AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
A FIRSTENERGY COMPANY

LETTER OF NOTIFICATION

NILES CENTRAL-PACKARD 138 KV TRANSMISSION LINE PARTIAL REBUILD PROJECT
OPSB CASE NO.: 25-0076-EL-BLN

June 17, 2025

American Transmission Systems, Incorporated
76 South Main Street
Akron, Ohio 44308

LETTER OF NOTIFICATION
NILES CENTRAL-PACKARD 138 KV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

The following information is being provided in accordance with Chapter 4906-6 of the Ohio Administrative Code ("Adm.Code") for the application and review of Accelerated Certificate Applications. Based upon the requirements found in Appendix A to Adm.Code 4906-1-01, this Project qualifies for submittal to the Ohio Power Siting Board ("OPSB") as a Letter of Notification application.

4906-6-05: ACCELERATED APPLICATION REQUIREMENTS

4906-6-05: Name and Reference Number

Name: Niles Central-Packard 138 kV Transmission Line Partial Rebuild Project ("Project")

Reference Number: 2015

4906-6-05 (B)(1): Brief Description of the Project

In this Project, American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, proposes to replace twenty-five (25) existing wood structures (Str. 3946 through Str. 3970) on a 2.8-mile section of the existing 12.3-mile Niles Central-Packard 138 kV Transmission Line. These structures will be replaced with twenty-two (22) new steel structures on concrete foundations. Structures 3950, 3956 and 3962 will not be replaced. The Project will also replace the existing 477 kcmil 26/7 ACSR conductor with 556.5 kcmil 26/7 ACSR conductor.

The Project is in Howland and Bazetta Townships, Trumbull County, Ohio. The general location of the proposed Project is shown Exhibit 1, a partial copy of a United States Geologic Survey ("USGS") Topographic Map, Trumbull County, Ohio Quad Map. Exhibit 2 provides a partial copy of ESRI aerial imagery. The general layout is shown in Exhibit 3.

4906-6-05 (B)(1): Letter of Notification Requirement

The Project meets the requirements for a Letter of Notification application because the Project is within the types of projects defined by Item (2)(b) of the Application Requirement Matrix for Electric Power Transmission Lines, Appendix A of Adm. Code 4906-1-01. This item states:

> *(2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to an existing line or replacing structures with a different type of structure, for a distance of:*
>
> *(b) More than two miles.*

The proposed Project is within the requirements of Item (2)(b) as it involves replacing twenty-five (25) structures with a different type of structures and replacing conductors with larger conductors, on the same centerline as the existing transmission line within the existing right-of-way for a distance greater than two miles.

4906-6-05 (B)(2): Need for the Project

Approximately 2.8 miles of the existing Niles Central-Packard 138 kV Transmission Line is in poor condition and needs rebuilt due to its deteriorating condition, age, and surrounding area. This section is made up of (18) H-frame wood pole structures and (7) 3-pole wood structures that were installed in 1958. Both the age of the structures (66 years) and the surrounding area (mostly wetlands with standing water) have accelerated pole and anchor rot at ground level. A 2023 wood pole inspection of this area was attempted but only 9 structures were accessed due to high water. Of the 9 structures accessed (20 total poles), 13 poles failed the inspection (65%) and are unable to be reinforced. The other 7 poles have measurable shell rot with a least 2 of them having enclosed pockets of rot. Additionally, there have been two guy wire failures in this section due to excessive rot at the ground line. The most recent guy wire failure occurred in July of 2023 where a guy wire failed at groundline resulting in a broken wood pole and unplanned outage. Looking at past maintenance, there has been a

total of 59 priority repair conditions on this section since 2011. 31 (53%) of the priority conditions were related to wood poles while 21 (36%) of the priority conditions were related to guy wires. Table 1 summarizes all past priority conditions. This table includes the 13 poles as found in 2023.

Table 1. Past Priority Conditions

Priority	Description	Count
Wood Pole	Groundline Reject	19
	Woodpecker Holes	11
	Broken	1
Guy Wire	Broken	13
	Disconnected/Slack	6
	Missing/Moved	2
Static Wire Attachment	Worn/Burnt	4
Anchor	Rusted/Broken	3

The past priority conditions as well as the wood pole inspection show that this section of line has severe degradation of both the guy wires and wood poles. The combination of a failed guy wire on a degraded wood pole significantly increases the risk of failure. Additionally, there has been a concerning amount of woodpecker damage throughout this section; also increasing the risk of pole failure at critical points along the structure. If this section remains as is, future guy wire and wood pole failures are expected as these poles continue to rot and age.

ATSI is proposing to replace all wood poles in this section with steel poles on concrete foundations. The installation of concrete foundations will prevent standing water from pooling around or physically touching the poles; significantly reducing the exposure to degradation. This will ensure the line will have a longer lifespan in this wet environment. Lastly, the use of the steel poles maximized the span lengths to allow for the elimination of 3 structures.

Also, as part of the Project, the conductor size is being increased from 477 kcmil 26/7 ACSR to 795 kcmil 26/7 ACSR to increase the rating of the line and to utilize a FirstEnergy standard conductor size.

In the last twelve years, there have been twelve unscheduled outages impacting the 138 kV transmission lines. Table 2 below identifies the details of these outages. This Project was identified as the best solution to address these outages.

Table 2. Reliability outage history for 138 kV Transmission Line.

Line/Equipment	Actual Out	Actual In	Duration	Cause
Niles Central-Packard 138 kV	7/4/2012 21:36	07/04/2012 21:36:00	0.00	Lightning
Niles Central-Packard 138 kV	08/19/2012 13:51:00	08/19/2012 14:37:00	46 MIN	Bus Outage
Niles Central-Packard 138 kV	03/10/2013 10:57:00	03/10/2013 10:57:00	0.00	Loss of Supply
Niles Central-Packard 138 kV	06/19/2018 02:35:03	06/19/2018 02:35:07	0.00	Insulator Failure
Niles Central-Packard 138 kV	03/05/2019 02:47:00	03/05/2019 02:47:00	0.00	Human Error During Maintenance
Niles Central-Packard 138 kV	03/05/2019 02:49:00	03/05/2019 02:49:00	0.00	Human Error During Maintenance
Niles Central-Packard 138 kV	07/11/2020 06:53:00	07/11/2020 06:53:00	0.00	Correlation - unknown magnitude/design criteria
Niles Central-Packard 138 kV	08/19/2020 01:27:00	08/19/2020 19:59:00	18 HR 32 MIN	Guy Wire
Niles Central-Packard 138 kV	03/25/2023 17:15:45	03/26/2023 00:33:01	7 HR 17 MIN 16s	Weather induced fall-in (outside ROW)
Niles Central-Packard 138 kV	04/01/2023 13:13:48	04/01/2023 13:56:19	42 MIN 31s	Wind
Niles Central-Packard 138 kV	07/17/2023 21:26:44	07/21/2023 14:16:00	3 D 16 HR 49 MIN 16s	Guy Wire
Niles Central-Packard 138 kV	04/14/2024 17:40:48	04/14/2024 22:59:59	5 HR 19 MIN 11s	Insulator Failure

The Project need for the Niles Central-Packard 138 kV Transmission Line Rebuild was presented at the January 19, 2024, SRRTEP-Western Meeting, and the solution was presented at the February 16, 2024, SRRTEP-Western Meeting. PJM assigned supplemental

number s3362.1 for the Project. The PJM SRRTEP-Western presentation slides are included as Exhibit 4 and provide additional details of the Project drivers.

4906-6-05 (B)(3): Location of the Project Relative to Existing or Proposed Lines

The location of the Project relative to existing or proposed lines is shown in the ATSI Transmission Network Map, included as part of the confidential portion of the FirstEnergy Corp. 2025 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 25-0504-EL-FOR under Rule 4901:5-5:04 (C)(2)(b) of the Ohio Administrative Code. The map is incorporated by reference only. The Niles Central-Packard 138 kV Transmission Line Partial Rebuild Project is referenced and included on Page 59 in the LTFR filed in 2025. The general location and layout of the Project area is shown in Exhibits 1 and 2.

4906-6-05 (B)(4): Alternatives Considered

Two alternatives were considered as part of this Project. The first alternative considered was to replace the thirteen (13) wood poles that failed the 2023 inspection with like-for-like wood poles. This alternative was not chosen because only replacing the specific poles will leave a risk of additional failures given that not all structures were inspected. The second alternative considered was to rebuild the entire section using like-for-like wood poles. This alternative was not chosen because putting wood poles back in this wet area will cause the same degradation issues over time, thereby increasing the need for additional spend and maintenance in the future.

4906-6-05 (B)(5): Public Information Program

ATSI will publish notice of the Project in the Tribune Chronicle, that covers the entire Project area including Howland and Bazetta Townships in Trumbull County, within 7 days of filing this Letter of Notification application. The notice will comply with Adm. Code 4906-6-08(A)(1)-(6). In addition to the public notice, ATSI will mail letters in accordance with Adm.Code 4906-6-08(B) explaining the Project to affected property owners and tenants within and contiguous to the planned Project area. ATSI has also established a Project website:

https://www.firstenergycorp.com/about/transmission_projects/ohio.html. ATSI's manager of External Affairs will advise local officials of features and the status of the proposed Project as necessary.

Finally, during all phases of this Project, ATSI will maintain the transmission projects hotline at 1-888-311-4737 and respond to questions submitted via email at: transmissionprojects@firstenergycorp.com. The public may use either the hotline or email to ask questions or leave comments on the Project for ATSI.

4906-6-05 (B)(6): Construction Schedule

The construction schedule for this Project is expected to begin as early as October 1, 2025, and to be completed by June 1, 2026.

4906-6-05 (B)(7): Area Map

Exhibit 1 depicts the general location of the Project. This Exhibit provides a partial copy of the United States Geologic Survey, Trumbull County OH, Quad Map. Exhibit 2 is a copy of ESRI aerial imagery of the Project area.

4906-6-05 (B)(8): Property Owner List

The Project will be located along the same centerline and within the same right-of-way as the existing line. No new easements or right-of-way will need to be acquired. Exhibit 5 contains a list of properties affected by the Project.

4906-6-05 (B)(9): TECHNICAL FEATURES OF THE PROJECT

4906-6-05 (B)(9)(a): Operating Characteristics

The transmission line construction will have the following characteristics:

Voltage:	138 kV
Conductors:	556.5 kcmil 26/7 ACSR
Static Wire:	7#8 Alumoweld

Insulators:	Porcelain
ROW Width:	100’
Structure Types:	Exhibit 6: Steel Pole Tangent Structure, (Qty. 9) Exhibit 7: Steel Pole Angle Structure, (Qty. 4) Exhibit 8: H-Frame Steel Tangent Structure, (Qty.6) Exhibit 9: Steel Pole DE Structure, (Qty.3)

4906-6-05 (B)(9)(b): Electric and Magnetic Fields

There are no occupied residences or institutions within 100 feet from the proposed transmission line centerline and therefore no Electric and Magnetic Field (“EMF”) calculations are required by this subsection.

4906-6-05 (B)(9)(c): Estimated Cost

The estimated cost for the proposed Project is $24,000,000. Although not statutorily required for approval, at the request of OPSB Staff, ATSI confirms that ATSI’s costs will be captured and allocated via FERC formula rates for the ATSI Transmission Zone, Attachment H-21 in the PJM OATT.

4906-6-05 (B)(10): SOCIAL AND ECOLOGICAL IMPACTS

4906-6-05 (B)(10)(a): Land Uses

The Project is in Howland and Bazetta Townships, Trumbull County, Ohio. The main land use around the Project area is zoned as residential. Because the proposed Project involves reconductoring the existing transmission line and replacing twenty-five (25) structures within the existing transmission corridor, no significant changes or impacts to the current land use are anticipated.

4906-6-05 (B)(10)(b): Agricultural Land

Agricultural land does not exist within the Project’s Area of Potential Effect (“APE”).

4906-6-05 (B)(10)(c): Archaeological or Cultural Resources

As part of the investigation for this Letter of Notification application, TRC Companies, Inc. ('TRC') submitted a request to the Ohio Historic Preservation Office ("SHPO") on behalf of ATSI to review the Project Study Area (Area of Potential Effects or "APE") within a one (1)-mile search radius. On December 10, 2024, SHPO replied to the request and the response is attached as Exhibit 10. SHPO concurred that the Project, as proposed, will have no effect on historic properties and no cultural resource studies are warranted. No further coordination is required for this Project unless the scope of work changes or archaeological remains are discovered during the course of the Project.

The SHPO database also includes the Ohio Historic Inventory ("OHI"), the Ohio Archaeological Inventory ("OAI"), previous cultural resource surveys, and the Ohio Genealogical Society ("OGS") cemetery inventory. The SHPO database includes all Ohio listings on the National Register of Historic Places ("NRHP"), including districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The results of the search indicate that within 1.0 mile of the Project Study Area there are three (3) resources with NRHP Determinations of Eligibility recorded: the J. Fekety House (DOE ID: 3581), which is located 0.89 mi to the southeast; an Unnamed Resource (DOE ID: 772), which is located 0.92 mi southwest; and an Unnamed Resource (DOE ID: 773), which is located 0.75 mi to the west of the proposed Project. The results of the search also identified 22 above-ground historic resources that have not yet been evaluated for NRHP eligibility recorded within one (1) mi of the Project Study Area. The nearest of these is situated 0.11 mi west of the southern Project Study Area extent. Two (2) Ohio Genealogical Society (OGS) cemeteries are mapped 0.94 mi southwest of the north-central extent of the Project Study Area and 0.9 mi east of the southern Project Study Area extent.

Four (4) archaeological surveys have been conducted within one (1) mi of the proposed Project. None of these surveys overlap the Project Study Area. No archaeological sites have been recorded within one (1) mi of the Project Study Area. The nearest sites are located nearly two (2) mi south of the southern Project Study Area extent.

The Project will not impact the viewshed of any potential historic properties. The Project will have no adverse effect upon any cultural or archaeological resources. To date, TRC has not conducted any on-site cultural resources surveys.

4906-6-05 (B)(10)(d): Local, State, and Federal Requirements

Coordination with Trumbull County, Howland Township, and Bazetta Township will be required for the acquisition of a Memorandum of Understanding for the expected high volume of truck traffic on County and Township roads. Greater than one (1) acre of earth disturbance is expected based on the proposed Project; therefore, the submittal of a Notice of Intent (NOI) application with the Ohio EPA is required for coverage under the general National Pollutant Discharge Elimination System (NPDES) construction storm water permit (OHC000006). A Storm Water Pollution Prevention Plan (SWPPP) is also required to be submitted for review by Trumbull County Soil & Water Conservation District (SWCD). The Project is over 100 kV and is therefore exempt from a Floodplain Development Permit with the Trumbull County floodplain administrator, however, coordination will be required to document the acknowledgement of this exemption. Lastly, all permitting and/or coordination necessary to comply with local, state, and federal agencies with jurisdiction regarding this Project, as shown in Table 3 below, will be completed prior to the commencement of construction.

Table 3. List of Government Agency Requirements

Agency	Requirement
U.S. Army Corps of Engineers	Section 404/Nationwide Permit 57
Ohio EPA	General NPDES Construction Storm Water Permit OHC000006
Trumbull County SWCD	SWPPP Review
Trumbull County Engineer's Office, Howland Township, Bazetta Township	Memorandum of Understanding
Trumbull County Floodplain Administrator	Document exemption from Floodplain Development Permit

The tallest Structures Nos. 3948, 3952 and 3964, approximately 93 feet in height each, have been determined as non-hazards by the FAA.

4906-6-05 (B)(10)(e): Endangered, Threatened, and Rare Species Investigation

As part of the investigation, ATSI retained TRC to conduct necessary surveys. TRC submitted a request to the Ohio Department of Natural Resources ("ODNR") Office of Real Estate to conduct an Environmental Review. As part of the Environmental Review, the ODNR Office of Real Estate conducted a search of the ODNR Division of Wildlife's Natural Heritage Database to research the presence of any endangered, threatened, or rare species within one (1) mile of the Project Study Area. The ODNR's Office of Real Estate's response on April 23, 2024, indicated that the Grove Sandwort (*Moehringia lateriflora*), a state potentially threatened species and that a Floodplain Forest plant community are located within a one (1) mile radius of the Project Study Area. Additionally, the Project is within the range of eight (8) state and/or federally listed animal species. A copy of ODNR's Office of Real Estate's response is included as Exhibit 11.

In addition, the ODNR-DOW stated that the Project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species; the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species; the little brown bat (*Myotis lucifugus*), a state endangered species; and the tricolored bat (*Perimyotis subflavus*), a state endangered and federally proposed endangered species. These bat species predominantly roost in trees behind loose, exfoliating bark, in crevices, and cavities, or in the leaves. These species are dependent on the forest structure surrounding the roost trees. The DOW recommended a desktop bat hibernaculum assessment be completed for the Project, which TRC completed for ATSI and submitted to ODNR for concurrence on May 20, 2024. ODNR responded on May 29, 2024, attached as Exhibit 11A, concurring that no caves, cliffs, or mine openings occur in the Project Area, therefore, the Project is not likely to impact hibernating bats. If trees are present within the Project and must be cleared, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with a diameter at breast high (DBH) $\geq$ 20 if possible. If minor tree clearing is needed because of this Project, it will take place within the USFWS recommended tree clearing dates (October 1 – March 31).

The Project is within the range of the northern harrier (*Circus hudsonius*), a state endangered bird species. This species prefers marshes and grasslands where they often hunt and nest in loose colonies. Active construction will be avoided in this habitat during the species' nesting period of April 15 through July 31.

The Project is within the range of the northern brook lamprey (*Ichthyomyzon fossor*), and the mountain brook lamprey (*Ichthyomyzon greeleyi*), two state endangered fish species. Due to the location, and that there is no in-water work proposed in a perennial stream, this Project is not likely to impact these species.

The Project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and federally threatened species. This species prefers wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location and type of habitat available, ODNR recommended that an approved herpetologist conduct a habitat suitability survey to determine if suitable habitat is present within the Project Study Area. Based upon the recommendation of ODNR, a habitat survey was conducted by Mr. Jeffrey G. Davis to determine if the Project Study Area contains suitable habitat for the eastern massasauga. Mr. Davis conducted the site visit on May 17, 2024, and determined that the Project Study Area "consists of dense vegetative cover with few to no basking sites" and therefore does not contain suitable habitat. Mr. Davis concluded that it is not likely this species will be impacted by Project activities and no further attention is warranted regarding the eastern massasauga within the Project Study Area.

As part of the investigation, TRC submitted a request to the US Fish and Wildlife Service (USFWS) for an Ecological Review to research the presence of any endangered, threatened, rare, or designated species within the Project Study Area. A copy of the USFWS Ecological Review response, dated March 22, 2024, is included as Exhibit 12. The response included recommendations for seasonal tree clearing regarding Federally listed bat species. Should the proposed Project site contain trees with a minimum diameter at breast height ("DBH") of three (3) inches, it is recommended by USFWS to avoid tree removal wherever possible. If no caves or abandoned mines are present, and trees with this DBH cannot be avoided, it is recommended that removal of any trees with a DBH of three (3) inches or larger only occur

between October 1 and March 31. Due to the Project, type, size, and location, USFWS does not anticipate adverse effects to any other federally endangered, threatened, or proposed species or proposed or designated critical habitat.

A list of all endangered, threatened, and rare species, as identified by ODNR, within the range of the Project is provided in Table 4.

Table 4. List of Endangered and Threatened Species within range of Project Study Area

Common Name	Scientific Name	Federal Listed Status	State Listed Status	Affected Habitat
Mammals				
Indiana Bat	*Myotis sodalis*	Endangered	Endangered	Trees, forests, caves, and caverns.
Little Brown Bat	*Myotis lucifugus*	N/A	Endangered	Trees, forests, caves, and caverns.
Northern Long-eared Bat	*Myotis septentrionalis*	Endangered	Endangered	Trees, forests, caves, and caverns.
Tricolored Bat	*Perimyotis subflavus*	Proposed Endangered	Endangered	Trees, forests, caves, and caverns.
Birds				
Northern Harrier	*Circus hudsonius*	N/A	Endangered	Marshes and grasslands.
Fish				
Northern Brook Lamprey	*Ichthyomyzon fossor*	N/A	Endangered	Perennial streams.
Mountain Brook Lamprey	*Ichthyomyzon greeleyi*	N/A	Endangered	Perennial streams.
Reptiles				
Eastern Massasauga	*Sistrurus catenatus*	Threatened	Endangered	Wet prairies, fens, and other wetlands, as well as drier upland habitat.

4906-6-05 (B)(10)(f): Areas of Ecological Concern

TRC conducted a wetland and stream delineation for the Project and entirety of the Niles Central-Packard 138 kV Transmission Line, as shown in Exhibit 13. The Project Study Area is Howland and Bazetta Townships, Trumbull County, Ohio. During field investigations, a total of two (2) streams and one (1) wetland were identified and delineated within the Project Study Area.

The Project Study Area consists mainly of an existing utility ROW surrounded by forested habitat, commercial and residential development, and undeveloped open space land uses. TRC did not observe the presence of any of the state or federally listed species during the field investigation due to the existing utility ROW. Therefore, no impacts are anticipated to any of the listed species detailed in the ODNR or USFWS correspondence.

