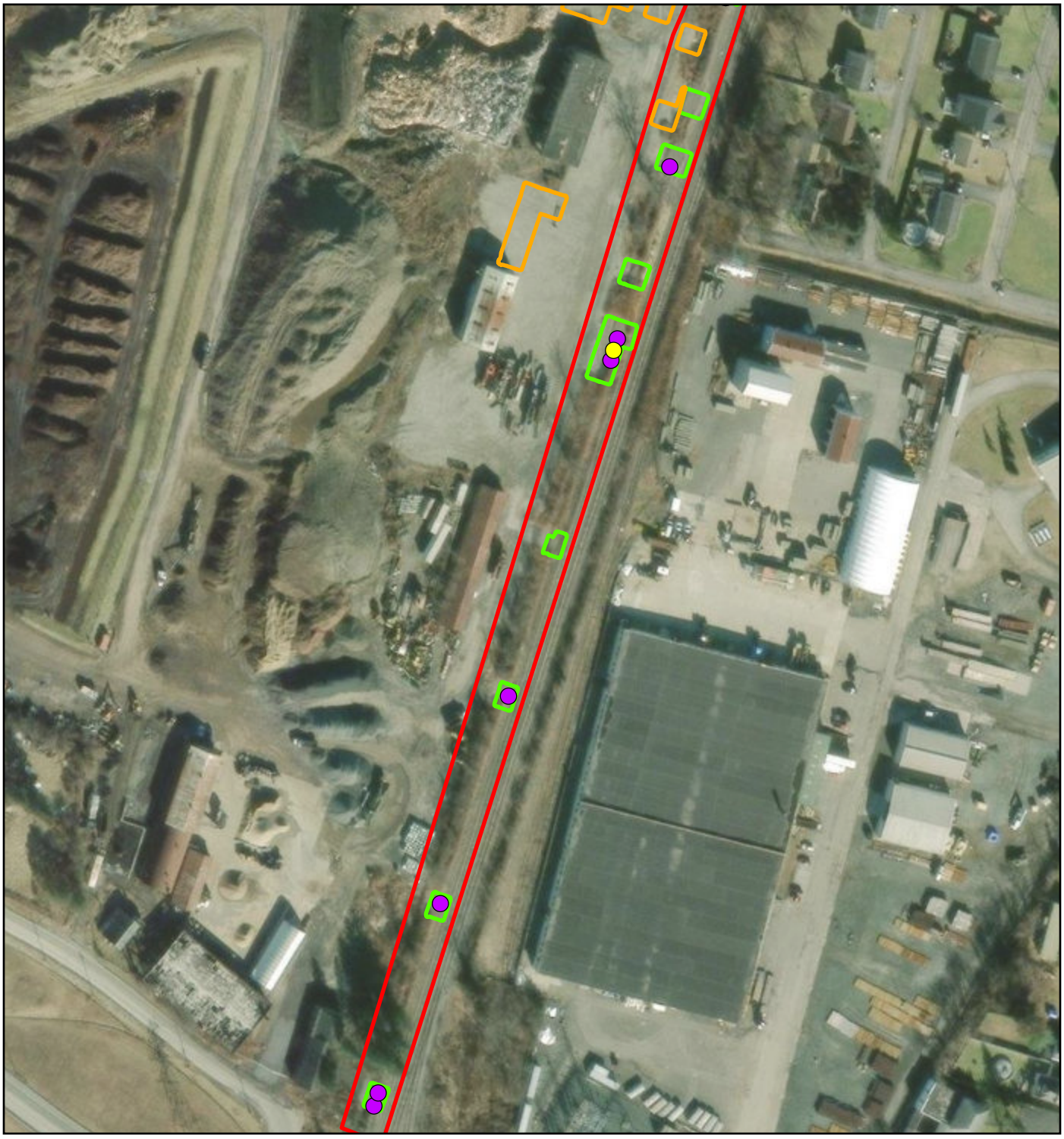
Invasive Species

- Common Reed (phrag)
- Mugwort
- Purple Loosestrife
- Purple Loosestrife

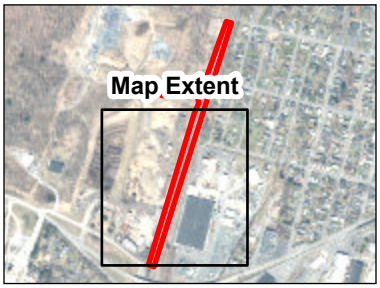
Figure 5a
INVASIVE SPECIES - NORTH
Former Adirondack Steel OU-2 and OU-3 (Site No. 401039)
Colonie, New York

Map Date: 1/10/2025
Projection: State Plane NAD83 New York East (feet)

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- Area of Review (AOR)

Restoration Area

- Emergent Wetland Planting Area
- No Planting in these Areas - Restored with RCM

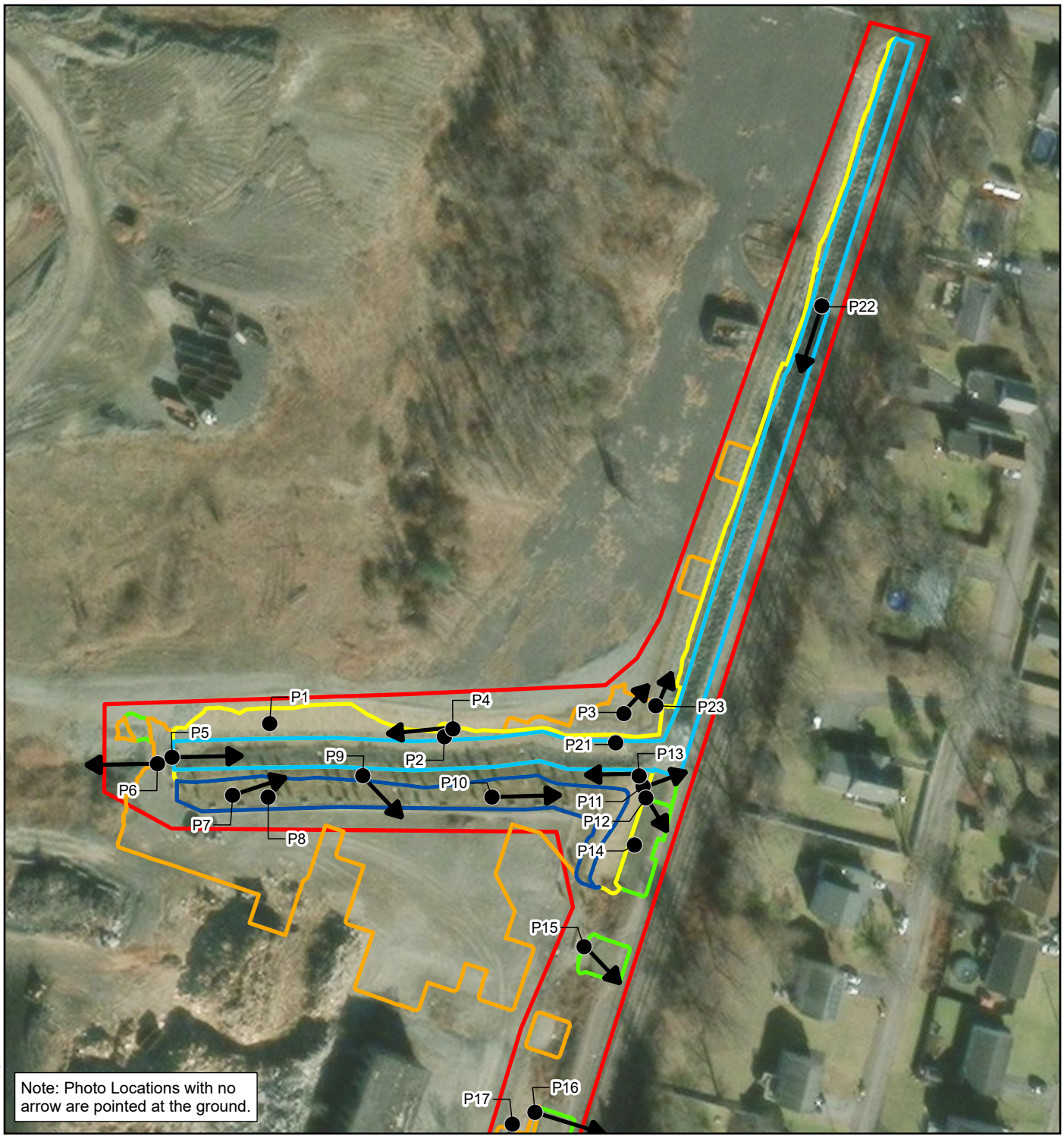
Invasive Species

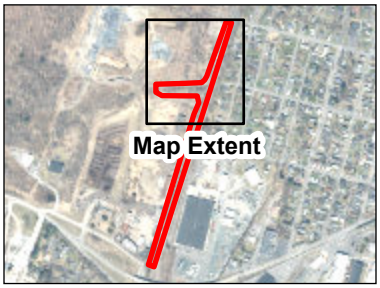
- Common Reed (phrag)
- Purple Loosestrife

Figure 5b
INVASIVE SPECIES - SOUTH
Former Adirondack Steel OU-2
and OU-3 (Site No. 401039)
Colonie, New York

Map Date: 1/10/2025
Projection: State Plane NAD83 New York East (feet)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation





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- Area of Review (AOR)

Restoration Area

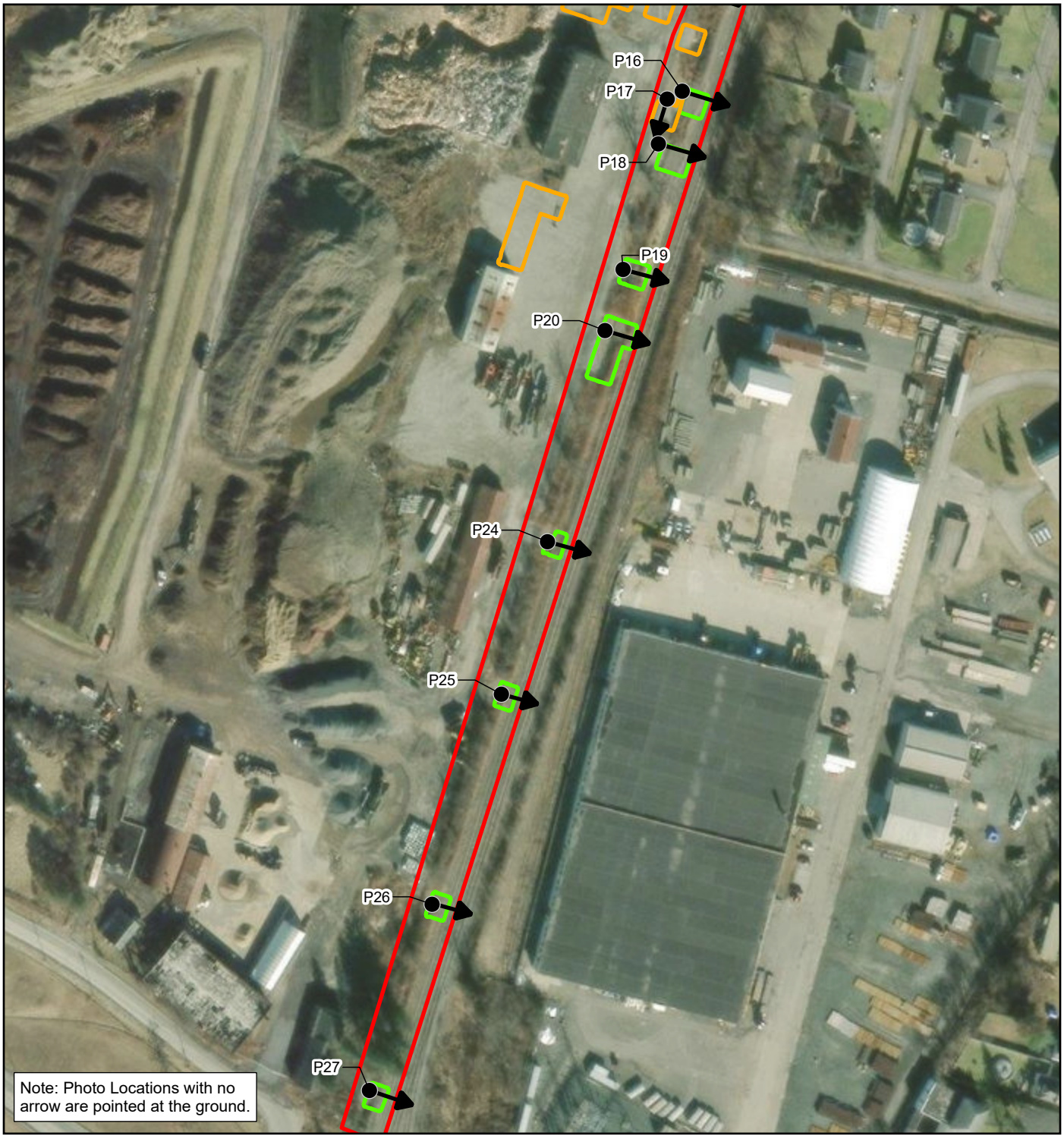
- Emergent Wetland Planting Area
- No Planting in these Areas - Restored with RCM
- Riparian Planting Area
- Stream Channel
- Upland Planting Area
- Photo Location
- Photo Direction

Figure 6a
PHOTOGRAPH LOCATIONS - NORTH
Former Adirondack Steel OU-2 and OU-3 (Site No. 401039)
Colonie, New York

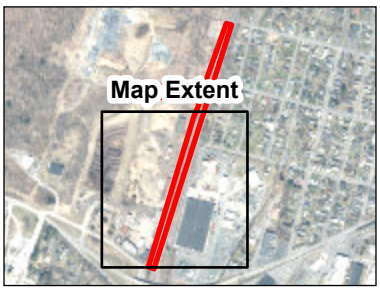
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- Area of Review (AOR)

Restoration Area

- Emergent Wetland Planting Area
- No Planting in these Areas - Restored with RCM
- Photo Location
- Photo Direction

Figure 6b
PHOTOGRAPH LOCATIONS - SOUTH
Former Adirondack Steel OU-2
and OU-3 (Site No. 401039)
Colonie, New York

Map Date: 1/10/2025
Projection: State Plane NAD83 New York East (feet)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Appendix A

Nationwide Permit 38

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers, ATTN: CENAN-OP-RU
Upstate Regulatory Field Office
1 Buffington St., Building 10, 3rd Fl. North
Watervliet, New York 12189-4000

November 25, 2020

Upstate New York Section

SUBJECT: Permit Application No. NAN-2020-00365-UDA
By New York State Department of Environmental Conservation
191 Watervliet-Shaker Road, Town of Colonie, Albany County, New York

New York State Department of Environmental Conservation
Attention: Ms. Lisa Gorton, P.E.
625 Broadway
Albany, New York 12233

Dear Ms. Gorton:

This office has reviewed your Joint Application for Permit dated April 16, 2020, and the revised submittal received on May 5, 202, which included the attached drawing entitled "Former Adirondack Steel Site, PCB Remediation Project, Permitting Figures", Sheets 1-15, prepared by EA Engineering, Science and Technology, Inc., PBC, dated April 2020, and last revised on April 16, 2020. The submitted information describes a proposal that would consist of the following:

The temporary discharge of fill material into 0.18-acre of wetland and below the ordinary high water mark of Gas House Creek for approximately 1,170 linear feet, to facilitate the implementation of a State mandated remediation project. Upon completion of the remedial activities, the stream channel and wetland areas will be restored in accordance with the Restoration Plan dated April 2020.