The LOD will be completely within the Project Study Area and will include the replacement of 25 wooden structures, from Structure 3946 to Structure 3970, on the Niles Central-Packard 138kV Line. Access maps for the Project Study Area can be found in Exhibit 13A. Nationwide Permit (NWP) 57 (effective March 15, 2021, valid through March 14, 2026), authorizes the construction of access roads for the construction and maintenance of electric utility lines or telecommunication lines, including overhead lines and substations, in nontidal waters of the United States, provided the activity does not cause the loss of greater than 0.50-acre of waters of the United States. Nationwide Permit Regional General Conditions were reviewed regarding this Project. This Project is in Howland and Bazetta Townships, Trumbull County, Ohio, which is within the USACE Pittsburgh Regulatory District. All Townships in Trumbull County are listed in Appendix 1 to Regional General Condition 5(a) (Endangered Species and Threatened Species), triggering the need for a Section 404 Pre-Construction Notification. All other NWP 57 thresholds are met by the Project, including no wetland losses greater than 0.50-acre. The proposed Project will temporarily impact a total of approximately 4.58 acres of wetland W-EVN-1 during the placement of timber matting for access to existing structures and will permanently impact 0.07-acre of wetland W-EVN-1 for the proposed structure replacements. As the proposed permanent wetland impact (0.07-acre) is below 0.10-acre, under General Condition 23, no mitigation is required. A response to the Pre-Construction Notification was received from the Army Corp of Engineers on February 28, 2025, to verify compliance with applicable regional conditions throughout the course of the Project is included in Exhibit 14. A review of the National Conservation Easement Database (www.conservationeasement.us) revealed no conservation easements in the Project Study Area.

4906-6-05(B)(10)(g): Other Information

Construction and operation of the proposed Project will be in accordance with the requirements specified in the latest revision of the National Electrical Safety Code as adopted by the PUCO and will meet all applicable safety standards established by the Occupational Safety and Health Administration.

No other or unusual conditions are expected that will result in significant environmental, social, health or safety impacts.

4906-6-07: Documentation of Letter of Notification Transmittal and Availability for Public Review

This Letter of Notification application is being provided concurrently to the following officials in Howland and Bazetta Townships, and Trumbull County, Ohio.

Trumbull County

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Michael J. Hovis, Trustee
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Stacy Marlene, Fiscal Officer
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fiscalofficer@bazettatwp.org

Library

Kimberly Garrett, Director
Howland Library
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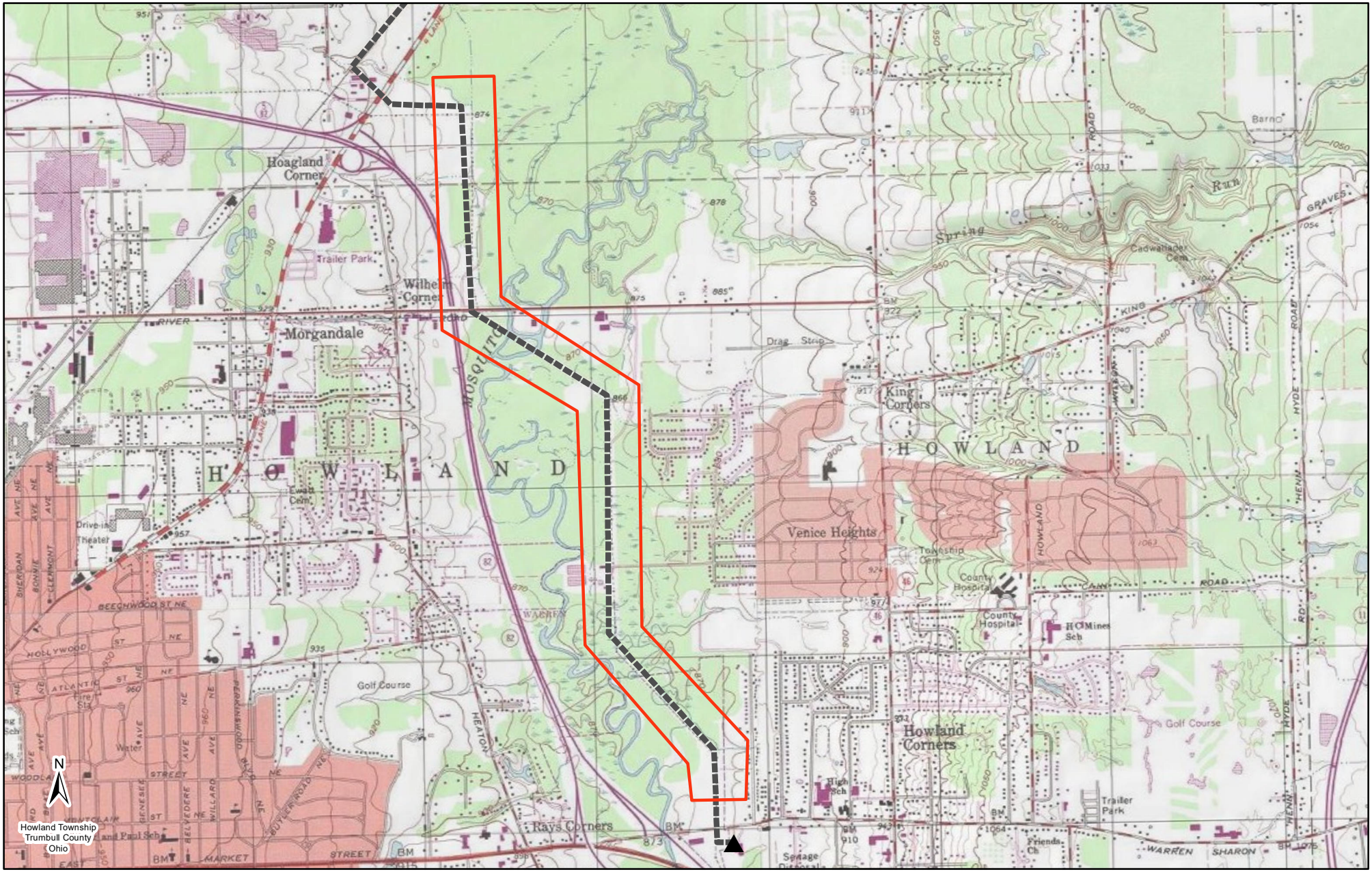
Warren, OH 44484
garrettk@wtcpl.org

Per Adm.Code 4906-6-07(B), exemplar copies of the notice letters sent to local government officials and to the library have been included with this application as proof of compliance with requirements of Adm.Code 4906-6-07(A)(1) and 4906-6-07(A)(2).

Information is posted at www.firstenergycorp.com/about/transmission_project/ohio.html on how to request an electronic or paper copy of this Letter of Notification application. The link to this website is being provided in accordance with Adm.Code 4906-6-07(B), which requires ATSI to provide the OPSB with proof of compliance with Adm.Code 4906-6-07(A)(3).



LEGEND:

- Project Area
- Niles Central-Packard 138 kV Transmission Line
- Garden Substation

0 1,250 2,500 5,000

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD_1983_StatePlane_Ohio_North_FIPS_3401_Feet
WKID: 3734 Authority: EPSG

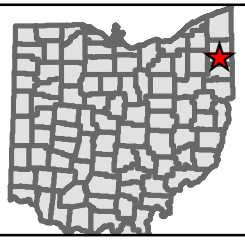


EXHIBIT 1

ATSI®
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

Niles Central-Packard 138 kV
Transmission Line Partial Rebuild Project

LEGEND:

- Project Area
- Niles Central-Packard 138 kV Transmission Line
- Garden Substation

0 1,250 2,500 5,000

Feet

Reference:
USGS Topographical Overlay

Coordinate System:
NAD_1983_StatePlane_Ohio_North_FIPS_3401_Feet
WKID: 3734 Authority: EPSG

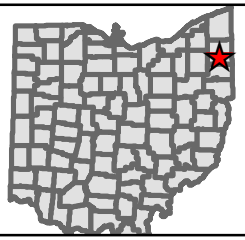


EXHIBIT 2

ATSI®
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

Niles Central-Packard 138 kV
Transmission Line Partial Rebuild Project

STATE HWY 82

EAST MARKET ST

TO NILES CENTRAL SUBSTATION

EXISTING 100'± WIDE R/W

50'-0" R/W

50'-0" R/W

TO ELM SUBSTATION

TRUMBULL COUNTY, STATE OF OHIO

STR #3946

STR #3947

STR #3948

GARDEN SUB

SANDPIPER TRAIL SE

TO GARDEN SUBSTATION

TRUMBULL COUNTY, STATE OF OHIO

50'-0" R/W

50'-0" R/W

STR #3948

STR #3949

STR #3951

STR #3952

EXISTING 100'± WIDE R/W

TO ELM SUBSTATION

LEGEND

- SUBSTATION
- PROPOSED H-FRAME STEEL STRUCTURE WITH CONCRETE FOUNDATIONS
- PROPOSED STEEL POLE WITH CONCRETE FOUNDATION
- EXISTING LATTICE TOWER TO REMAIN
- EXISTING STRUCTURE TO BE REMOVED
- EXISTING GUY ANCHOR TO BE REMOVED
- PROPOSED 138KV TRANSMISSION LINE
- SUBSTATION FENCE
- EXISTING 138kV TRANSMISSION LINE
- ROAD
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- EXISTING 138KV TRANSMISSION LINE TO BE REMOVED

PAPER SIZE: 17X11

SCALE: NTS

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NILES CENTRAL -PACKARD 138 kV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 3 (SHEET 1 OF 4)

TRUMBULL COUNTY,
STATE OF OHIO

50'-0" R/W

STR #3952

STR #3953

STR #3954

STR #3955

50'-0" R/W

TO GARDEN SUBSTATION

EXISTING 100'± WIDE R/W

ANDERSON AVE

TO ELM SUBSTATION

TRUMBULL COUNTY,
STATE OF OHIO

50'-0" R/W

STR #3955

STR #3957

STR #3958

STR #3959

50'-0" R/W

TO GARDEN SUBSTATION

EXISTING 100'± WIDE R/W

TO ELM SUBSTATION

LEGEND

- PROPOSED H–FRAME STEEL STRUCTURE WITH CONCRETE FOUNDATIONS
- PROPOSED STEEL POLE WITH CONCRETE FOUNDATION
- EXISTING STRUCTURE TO BE REMOVED
- EXISTING GUY ANCHOR TO BE REMOVED
- PROPOSED 138KV TRANSMISSION LINE
- ROAD
- PROPERTY LINE
- RIGHT–OF–WAY LINE
- E — EXISTING 138KV TRANSMISSION LINE TO BE REMOVED

PAPER SIZE: 17X11

SCALE: NTS

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NILES CENTRAL -PACKARD 138 kV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 3 (SHEET 2 OF 4)

TO GARDEN SUBSTATION

TRUMBULL COUNTY,
STATE OF OHIO

50'-0" R/W

50'-0" R/W

STR #3959

STR #3960

STR #3961

STR #3963

STR #3964

EXISTING 100'± WIDE R/W

NORTH RIVER RD

TO ELM SUBSTATION

TRUMBULL COUNTY,
STATE OF OHIO

NORTH RIVER RD

STR #3964

STR #3965

STR #3966

50'-0" R/W

50'-0" R/W

STR #3967

STR #3968

EXISTING 100'± WIDE R/W

TO GARDEN SUBSTATION

TO ELM SUBSTATION

LEGEND

- PROPOSED H–FRAME STEEL STRUCTURE WITH CONCRETE FOUNDATIONS
- PROPOSED STEEL POLE WITH CONCRETE FOUNDATION
- EXISTING STRUCTURE TO BE REMOVED
- EXISTING GUY ANCHOR TO BE REMOVED
- PROPOSED 138KV TRANSMISSION LINE
- ROAD
- PROPERTY LINE
- RIGHT–OF–WAY LINE
- EXISTING 138KV TRANSMISSION LINE TO BE REMOVED

PAPER SIZE: 17X11

SCALE: NTS

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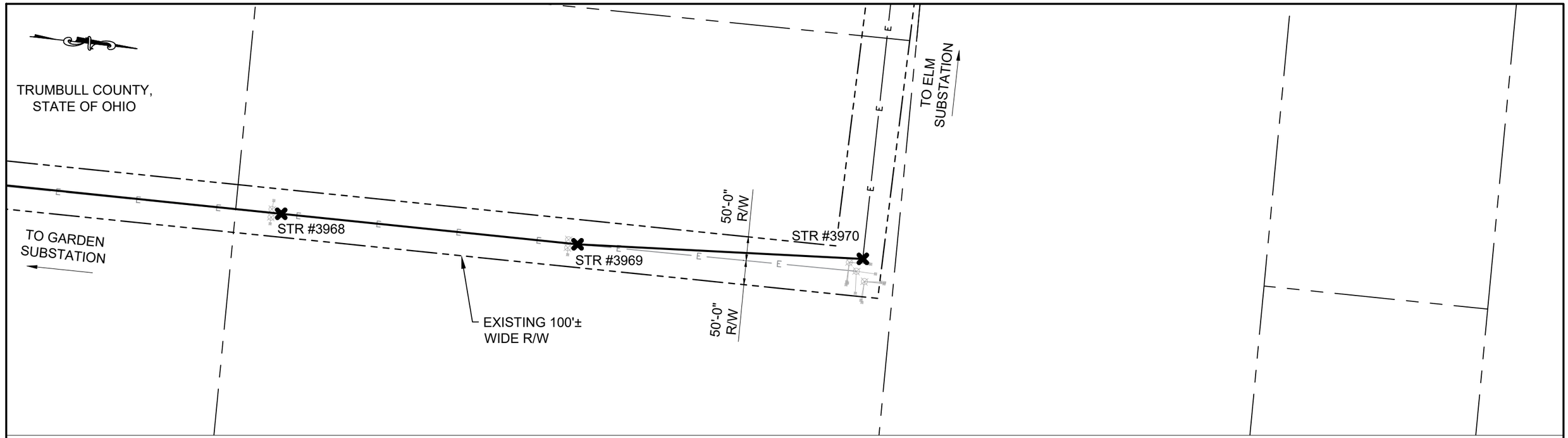
NILES CENTRAL -PACKARD 138 kV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 3 (SHEET 3 OF 4)



LEGEND

- PROPOSED H–FRAME STEEL STRUCTURE WITH CONCRETE FOUNDATIONS
- PROPOSED STEEL POLE WITH CONCRETE FOUNDATION
- EXISTING STRUCTURE TO BE REMOVED
- EXISTING GUY ANCHOR TO BE REMOVED
- PROPOSED 138KV TRANSMISSION LINE
- ROAD
- PROPERTY LINE
- RIGHT–OF–WAY LINE
- E EXISTING 138KV TRANSMISSION LINE TO BE REMOVED

PAPER SIZE: 17X11

SCALE: NTS

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NILES CENTRAL -PACKARD 138 kV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

GENERAL LAYOUT

EXHIBIT 3 (SHEET 4 OF 4)

EXHIBIT 4

ATSI Transmission Zone M-3 Process
Niles Central – Packard 138 kV Line

Need Numbers: ATSI-2024-002

Process Stage: Need Meeting 01/19/2024

Project Driver:

Equipment Condition

Specific Assumption Reference:

Global Considerations

- Past system reliability and performance

Line Condition Rebuild/Replacement

- Transmission Steel Tower, Wood & Steel Poles
- Transmission Line Hardware
- Transmission Line Conductor

Problem Statement:

- The Niles Central – Packard line was built in mid 1950s. A 42 of the 83 wood pole structures failed inspection due to decay.
- Since 2005, Niles Central – Packard 138 kV Line has experienced 10 outages. Five of the outage were due to failed line equipment and the other five were weather-related. The last five outage have occurred since 2020 including three in 2023.
- The Niles Central – Packard main line section is 8.9 miles long and the tap to Cortland is an additional 3.9 miles.
- A line fault will cause approximately 53 MW consequential loss of load with approximately 16,000 customers at risk.

ATSI Transmission Zone M-3 Process
Niles Central – Packard 138 kV Line

Need Numbers: ATSI-2024-002

Process Stage: Solutions Meeting – 02/16/2024

Previously Presented : Need Meeting 1/19/2024

Project Driver:

Equipment Condition

Specific Assumption Reference:

Global Considerations

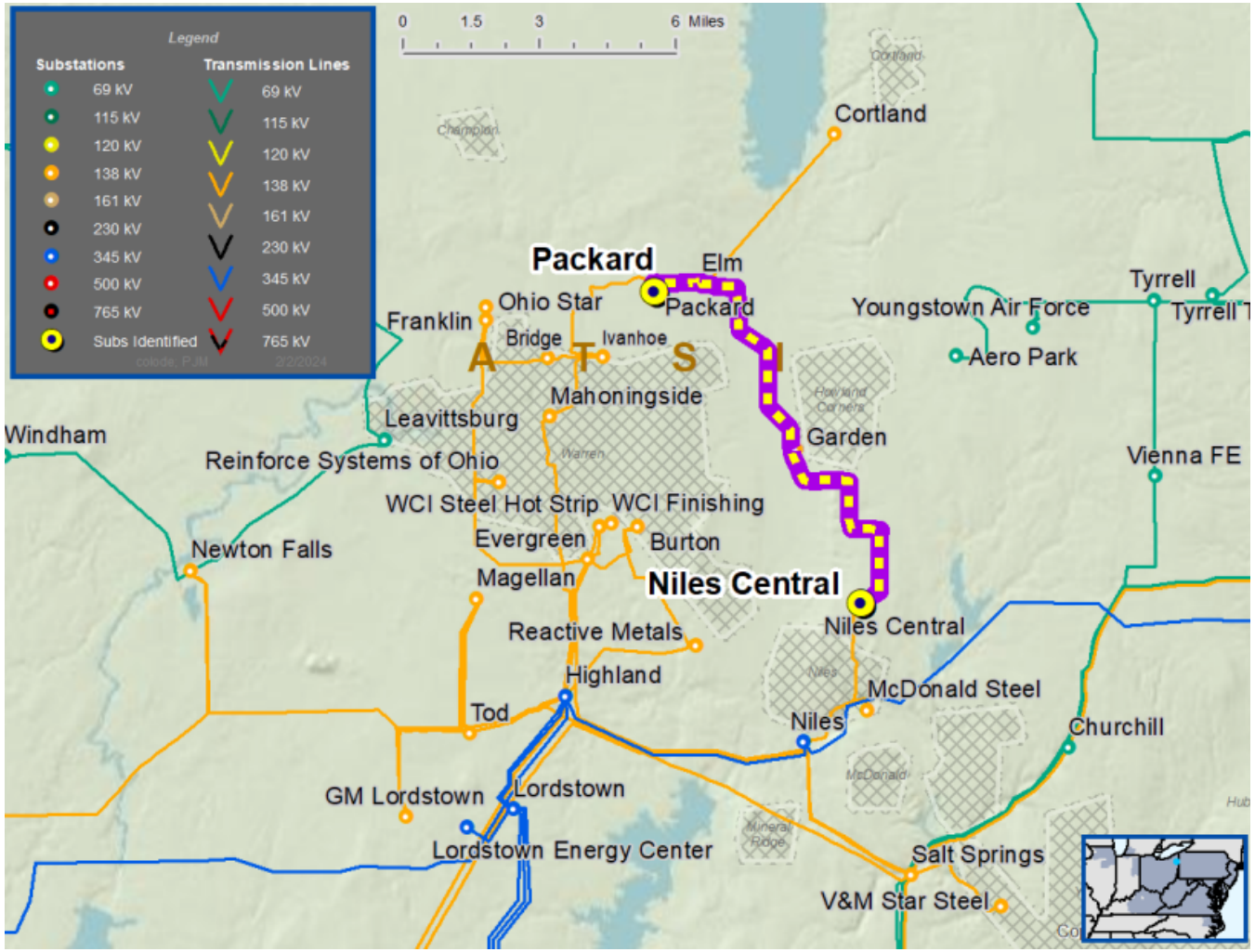
- Past system reliability and performance

Line Condition Rebuild/Replacement

- Transmission Steel Tower, Wood & Steel Poles
- Transmission Line Hardware
- Transmission Line Conductor

Problem Statement:

- The Niles Central – Packard 138 kV Line was built in mid 1950s. 42 of the 83 wood pole structures failed inspection due to decay.
- Since 2005, the Niles Central – Packard 138 kV Line has experienced ten outages. Five of the outages were due to failed line equipment and the other five were weather-related. The last five outage have occurred since 2020 including three in 2023.
- The Niles Central – Packard 138 kV Line main section is 8.9 miles long and the tap to Cortland Substation is an additional 3.9 miles.
- A line fault will cause approximately 53 MW of consequential load loss with approximately 16,000 customers at risk.



ATSI Transmission Zone M-3 Process
Niles Central – Packard 138 kV Line

Need Number: ATSI-2024-002

Process Stage: Solutions Meeting – 02/16/2024

Proposed Solution:

Niles Central – Packard 138 kV Line Rebuild

- Rebuild the Niles Central – Packard 138 kV Line with new conductor, approximately 8.9 miles.

Transmission Line Ratings:

Packard – Elm 138 kV Line

- Before Proposed Solution: 157 / 196 / 198 / 255 MVA (SN/SE/WN/WE)
- After Proposed Solution: 221 / 268 / 250 / 317 MVA (SN/SE/WN/WE)

Elm – Garden 138 kV Line

- Before Proposed Solution: 157 / 196 / 198 / 255 MVA (SN/SE/WN/WE)
- After Proposed Solution: 221 / 268 / 250 / 317 MVA (SN/SE/WN/WE)

Garden – Niles Central 138 kV Line

- Before Proposed Solution: 157 / 196 / 198 / 255 MVA (SN/SE/WN/WE)
- After Proposed Solution: 221 / 268 / 250 / 317 MVA (SN/SE/WN/WE)

Alternatives Considered:

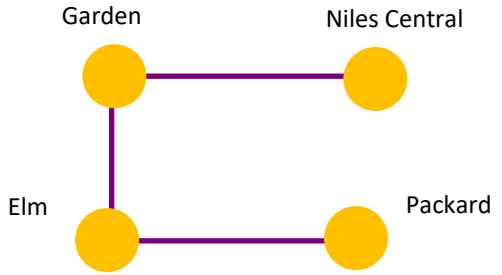
- Maintain existing condition and elevated risk of failure.

Estimated Project Cost: $12.6M

Projected In-Service: 12/31/2025

Status: Conceptual

Model: 2023 RTEP model for 2028 Summer (50/50)



Legend	
500 kV	
345 kV	
138 kV	
69 kV	
34.5 kV	
23 kV	
New	

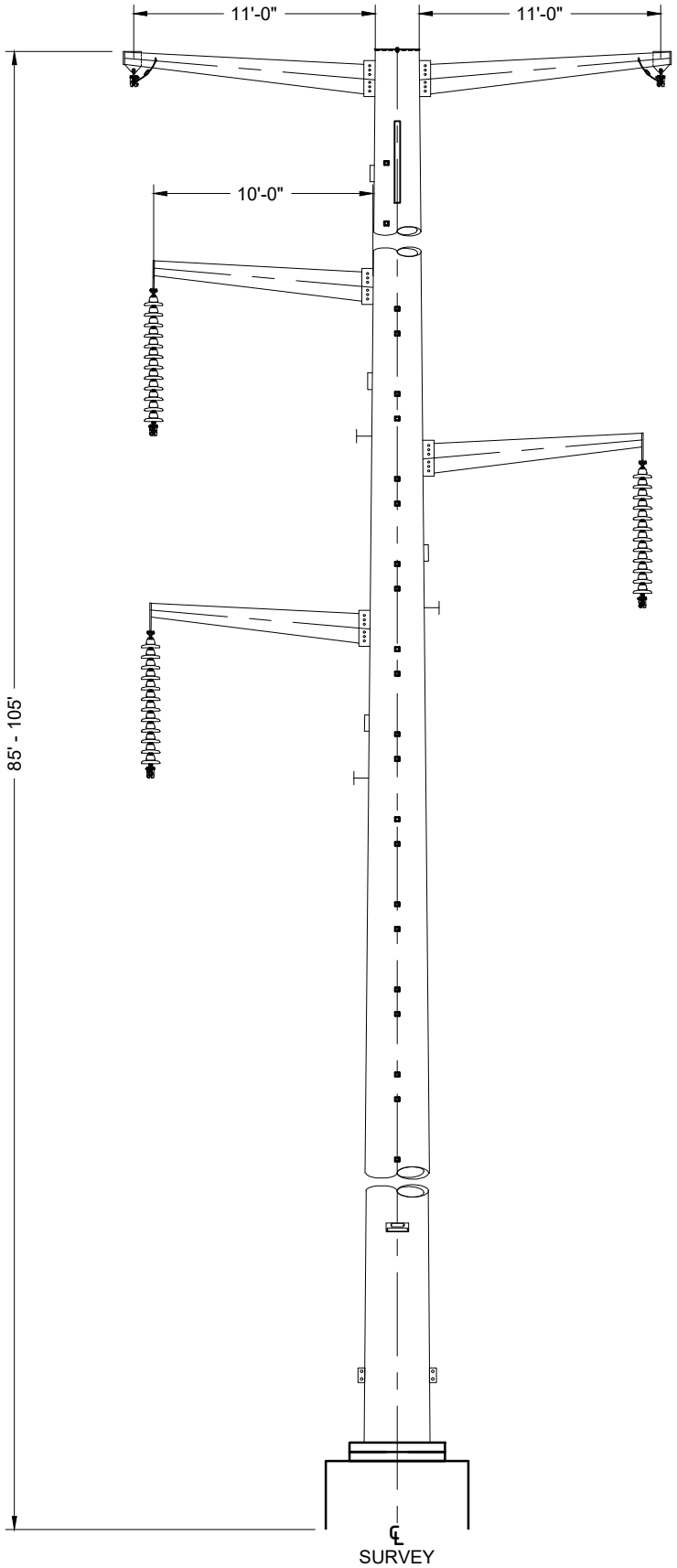
EXHIBIT 5

Property Owners Served Notice of
the Letter of Notification

Niles Central-Packard 138 kV Transmission Line Partial Rebuild Project

Case No. 25-0076-EL-BLN

Parcel Number(s)	Easement Status
28-001505; 28-001504	Existing
28-903088; 28-382900; 28-901173; 28-901339; 44-205008; 28-383301	Existing
28-429100	Existing
31-024600	Existing
28-491900; 28-286200	Existing
28-227730	Existing
28-515345	Existing
28-491600	Existing
28-382801; 28-900659; 28-900571; 28-900986; 28-307200	Existing
28-902041; 28-746012	Existing
28-003524	Existing
28-023401	Existing
28-417700	Existing
28-129000	Existing
28-605878	Existing
28-731600	Existing
28-731601	Existing
44-205007	Existing
28-001500	Existing
28-002508	Existing
31-902169	Existing
28-491700; 28-491800	Existing
28-429100	Existing
31-024600	Existing
28-491900, 28-286200	Existing
28-227730	Existing
28-515345	Existing
28-023401	Existing
28-417700	Existing
28-605878	Existing
28-491700, 28-491800	Existing



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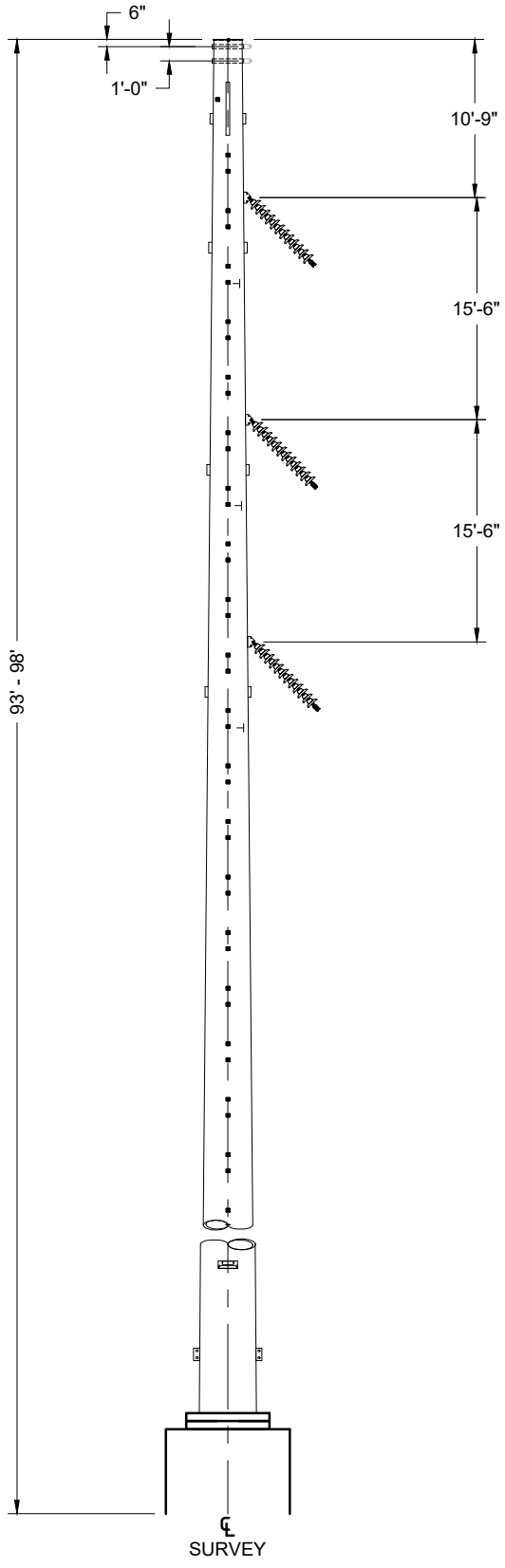
NILES CENTRAL-PACKARD 138 kV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

DELTA SUSPENSION STEEL POLE STRUCTURE
WITH CONCRETE FOUNDATION

EXHIBIT 6

PAPER SIZE: 8.5X11

SCALE: NTS



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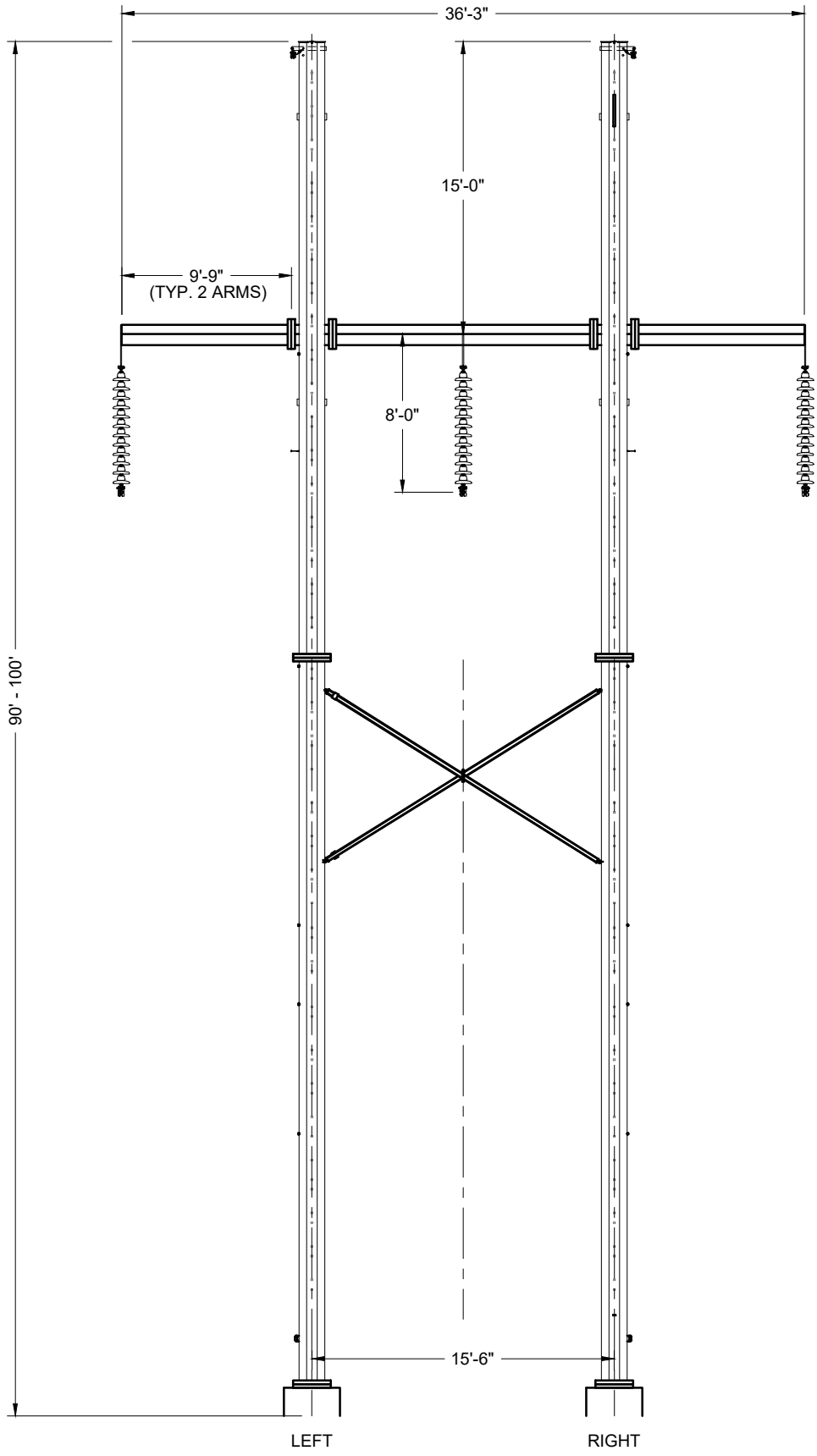
NILES CENTRAL-PACKARD 138 kV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

ANGLE SUSPENSION STEEL POLE STRUCTURE WITH CONCRETE FOUNDATION

EXHIBIT 7

SCALE: NTS

PAPER SIZE: 8.5X11



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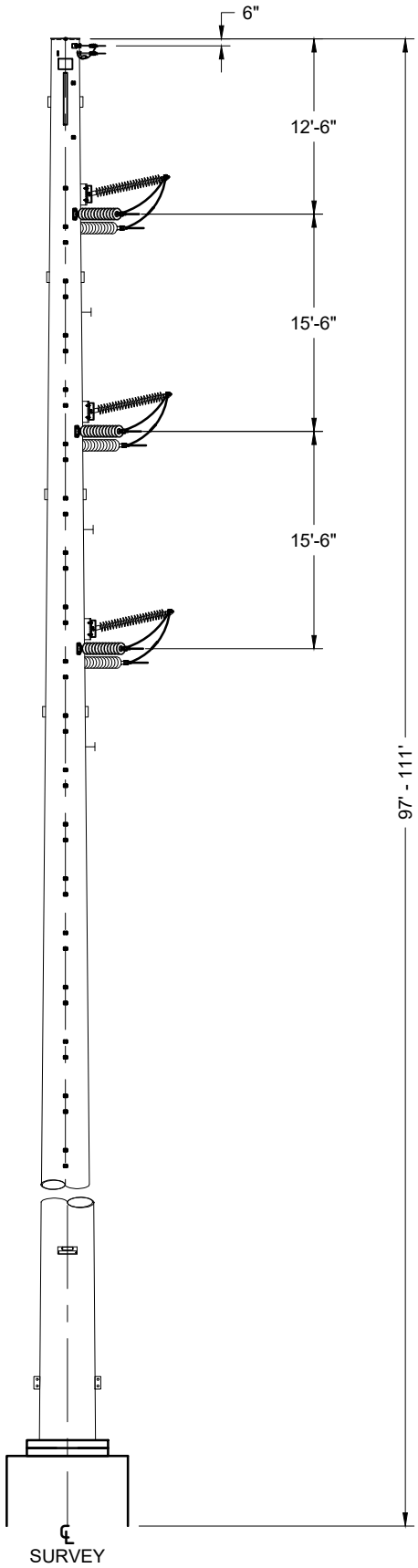
NILES CENTRAL-PACKARD 138 kV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

2–POLE STEEL H–FRAME SUSPENSION STRUCTURE
WITH CONCRETE FOUNDATION

EXHIBIT 8

SCALE: NTS

PAPER SIZE: 8.5X11



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NILES CENTRAL-PACKARD 138 kV TRANSMISSION LINE
PARTIAL REBUILD PROJECT

STEEL DEADEND STRUCTURE
WITH CONCRETE FOUNDATION

EXHIBIT 9

PAPER SIZE: 8.5X11

SCALE: NTS

EXHIBIT 10

In reply refer to:
2024-TRU-62997

December 10, 2024

Justin McKissick, MA, RPA
Project Archaeologist/Field Director
TRC Environmental Corporation
317 E Carson Street, Suite 113
Pittsburgh, PA 15219
Email: JMcKissick@trccompanies.com

RE: Section 106 Review: Niles Central-Packard 138kV Rebuild Project, City of Warren, Bazetta and Howland Townships, Trumbull County, Ohio

Dear Mr. McKissick:

This letter is in response to the correspondence received on November 14, 2024, regarding the above-referenced project in Trumbull County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code (O.R.C.) and the Ohio Power Siting Board rules for siting this project. The comments of the Ohio SHPO are also submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The proposed project consists of rebuilding approximately 3.0-miles of the existing Niles Central-Packard line. The new infrastructure will be similar in height to the existing poles; therefore, no new visual impacts are anticipated. Based on the information submitted by you, which included a Project Summary Form, no historic properties, districts, or archaeological sites are located within the direct Area of Potential Effect (APE), as defined by you. Therefore, based on this information, it is the SHPO's opinion that no cultural resource studies are warranted for the project. Furthermore, as proposed, the project will have no effect on historic properties. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as required by 36 CFR § 800.13. If you have any questions concerning this review, please contact either myself via email at sbiehl@ohiohistory.org or Ms. Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,

Stephen M. Biehl

Stephen M. Biehl, Project Reviews Manager-Archaeology
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1105754

"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."

EXHIBIT 11

Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR MARY MERTZ, DIRECTOR

Office of Real Estate
Tara Paciorek, Chief
2045 Morse Road – Bldg. E-2
Columbus, Ohio 43229
Phone: (614) 265-6661
Fax: (614) 267-4764

April 23, 2024

Jenna Slabe
TRC Companies, Inc.
1382 West 9th Street, Suite 400
Cleveland, Ohio 44113

Re: 24-0477_FirstEnergy Niles Central-Packard 138kV Rebuild

Location: The proposed project is located in the City of Warren and Bazetta and Howland townships, Trumbull County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state, or federal agency nor relieve the applicant of the obligation to comply with any local, state, or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following data within one mile of the project area:

Grove Sandwort (*Moehringia lateriflora*), P
Floodplain forest plant community

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. Records for high quality plant communities indicate the presence of sites that are in our inventory of the best remaining examples of Ohio's pre-settlement ecosystems.

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

The species and features listed above are not recorded within the boundaries of the specified project area. However, please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the "*OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING*". If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31. However, limited summer tree cutting may be acceptable after consultation with the DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "*RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES*." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the northern brook lamprey *(Ichthyomyzon fossor*), a state endangered fish, and the mountain brook lamprey (*Ichthyomyzon greeleyi*), a state endangered fish. The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location, the type of habitat within the project area, the DOW recommends that an approved herpetologist conducts a habitat suitability survey to determine if suitable habitat is present within the project area. If suitable habitat is determined to be present; the DOW recommends that a presence/absence survey be conducted, or an avoidance/minimization plan be developed and implemented by the approved herpetologist. A list of approved herpetologists has been provided for your convenience.

The project is within the range of the northern harrier (*Circus hudsonius*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large

marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Thank you for affording us the opportunity to comment.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator

EXHIBIT 11A

Auggie,
Please see the concurrence response below from ODNR on the desktop hibernacula assessment for Niles-Central Packard.

"ODNR concurs with your assessment that no caves, cliffs, or mine openings occur in the project area. Therefore, the project is not likely to impact hibernating bats that may be present in the underground mines."

Thank you,

Maggie Molnar, PWS
Ecologist

781 Science Boulevard, Suite 200, Gahanna, Ohio 43230
D 614.423.6342| **C** 614.949.2437
LinkedIn | Twitter | Blog | TRCcompanies.com

Please note that our address has changed.

From: Eileen.Wyza@dnr.ohio.gov <Eileen.Wyza@dnr.ohio.gov>
Sent: Wednesday, May 29, 2024 8:54 AM
To: Van Nort, Erin <EVanNort@trccompanies.com>
Cc: Molnar, Maggie <MMolnar@trccompanies.com>
Subject: [EXTERNAL] RE: Desktop Hibernacula Assessment - FE Niles-Central Packard

---

Hello Erin,

Per review of the desktop survey provided for the Niles Central-Packard 138kV Rebuild Project, the Ohio Division of Wildlife concurs with your assessment that no caves, cliffs, or mine openings occur in the project area. Therefore, the project is not likely to impact hibernating bats that may be present in the underground mines.

Should any reported conditions change before or during construction, please contact me for additional guidance.

Thank you,

Eileen Wyza, Ph.D.
(she/her/hers)
Wildlife Biologist
Ohio Division of Wildlife
Phone: 614-265-6764
Email: Eileen.Wyza@dnr.ohio.gov

From: Van Nort, Erin <EVanNort@trccompanies.com>
Sent: Tuesday, May 21, 2024 10:03 AM
To: Wyza, Eileen <Eileen.Wyza@dnr.ohio.gov>
Cc: Molnar, Maggie <MMolnar@trccompanies.com>
Subject: Desktop Hibernacula Assessment - FE Niles-Central Packard

Eileen,

Please find attached a Desktop Hibernacula Assessment, including mapping and a photographic record (PDF). This assessment was completed for a FirstEnergy project known as Niles-Central Packard 138kV Rebuild Project located in the city of Warren, Howland Township, and Bazetta Township, Trumbull County Ohio.

If you need any additional information to complete this review, please feel free to contact us.

Thank you,
Erin

Erin Van Nort, PWS
Senior Wetland Scientist
Planning, Permitting, and Licensing

TRC
1382 W 9th St, Suite 400, Cleveland, OH 44113
C 216.347.3342
LinkedIn | Twitter | Blog | TRCcompanies.com

EXHIBIT 12

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994

March 22, 2024

Re: Niles Central-Packard 138kV Rebuild Project Code: 2024-0063720

Dear Ms. Slabe:

The U.S. Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened, endangered, and proposed species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

The project lies within the range of the threatened eastern massasauga (*Sistrurus catenatus*), a small, docile rattlesnake. Several factors have contributed to the decline of the species including habitat loss and fragmentation, indiscriminate killing, collection, gene pool contamination and incompatible land use practices.

Eastern massasaugas use both upland and wetland habitat and these habitats differ by season. During the winter, massasaugas hibernate in low wet areas, primarily in crayfish burrows, but may use other structures. Presence of a water table near the surface is important for a suitable hibernaculum. In the summer, massasaugas use drier, open areas that contain a mix of grasses and forbs such as goldenrods and other prairie plants that may be intermixed with trees or shrubs. Adjoining lowland and upland habitat with variable elevations between are critical for the species to travel back and forth seasonally.