Based upon the information provided, it appears that your proposed work may be authorized under Department of the Army nationwide general permit number: 38. The nationwide permits are prescribed as a Reissuance of Nationwide Permits in the Federal Register dated January 6, 2017 (82 FR 1860).

The work may be performed without further authorization from this office provided the activity complies with the terms and conditions of the Nationwide Permits (NWP) and the permit conditions listed in Section B, No. 38, Section C, any applicable New York District regional conditions, and any applicable regional conditions added by the State of New York. Please note that NWP General Condition No. 12 requires the installation and maintenance of proper soil erosion and sediment controls during construction.

The 2017 Nationwide Permits, including their final regional conditions, water quality certifications, and coastal zone concurrence statements are available at:

http://www.nan.usace.army.mil/Missions/Regulatory/Nationwide-Permits/

Please review and familiarize yourself with all relevant terms and conditions of the nationwide permit prior to proceeding with your project, and subsequently ensure you adhere to all conditions through the duration of the project. If you do not have internet access and require a specific paper copy, please contact the undersigned to request one be mailed to you. Please be sure to have your permit application number readily available when you call.

This verification is valid until March 18, 2022, unless the nationwide permit is modified, reissued, or revoked. This verification will remain valid until March 18, 2022, if the activity complies with the terms of any subsequent modifications of the nationwide permit authorization. If the nationwide permits are suspended, revoked, or modified in such a way that the activity would no longer comply with the terms and conditions of a nationwide permit, and the proposed activity has commenced, or is under contract to commence, the permittee shall have 12 months from the date of such action to complete the activity.

Please note that, as you requested, this nationwide permit (NWP) authorization is based on a preliminary jurisdictional determination (JD). A preliminary JD is not appealable. If you wish, prior to commencement of the authorized work you may request an approved JD, which may be appealed, by contacting the New York District, U.S. Army Corps of Engineers for further instruction. To assist you in this decision and address any questions you may have on the differences between preliminary and approved jurisdictional determinations, please review U.S. Army Corps of Engineers Regulatory Guidance Letter No. 16-01, which can be found at:

http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Guidance-Letters/

Please note that this determination does not eliminate the need to obtain any other Federal, State or local authorizations required by law for the above described work, including any required permit from the NYSDEC.

In order for us to better serve you, please complete our Customer Service Survey located at:

http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx

Any inquiries can be directed to the undersigned at (518) 266-6356.

Sincerely,

Andrew C. Dangler

Andrew Dangler
Project Manager
Upstate New York Section

Enclosure

Cf: N. Baker - NYSDEC Region 4, Schenectady
Town of Colonie
A. EA - Engineering, P.C.
A. Hunt - EA Engineering, P.C.

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers, ATTN: CENAN-OP-RU
Upstate Regulatory Field Office
1 Buffington St., Building 10, 3rd Fl. North
Watervliet, New York 12189-4000

CENAN-OP-RU

NATIONWIDE PERMIT COMPLIANCE CERTIFICATION AND REPORT FORM

Permittee: NYSDEC_____ Permit No. NAN-2020-00365-UDA

Date Permit Issued: November 25, 2020_____

Location: Town of Colonie, Albany County, New York

Within 30 days of the completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the address at the bottom of this form.

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____
Signature of Permittee Date

Printed Name: _____

Fold this form into thirds, with the bottom third facing outward. Tape it together and mail to the address below

or EMAIL TO: cenan.rfo@usace.army.mil

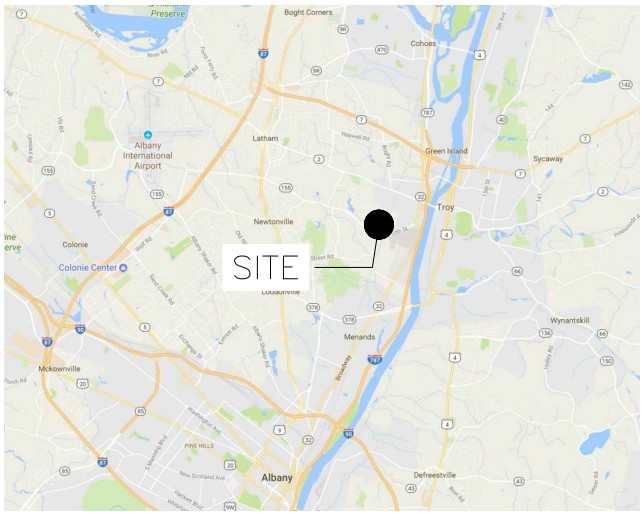
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Place Stamp Here

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
ATTN: CENAN-OP-RU
Upstate Regulatory Field Office
1 Buffington St., Bldg. 10, 3rd Fl. North
Watervliet, New York 12189-4000

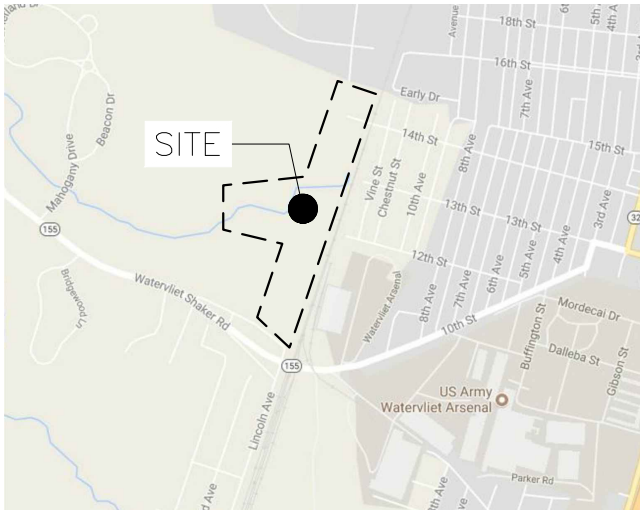
PLEASE USE THE ABOVE 18-CHARACTER FILE NUMBER ON ALL CORRESPONDENCE WITH THIS OFFICE

FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT



VICINITY MAP

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SITE MAP

NTS

IMPACT TABLE				
WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF

NOTE: TEMPORARY IMPACTS TO BE RESTORED IN PLACE

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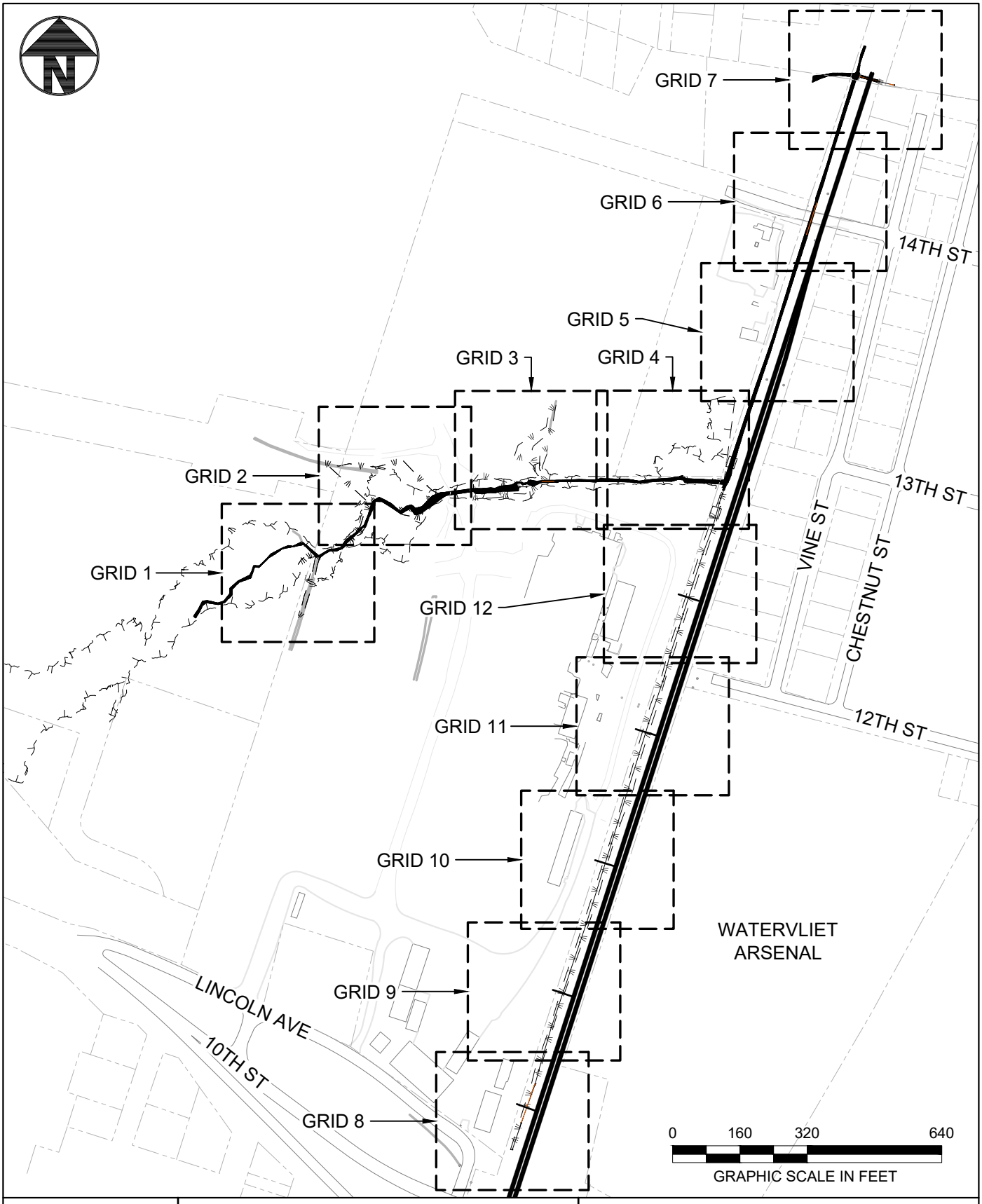
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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES
COLONIE, NEW YORK

TITLE SHEET

DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT MGR.:	DATE:	PROJECT NUMBER:	SHEET NUMBER:	FIGURE:
AE	DPA	TLM	AEH	APRIL 2020	14907.35	1 OF 15	1

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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