According to the information you provided, the proposed project area may contain suitable eastern massasauga habitat. Therefore, we recommend that a habitat assessment be conducted on the proposed project site to determine if suitable habitat for the species exists within the vicinity of the proposed site. Please note that habitat assessments should only be conducted by a herpetologist permitted by the Ohio Division of Wildlife (list attached) due to variable habitat types and the cryptic nature of the species. Any habitat assessments should be coordinated with this office.

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats.

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats and northern long-eared bats. If Indiana bats and northern long-eared bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife

habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Erin Knoll
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Eileen Wyza, ODNR-DOW

EXHIBIT 13

Surface Water Delineation Report

Niles Central-Packard 138kV Rebuild Project

May 2025

City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio

Prepared For:

FirstEnergy®

FirstEnergy Corporation
341 White Pond Drive, Building B3
Akron, Ohio 44320

Prepared By:

TRC Environmental Corporation
1382 West Ninth Street, Suite 400
Cleveland, Ohio 44113

TRC Project Number: 601194.0000

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TABLES

APPENDICES

ACRONYMS AND DEFINITIONS

1987 Manual	United States Army Corps of Engineers 1987 Wetland Delineation Manual
AWS	Agricultural Water Supply
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
FirstEnergy	FirstEnergy Corporation
GPS	Global Positioning System
HHEI	Headwater Habitat Evaluation Index
IWS	Industrial Water Supply
NHD	National Hydrography Dataset
NWI	National Wetlands Inventory
NWP	Nationwide Permit
OAC	Ohio Administrative Code
OBL	Obligate Wetland
OEPA	Ohio Environmental Protection Agency
ORAM	Ohio Rapid Assessment Method
PCR	Primary Contact Recreation
PEM	Palustrine Emergent
PFO	Palustrine Forested
Project	Niles Central-Packard 138kV Rebuild Project
Project Study Area	71.03 acres, located in the City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio
PSS	Palustrine Scrub-Shrub
QHEI	Qualitative Habitat Evaluation Index
Redox	Redoximorphic
Regional Supplement	Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)
Report	Surface Water Delineation Report
TRC	TRC Environmental Corporation
UNT	Unnamed Tributary
UPL	Obligate Upland
USACE	United States Army Corps of Engineers
USDA-NRCS	United States Department of Agriculture – Natural Resources Conservation Service
USFWS	United States Fish and Wildlife Service
WWH	Warmwater Habitat

1.0 Introduction

On behalf of FirstEnergy Corporation (FirstEnergy), TRC Environmental Corporation (TRC) performed a surface water delineation for the Niles Central-Packard 138kV Rebuild Project (Project). The proposed Project Study Area is 71.03 acres, located in the City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio. The proposed Project involves the rebuild of FirstEnergy's Niles Central-Packard 138 kV Rebuild Project. On behalf of FirstEnergy, TRC has prepared this Surface Water Delineation Report (Report) for the Project. A site location map of the Project Study Area can be found in **Appendix A, Figure 1.**

On March 28, August 7-8, October 4, 2024, and May 6, 2025, TRC personnel performed field investigations to evaluate and delineate surface water resources (i.e., wetlands and streams) located within the Project Study Area. The delineations were conducted by qualified wetland scientists in accordance with the United States Army Corps of Engineers (USACE) parameters. The objective was to evaluate and delineate potential surface water resources within the Project Study Area, such that the resources could be considered during each phase of the Project. This Report describes the surface water delineation methodology implemented and the existing surface water resources identified within the Project Study Area during field investigations.

The Project Study Area is located between the approximate coordinates: 41.275534, -80.769052 (northern terminus) and 41.237786, -80.752925 (southern terminus); located in the City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio. The Project Study Area occurs within an existing utility right-of-way surrounded by forested habitat, commercial and residential development, and undeveloped open space land use. **Appendix A, Figure 1** and **Figure 2,** provide further information on the location of the proposed Project Study Area.

2.0 Methodology

To complete the surface water delineation and evaluation of the Project Study Area, TRC followed the guidelines and methods outlined by the USACE and Ohio Environmental Protection Agency (OEPA), as described within this section.

2.1 Wetland Parameters

The *USACE 1987 Wetland Delineation Manual* (*1987 Manual*) (USACE, 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (*Regional Supplement)* (USACE, 2012), and the March 6, 1992 guidance memorandum (Williams, 1992) emphasize a three parameter approach to wetland boundary determination in the field. This approach involves the following:

i. Evidence of wetland hydrology;
ii. Presence of hydric soils; and
iii. Predominance of hydrophytic vegetation as defined by the *2022 National Wetland Plant List* (USACE, 2023).

Positive indicators of all three parameters are normally present in wetlands and serve to distinguish between both dry land and transitional plant communities.

2.1.1 Hydrology

The *1987 Manual* and *Regional Supplement* provides guidelines for determining the presence of wetland hydrology. Criteria for wetland hydrology are met if the area is inundated or saturated at the soil surface during the growing season for a time sufficient to develop hydric soils and to support hydrophytic vegetation.

2.1.2 Hydric Soils

Hydric soils are defined as soils "that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil" (Federal Register, 1994). Hydric soil indicators described in the United States Department of Agriculture – Natural Resources Conservation Service's (USDA-NRCS) *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils Version 9.0* (USDA, NRCS, 2024) were used to identify and document hydric soils per the *Regional Supplement*.

2.1.3 Hydrophytic Vegetation

To determine the presence of hydrophytic vegetation, the dominant and non-dominant species in each major vegetative stratum (e.g., tree, shrub/sapling, herbaceous, and woody vine) were identified and recorded.

Plants are placed into indicator status categories depending on their probability of occurring in a wetland in accordance with the USACE's *The National Wetland Plant List: 2022 wetland ratings* (USACE, 2023). There are five indicator status categories for plants:

1. Obligate wetland plants (OBL): plants that occur almost always (>99%) in wetlands in natural conditions, but which may also occur rarely (<1%) in non-wetlands;
2. Facultative wetland plants (FACW): plants that occur usually (>67-99%) in wetlands but also occur (1-33%) in non-wetlands;
3. Facultative plants (FAC): plants with a similar likelihood (33-67%) of occurring in both wetlands and non-wetlands;
4. Facultative upland plants (FACU): plants that occur sometimes (1-<33%) in wetlands, but occur more often (>67-99%) in non-wetlands; and
5. Obligate upland plants (UPL): plants that occur rarely (<1%) in wetlands but occur almost always (>99%) in non-wetlands under natural conditions.

A prevalence of dominant species that are FAC, FACW, and/or OBL indicates the presence of hydrophytic vegetation.

2.2 USACE Wetland Delineation

Qualified wetland scientists from TRC conducted surface water field investigations on March 28, August 7-8, October 4, 2024, and May 6, 2025. The surface water field investigations were conducted within the predetermined Project Study Area (**Appendix A, Figure 1**) that was developed in accordance with the Project location information provided by FirstEnergy. Surface water delineations were conducted using the Federal Routine Determination Method presented in the *1987 Manual* and *Regional Supplement*, including clarifications and interpretations provided in the March 6, 1992 guidance memorandum, and the USACE and Environmental Protection Agency (EPA) guidance on jurisdictional forms (EPA, USACE, 2007) and (USACE, 2008). USACE Wetland Determination Data Forms – Northcentral and Northeast Region are provided within **Appendix C**.

Hydrology was determined based on a number of indicators that are divided into two categories, primary and secondary. The *1987 Manual* defines hydrology as present when at least one primary indicator or two secondary indicators are identified. One primary indicator is sufficient to determine if hydrology is present; however, if these are absent then two or more of the secondary indicators are required to determine hydrology. If other probable hydrologic evidence was found, then this was subsequently documented on the data form.

Soils were examined in the field by using a tile spade, generally to a depth of at least 22 inches below the soil surface, until refusal, or positive hydric soil indicators were met below 22 inches, whichever was shallower. Soil coloration was identified using a Munsell Soil Color Chart (Munsell Color Company, 2009). Other characteristics, such as the presence of redoximorphic (Redox) concentrations and depletions and soil texture were also recorded. Redox concentrations and depletions are created when the soil is saturated and has anaerobic conditions (without oxygen gas) which leads to changes in the chemical processes in the soil that produce visible color changes in the soil. Hydric characteristics such as organic soil layers, depleted matrix, gleying, and hydrogen sulfide odor, were noted when observed. Soils at both wetland (if present) and dry land data plot locations were characterized and recorded on the data form.

The presence of hydrophytic vegetation was determined using the procedures described in the *Regional Supplement* and recorded on the data form. Vegetation in both dry land and wetland communities was characterized using a real dominance method, with a radius of 30-feet around the soil sample location for trees and woody vines, 15-foot radius for saplings and shrubs, and a 5-foot radius for herbaceous plants. Plant communities meeting the “50/20” Rule or meeting one of the other indicators set forth in the *1987 Manual, Regional Supplement,* and guidance memorandums are considered hydrophytic for the purposes of the wetland classification criteria. In areas where the vegetation was disturbed or not identifiable due to seasonal conditions, soil and hydrology characteristics, and professional judgment/experience were utilized in assessing the primary determining factors for classification as wetlands.

If the soils, hydrology, and vegetation characteristics at a survey point indicated that it was within a wetland, the boundary of the wetland was determined, and the approximate boundary was flagged using wetland flagging and recorded using a handheld Juniper Systems Geode and

Trimble R1 with sub-meter accuracy. Areas observed to have problematic or difficult situations were delineated utilizing the procedures identified in the *Regional Supplement*, Section 5 – "Difficult Wetland Situations in the Northcentral and Northeast Region." Data from the Global Positioning System (GPS) survey was downloaded and integrated into a Geographic Information System database for the proposed work areas and used to make the accompanying figures. Identified wetlands were classified according to Cowardin et al. (Cowardin, Carter, Golet, & LaRoe, 1979). Photographs are included in **Appendix B**.

2.3 Ohio Environmental Protection Agency's Ohio Rapid Assessment Method

According to the Ohio Wetland Water Quality Standards, a wetland quality category (Category 1, Category 2, or Category 3) must be assigned for each wetland if a project will require discharge of dredged or fill material into jurisdictional wetlands. In general, Category 1 wetlands are considered to be of "low quality", Category 2 wetlands are considered to be of "moderate quality," and Category 3 wetlands are considered to be of "high quality."

The OEPA has developed the Ohio Rapid Assessment Method (ORAM), which can be utilized to evaluate wetland habitat quality based on the apparent functions and values of the wetland resource. The two primary components of the ORAM are the Narrative Rating and the Quantitative Rating. TRC completed ORAM (Version 5.0) Quantitative Rating forms for all the wetland resources identified within the Project Study Area. Each delineated wetland resource received a provisional category designation based on the results of the ORAM Narrative and Quantitative Ratings and review of narrative criteria in the Ohio Administrative Code (OAC) 3745-1-54(C) (Mack, 2000). OEPA ORAM Rating and Categorization Forms are provided within **Appendix C**.

2.4 USACE Waterbody Identification

During field investigations, other waterbody features including streams, ponds, lakes, etc. were investigated. Streams within the Project Study Area were identified by the presence of an ordinary high-water mark and scoured channel or defined bed and banks. All streams identified in the Project Study Area that were wider than five feet were demarcated via GPS from bank-to-bank. Streams that were less than five feet wide had the centerline demarcated.

Identified streams were evaluated utilizing OEPA approved methods for stream habitat assessment which include the Qualitative Habitat Evaluation Index (QHEI) (OEPA, 2006) (Rankin, 1989) and/or the Headwater Habitat Evaluation Index (HHEI) (OEPA, 2020) assessment method. These approved assessment methods provide an empirical, quantified evaluation of streams as required by the State of Ohio for permitting and mitigation purposes. These methods assess stream habitat to provide a qualitative index (or score) to determine the level of compensatory mitigation that may be needed for impacts to waters of the United States (i.e., streams).

Use of the QHEI or HHEI assessment method is determined based on the size of the stream's drainage area and/or the stream's pool depths. Where coverage was available, the drainage area

was calculated using automated basin characteristics from StreamStats v 4.29.0 (U.S. Geological Survey, 2019).

Following OEPA guidance, streams with a drainage area of greater than 1.0 square mile (2.6 square kilometers) or which have pools with maximum depths over 15.8 inches (40.0 centimeters), as determined by measuring pool depth within the stream, were evaluated using the QHEI. Data on these streams were collected on the QHEI form provided by the OEPA. The QHEI is composed of six principal metrics: substrate, instream cover, channel morphology, riparian zone and bank erosion, pool/glide and riffle-run quality, and map gradient. Each metric is scored separately and summed to obtain the total QHEI score. Using the scoring methods associated with these forms, the stream is placed into the following general narrative ranges, dependent upon stream size; for smaller streams (≤20 sq. mi): Excellent >70, Good 55-69, Fair 43-54, Poor 30-42, and Very Poor <30; for larger streams (>20 sq. mi): Excellent >75, Good 60-74, Fair 45-59, Poor 30-44, and Very Poor <30.

The HHEI was utilized to score streams with a drainage area of <1.0 square mile (2.6 square kilometers). Data on these streams was collected on the HHEI forms, provided by the OEPA (OEPA, 2020). Observational data regarding the physical nature of the stream corridor including stream flow, riparian zone land use and buffer width, and channel modification was recorded. Measurements included bankfull width, maximum pool depth and substrate composition.

Streams identified during the course of the investigation were classified as perennial, intermittent, or ephemeral waterways in accordance with the rationale defined by the USACE Pittsburgh District.

The Project Study Area was also investigated for areas that were considered “open water” by the USACE. According to the USACE an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high-water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” may include rivers, lakes, and ponds. Artificial “open water” features may include stormwater retention basins, fish hatchery ponds, drainage tile pump stations, etc.

3.0 Results

3.1 Site Description

The Project Study Area is 71.03 acres, located in the City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio. The Project Study Area is located within the Lower Mosquito Creek watershed (12-Digit Hydrologic Unit Code: 050301030503) (USGS, 2022).

The Project Study Area is shown on the Champion, Ohio and Warren, Ohio United States Geological Survey 7.5-minute series topographic quadrangles (**Appendix A, Figure 1**) (USGS, 2023).

There are twenty-nine (29) United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) features mapped within the Project Study Area. The twenty-nine (29) NWI features are as follows: sixteen (16) riverine features, eight (8) freshwater forested/shrub wetlands, four (4) freshwater emergent wetlands, and one (1) freshwater pond (**Appendix A, Figure 4**) (USFWS, 2023).

The USGS National Hydrography Dataset (NHD) (USGS, 2018) Downloadable Data Collection from The National Map is a comprehensive set of digital spatial data that encodes information about naturally occurring and constructed bodies of surface water (e.g., lakes, ponds, and reservoirs), paths through which water flows (e.g., canals, ditches, streams, and rivers) and related entities such as point features (e.g., springs, wells, stream gages, and dams). There are twenty-nine (29) NHD streams mapped within the Project Study Area (**Appendix A, Figure 4**). The majority of the twenty-nine (29) NHD features present within the Project Study Area are braided channels throughout a large wetland complex.

According to Federal Emergency Management Agency Flood Insurance Rate Map Panels 39155C0269D (eff. 6/18/2010) and 39155C0382D (eff. 6/18/2010), the proposed Project is located within a mapped 100-year floodplain (**Appendix A, Figure 4**) (FEMA, 2021).

The USDA-NRCS Web Soil Survey (USDA-NRCS, 2016) was used to identify the soil types contained within the Project Study Area (**Appendix A, Figure 3**). **Table 1** provides a summary of the soils identified within the proposed Project Study Area.

Table 1. Soils Type Summary

Map Unit Symbol	Map Unit Name	Hydric Status	Acres Within Project Study Area	Percent Cover in Project Study Area
CnA	Chili loam, 0 to 2 percent slopes	Non-Hydric	1.10	1.55%
CnB	Chili loam, 2 to 6 percent slopes	Non-Hydric	0.02	0.03%
Da	Damascus loam	Hydric	0.63	0.89%
FcA	Fitchville silt loam, 0 to 2 percent slopes	Non-Hydric with Hydric Inclusions	1.80	2.54%
GfB	Glenford silt loam, 2 to 6 percent slopes	Non-Hydric	0.10	0.15%
HaB	Haskins loam, 2 to 6 percent slopes	Non-Hydric	0.23	0.32%
JtA	Jimtown loam, 0 to 2 percent slopes	Non-Hydric with Hydric Inclusions	0.72	1.01%
JuA	Jimtown-Urban land complex, 0 to 3 percent slopes	Non-Hydric with Hydric Inclusions	0.53	0.74%
OsB	Oshtemo sandy loam, 2 to 6 percent slopes	Non-Hydric	0.38	0.53%
Sb	Sebring silt loam, 0 to 2 percent slopes	Hydric	51.86	73.00%
Ud	Udorthents, loamy	Non-Hydric	12.67	17.84%
W	Water	Non-Hydric	0.99	1.40%

Table 1. Soils Type Summary

Map Unit Symbol	Map Unit Name	Hydric Status	Acres Within Project Study Area	Percent Cover in Project Study Area
		Total:	**71.03**	**100.00%**

Notes:
Accessed online May 2025 at: http://websoilsurvey.sc.egov.usda.gov.

3.2 Surface Water Resource Field Delineations

TRC performed field investigations on March 28, August 7-8, October 4, 2024, and May 6, 2025. Weather conditions were normal for the seasons. Native and non-native herbaceous vegetation was observed within the Project Study Area. The USACE maintains the final authority that determines jurisdiction; therefore, statements about jurisdiction within this Report are preliminary and subject to final determination by the USACE and OEPA.

3.2.1 Wetland

During the field investigation, one (1) wetland was identified and delineated within the Project Study Area. The delineated wetland boundary and sample points are shown on **Figure 5** in **Appendix A**. Representative photographs of sample points and other areas of interest are provided in **Appendix B**. Data was collected and recorded on the USACE Wetland Determination Data Form – Northcentral and Northeast Region (**Appendix C**) and a wetland functional assessment was completed for the delineated wetland using the ORAM (**Appendix C**). The delineated wetland within the Project Study Area is summarized in **Table 2**.

Table 2: Delineated Wetland Feature Summary Table

Wetland ID[1]	Cowardin Classification[2]	Connection[3]	Provisional Jurisdictional Status[4]	ORAM Score	ORAM Category[5]	Approximate Delineated Area within Project Study Area[6] (acres)
W-EVN-1	PEM/PSS/PFO	Adjacent	USACE Jurisdictional Wetland	61.5	Cat. 3	51.50
					Total:	**51.50**

[1] TRC resource identification.
[2]Cowardin Wetland Classification (approximation based upon field identification and delineation) (Cowardin, Carter, Golet, & LaRoe, 1979): PEM – Palustrine Emergent, PSS – Palustrine Scrub-Shrub, PFO – Palustrine Forested
[3]Connection to a jurisdictional waterway: Isolated or Adjacent as determined by TRC; subject to USACE verification. Wetland connection is pending an update from OEPA and USACE based on the EPA vs. Sackett case.
[4]Jurisdiction status is based upon field observations and mapping review of apparent connectivity or adjacency of the resource to Waters of the United States and the assumption that a preliminary jurisdictional determination process will be utilized for the project.
[5]ORAM Category based on scoring breakpoints from Table 2 of the ORAM v. 5.0 Quantitative Score Calibration; scores falling within a "gray zone" or "modified" category were rounded up.
[6]Area is rounded to nearest 0.01-acre, based upon GPS data.

3.2.2 *Streams*

During the field investigations, two (2) streams were identified and delineated within the Project Study Area. Although twenty-nine (29) NHD stream features and braided channels are documented throughout the Project Study Area, only two (2) stream channels of S-EVN-1 were identified during field investigations due to the impenetrable nature of Wetland W-EVN-1. Additional braided channels and NHD features that may be present within W-EVN-1 are shown in **Appendix A**, **Figure 4**. A detailed summary of the streams identified is provided in **Table 3** and **Appendix A**, **Figure 5**. Data points were recorded to provide a characterization of the delineated stream resources located within the Project Study Area, which were recorded on the OEPA QHEI data form. The QHEI data form is provided within **Appendix C**. Representative photographs of the described streams identified within the Project Study Area can be found in **Appendix B**.

Table 3. Delineated Stream Features Summary Table

Stream ID[1]	Resource Name	Flow Regime	OEPA Use Designation[2]	Narrative Rating	QHEI Score[3]	Approximate Delineated Length within Project Study Area[4] (linear feet/ acres)
S-EVN-1	UNT to Mosquito Creek	Perennial	-	Fair	50.5	515 (0.20-acre)
S-EVN-2	Mosquito Creek	Perennial	WWH, AWS, IWS, and PCR	-	-	370 (0.45-acre)
					Total:	**885 (0.65-acre)**

Notes:
[1]TRC resource identification.
[2]Determined by OEPA and listed in OAC §3745-1-25 Mahoning River drainage basin (Ohio Administrative Code Rule 3745-1-25). Warmwater Habitat=WWH, AWS=Agricultural Water Supply, IWS=Industrial Water Supply, PCR=Primary Contact Recreation.
[3]QHEI, for streams with drainage areas of greater than 1.0 square mile and a maximum pool depth greater than 40 centimeters.
[4]Length is rounded to the nearest foot, based upon GPS data. Area is rounded to nearest 0.01-acre, based upon GPS data. Resources comprising <0.01-acre are tabulated within the total as 0.01-acre.