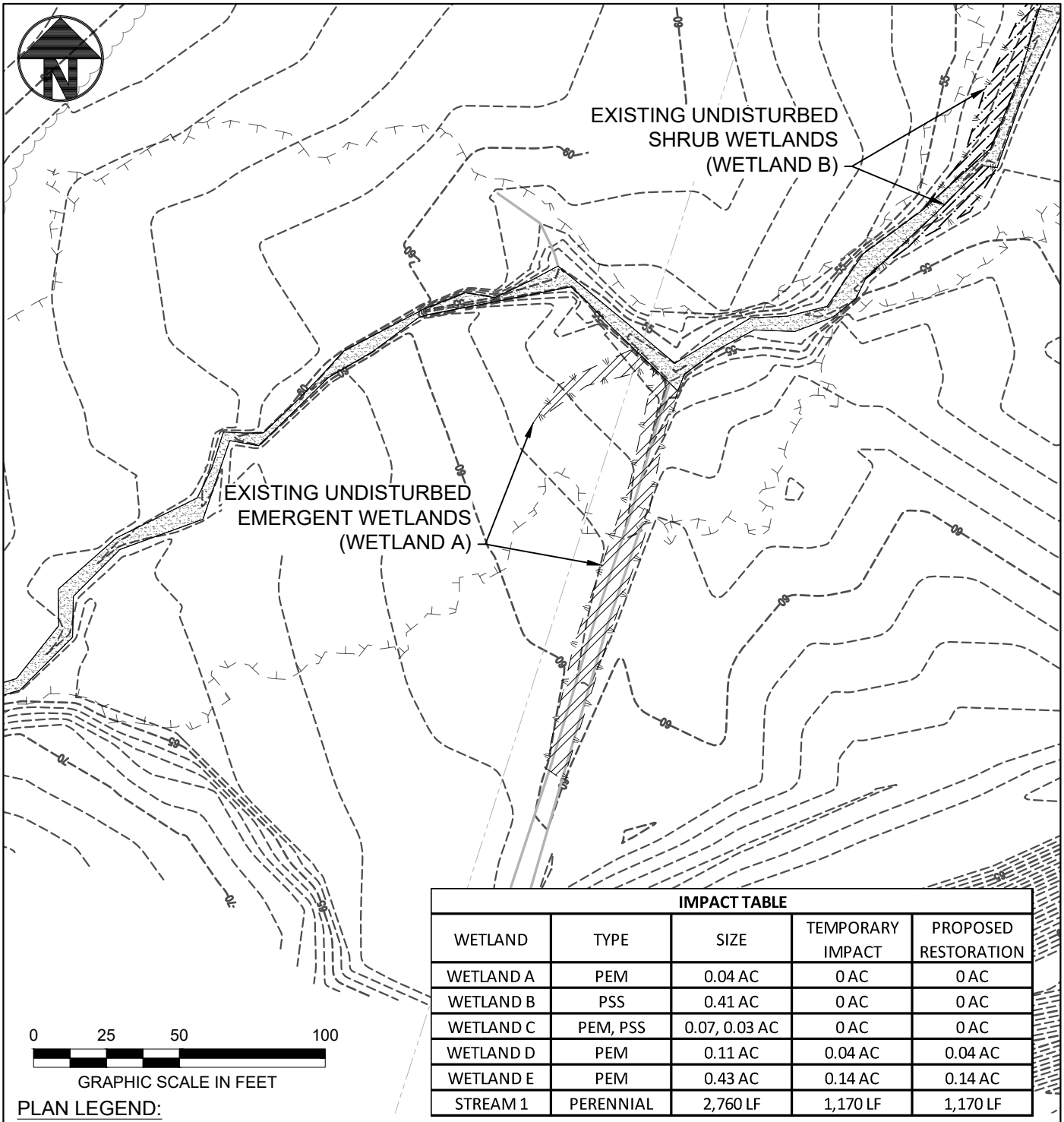
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KEY SHEET

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IMPACT TABLE				
WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF

0 25 50 100

GRAPHIC SCALE IN FEET

PLAN LEGEND:

- APPROXIMATE PROPERTY LINES
- LOD — LIMITS OF DISTURBANCE
- SF — PROPOSED SILT FENCE
- FEMA 100-YEAR FLOODPLAIN
- PROPOSED AREA OF EXCAVATION
- PROPOSED AREA OF CONSTRUCTION ACCESS ROAD
- EXISTING EMERGENT WETLANDS
- EXISTING SHRUB WETLANDS
- EXISTING STREAM
- AREA OF TEMPORARY IMPACTS

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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

COLONIE, NEW YORK

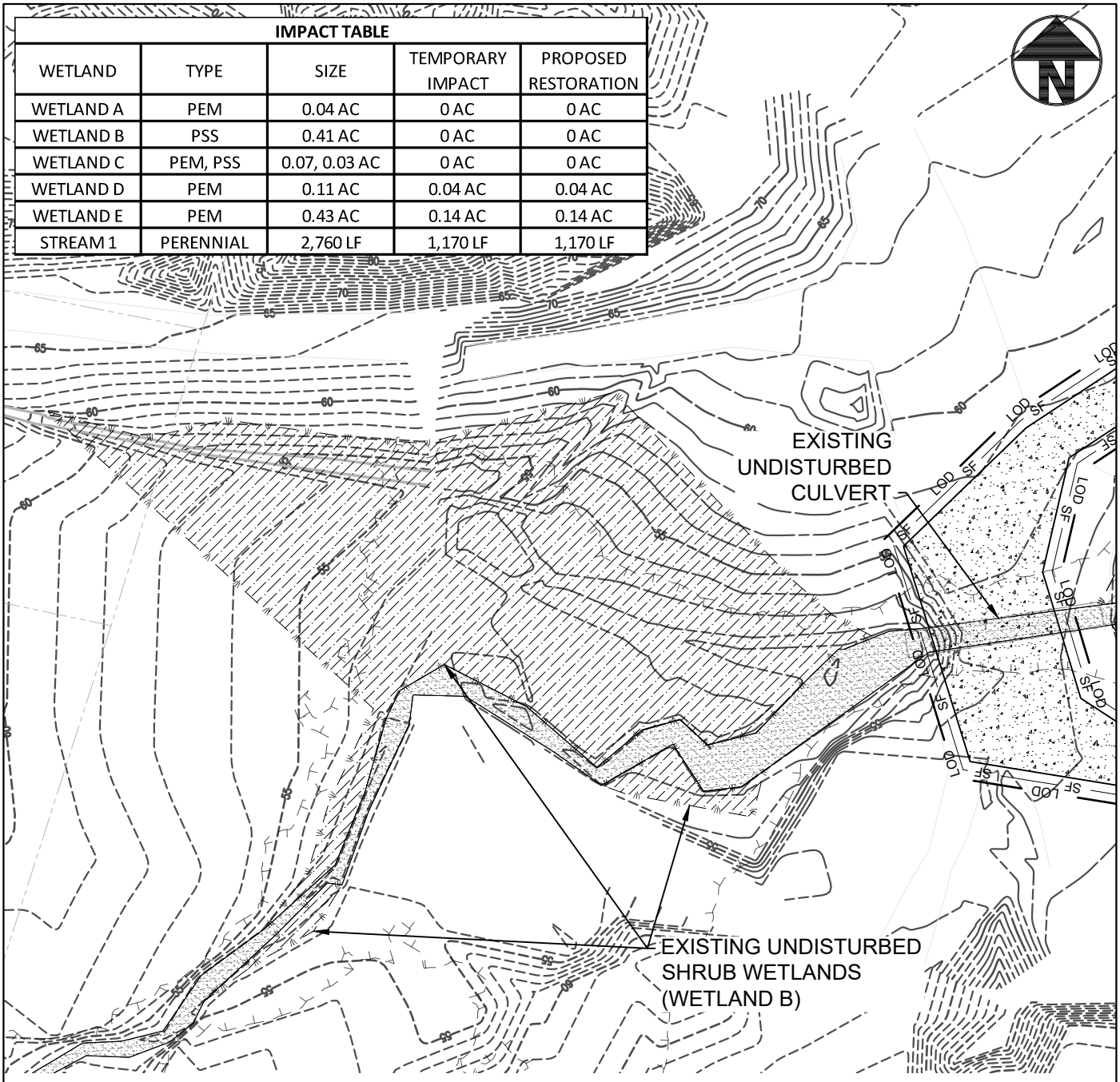
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IMPACT TABLE				
WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF



0 25 50 100

GRAPHIC SCALE IN FEET

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- APPROXIMATE PROPERTY LINES
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- EXISTING STREAM
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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

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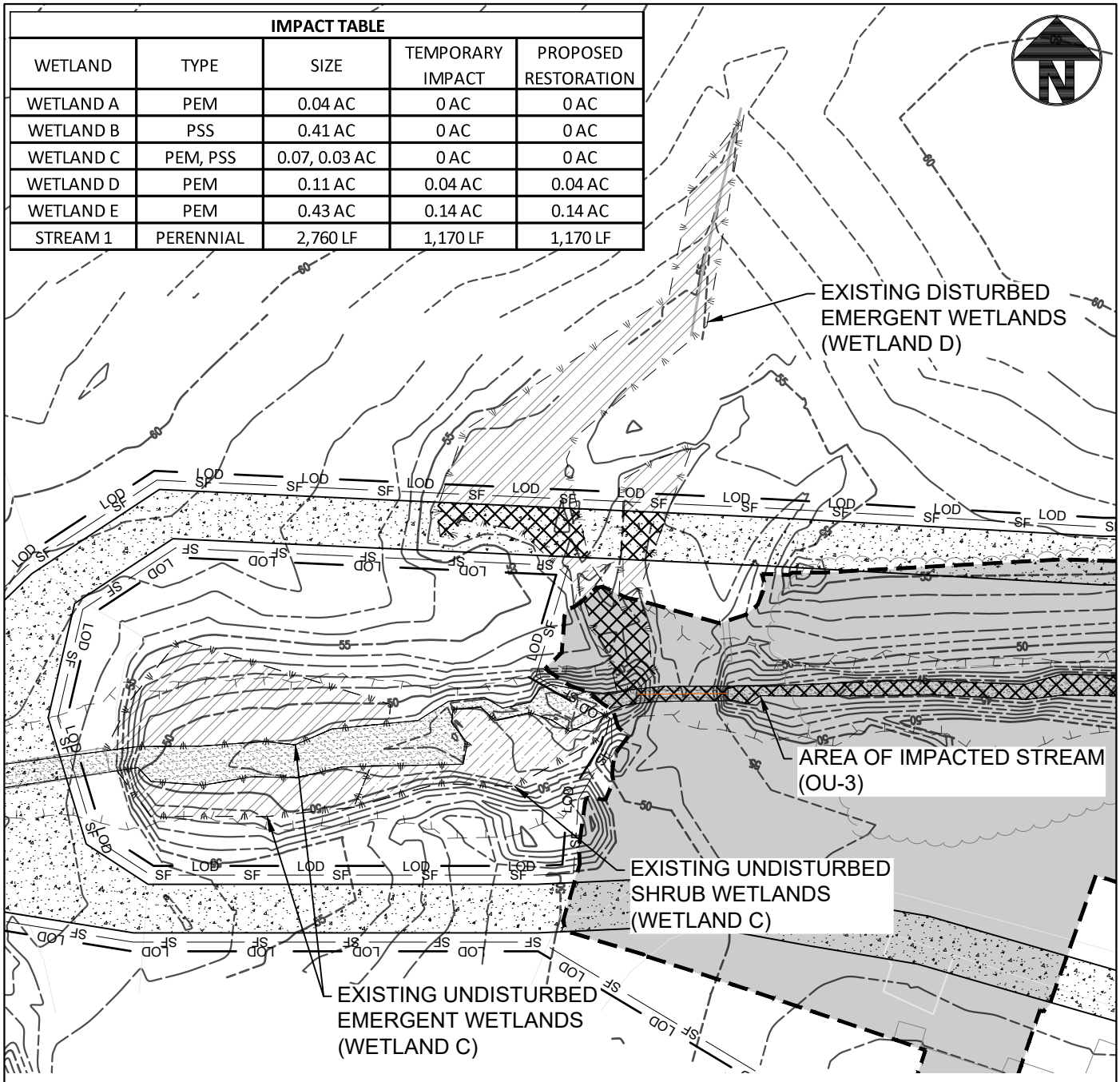
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FOR PERMITTING

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IMPACT TABLE				
WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF



0 25 50 100

GRAPHIC SCALE IN FEET

PLAN LEGEND:

- APPROXIMATE PROPERTY LINES
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PCB REMEDIATION PROJECT
PERMITTING FIGURES

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GRID 3

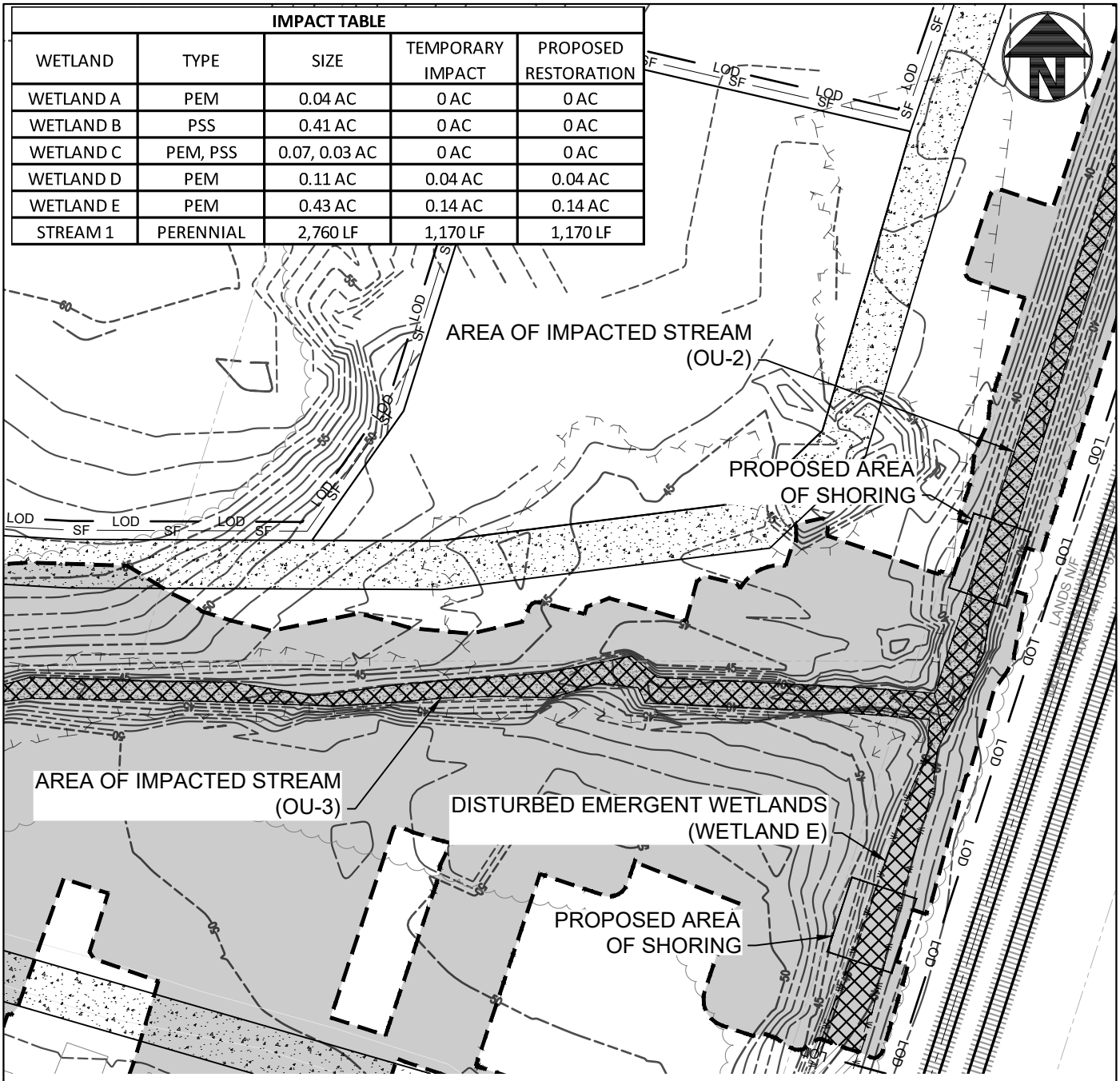
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IMPACT TABLE

WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF



PLAN LEGEND:

- APPROXIMATE PROPERTY LINES
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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

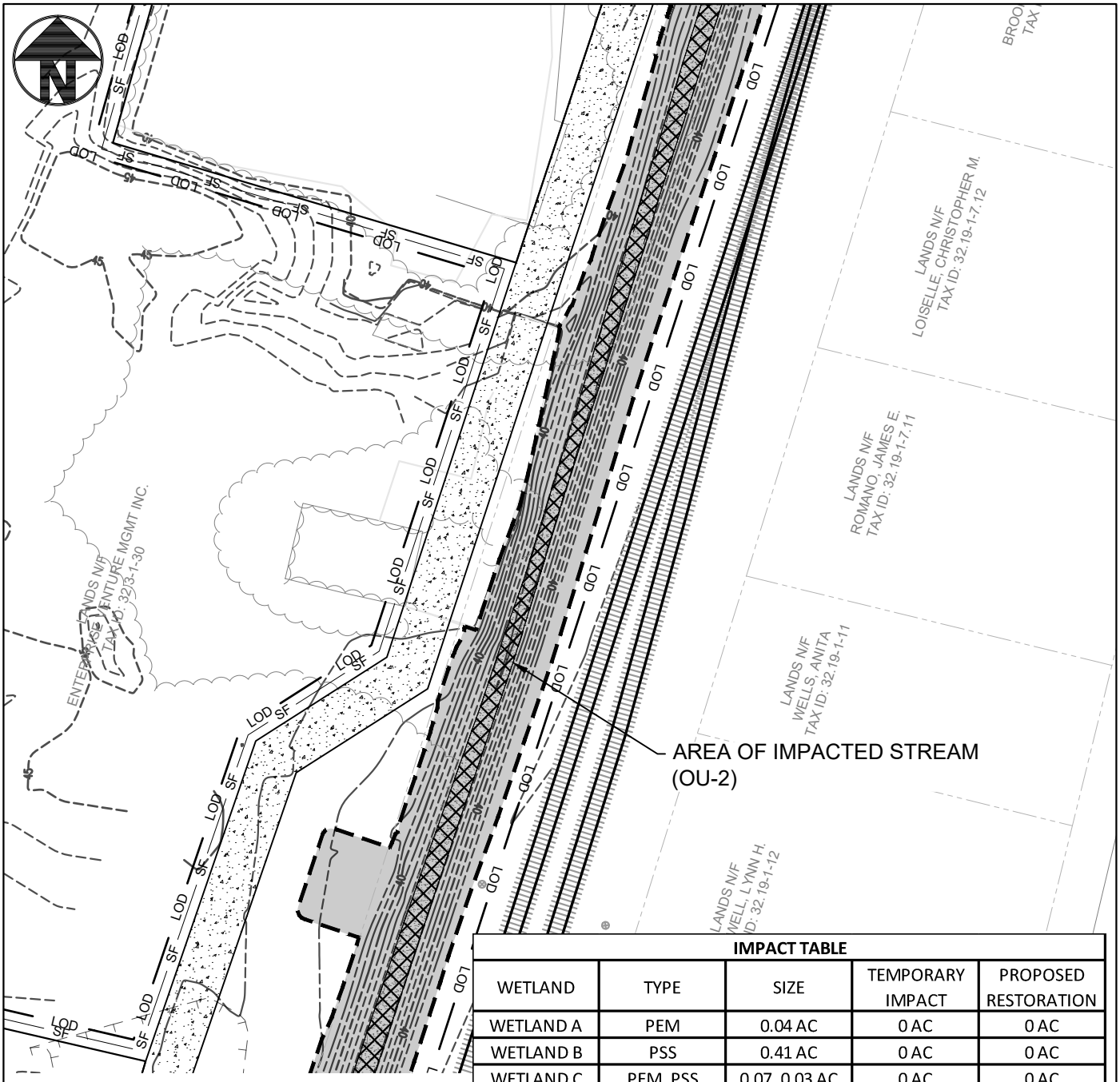
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FOR PERMITTING



IMPACT TABLE

WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF

PLAN LEGEND:

- APPROXIMATE PROPERTY LINES
- LOD — LIMITS OF DISTURBANCE
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PCB REMEDIATION PROJECT
PERMITTING FIGURES

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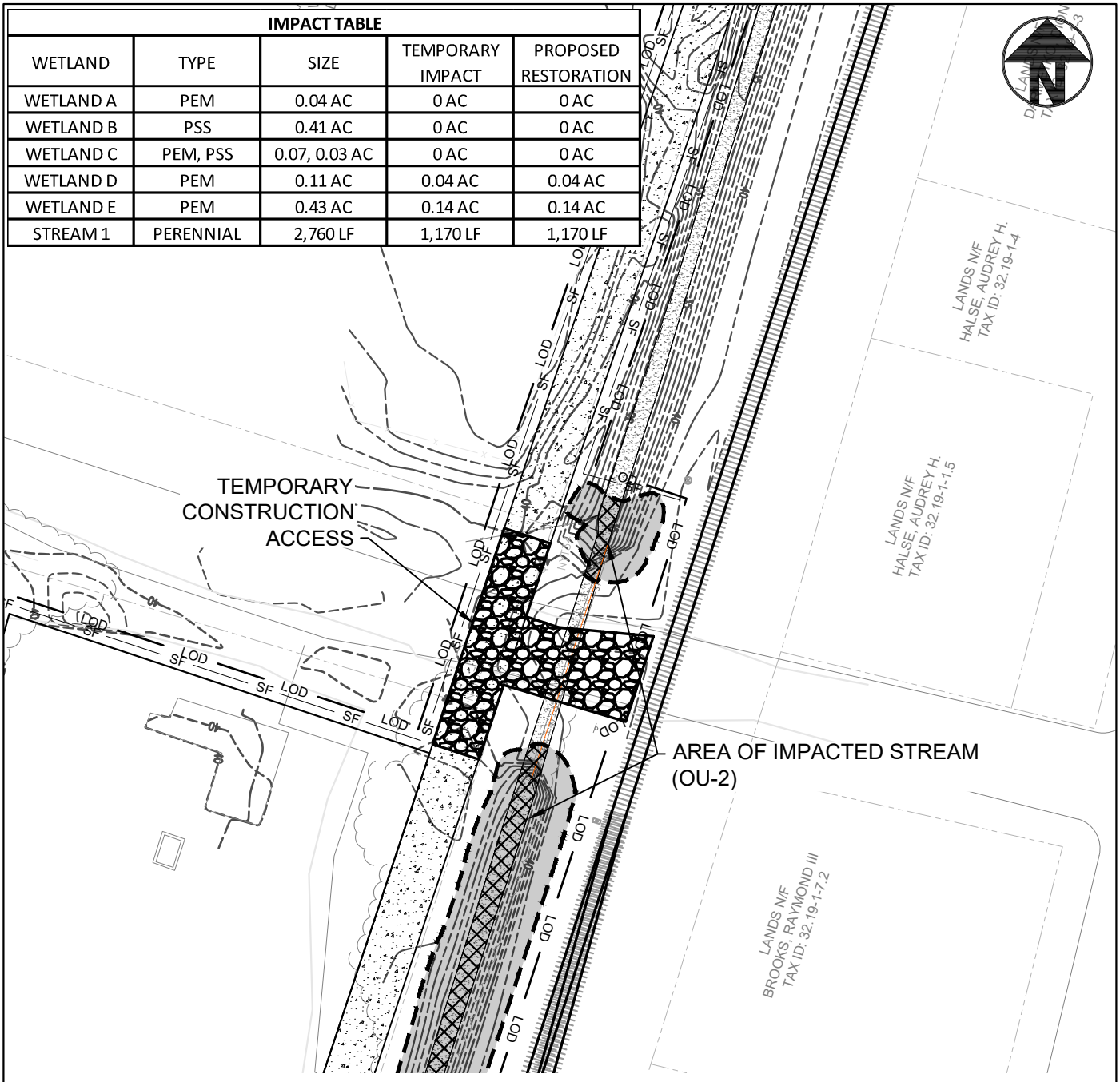
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FOR PERMITTING

IMPACT TABLE				
WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
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WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF



PLAN LEGEND:

- APPROXIMATE PROPERTY LINES
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PCB REMEDIATION PROJECT
PERMITTING FIGURES

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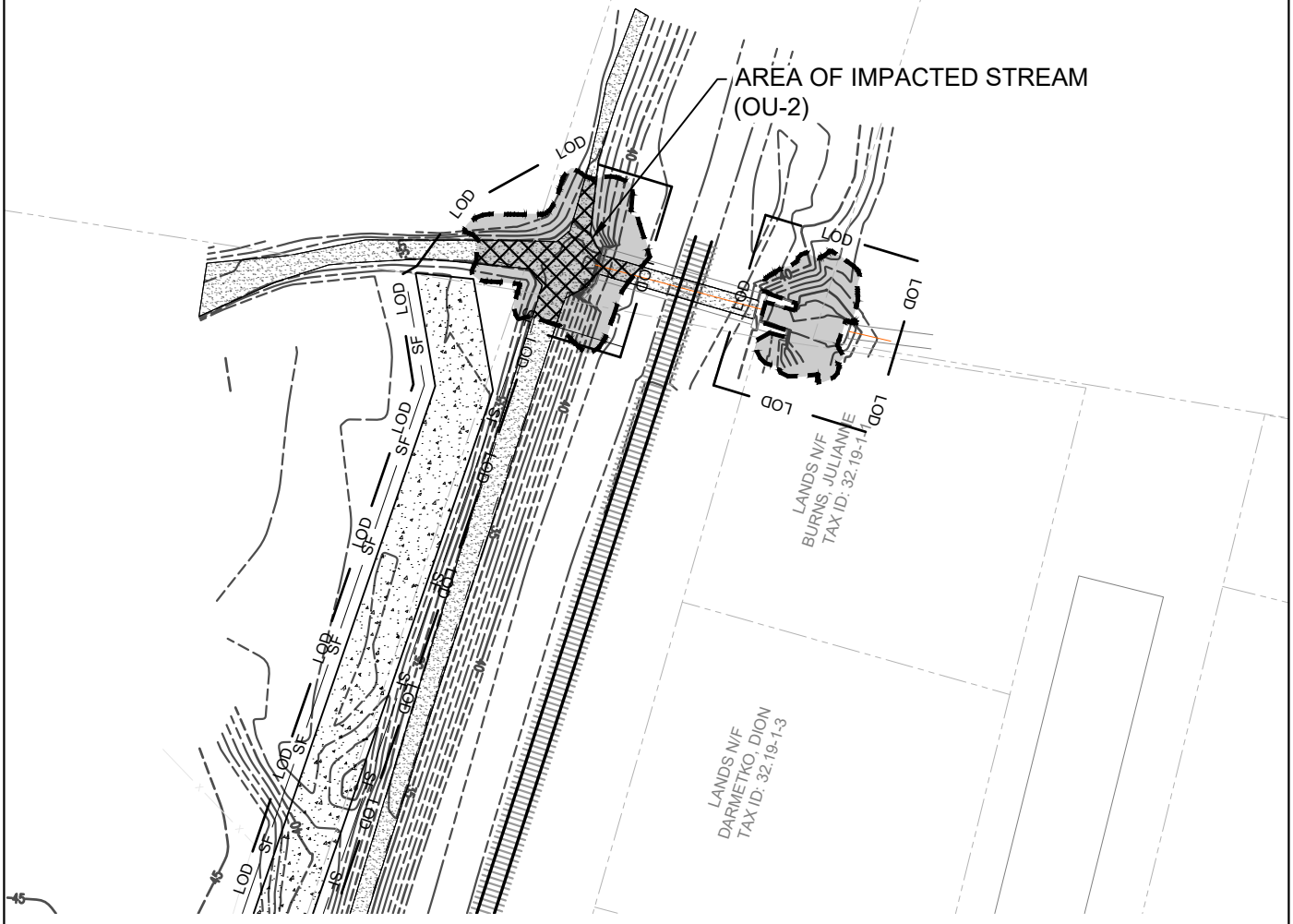
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FOR PERMITTING

IMPACT TABLE				
WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF



0 25 50 100

GRAPHIC SCALE IN FEET

PLAN LEGEND:

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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

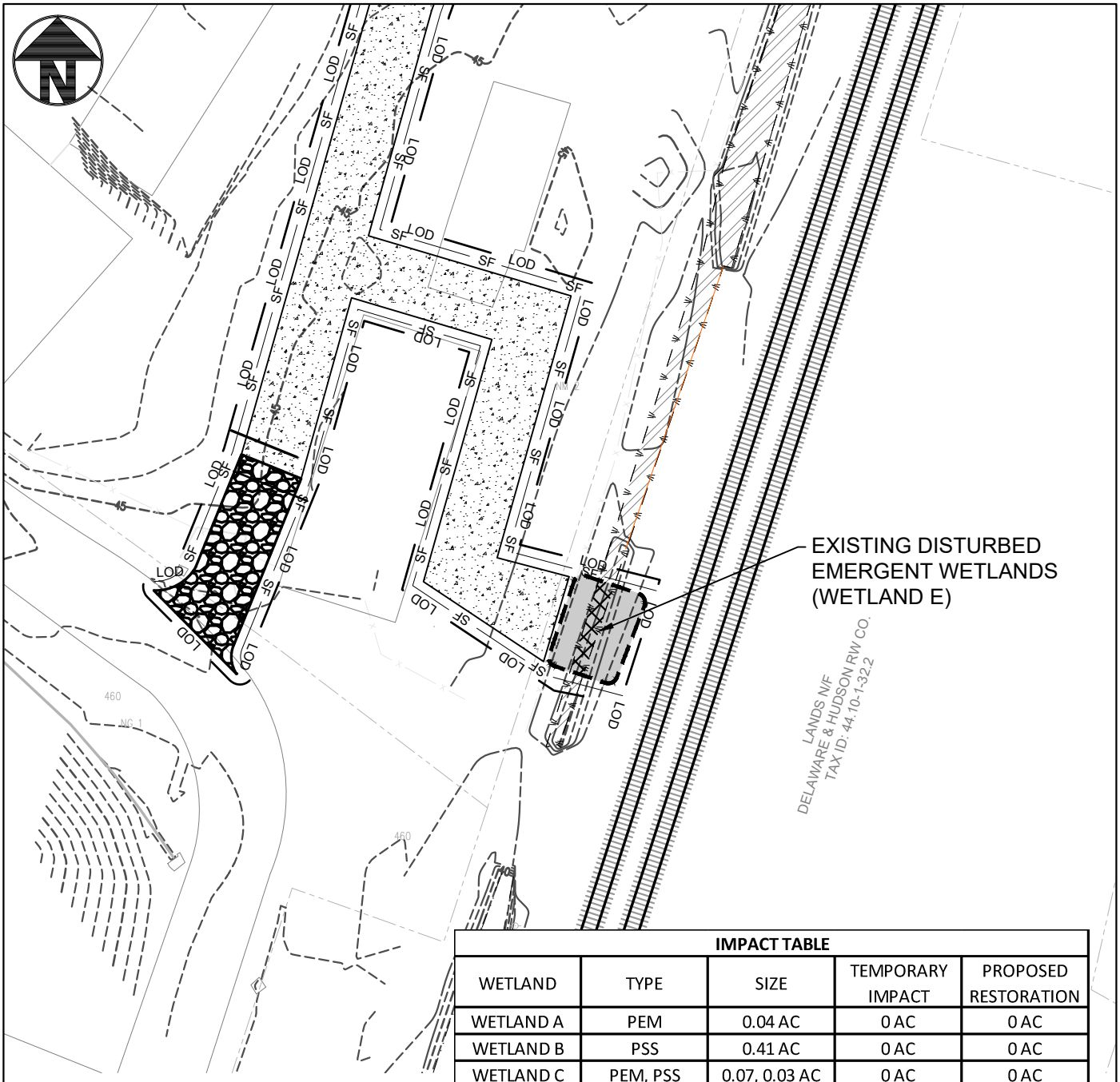
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IMPACT TABLE

WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF

0 25 50 100

GRAPHIC SCALE IN FEET

PLAN LEGEND:

- APPROXIMATE PROPERTY LINES
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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

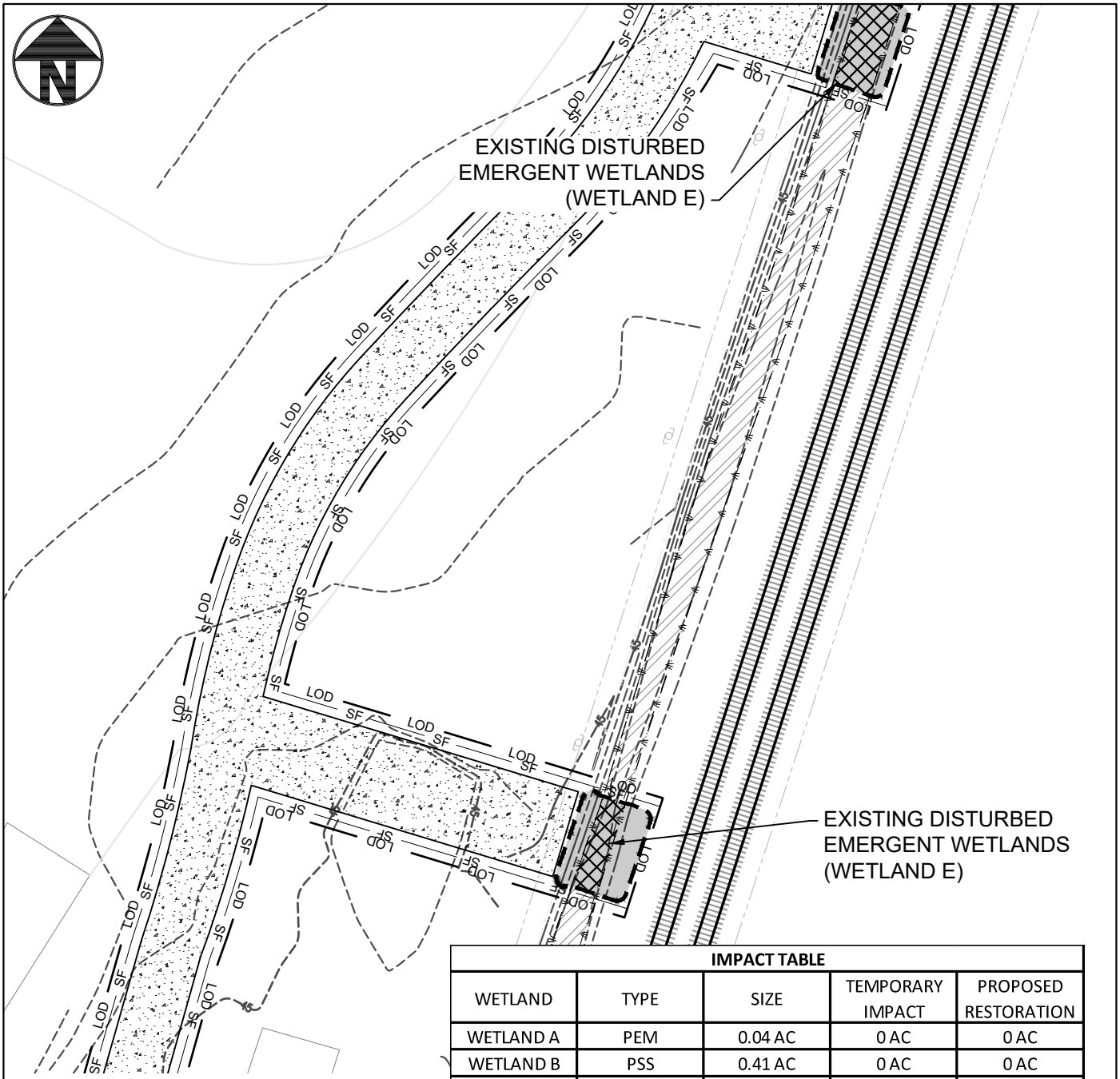
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GRID 8

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FOR PERMITTING



IMPACT TABLE

WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF

PLAN LEGEND:

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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

COLONIE, NEW YORK

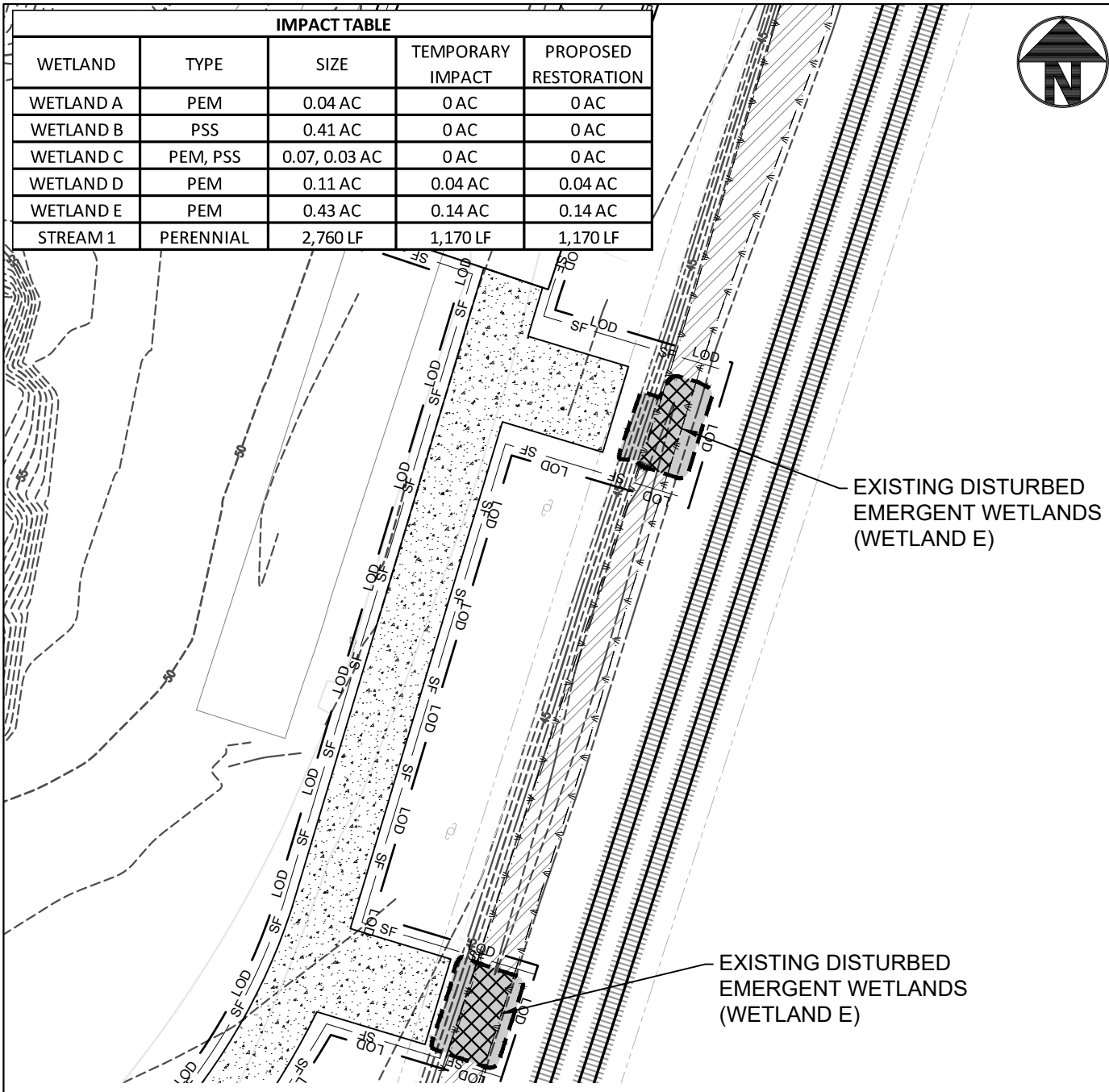
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FOR PERMITTING

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IMPACT TABLE				
WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
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WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF



0 25 50 100

GRAPHIC SCALE IN FEET

PLAN LEGEND:

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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