4.0 Permitting Considerations

It is anticipated that due to the nature of the Project, jurisdictional resources will be impacted by the proposed Project activities. It is TRC's understanding that this Project would fall under Nationwide Permit (NWP) 57 - Electric Utility Line and Telecommunications Activities (USACE, 2021). This Project is located in the City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio. The Project is located within the USACE Pittsburgh Regulatory District. All townships in Trumbull County are listed in Appendix 1 to Regional General Condition 5(a) (Endangered Species and Threatened Species) (USACE, 2021), which triggers the need for a Section 404 Pre-Construction Notification application to be submitted to the USACE when the proposed Project includes regulated activities within jurisdictional resources.

Additionally, the Project is located within an "Eligible" area according to OEPA's Stream Eligibility for the Nationwide Permit Program (OEPA, 2017) (**Appendix A, Figure 6**); however, OEPA's 401

Water Quality Certification for NWP 57 is currently waived. No additional screening procedures are required for the Project regarding compliance with OEPA's 401 Water Quality Certification.

4.1 USACE Verification

The USACE has the authority to determine and/or verify the geographical boundaries of Waters of the United States in accordance with 33 Code of Federal Regulations (CFR) 328 and 33 CFR 329; therefore, the results of this Report are termed "preliminary" until verified and accepted by the USACE. This verification is part of the Jurisdictional Determination process, which is required for approval under Section 404 Clean Water Act, Section 401 Water Quality Certification, and/or isolated wetland permitting process through OEPA. It is the responsibility of any party that intends to discharge dredge or fill material into Waters of the United States to comply with all applicable regulations.

5.0 Limitations

This Report is limited in scope to the specific terms of the Agreement previously entered into between TRC and FirstEnergy. This Report represents the conditions within the Project Study Area identified herein, as of the inspection dates.

Should the Project change from the scope described herein, TRC should be immediately notified such that additional investigations may be conducted to amend the content of the Report herein. Human-induced and/or natural changes within the Project Study Area may occur after the date of this investigation and may result in changes to the presence, extent, and classification of the surface water resources identified within this Report.

6.0 References

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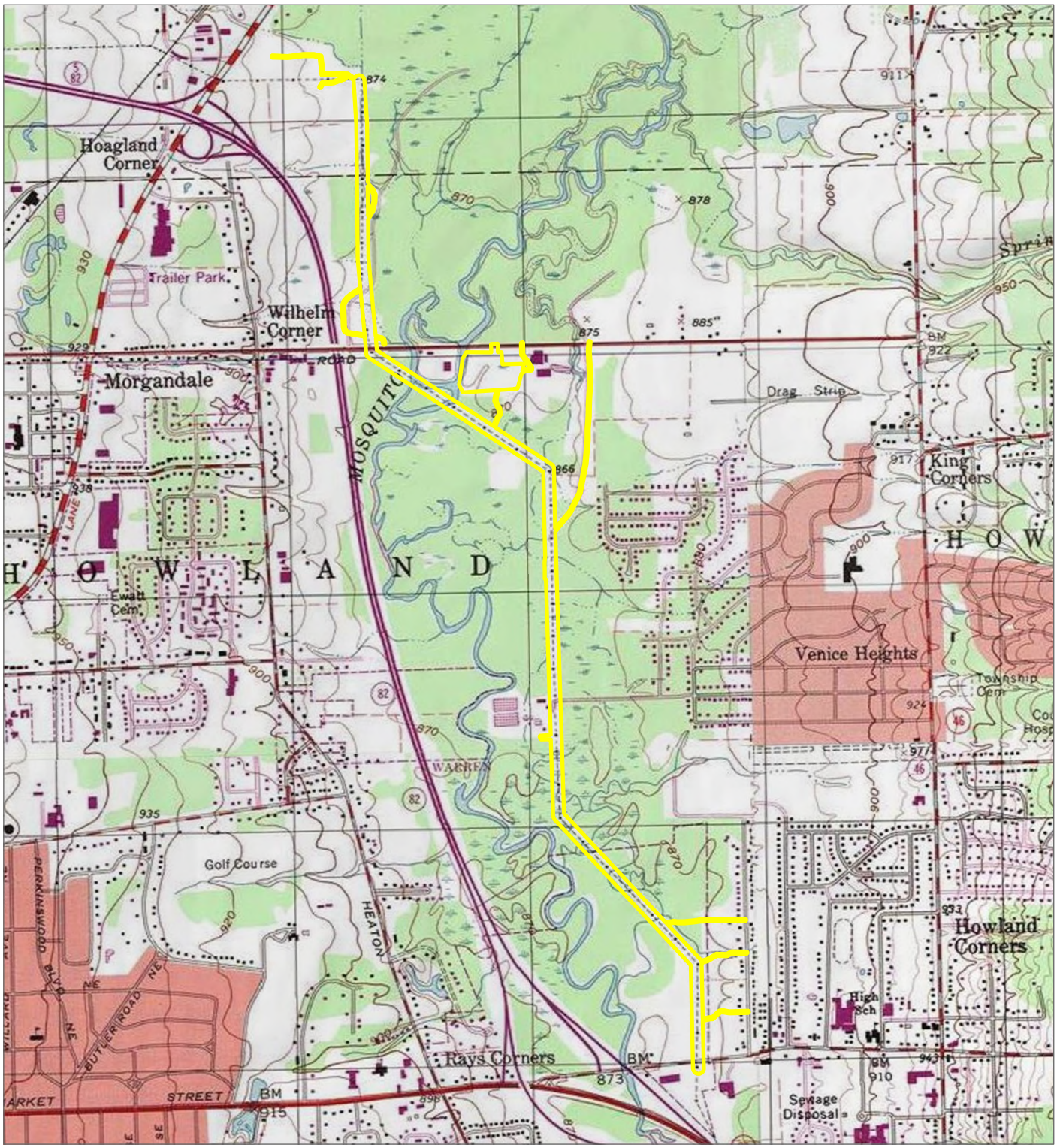
Appendix A

Figures



PROJECT STUDY AREA

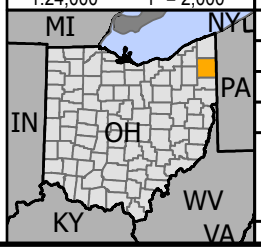
BASE MAP: USA TOPO MAPS MAP SERVICE, CHAMPION & WARREN QUAD

N

0 1,000 2,000

FEET

1:24,000 1" = 2,000'



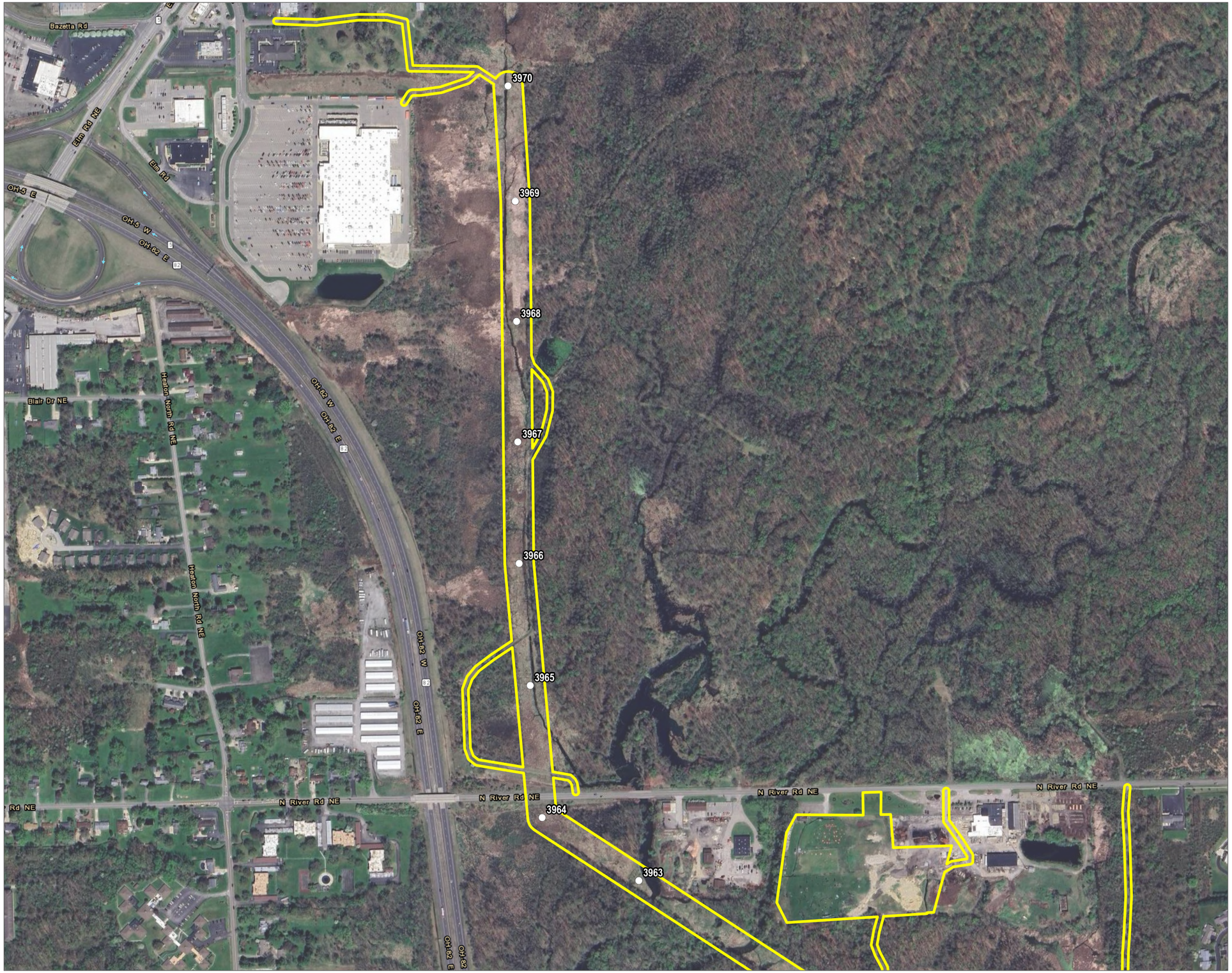
PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
SITE LOCATION MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		**FIGURE 1**
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

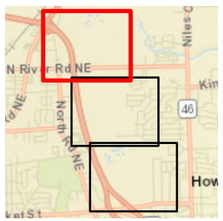
FILE: WDR



PROJECT STUDY AREA

EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.



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1" = 500'

0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		**FIGURE 2** (PAGE 1 OF 3)
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Layout Name: Fig02_Aerial
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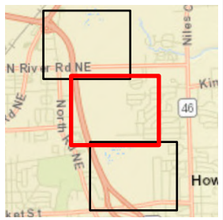
PROJECT STUDY AREA

EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.



1:6,000
1" = 500'

0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG	**FIGURE 2**	
DATE:	MAY 2025	**(PAGE 2 OF 3)**	

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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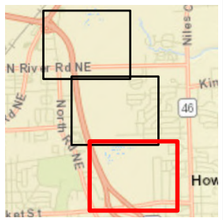
PROJECT STUDY AREA

EXISTING STRUCTURE

BASE MAP: GOOGLE MAPS.



1:6,000

1" = 500'

0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
AERIAL MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG	**FIGURE 2**	
DATE:	MAY 2025	**(PAGE 3 OF 3)**	

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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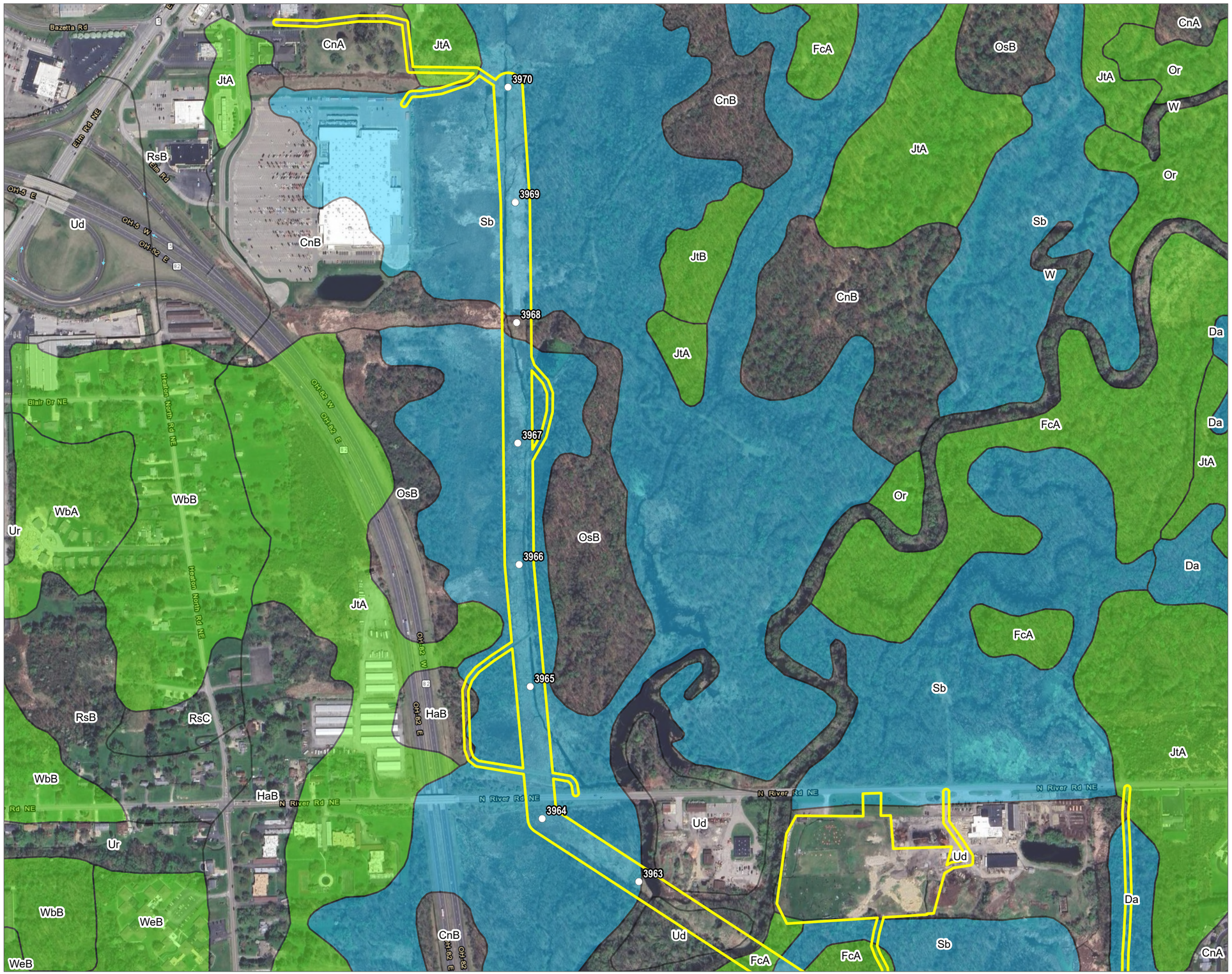

PROJECT STUDY AREA
EXISTING STRUCTURE
HYDRIC SOIL
NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
NON-HYDRIC SOIL

BASE MAP: GOOGLE MAPS.
DATA SOURCES: SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.

1:6,000
1" = 500'
0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
SOILS MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG	**FIGURE 3** (PAGE 1 OF 3)	
DATE:	MAY 2025		

1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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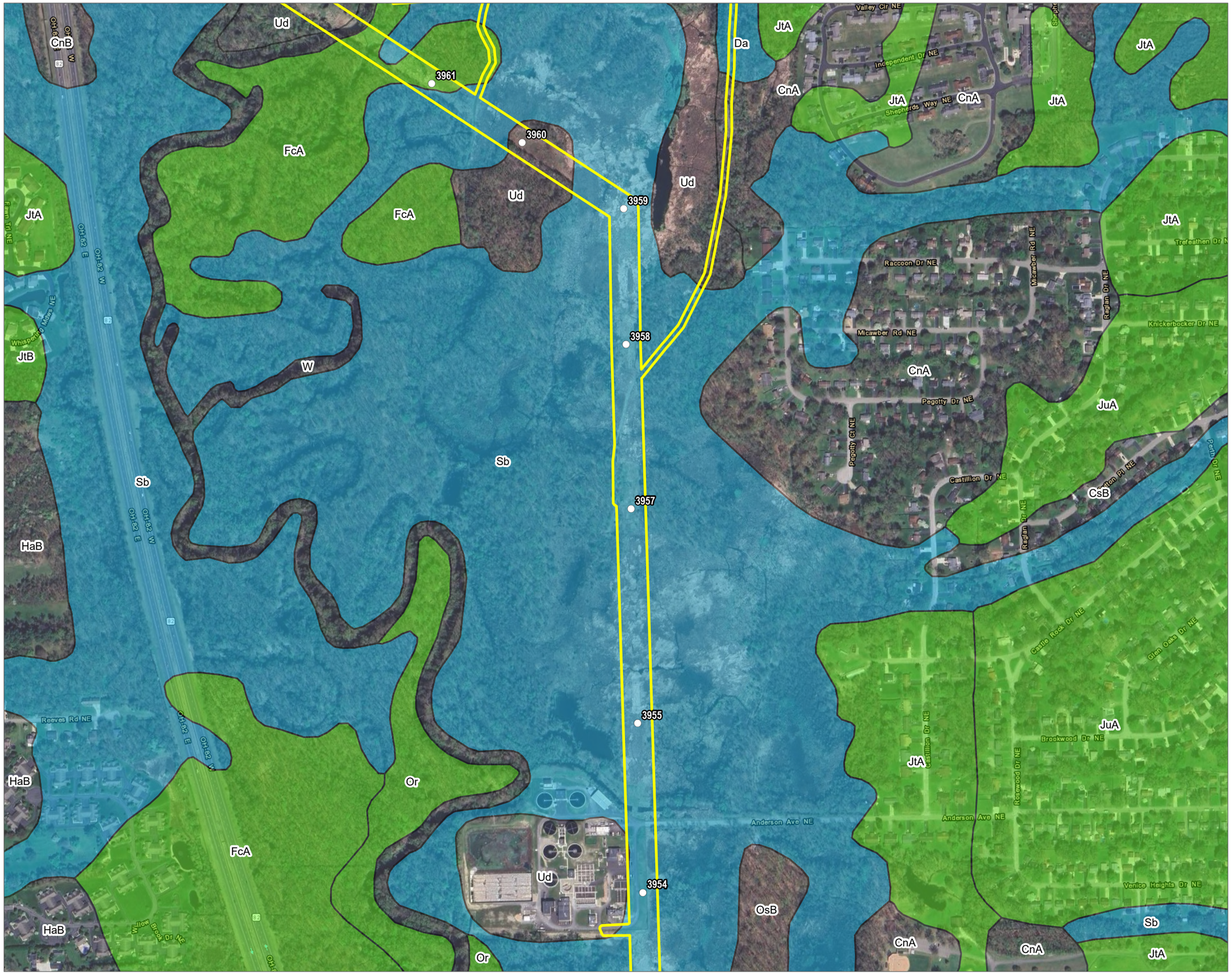
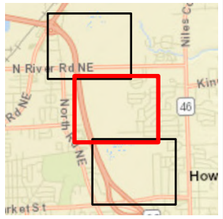


PROJECT STUDY AREA
EXISTING STRUCTURE
HYDRIC SOIL
NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
NON-HYDRIC SOIL

BASE MAP: GOOGLE MAPS.
DATA SOURCES: SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.



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1" = 500'

0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
SOILS MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG	**FIGURE 3** (PAGE 2 OF 3)	
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

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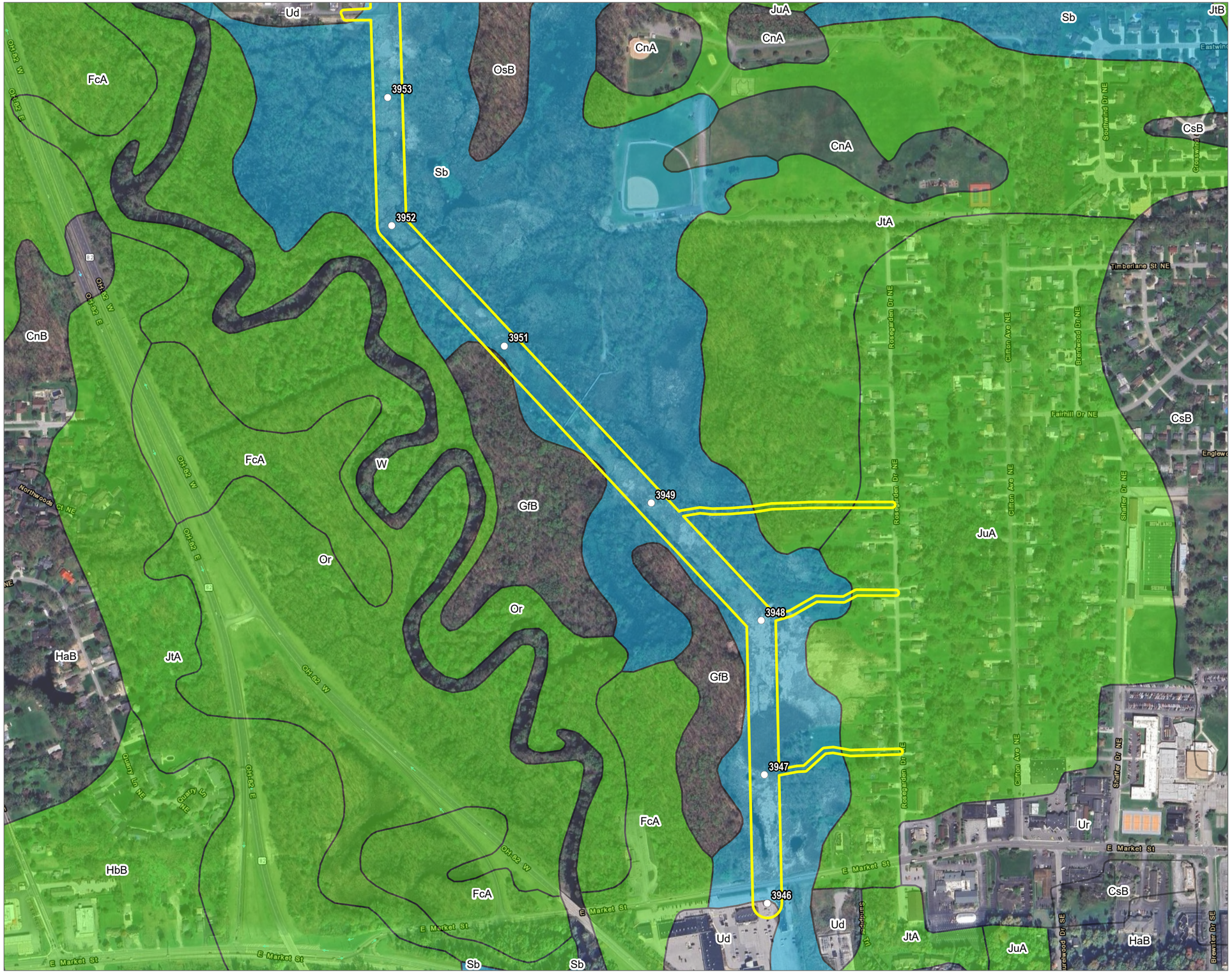
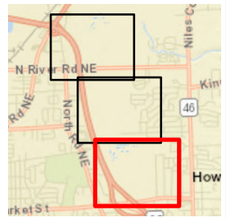


PROJECT STUDY AREA
EXISTING STRUCTURE
HYDRIC SOIL
NON-HYDRIC W/ HYDRIC INCLUSIONS SOIL
NON-HYDRIC SOIL

BASE MAP: GOOGLE MAPS.
DATA SOURCES: SOILS DATA ACQUIRED FROM USDA/NRCS SSURGO DATABASE.



1:6,000
1" = 500'
0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
SOILS MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

FIGURE 3
(PAGE 3 OF 3)

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

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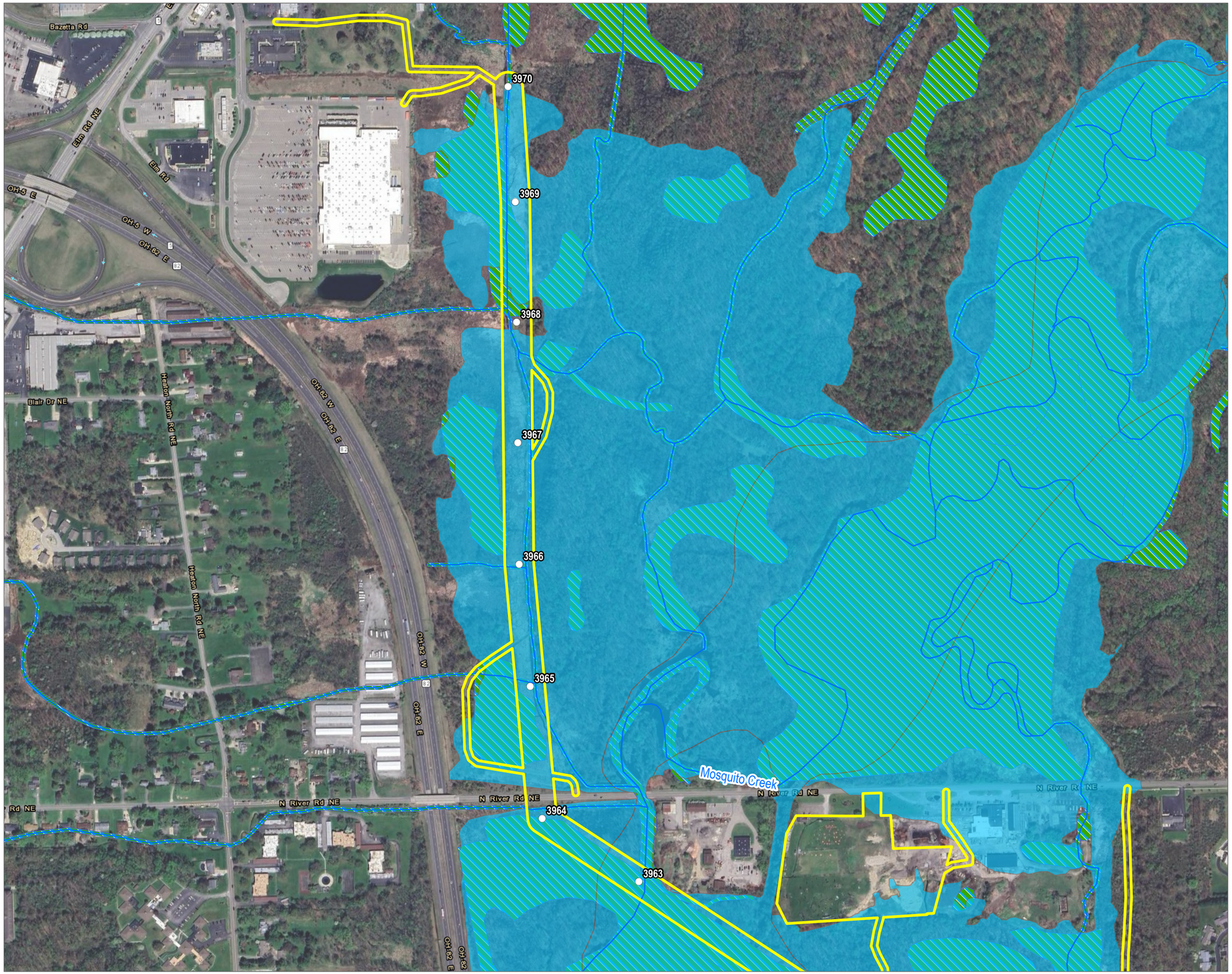

PROJECT STUDY AREA

EXISTING STRUCTURE

NATIONAL HYDROGRAPHY DATASET (NHD) STREAM

NATIONAL WETLANDS INVENTORY (NWI) FEATURE

100-YEAR FLOOD ZONE

NOTES:
TWENTY-NINE (29) NHD STREAM FEATURES AND BRAIDED CHANNELS ARE DOCUMENTED THROUGHOUT THE PROJECT STUDY AREA, HOWEVER, ONLY TWO (2) STREAM CHANNELS OF S-EVN-1 WERE IDENTIFIED DURING FIELD INVESTIGATIONS DUE TO THE IMPENETRABLE NATURE OF WETLAND W-EVN-1. ADDITIONAL BRAIDED CHANNELS AND NHD FEATURES THAT MAY BE PRESENT WITHIN W-EVN-1 ARE SHOWN IN THE FIGURE.

BASE MAP: GOOGLE MAPS.

DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI). STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD). FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).

1:6,000
1" = 500'

0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		**FIGURE 4** (PAGE 1 OF 3)
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Projection: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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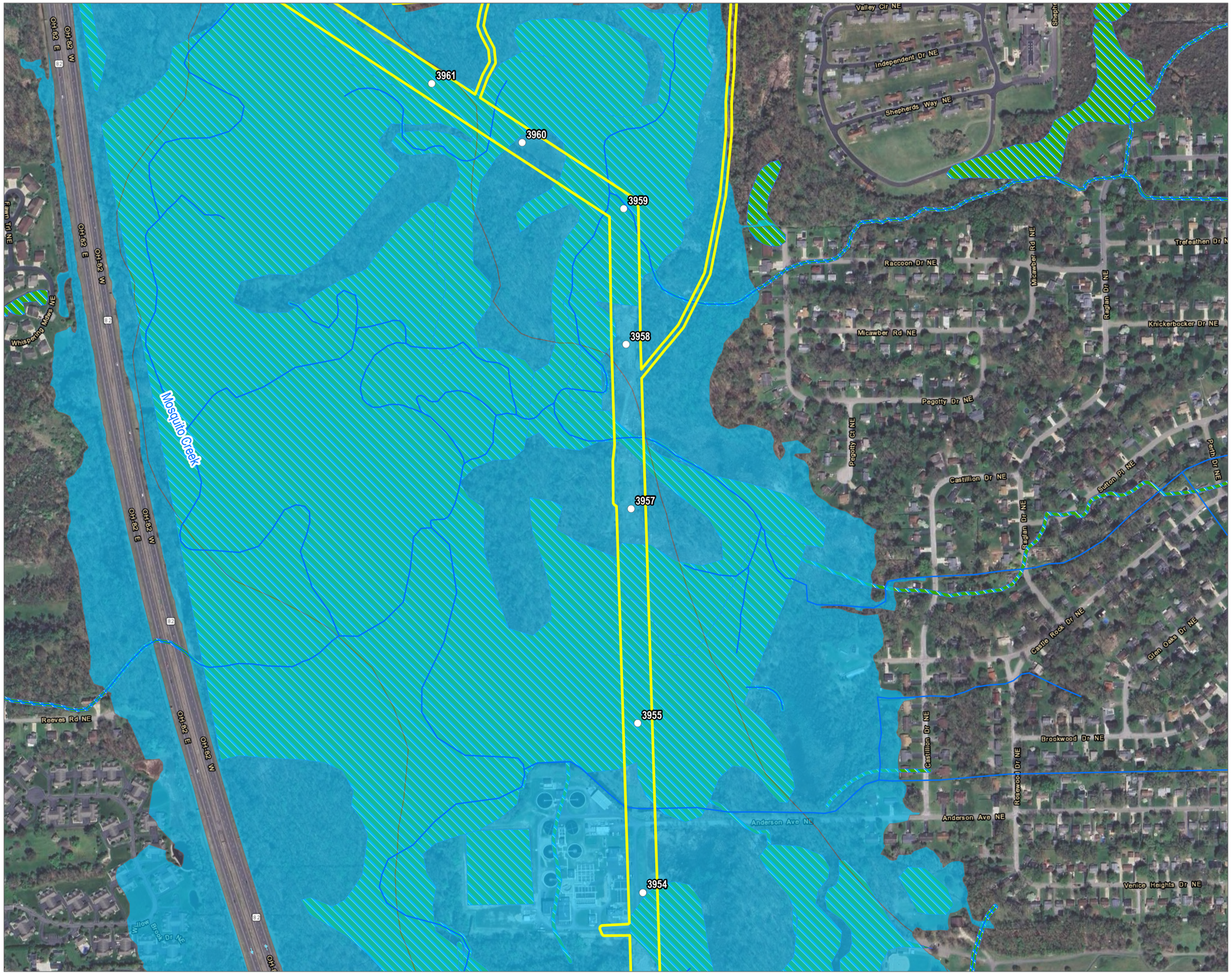


PROJECT STUDY AREA

EXISTING STRUCTURE

NATIONAL HYDROGRAPHY DATASET (NHD) STREAM

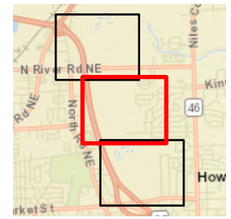
NATIONAL WETLANDS INVENTORY (NWI) FEATURE

100-YEAR FLOOD ZONE

NOTES:
TWENTY-NINE (29) NHD STREAM FEATURES AND BRAIDED CHANNELS ARE DOCUMENTED THROUGHOUT THE PROJECT STUDY AREA, HOWEVER, ONLY TWO (2) STREAM CHANNELS OF S-EVN-1 WERE IDENTIFIED DURING FIELD INVESTIGATIONS DUE TO THE IMPENETRABLE NATURE OF WETLAND W-EVN-1. ADDITIONAL BRAIDED CHANNELS AND NHD FEATURES THAT MAY BE PRESENT WITHIN W-EVN-1 ARE SHOWN IN THE FIGURE.

BASE MAP: GOOGLE MAPS.

DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI). STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD). FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).



1:6,000
1" = 500'

0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

FIGURE 4
(PAGE 2 OF 3)

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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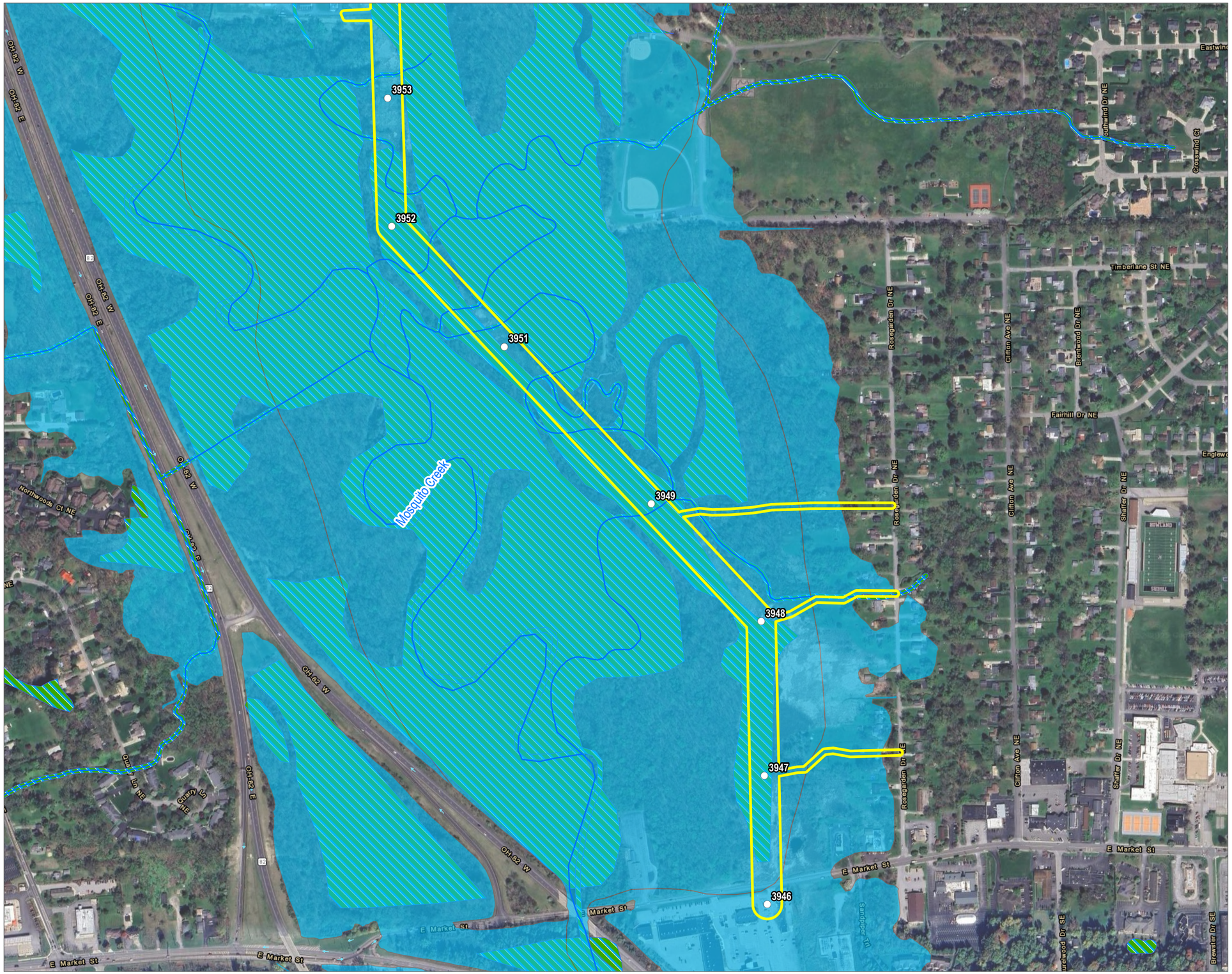
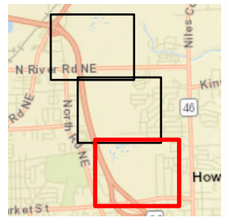


- PROJECT STUDY AREA
- EXISTING STRUCTURE
- NATIONAL HYDROGRAPHY DATASET (NHD) STREAM
- NATIONAL WETLANDS INVENTORY (NWI) FEATURE
- 100-YEAR FLOOD ZONE

NOTES:
TWENTY-NINE (29) NHD STREAM FEATURES AND BRAIDED CHANNELS ARE DOCUMENTED THROUGHOUT THE PROJECT STUDY AREA, HOWEVER, ONLY TWO (2) STREAM CHANNELS OF S-EVN-1 WERE IDENTIFIED DURING FIELD INVESTIGATIONS DUE TO THE IMPENETRABLE NATURE OF WETLAND W-EVN-1. ADDITIONAL BRAIDED CHANNELS AND NHD FEATURES THAT MAY BE PRESENT WITHIN W-EVN-1 ARE SHOWN IN THE FIGURE.

BASE MAP: GOOGLE MAPS.

DATA SOURCES: WETLAND DATA ACQUIRED FROM U.S. FISH & WILDLIFE SERVICE, NATIONAL WETLANDS INVENTORY (NWI). STREAM DATA ACQUIRED FROM USGS, NATIONAL HYDROGRAPHY DATASET (NHD). FLOOD DATA ACQUIRED FROM FEMA, NATIONAL FLOOD HAZARD LAYER (NFHL).



1:6,000
1" = 500'

0 500 1,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
NHD, NWI AND FEMA FLOODPLAIN MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG	**FIGURE 4** (PAGE 3 OF 3)	
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

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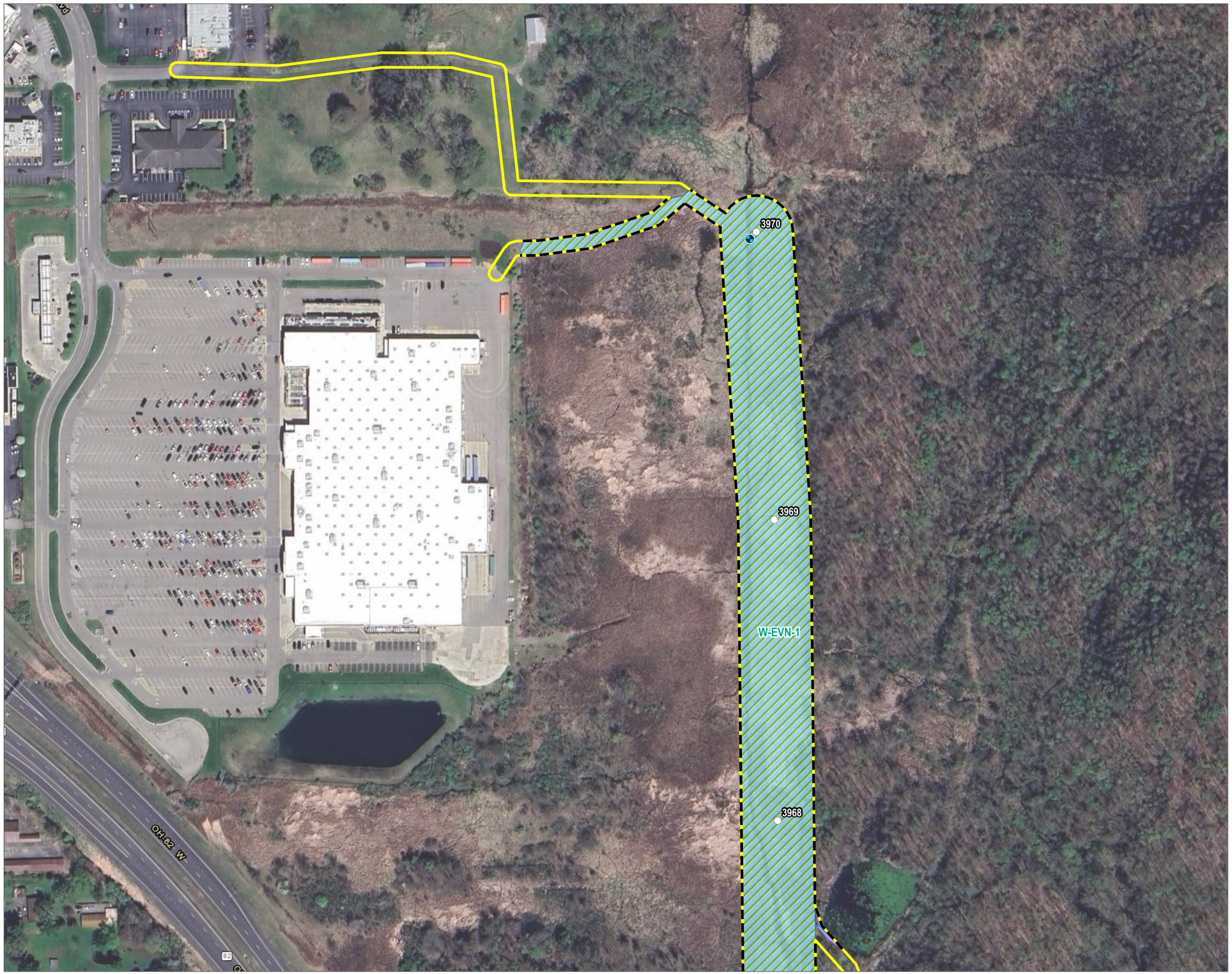
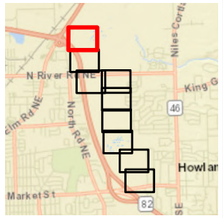


PROJECT STUDY AREA
EXISTING STRUCTURE
PERENNIAL STREAM
PEM WETLAND
PSS WETLAND
WETLAND CONTINUES
WETLAND DATA POINT
UPLAND DATA POINT

NOTES:
TWENTY-NINE (29) NHD STREAM FEATURES AND BRAIDED CHANNELS ARE DOCUMENTED THROUGHOUT THE PROJECT STUDY AREA, HOWEVER, ONLY TWO (2) STREAM CHANNELS OF S-EVN-1 WERE IDENTIFIED DURING FIELD INVESTIGATIONS DUE TO THE IMPENETRABLE NATURE OF WETLAND W-EVN-1. ADDITIONAL BRAIDED CHANNELS AND NHD FEATURES THAT MAY BE PRESENT WITHIN W-EVN-1 ARE SHOWN IN FIGURE 4.