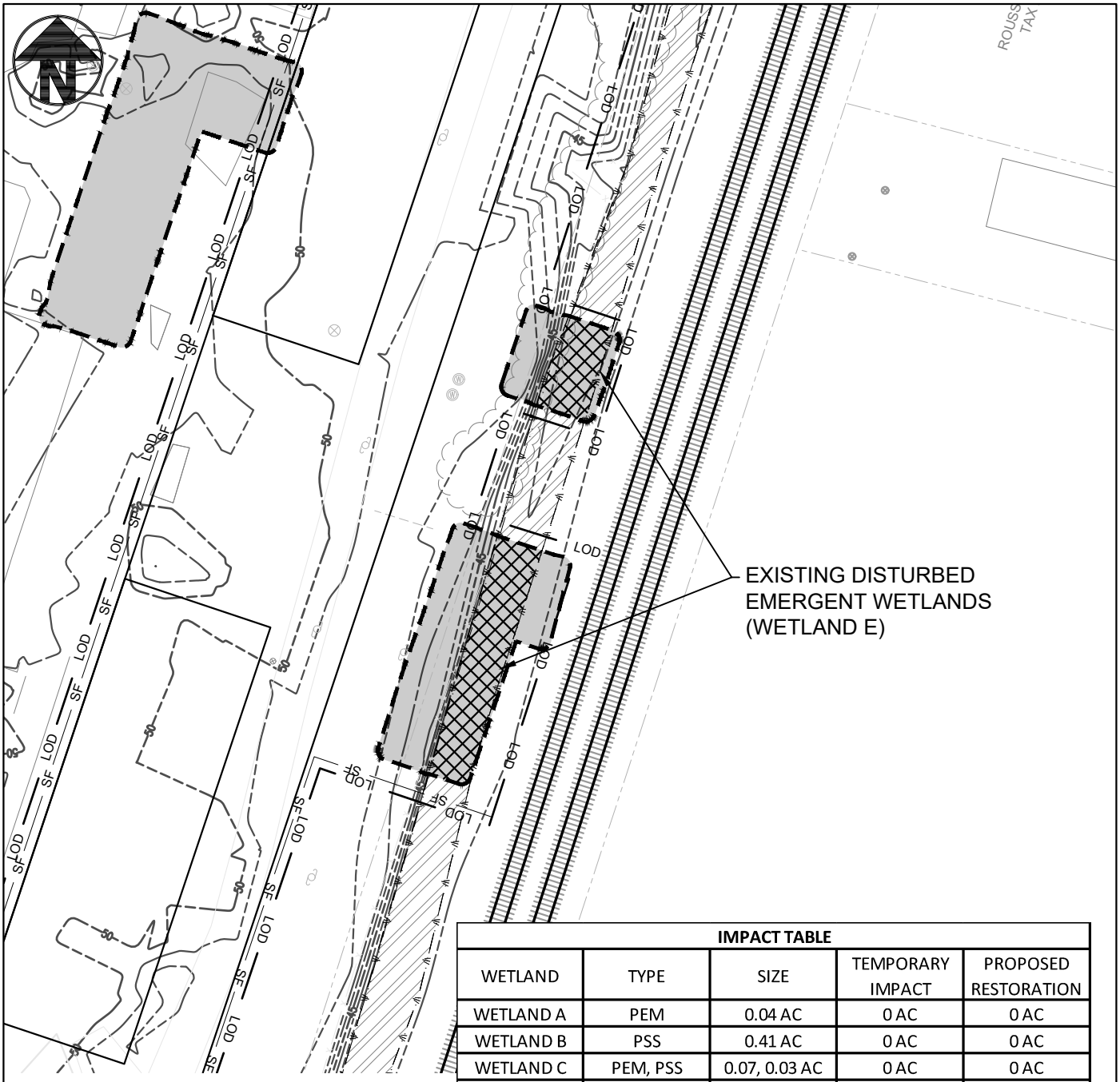
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GRID 10

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IMPACT TABLE				
WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
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WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
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STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF

PLAN LEGEND:

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- EXISTING STREAM
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FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

COLONIE, NEW YORK

GRID 11

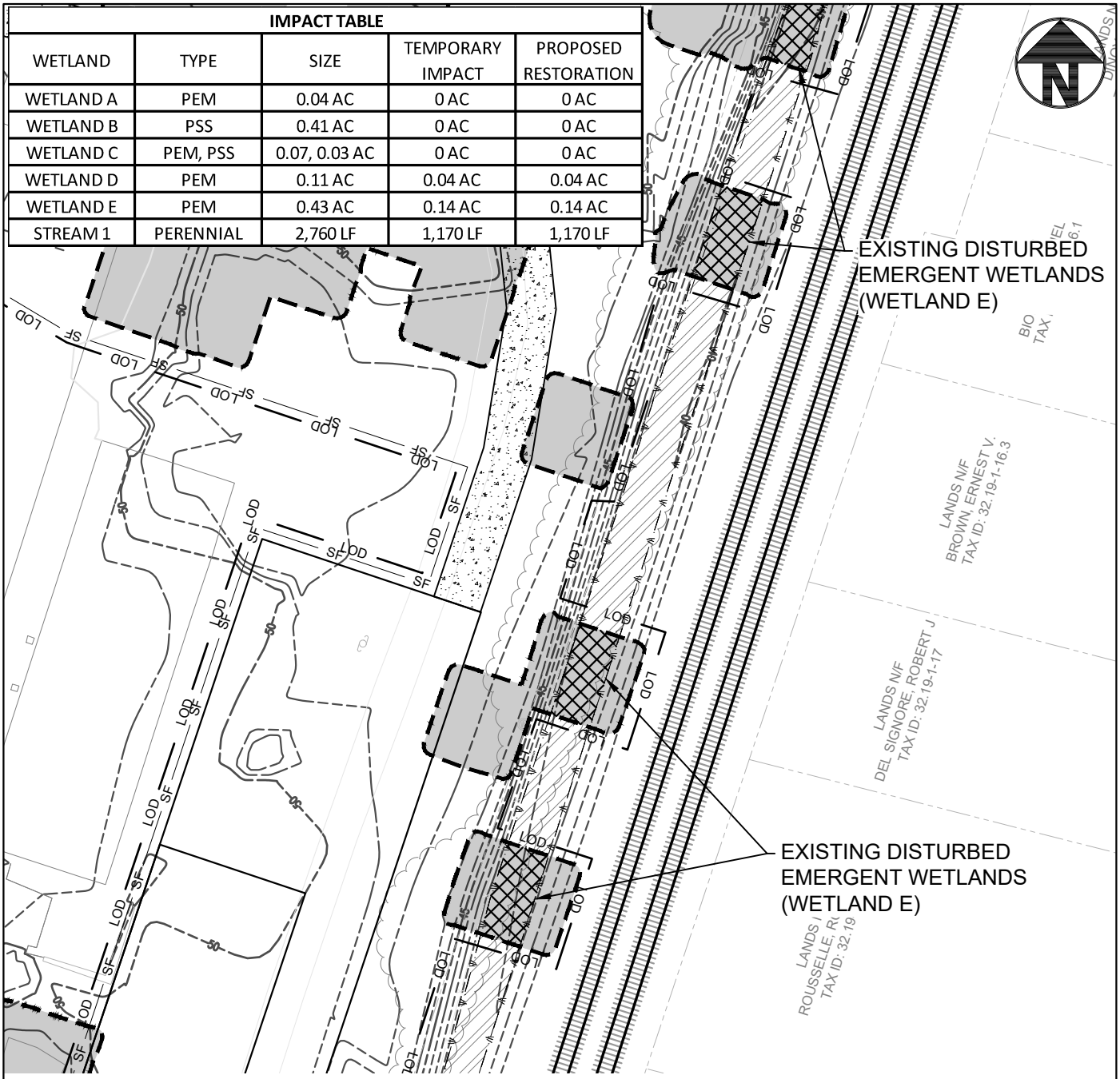
DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT MGR.:	DATE:	PROJECT NUMBER:	SHEET NUMBER:	FIGURE:
AE	DPA	TLM	AEH	APRIL 2020	14907.35	13 OF 15	13

FOR PERMITTING

FILE PATH: \\WAR\WICKFP\WAR\WICKFP\PROJECTS\14907.35 - ADIRONDACK STEEL\CAD\90% DESIGN\IMPACT PLATES\14907.35-ADIRONDACK-IMPACT PLATES.DWG [SHT 13] ALLEN, DANIEL 5/1/2020 4:25 PM

IMPACT TABLE

WETLAND	TYPE	SIZE	TEMPORARY IMPACT	PROPOSED RESTORATION
WETLAND A	PEM	0.04 AC	0 AC	0 AC
WETLAND B	PSS	0.41 AC	0 AC	0 AC
WETLAND C	PEM, PSS	0.07, 0.03 AC	0 AC	0 AC
WETLAND D	PEM	0.11 AC	0.04 AC	0.04 AC
WETLAND E	PEM	0.43 AC	0.14 AC	0.14 AC
STREAM 1	PERENNIAL	2,760 LF	1,170 LF	1,170 LF



0 25 50 100

GRAPHIC SCALE IN FEET

PLAN LEGEND:

- APPROXIMATE PROPERTY LINES
- LOD — LIMITS OF DISTURBANCE
- SF — PROPOSED SILT FENCE
- FEMA 100-YEAR FLOODPLAIN
- PROPOSED AREA OF EXCAVATION
- PROPOSED AREA OF CONSTRUCTION ACCESS ROAD
- EXISTING EMERGENT WETLANDS
- EXISTING SHRUB WETLANDS
- EXISTING STREAM
- AREA OF TEMPORARY IMPACTS

EA Engineering, Science, and Technology, Inc., PBC

FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

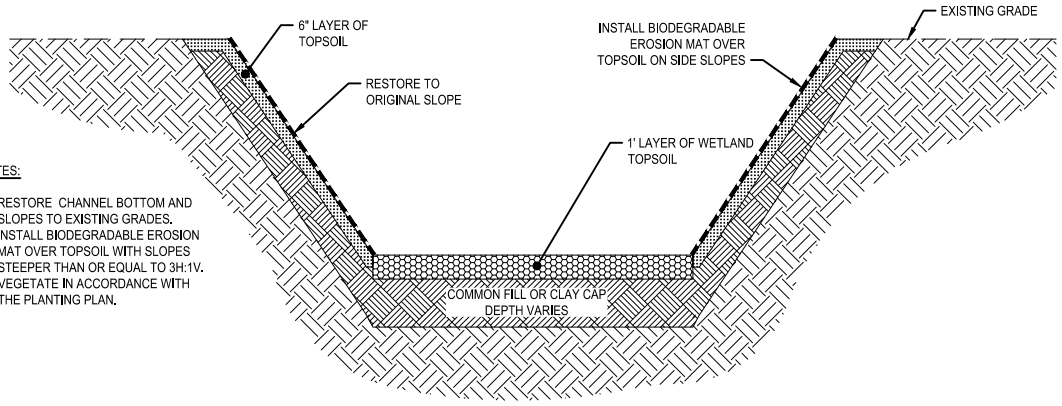
COLONIE, NEW YORK

GRID 12

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FILE PATH: \\WAR\WICKFP\WAR\WICKFP\PROJECTS\14907.35 - ADIRONDACK STEEL\CAD\90% DESIGN\IMPACT PLATES\14907.35-ADIRONDACK-IMPACT PLATES.DWG [SHT 14] ALLEN, DANIEL 5/1/2020 4:25 PM

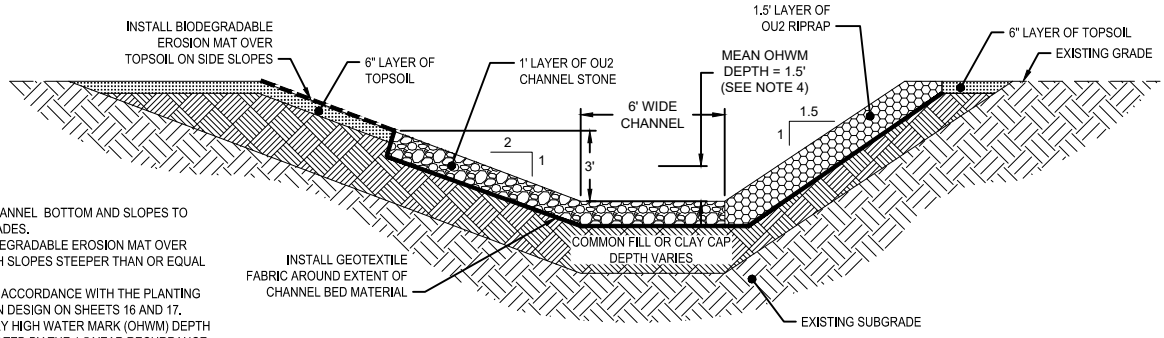


NOTES:

1. RESTORE CHANNEL BOTTOM AND SLOPES TO EXISTING GRADES.
2. INSTALL BIODEGRADABLE EROSION MAT OVER TOPSOIL WITH SLOPES STEEPER THAN OR EQUAL TO 3H:1V.
3. VEGETATE IN ACCORDANCE WITH THE PLANTING PLAN.

RESTORE WETLAND COVER

SCALE:NOT TO SCALE

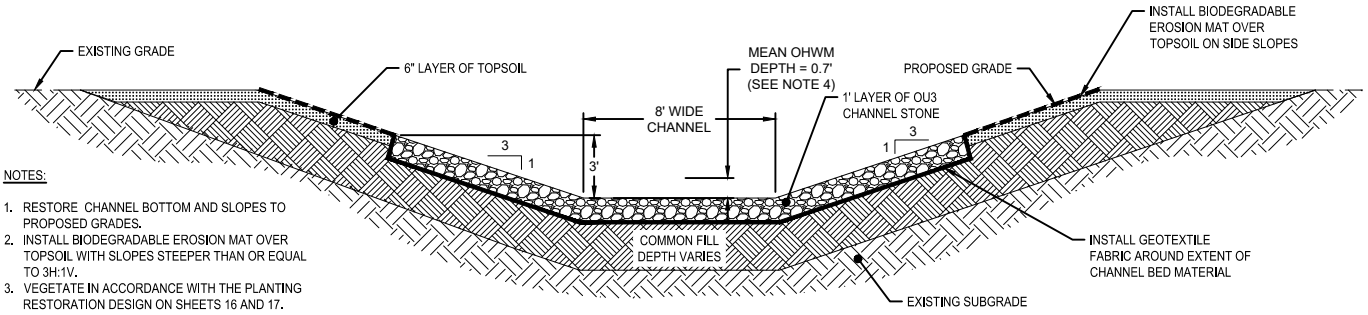


NOTES:

1. RESTORE CHANNEL BOTTOM AND SLOPES TO EXISTING GRADES.
2. INSTALL BIODEGRADABLE EROSION MAT OVER TOPSOIL WITH SLOPES STEEPER THAN OR EQUAL TO 3H:1V.
3. VEGETATE IN ACCORDANCE WITH THE PLANTING RESTORATION DESIGN ON SHEETS 16 AND 17.
4. THE ORDINARY HIGH WATER MARK (OHWM) DEPTH IS APPROXIMATED BY THE 1.5 YEAR RECURRANCE INTERVAL FLOW. THE RESTORED STREAM CHANNEL WITHIN OU2 WILL HAVE AN OHWM DEPTH RANGING BETWEEN 0.9' TO 2.1' WITH A MEAN VALUE OF 1.5'.