BASE MAP: GOOGLE MAPS.

DATA SOURCES: TRC WETLAND DELINEATION COMPLETED MARCH 28, AUGUST 7-8, OCTOBER 4, 2024 & MAY 6, 2025.



1:2,400
1" = 200'

0 200 400 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR	**FIGURE 5** (PAGE 1 OF 9)	
APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

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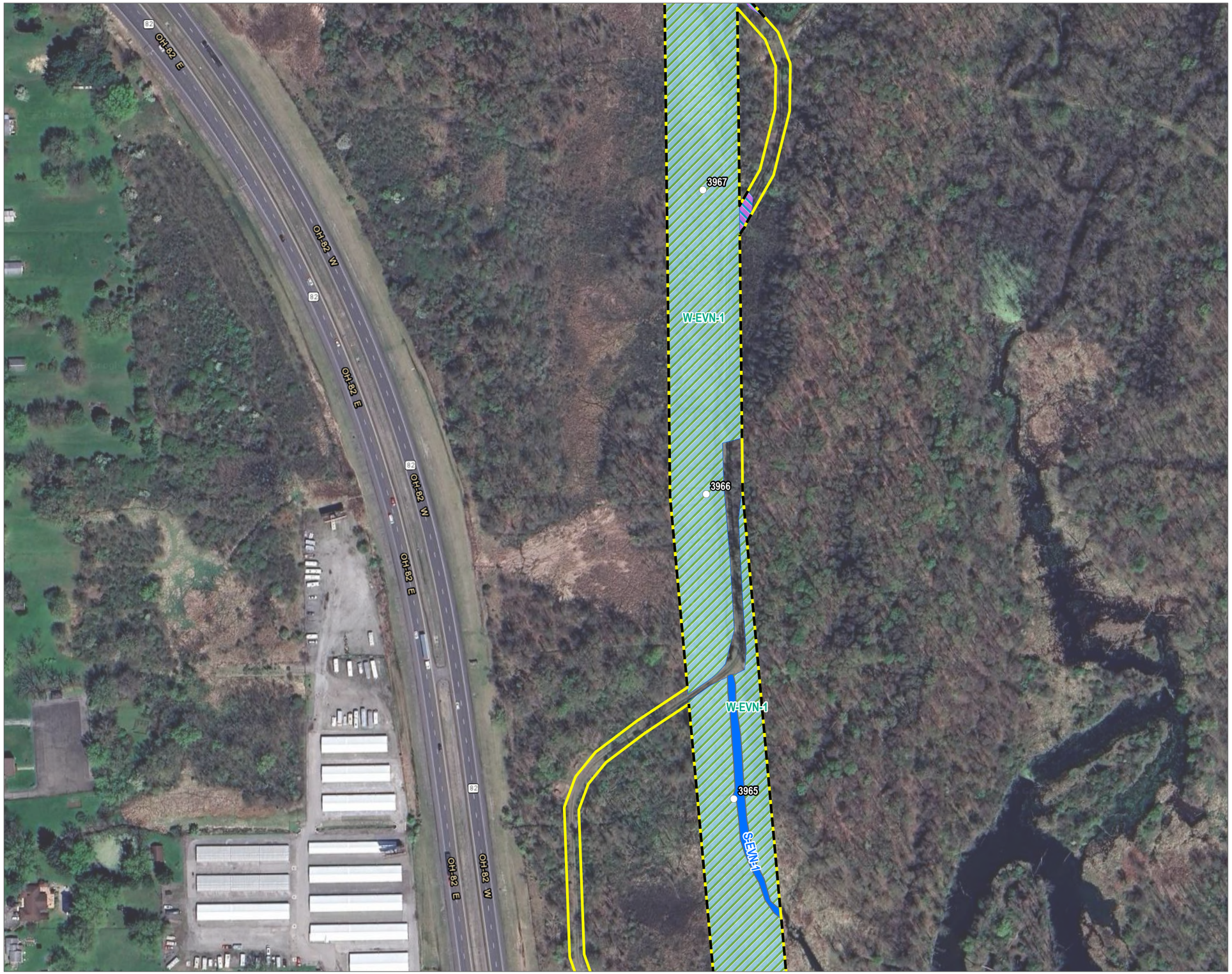

PROJECT STUDY AREA
EXISTING STRUCTURE
PERENNIAL STREAM
PEM WETLAND
PSS WETLAND
WETLAND CONTINUES
WETLAND DATA POINT
UPLAND DATA POINT

NOTES:
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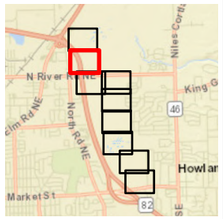
BASE MAP: GOOGLE MAPS.

DATA SOURCES: TRC WETLAND DELINEATION COMPLETED MARCH 28, AUGUST 7-8, OCTOBER 4, 2024 & MAY 6, 2025.



1:2,400
1" = 200'
0 200 400 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

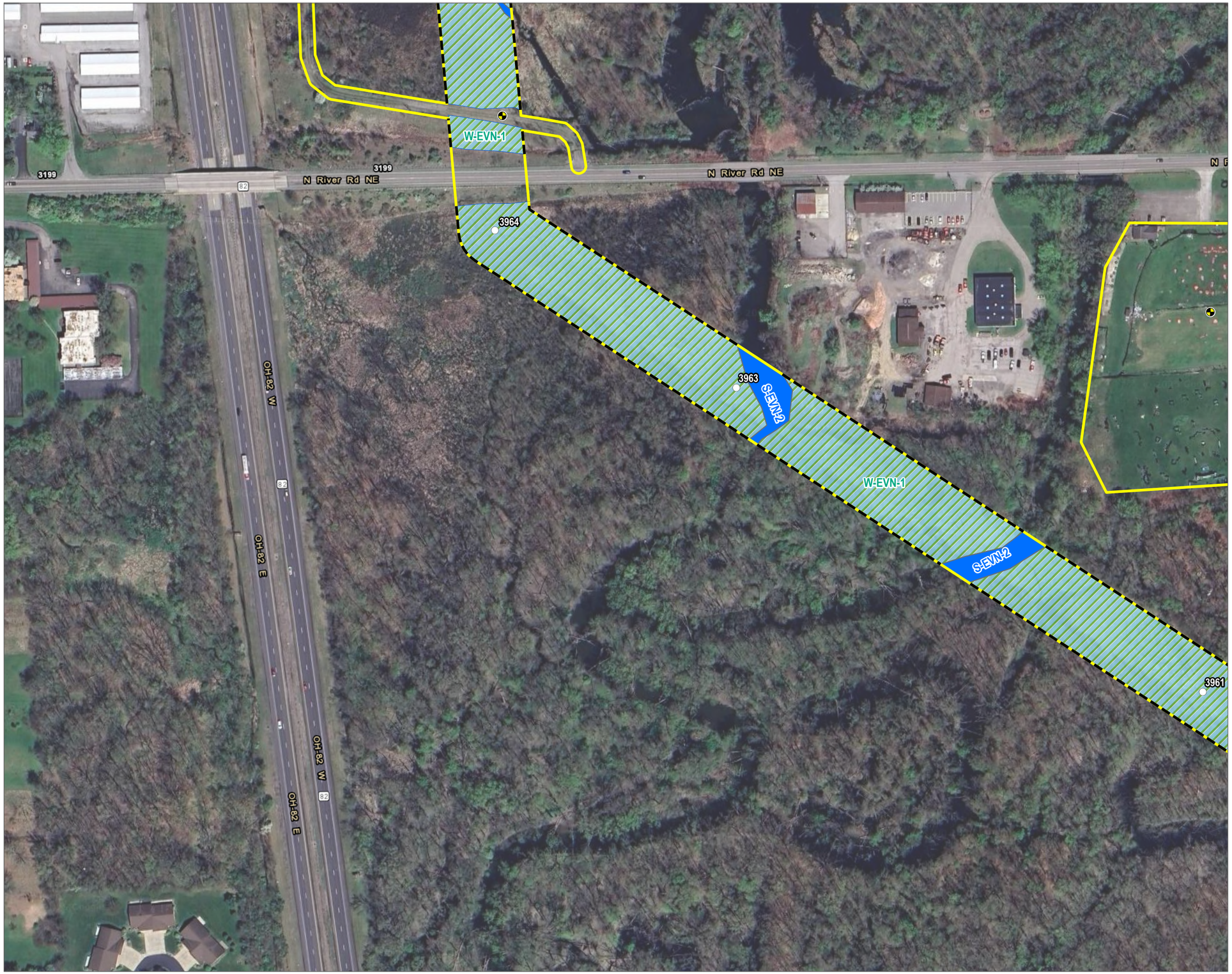
TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR	**FIGURE 5** (PAGE 2 OF 9)	
APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Fig05_Delineation
System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Saved By: MOPEL on 5/7/2025, 10:50:15 AM; File Path: T:\1-PROJECTS\First_Energy\601194_NilesCentralPackard\2-APRX\WDR.aprx; Layout Name: Fig05_Delineation



PROJECT STUDY AREA
EXISTING STRUCTURE
PERENNIAL STREAM
PEM WETLAND
WETLAND CONTINUES
WETLAND DATA POINT
UPLAND DATA POINT

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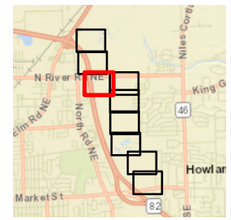

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PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

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APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

FIGURE 5
(PAGE 3 OF 9)

TRC
1382 WEST NINTH STREET
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PHONE: 216-344-3072

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Layout Name: Fig05_Delineation
Saved By: MOPEL on 5/7/2025, 10:50:15 AM - File Path: T:\1-PROJECTS\First_Energy\601194_NilesCentralPackard\3-APRX\WDR.aprx
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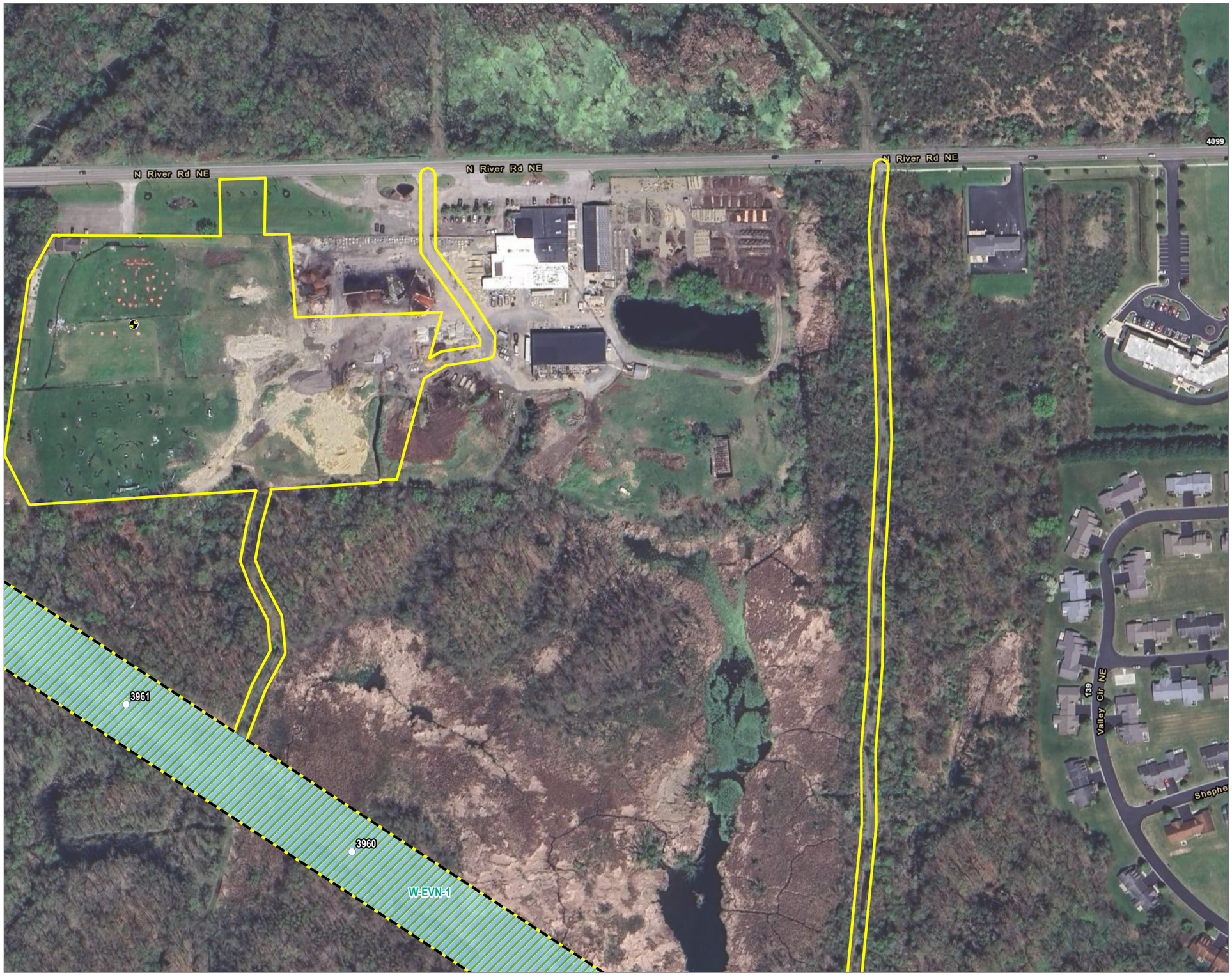

PROJECT STUDY AREA
EXISTING STRUCTURE
PERENNIAL STREAM
PEM WETLAND
WETLAND CONTINUES
WETLAND DATA POINT
UPLAND DATA POINT

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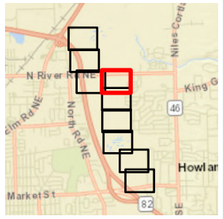

1:2,400
1" = 200'

0 200 400 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG	**FIGURE 5** (PAGE 4 OF 9)	
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Layout Name: Fig05_Delineation
Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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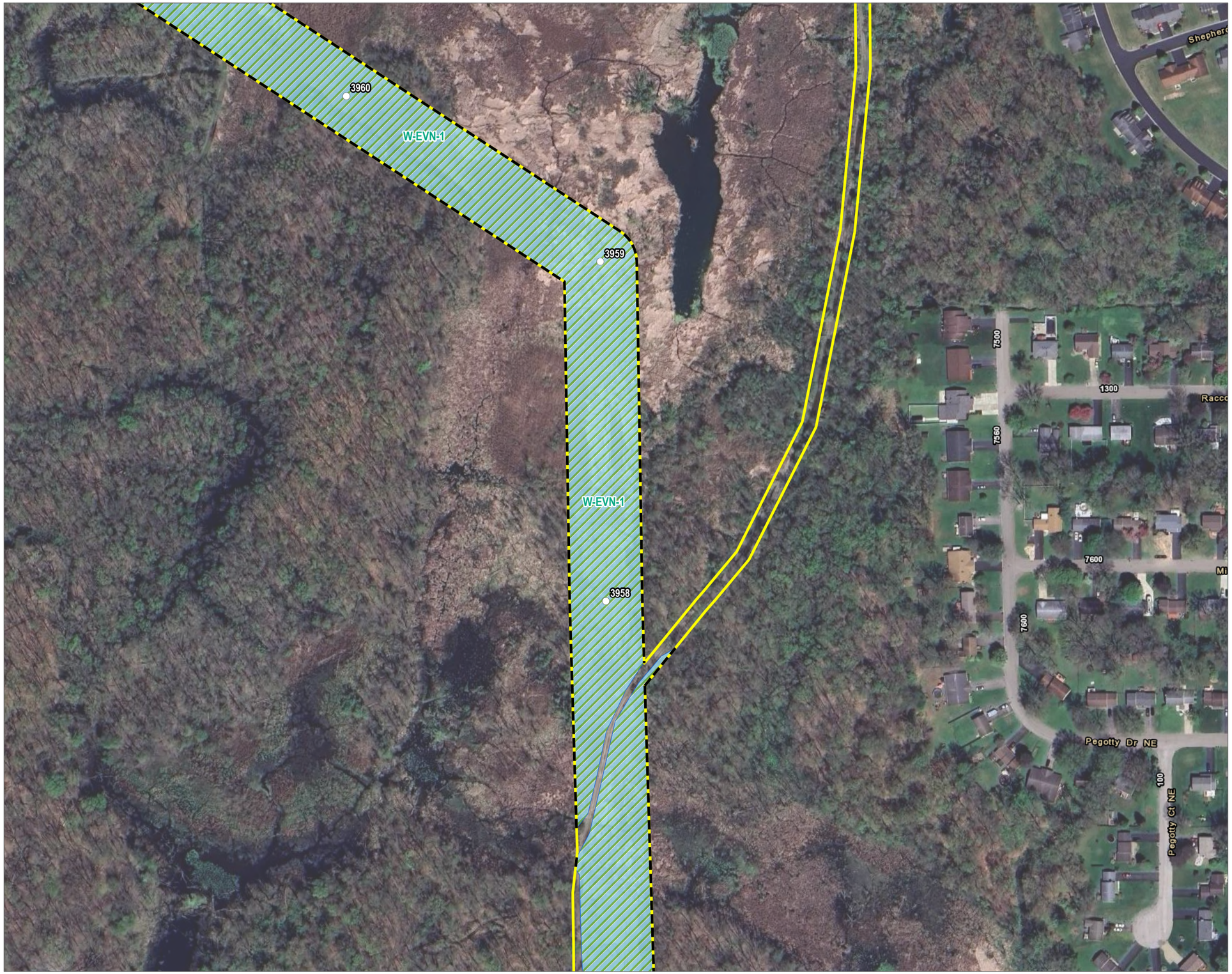

PROJECT STUDY AREA
EXISTING STRUCTURE
PERENNIAL STREAM
PEM WETLAND
WETLAND CONTINUES
WETLAND DATA POINT
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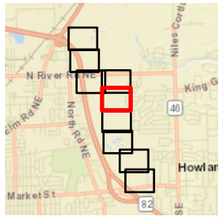

1:2,400
1" = 200'

0 200 400 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR	**FIGURE 5** (PAGE 5 OF 9)	
APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet Map Rotation: 0
Saved By: MOPEL on 5/12/2025, 10:50:15 AM File Path: T:\1-PROJECTS\First_Energy\601194_NilesCentralPackard\2-4-APRX\WDR.aprx Layout Name: Fig05_Delineation

- PROJECT STUDY AREA
- EXISTING STRUCTURE
- PERENNIAL STREAM
- PEM WETLAND
- WETLAND CONTINUES
- WETLAND DATA POINT
- UPLAND DATA POINT

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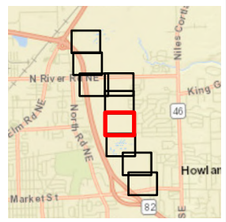
BASE MAP: GOOGLE MAPS.

DATA SOURCES: TRC WETLAND DELINEATION COMPLETED MARCH 28, AUGUST 7-8, OCTOBER 4, 2024 & MAY 6, 2025.