RESTORE OU2 CREEK

SCALE:NOT TO SCALE



NOTES:

1. RESTORE CHANNEL BOTTOM AND SLOPES TO PROPOSED GRADES.
2. INSTALL BIODEGRADABLE EROSION MAT OVER TOPSOIL WITH SLOPES STEEPER THAN OR EQUAL TO 3H:1V.
3. VEGETATE IN ACCORDANCE WITH THE PLANTING RESTORATION DESIGN ON SHEETS 16 AND 17.
4. THE ORDINARY HIGH WATER MARK (OHWM) DEPTH IS APPROXIMATED BY THE 1.5 YEAR RECURRANCE INTERVAL FLOW. THE RESTORED STREAM CHANNEL WITHIN OU3 WILL HAVE AN OHWM DEPTH RANGING BETWEEN 0.5' TO 0.9' WITH A MEAN VALUE OF 0.7'.

RESTORE OU3 CREEK

SCALE:NOT TO SCALE

CHANNEL MATERIAL SPECIFICATIONS

OU2 CHANNEL STONE - THIS MATERIAL SHALL MEET NYSDOTSS REQUIREMENTS FOR 703-0201 CRUSHED STONE SIZE DESIGNATION #4 WITH THE FOLLOWING GRADATION:

- 100% PASSING 4" SIEVE
- 90-100% PASSING 3" SIEVE
- 0-15% PASSING 2" SIEVE
- 0-0.7% PASSING #200 SIEVE

OU2 RIPRAP - THIS MATERIAL SHALL MEET NYSDOTSS REQUIREMENTS FOR 733-2103 MEDIUM STONE FILLING WITH THE FOLLOWING GRADATION:

- 50-100% HEAVIER THAN 100 LBS (APPRX. 1 FT DIAMETER)
- 0-10% PASSING 4" SIEVE

OU3 CHANNEL STONE - THIS MATERIAL SHALL MEET NYSDOTSS REQUIREMENTS FOR 733-2101 FINE STONE FILLING WITH THE FOLLOWING GRADATION:

- 90-100% PASSING 8" SIEVE
- 50-100% RETAINED ON 3" SIEVE
- 0-10% PASSING #10 SIEVE

EA Engineering, Science, and Technology, Inc., PBC

FORMER ADIRONDACK STEEL SITE
PCB REMEDIATION PROJECT
PERMITTING FIGURES

COLONIE, NEW YORK

TYPICAL CROSS SECTIONS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT MGR.:	DATE:	PROJECT NUMBER:	SHEET NUMBER:	FIGURE:
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FOR PERMITTING

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Appendix B

Design Drawings/As-Built Plans

SOUTH PROJECT AREA

NORTH PROJECT AREA

GAS HOUSE CREEK

GAS HOUSE CREEK

TOPSOIL MANAGEMENT AREA

OU3 BOUNDARY

OU2 BOUNDARY

METAL BUILDING

METAL BUILDING

BLOCK BUILDING

BLOCK BUILDING REMAINS

BARKER LANE

LINCOLN AVENUE

EMERGENT WETLAND

EMERGENT WETLAND

GAS HOUSE CREEK

RAILROAD TRACKS

GAS HOUSE CREEK (WITHIN CULVERT)

VINE STREET

CHESTNUT STREET

EARLY DRIVE

12TH STREET

13TH STREET

14TH STREET

SITE VICINITY LEGEND:

- AREA OF OU2
- AREA OF OU3
- TOPSOIL MANAGEMENT AREA
- PROPERTY LINES
- CREEK CENTERLINE

120 60 0 120 240

GRAPHIC SCALE IN FEET

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Department of Environmental Conservation

NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

SITE OVERVIEW AND KEY SHEET

FORMER ADIRONDACK STEEL SITE
REMEDIATION PROJECT
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
AND ITS AFFILIATE
EA SCIENCE AND
TECHNOLOGY

PROJ. NO.	16025.12
DATE	SEPTEMBER 2023
SCALE	AS SHOWN
PROJ. MNGR	AEH
DESIGNED BY	TLM
DRAWN BY	DPA

SEAL:

STATE OF NEW YORK
DONALD FRANCIS COMAN III
75666
LICENSED PROFESSIONAL ENGINEER

SHEET #

1 OF 6

FINAL ENGINEERING REPORT - RECORD DRAWINGS

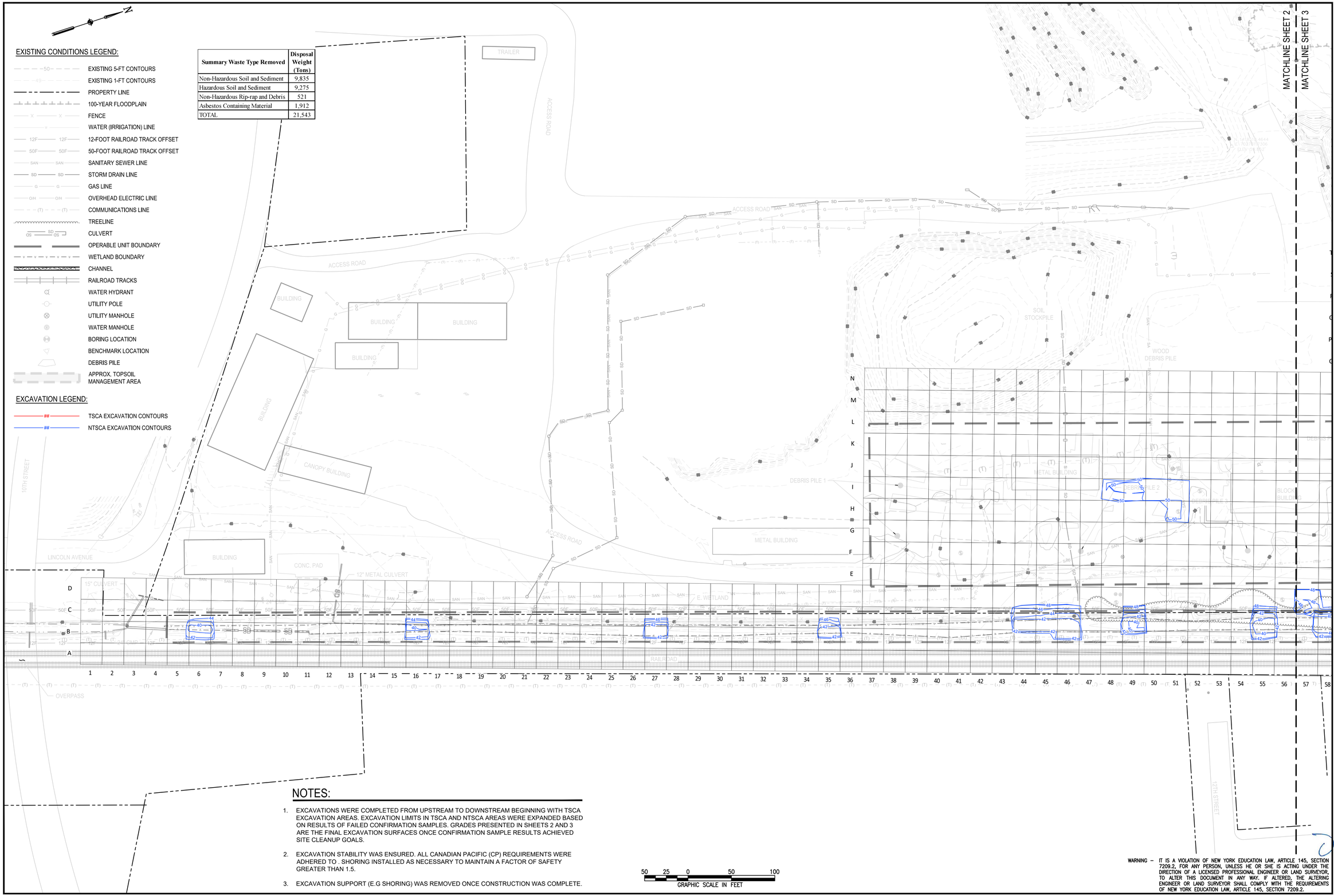
EXISTING CONDITIONS LEGEND:

- EXISTING 5-FT CONTOURS
- EXISTING 1-FT CONTOURS
- PROPERTY LINE
- 100-YEAR FLOODPLAIN
- FENCE
- WATER (IRRIGATION) LINE
- 12-FOOT RAILROAD TRACK OFFSET
- 50-FOOT RAILROAD TRACK OFFSET
- SANITARY SEWER LINE
- STORM DRAIN LINE
- GAS LINE
- OVERHEAD ELECTRIC LINE
- COMMUNICATIONS LINE
- TREELINE
- CULVERT
- OPERABLE UNIT BOUNDARY
- WETLAND BOUNDARY
- CHANNEL
- RAILROAD TRACKS
- WATER HYDRANT
- UTILITY POLE
- UTILITY MANHOLE
- WATER MANHOLE
- BORING LOCATION
- BENCHMARK LOCATION
- DEBRIS PILE
- APPROX. TOPSOIL MANAGEMENT AREA

EXCAVATION LEGEND:

- TSCA EXCAVATION CONTOURS
- NTSCA EXCAVATION CONTOURS

Summary Waste Type Removed	Disposal Weight (Tons)
Non-Hazardous Soil and Sediment	9,835
Hazardous Soil and Sediment	9,275
Non-Hazardous Rip-rap and Debris	521
Asbestos Containing Material	1,912
TOTAL	21,543



NOTES:

1. EXCAVATIONS WERE COMPLETED FROM UPSTREAM TO DOWNSTREAM BEGINNING WITH TSCA EXCAVATION AREAS. EXCAVATION LIMITS IN TSCA AND NTSCA AREAS WERE EXPANDED BASED ON RESULTS OF FAILED CONFIRMATION SAMPLES. GRADES PRESENTED IN SHEETS 2 AND 3 ARE THE FINAL EXCAVATION SURFACES ONCE CONFIRMATION SAMPLE RESULTS ACHIEVED SITE CLEANUP GOALS.
2. EXCAVATION STABILITY WAS ENSURED. ALL CANADIAN PACIFIC (CP) REQUIREMENTS WERE ADHERED TO . SHORING INSTALLED AS NECESSARY TO MAINTAIN A FACTOR OF SAFETY GREATER THAN 1.5.
3. EXCAVATION SUPPORT (E.G SHORING) WAS REMOVED ONCE CONSTRUCTION WAS COMPLETE.

50 25 0 50 100
GRAPHIC SCALE IN FEET

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Department of Environmental Conservation
NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

TSCA AND NTSCA EXCAVATION SOUTH

FORMER ADIRONDACK STEEL SITE
REMEDIATION PROJECT
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
AND ITS AFFILIATE
EA SCIENCE AND
TECHNOLOGY

PROJ. NO.	16025.12
DATE	SEPTEMBER 2023
SCALE	AS SHOWN
PROJ. MNGR	AEH
DESIGNED BY	TLM
DRAWN BY	DPA
SEAL	STATE OF NEW YORK · DONALD FRANCIS GOWAN III · LICENSED PROFESSIONAL ENGINEER · 75666
SHEET #	2 OF 6

FINAL ENGINEERING REPORT - RECORD DRAWINGS

MATCHLINE SHEET 2

MATCHLINE SHEET 3

APPROXIMATE FORMER SAND MANAGEMENT AREA (EXCLUSION AREA; ALL WORK WITHIN THIS BOUNDARY SHOULD BE COORDINATED WITH THE DEPARTMENT AND ENGINEER)

EXISTING CONDITIONS LEGEND:

- EXISTING 5-FT CONTOURS
- EXISTING 1-FT CONTOURS
- PROPERTY LINE
- 100-YEAR FLOODPLAIN
- FENCE
- WATER (IRRIGATION) LINE
- 12-FOOT RAILROAD TRACK OFFSET
- 50-FOOT RAILROAD TRACK OFFSET
- SANITARY SEWER LINE
- STORM DRAIN LINE
- GAS LINE
- OVERHEAD ELECTRIC LINE
- COMMUNICATIONS LINE
- TREELINE
- CULVERT
- OPERABLE UNIT BOUNDARY
- WETLAND BOUNDARY
- CHANNEL
- RAILROAD TRACKS
- WATER HYDRANT
- UTILITY POLE
- UTILITY MANHOLE
- WATER MANHOLE
- BORING LOCATION
- BENCHMARK LOCATION
- DEBRIS PILE
- APPROX. TOPSOIL MANAGEMENT AREA

EXCAVATION LEGEND:

- TSCA EXCAVATION CONTOURS
- NTSCA EXCAVATION CONTOURS

Summary Waste Type Removed	Disposal Weight (Tons)
Non-Hazardous Soil and Sediment	9,835
Hazardous Soil and Sediment	9,275
Non-Hazardous Rip-rap and Debris	521
Asbestos Containing Material	1,912
TOTAL	21,543

NOTES:

1. EXCAVATIONS WERE COMPLETED FROM UPSTREAM TO DOWNSTREAM BEGINNING WITH TSCA EXCAVATION AREAS. EXCAVATION LIMITS IN TSCA AND NTSCA AREAS WERE EXPANDED BASED ON RESULTS OF FAILED CONFIRMATION SAMPLES. GRADES PRESENTED IN SHEETS 2 AND 3 ARE THE FINAL EXCAVATION SURFACES ONCE CONFIRMATION SAMPLE RESULTS ACHIEVED SITE CLEANUP GOALS.
2. EXCAVATION STABILITY WAS ENSURED. ALL CANADIAN PACIFIC (CP) REQUIREMENTS WERE ADHERED TO . SHORING INSTALLED AS NECESSARY TO MAINTAIN A FACTOR OF SAFETY GREATER THAN 1.5.
3. EXCAVATION SUPPORT (E.G SHORING) WAS REMOVED ONCE CONSTRUCTION WAS COMPLETE.

50 25 0 50 100

GRAPHIC SCALE IN FEET

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Department of Environmental Conservation

NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

TSCA AND NTSCA EXCAVATION NORTH

FORMER ADIRONDACK STEEL SITE
REMEDIATION PROJECT
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C. AND ITS AFFILIATE EA SCIENCE AND TECHNOLOGY

PROJ. NO.	16025.12
DATE	SEPTEMBER 2023
SCALE	AS SHOWN
PROJ. MNGR.	AEH
DESIGNED BY	TLM
DRAWN BY	DPA
SEAL	STATE OF NEW YORK · DONALD FRANCIS GOWAN III · 75666 · LICENSED PROFESSIONAL ENGINEER
SHEET #	3 OF 6

FINAL ENGINEERING REPORT - RECORD DRAWINGS

EXISTING CONDITIONS LEGEND:

- PROPERTY LINE
- 100-YEAR FLOODPLAIN
- FENCE
- WATER (IRRIGATION) LINE
- 12-FOOT RAILROAD TRACK OFFSET
- 50-FOOT RAILROAD TRACK OFFSET
- SANITARY SEWER LINE
- STORM DRAIN LINE
- GAS LINE
- OVERHEAD ELECTRIC LINE
- COMMUNICATIONS LINE
- TREELINE
- CULVERT
- OPERABLE UNIT BOUNDARY
- WETLAND BOUNDARY
- RAILROAD TRACKS
- WATER HYDRANT
- UTILITY POLE
- UTILITY MANHOLE
- WATER MANHOLE
- BENCHMARK LOCATION
- DEBRIS PILE
- APPROX. TOPSOIL MANAGEMENT AREA
- BUILDING

FINAL GRADE LEGEND:

- 5-FT MAJOR CONTOUR
- 1-FT MINOR CONTOUR

MATCHLINE SHEET 4

MATCHLINE SHEET 5

CANOPY BUILDING

CB NO COVER ELEV.=44.27'

1 ½ STORY FRAME BUILDING

CB NO COVER ELEV.=44.39'

CB RIM=43.08'

SMH RIM=43.33'

POND

GRAVEL

1 STORY METAL BUILDING

CONCRETE

1 STORY METAL BUILDING

1 STORY CONCRETE BLOCK BUILDING

GRAVEL

CONCRETE WALL

INSTALLED CHAINLINK FENCE

INSTALLED CHAINLINK FENCE

INSTALLED CHAINLINK FENCE

INSTALLED CHAINLINK FENCE

INSTALLED CHAINLINK FENCE

GRAPHIC SCALE IN FEET

50 25 0 50 100

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Department of Environmental Conservation

NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

FINAL RESTORATION AND GRADING PLAN SOUTH

FORMER ADIRONDACK STEEL SITE
REMEDIATION PROJECT
COLONIE, NEW YORK

PREPARED BY:

EA ENGINEERING, P.C. AND ITS AFFILIATE EA SCIENCE AND TECHNOLOGY

PROJ. NO.	16025.12
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DESIGNED BY	TLM
DRAWN BY	DPA

SEAL

STATE OF NEW YORK · DONALD FRANCIS COMAN III · LICENSED PROFESSIONAL ENGINEER · 75666

SHEET #

4 OF 6

FINAL ENGINEERING REPORT - RECORD DRAWINGS

MATCHLINE SHEET 2

MATCHLINE SHEET 3

42" HDPE
INV.=50.69'

42" HDPE
INV.=50.34'

DIRT DRIVE

12" HDPE
INV.=54.45'

12" HDPE
INV.=53.24'

30" CMP
INV.=45.33'

30" CMP
INV.=44.94'

GRAVEL

T S R Q P O N

1 STORY CONCRETE BLOCK BUILDING

GRAVEL

UPLAND PLANTING AREA

RIPARIAN PLANTING AREA

GRAVEL

DIRT TRAVELED WAY

REMAINS OF CONCRETE BLOCK BUILDING

CONCRETE RETAINING WALL

GRAVEL

GATE

BARKER LANE

GRAVEL & DIRT DRIVE

GATE

INSTALLED CHAINLINK FENCE

INSTALLED CHAINLINK FENCE

GATE

CHAINLINK FENCE

CONCRETE BOX CULVE
INV.=31.90'

PLAC
SAKR

JERSEY BARRIER (TYP.)

PLACED SAKRETE

CHAINLINK FENCE

CONCRETE BOX CULVERT
INV.=33.69'

55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112

A B C D E F G H I J

50 25 0 50 100
GRAPHIC SCALE IN FEET

Riparian Planting Zone

Scientific Name	Common Name	Spacing (feet)	Size (feet)	Type
Plantanus Occidentalis	American Sycamore	10	4-5	Bare Root
Betula Nigra	River Birch	7	4-5	Bare Root
Lindera Benzoin	Spicebush	7	1-2	Bare Root
Viburnum Dentatum	Southern Arrowood	6	2-3	Bare Root

Upland Planting Zone

Scientific Name	Common Name	Spacing (feet)	Size (feet)	Type
Quercus Alba	White Oak	12	4-5	Bare Root
Pinus Strobus	White Pine	12	4-5	Bare Root & Bulb

EXISTING CONDITIONS LEGEND:

- PROPERTY LINE
- 100-YEAR FLOODPLAIN
- FENCE
- WATER (IRRIGATION) LINE
- 12-FOOT RAILROAD TRACK OFFSET
- 50-FOOT RAILROAD TRACK OFFSET
- SANITARY SEWER LINE
- STORM DRAIN LINE
- GAS LINE
- OVERHEAD ELECTRIC LINE
- COMMUNICATIONS LINE
- TREELINE
- CULVERT
- OPERABLE UNIT BOUNDARY
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- RAILROAD TRACKS
- WATER HYDRANT
- UTILITY POLE
- UTILITY MANHOLE
- WATER MANHOLE
- BENCHMARK LOCATION
- DEBRIS PILE
- APPROX. TOPSOIL MANAGEMENT AREA
- BUILDING

FINAL RESTORATION/GRADING LEGEND:

- 5-FT MAJOR CONTOUR
- 1-FT MINOR CONTOUR
- UPLAND PLANTING AREA
- RIPARIAN PLANTING AREA

NOTES:

PER FIELD ORDER #35, THE FOLLOWING CHANGES WERE MADE TO THE RESTORATION PLAN TO ACCOMMODATE FUTURE USE OF THE SITE BY THE PROPERTY OWNER:

1. TOPSOIL AND SEEDING AREAS WERE REDUCED IN OU-3. RECYCLED CONCRETE MATERIAL WAS USED TO MAKE FINAL GRADES.
2. UPLAND PLANTING AREA WAS REDUCED TO THOSE SHOWN ON THIS SHEET. UPLAND TREE SPECIES PLANTINGS WERE SPACED 12-FT.
3. PLANTING SPACINGS WERE REDUCED IN THE RIPARIAN PLANTING ZONE TO INCREASE PLANT DENSITY.
4. UPLAND AND RIPARIAN SPECIES INSTALLED ARE PROVIDED IN THE TABLE.
5. EXCAVATIONS IN THE SOUTHERN PORTION OF OU-2 WHERE HIGH GROUNDWATER ELEVATIONS WERE ENCOUNTERED WERE BACKFILLED WITH CLEAN, WASHED, #2 STONE IN THE PLACE OF COMMON FILL IDENTIFIED IN DETAIL 10 OF THE CONTRACT DRAWINGS. BACKFILL WAS EXTENDED TO APPROXIMATELY 6 INCHES ABOVE THE WATER SURFACE. WETLAND TOPSOIL AND PLANTINGS WERE NOT INSTALLED SHEETS 16 AND 17 OF THE CONTRACT DRAWINGS DUE TO ISSUES OF CONSTRUCTABILITY. INSTEAD, WASHED PEA STONE WAS UTILIZED IN SOUTHERN AREAS OF OU-2 EXCAVATIONS TO MAKE FINAL GRADES. PEA STONE WAS BACKFILL WAS UTILIZED IN THE FOLLOWING GRIDS: B6, B16, B27. B35, C35, C44-C46, C49, C55, C58, C64, AND C67-C70.

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Department of Environmental Conservation

NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

FINAL RESTORATION AND GRADING PLAN NORTH

FORMER ADIRONDACK STEEL SITE
REMEDIATION PROJECT
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C. AND ITS AFFILIATE EA SCIENCE AND TECHNOLOGY

PROJ. NO.	16025.12
DATE	SEPTEMBER 2023
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PROJ. MNGR.	AEH
DESIGNED BY	TLM
DRAWN BY	DPA
SEAL	STATE OF NEW YORK · DONALD FRANCIS COMAN III · 75666 · LICENSED PROFESSIONAL ENGINEER
SHEET #	5 OF 6

FINAL ENGINEERING REPORT - RECORD DRAWINGS

EXISTING CONDITIONS LEGEND:

- EXISTING 5-FT CONTOURS
- EXISTING 1-FT CONTOURS
- PROPERTY LINE
- 100-YEAR FLOODPLAIN
- FENCE
- WATER (IRRIGATION) LINE
- 12-FOOT RAILROAD TRACK OFFSET
- 50-FOOT RAILROAD TRACK OFFSET
- SANITARY SEWER LINE
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- OPERABLE UNIT BOUNDARY
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- CHANNEL
- RAILROAD TRACKS
- WATER HYDRANT
- UTILITY POLE
- UTILITY MANHOLE
- WATER MANHOLE
- BORING LOCATION
- BENCHMARK LOCATION
- DEBRIS PILE
- APPROX. TOPSOIL

SHEET LEGEND:

- APPROX. AREA OF REMAINING CONTAMINATION

AREA OF INSTALLED COVER SYSTEM

APPROXIMATE AREA OF REMAINING CONTAMINATION (TYP.)

RAILROAD TRACKS

BARKER LANE

WATERVLIET ARMORY

12TH STREET

13TH STREET

14TH STREET

VINE STREET

50 25 0 50 100
GRAPHIC SCALE IN FEET

WARNING – IT IS A VIOLATION OF NEW YORK EDUCATION LAW, ARTICLE 145, SECTION 7209.2, FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING ENGINEER OR LAND SURVEYOR SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION LAW, ARTICLE 145, SECTION 7209.2.

Department of Environmental Conservation

NEW YORK STATE OF OPPORTUNITY

NO.	DATE	DESCRIPTION
		REVISIONS

REMAINING CONTAMINATION AND COVER SYSTEM

FORMER ADIRONDACK STEEL SITE
REMEDIATION PROJECT
COLONIE, NEW YORK

PREPARED BY:
EA ENGINEERING, P.C.
AND ITS AFFILIATE
EA SCIENCE AND
TECHNOLOGY

PROJ. NO.	16025.12
DATE	SEPTEMBER 2023
SCALE	AS SHOWN
PROJ. MNGR.	AEH
DESIGNED BY	TLM
DRAWN BY	DPA

SEAL

STATE OF NEW YORK
DONALD FRANCIS COMAR III
LICENSED PROFESSIONAL ENGINEER
75666

SHEET #

6 OF 6

FINAL ENGINEERING REPORT - RECORD DRAWINGS

Appendix C

On-site Photographs

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 1: Overview of vegetation sample plot #1.



Photograph 2: Overview of vegetation sample plot #2.



Photograph 3: Overview of vegetation sample plot #3.



Photograph 4: View facing upstream of the riparian planting zone along the north side of the stream channel.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 5: View facing downstream from the upper stream crossing.



Photograph 6: View facing upstream at the upper portion of the site.



Photograph 7: View facing downstream along the upland planting zone on the south side of the stream channel.



Photograph 8: Overview of vegetation sampling plot #4.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
Photos Taken August 14, 2024



Photograph 9: Overview of vegetation sampling plot #5.



Photograph 10: Overview of vegetation sampling plot #6.



Photograph 11: confluence of stream channel and wetland swale along the existing railroad embankment.



Photograph 12: overview of emergent wetland restoration area at the confluence with the existing stream channel.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
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Photograph 13: Phragmites and Purple loosestrife along the lower portion of the stream channel.



Photograph 14: Overview of vegetation sampling plot #7.



Photograph 15: Emergent wetland fill area 1.



Photograph 16: Emergent wetland fill area 2.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
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Photograph 17: Overview of the upland restored area along the wetland swale.



Photograph 18: Emergent wetland fill area 3.



Photograph 19: Emergent wetland fill area 4.



Photograph 20: Emergent wetland fill area 5.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
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Photograph 21: Monarch butterfly observed on milkweed within the riparian planting zone.



Photograph 22: View facing upstream from the lower portion of the stream channel.



Photograph 23: Riparian planting zone along the newly installed chain-link fence.



Photograph 24: Emergent wetland fill area 6.

On-site Photographs
ADK Steel Wetland Monitoring – Year 1
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Photograph 25: Emergent wetland fill area 7.



Photograph 26: Emergent wetland fill area 8.



Photograph 27: Emergent wetland fill area 9.

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