1:2,400
1" = 200'

0 200 400 FEET



PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG	**FIGURE 5** (PAGE 6 OF 9)	
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Layout Name: Fig05_Delineation
Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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PROJECT STUDY AREA
EXISTING STRUCTURE
PERENNIAL STREAM
PEM WETLAND
WETLAND CONTINUES
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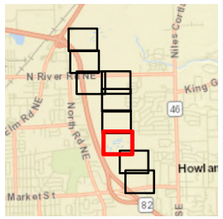


1:2,400
1" = 200'
0 200 400 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

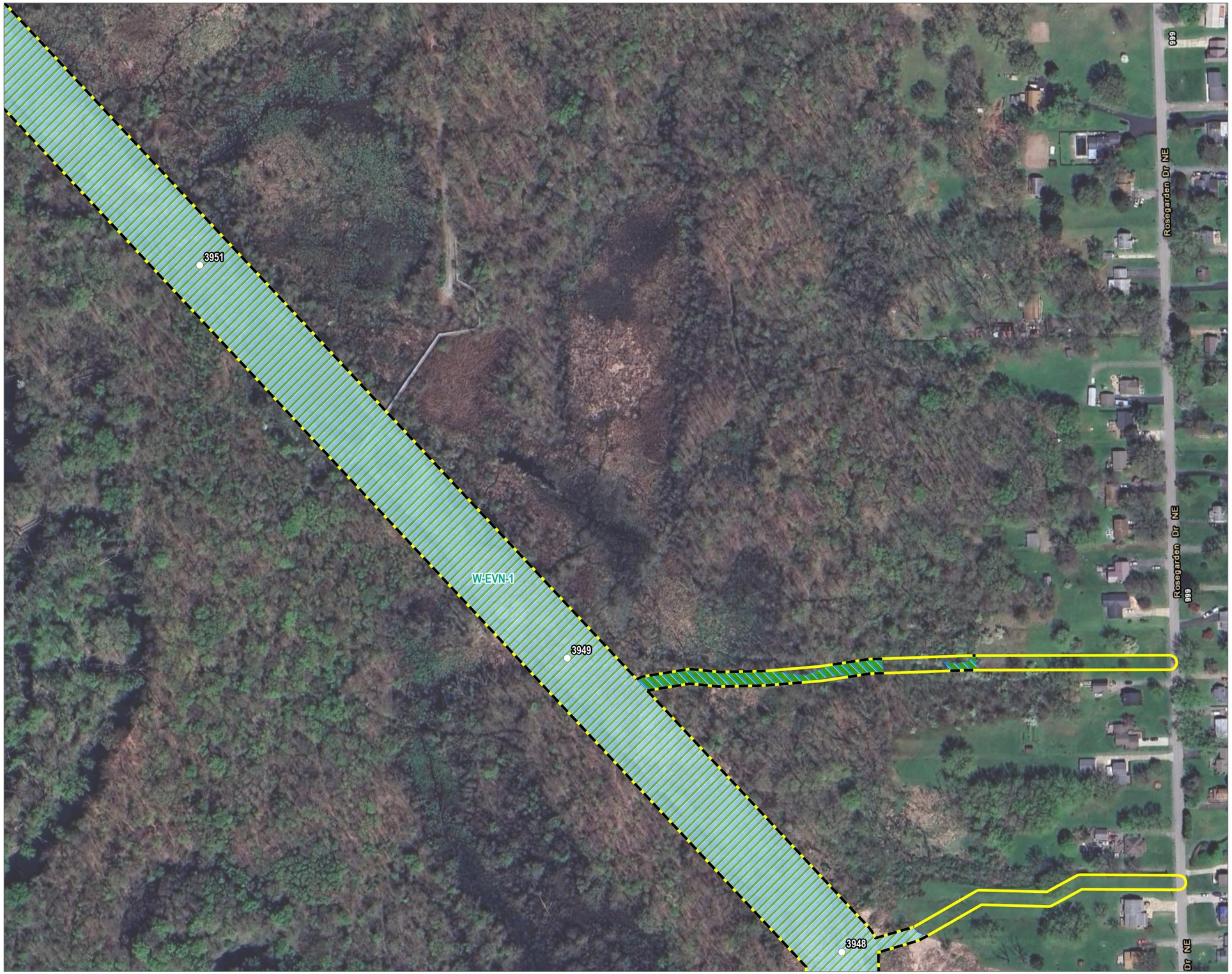
TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR	**FIGURE 5** (PAGE 7 OF 9)	
APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet Map Rotation: 0
Saved By: MOPEL on 5/12/2025, 10:50:15 AM File Path: T:\1-PROJECTS\First_Energy\601194_NilesCentralPackard\2-APRX\WDR.aprx Layout Name: Fig05_Delineation



PROJECT STUDY AREA
EXISTING STRUCTURE
PERENNIAL STREAM
PEM WETLAND
PFO WETLAND
WETLAND CONTINUES
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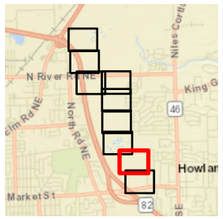

1:2,400
1" = 200'
0 200 400 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

FIGURE 5
(PAGE 8 OF 9)

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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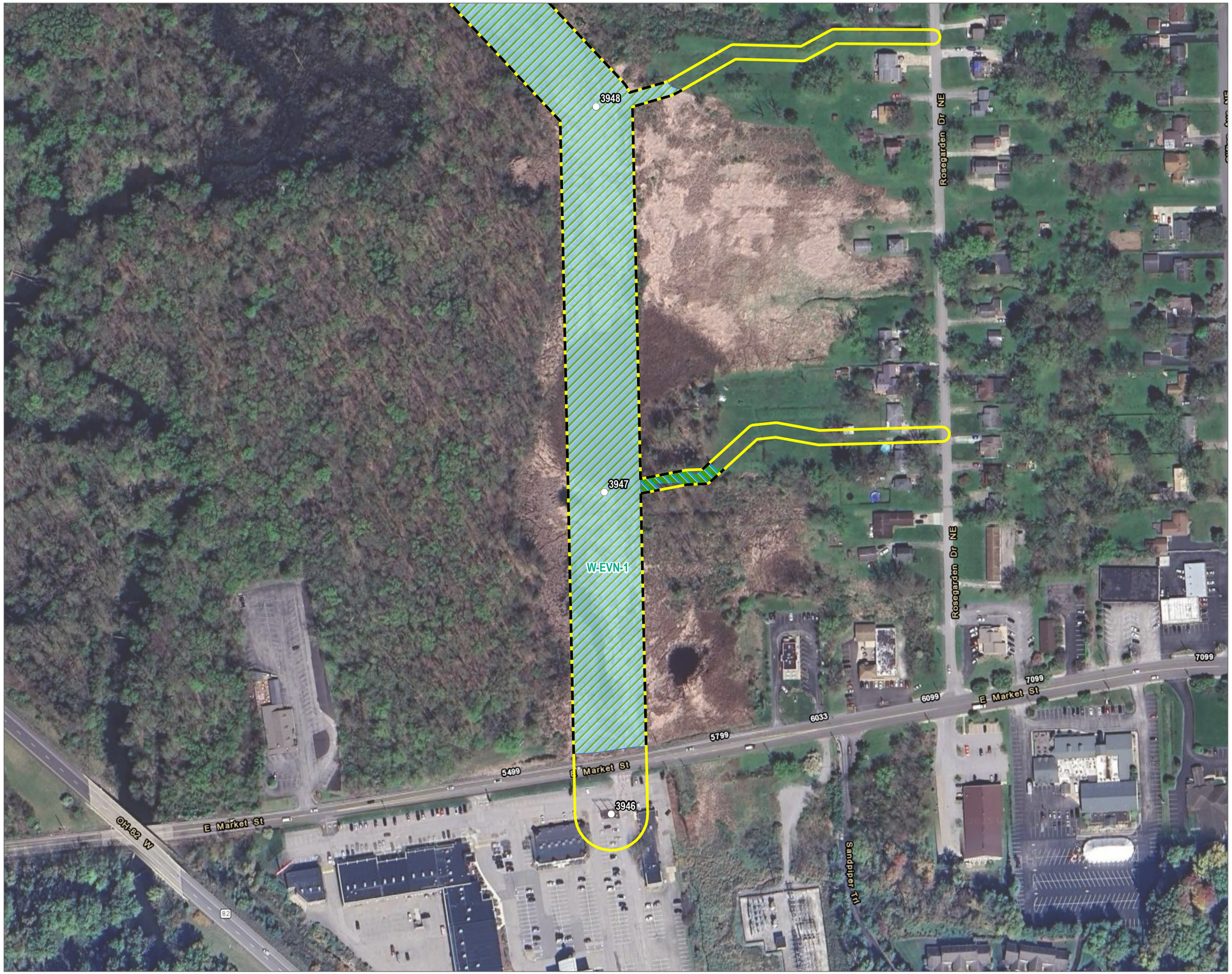

PROJECT STUDY AREA
EXISTING STRUCTURE
PERENNIAL STREAM
PEM WETLAND
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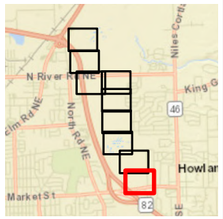

1:2,400
1" = 200'
0 200 400 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
DELINEATED RESOURCES MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR	**FIGURE 5** (PAGE 9 OF 9)	
APPROVED BY:	B. FALKINBURG		
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
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PHONE: 216-344-3072

FILE: WDR.aprx

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
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PROJECT STUDY AREA

OHIO EPA 401 WATER QUALITY CERTIFICATION FOR NATIONWIDE PERMIT ELIGIBILITY

INELIGIBLE

POSSIBLY ELIGIBLE

ELIGIBLE

BASE MAP: GOOGLE MAPS.
DATA SOURCES: NATIONWIDE PERMITS STREAM DATA ACQUIRED FROM THE OHIO EPA.

1:90,000
1" = 7,500'

0 7,500 15,000 FEET

PROJECT:
FIRSTENERGY - NILES CENTRAL-PACKARD 138KV LINE REBUILD PROJECT TRUMBULL COUNTY, OH

TITLE:
NATIONWIDE PERMITS STREAM ELIGIBILITY MAP

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	M. MOLNAR		
APPROVED BY:	B. FALKINBURG		**FIGURE 6**
DATE:	MAY 2025		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.aprx

Appendix B

Photographic Record

PHOTOGRAPHIC RECORD

Niles Central-Packard 138kV Rebuild Project

Client Name:	**Site Location:**	**Project No.**
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 1. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing north, at the northern project extent.	

Photo No. 2. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing east, at the northern project extent.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 3.
Photo Date: 3/28/2024
Description: Wetland W-EVN-1, facing south, at the northern project extent.

Photo No. 4.
Photo Date: 3/28/2024
Description: Wetland W-EVN-1, facing west, at the northern project extent.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 5. **Photo Date:** 3/28/2024 **Description:** Stream S-EVN-1, looking upstream.	

Photo No. 6. **Photo Date:** 3/28/2024 **Description:** Stream S-EVN-1, looking down at the observed substrate.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 7. **Photo Date:** 3/28/2024 **Description:** Stream S-EVN-1, looking downstream.	

Photo No. 8. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing north, just north of Anderson Ave NE crossing.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 9. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing west, just north of Anderson Ave NE crossing.	

Photo No. 10. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing south, just north of Anderson Ave NE crossing.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 11. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing east, just north of Anderson Ave NE crossing.	

Photo No. 12. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing north, at the elevated boardwalk crossing.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 13. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing west, at the elevated boardwalk crossing.	

Photo No. 14. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing south, at the elevated boardwalk crossing.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 15. **Photo Date:** 3/28/2024 **Description:** Wetland W-EVN-1, facing east, at the elevated boardwalk crossing.	

Photo No. 16. **Photo Date:** 3/28/2024 **Description:** Representative photo of the Project Study Area at the elevated boardwalk, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 17. **Photo Date:** 3/28/2024 **Description:** Representative photo of the Project Study Area at the southern extent, facing south. Photo depicts structure 3946 located within an existing parking lot.	

Photo No. 18. **Photo Date:** 8/7/2024 **Description:** Representative photo of the Project Study Area, off Right-of-Way access at the northern extent, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 19. **Photo Date:** 8/7/2024 **Description:** Representative photo of the Project Study Area, off Right-of-Way access, existing oil and gas access road north of North River Road, facing north.	

Photo No. 20. **Photo Date:** 8/7/2024 **Description:** Representative photo of the Project Study Area, off Right-of-Way access, existing oil and gas access road south of N River Road, facing south.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 21. **Photo Date:** 3/28/2024 **Description:** Representative photo of the Project Study Area, off Right-of-Way access. View looking south of existing oil and gas access road entering ROW. Wetland W-EVN-1 can be seen picture right and left.	

Photo No. 22. **Photo Date:** 8/7/2024 **Description:** Representative photo of the Project Study Area, Off-Right-of-Way access, north of Anderson Ave, view facing south.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 23. **Photo Date:** 8/7/2024 **Description:** Representative photo of the Project Study Area, off Right-of-Way access south of Trumbull County WWTP fence line, looking north.	

Photo No. 24. **Photo Date:** 8/8/2024 **Description:** Representative photo of the Project Study Area, Off-Right-of-Way access west of Rosegarden Drive, facing west.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 25.
Photo Date: 8/8/2024
Description: Wetland W-EVN-1, facing north, at the northern at the northern Rosegarden Drive off Right-of-Way access.

Photo No. 26.
Photo Date: 8/8/2024
Description: Wetland W-EVN-1, facing west, at the northern at the northern Rosegarden Drive off Right-of-Way access.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 27.
Photo Date: 8/8/2024
Description: Wetland W-EVN-1, facing south, at the northern at the northern Rosegarden Drive off Right-of-Way access.

Photo No. 28.
Photo Date: 8/8/2024
Description: Wetland W-EVN-1, facing east, at the northern at the northern Rosegarden Drive off Right-of - way access.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 29. **Photo Date:** 8/8/2024 **Description:** Representative photo of the Project Study Area, central off Right-of-Way access west of Rosegarden Dr, facing east.	

Photo No. 30. **Photo Date:** 8/8/2024 **Description:** Representative photo of the Project Study Area, southern most off Right-of-Way access west of Rosegarden Dr, facing west.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 31. **Photo Date:** 10/4/2024 **Description:** Representative photo of the Project Study Area, Walmart parking lot off Right-of-Way access, facing northeast.	

Photo No. 32. **Photo Date:** 10/4/2024 **Description:** Representative photo of the Project Study Area, Walmart parking lot off Right-of-Way access, facing north.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 33.
Photo Date: 10/4/2024
Description: Representative photo of the Project Study Area, Walmart parking lot off Right-of-Way access, facing east.

Photo No. 34.
Photo Date: 10/4/2024
Description: Wetland W-EVN-1, facing east, from the Walmart parking lot off Right-of-Way access.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 35.
Photo Date: 5/6/2025
Description: Representative photo of the laydown area for equipment within the Project Study Area, facing north.

Photo No. 36.
Photo Date: 5/6/2025
Description: Representative photo of the laydown area for equipment within the Project Study Area, facing east.

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 37. **Photo Date:** 5/6/2025 **Description:** Representative photo of the laydown area for equipment within the Project Study Area, facing south.	

Photo No. 38. **Photo Date:** 5/6/2025 **Description:** Representative photo of the laydown area for equipment within the Project Study Area, facing west.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 39. **Photo Date:** 5/6/2025 **Description:** Representative photo of the laydown area for equipment within the Project Study Area showing North River Road, facing north.	

Photo No. 40. **Photo Date:** 5/6/2025 **Description:** Representative photo of the laydown area for equipment within the Project Study Area, facing east.	

Client Name:	Site Location:	Project No.
FirstEnergy	City of Warren and Howland and Bazetta Townships, Trumbull County, Ohio	601194.0000.0000

Photo No. 41.	
Photo Date: 5/6/2025	
Description: Representative photo of the laydown area for equipment within the Project Study Area, facing south.	

Photo No. 42.	
Photo Date: 5/6/2025	
Description: Representative photo of the laydown area for equipment within the Project Study Area, facing west.	

Appendix C

Data Forms

USACE Wetland Determination Data Forms – Northcentral and Northeast Region

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Niles Central-Packard 138kV Rebuild Project City/County: Cortland, Trumbull County Sampling Date: 2024-3-28
Applicant/Owner: FirstEnergy State: OH Sampling Point: W-EVN-1
Investigator(s): Erin Van Nort, Emma Given Section, Township, Range: NA
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 41.2755803 Long: -80.7690793 Datum: WGS84
Soil Map Unit Name: Sebring silt loam, 0 to 2 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ✘ No ____
Hydric Soil Present? Yes ✘ No ____
Wetland Hydrology Present? Yes ✘ No ____

Is the Sampled Area within a Wetland? Yes ✘ No ____
If yes, optional Wetland Site ID: W-EVN-1

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is PEM. Based on the presence of all three parameters, this area is a wetland.

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)

- ✘ Surface Water (A1)
- ✘ High Water Table (A2)
- ✘ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ✘ Hydrogen Sulfide Odor (C1)
- ✘ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ✘ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ✘ No ____ Depth (inches): 3
Water Table Present? Yes ✘ No ____ Depth (inches): 1
Saturation Present? (includes capillary fringe) Yes ✘ No ____ Depth (inches): 8

Wetland Hydrology Present? Yes ✘ No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is met.

VEGETATION – Use scientific names of plants. Sampling Point: W-EVN-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 ft radius)			
1. *Phalaris arundinacea*	70	Yes	FACW
2. *Typha X glauca*	20	Yes	OBL
3. *Scirpus cyperinus*	10	No	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	70	x 2 =	140
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		170 (B)

Prevalence Index = B/A = 1.7

Hydrophytic Vegetation Indicators:

✘ 1 - Rapid Test for Hydrophytic Vegetation

✘ 2 - Dominance Test is >50%

✘ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ✘ **No** __

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

The criterion for hydrophytic vegetation is met.

SOIL Sampling Point: W-EVN-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 9	10YR 3/2	90	10YR 5/6	10	C	M/PL	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ✘ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Gravel

Depth (inches): 9

Hydric Soil Present? Yes ✘ **No** ___

Remarks:

The criterion for hydric soil is met.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Niles Central-Packard 138kV Rebuild Project City/County: Warren, Trumbull County Sampling Date: 2024-3-28
Applicant/Owner: FirstEnergy State: OH Sampling Point: U-EVN-1
Investigator(s): Erin Van Nort, Emma Given Section, Township, Range: NA
Landform (hillslope, terrace, etc): Levee Local relief (concave, convex, none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 41.2658873 Long: -80.7685857167 Datum: WGS84
Soil Map Unit Name: Sebring silt loam, 0 to 2 percent slopes NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✘
Hydric Soil Present? Yes ____ No ✘
Wetland Hydrology Present? Yes ____ No ✘

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✘

If yes, optional Wetland Site ID: U-EVN-1

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of all three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No ✘ Depth (inches): ____
Water Table Present? Yes ____ No ✘ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No ✘ Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** ✘

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION ─ Use scientific names of plants. Sampling Point: U-EVN-1

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	
Herb Stratum (Plot size: 5 ft radius)			
1. *Poa annua*	40	Yes	FACU
2. *Daucus carota*	30	Yes	UPL
3. *Solidago altissima*	25	Yes	FACU
4. *Cirsium discolor*	5	No	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	65	x 4 =	260
UPL species	35	x 5 =	175
Column Totals:	100 (A)		435 (B)

Prevalence Index = B/A = 4.4

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree ─ Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub ─ Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb ─ All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines ─ All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ____ **No** ✘

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

The criterion for hydrophytic vegetation is not met.

SOIL Sampling Point: U-EVN-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 4	10YR 3/3	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7) **(LRR R, MLRA 149B)**
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ Coast Prairie Redox (A16) **(LRR K, L, R)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Dark Surface (S7) **(LRR K, L)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- __ Red Parent Material (F21)
- __ Very Shallow Dark Surface (TF12)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Gravel

Depth (inches): 4

Hydric Soil Present? Yes ____ **No** ✘

Remarks:

The criterion for hydric soil is not met.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Northcentral and Northeast Region
See ERDC/EL TR-12-1; the proponent agency is CECW-COR

OMB Control #: 0710-0024, Exp: 09/30/2027
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Niles Central-Packard 138kV Rebuild Project City/County: Warren, Trumbull County Sampling Date: 2025-5-6
Applicant/Owner: FirstEnergy State: OH Sampling Point: U-JMS-01
Investigator(s): Jenna Slabe, Talon Cline Section, Township, Range: NA
Landform (hillslope, terrace, etc): Flat Local relief (concave, convex, none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): MLRA 139 of LRR R Lat: 41.2647138583 Long: -80.7633422782 Datum: WGS84
Soil Map Unit Name: Udorthents, loamy NWI Classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✘ No ____ (If no, explain in Remarks.)
Are Vegetation ____ , Soil ____ , or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✘ No ____
Are Vegetation ____ , Soil ____ , or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No ✘
Hydric Soil Present? Yes ____ No ✘
Wetland Hydrology Present? Yes ____ No ✘

Is the Sampled Area within a Wetland? **Yes** ____ **No** ✘

If yes, optional Wetland Site ID: U-JMS-01

Remarks: (Explain alternative procedures here or in a separate report.)
Covertype is UPL. Based on the absence of all three parameters, this area is an upland.

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ____ No ✘ Depth (inches): ____
Water Table Present? Yes ____ No ✘ Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No ✘ Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** ✘

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
The criterion for wetland hydrology is not met.

VEGETATION ─ Use scientific names of plants. Sampling Point: U-JMS-01

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 ft radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 ft radius)				
1.	*Poa annua*	60	Yes	FACU
2.	*Arctium minus*	20	Yes	FACU
3.	*Taraxacum officinale*	10	No	FACU
4.	*Barbarea vulgaris*	5	No	FAC
5.	*Cirsium arvense*	5	No	FACU
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		100	= Total Cover	

Woody Vine Stratum (Plot size: 30 ft radius)			
1.			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	100 (A)		395 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree ─ Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub ─ Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb ─ All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines ─ All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** _____ **No** ✘

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

The criterion for hydrophytic vegetation is not met.

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0 to 3	10YR 3/4	100					Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Iron Monosulfide (A18)
- __ Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Dark Surface (S7)
- __ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- __ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- __ High Chroma Sands (S11) **(LRR K, L)**
- __ Loamy Mucky Mineral (F1) **(LRR K, L)**
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ Marl (F10) **(LRR K, L)**
- __ Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils[3]:

- __ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- __ 5 cm Muck Peat or Peat (S3) **(LRR K, L, R)**
- __ Polyvalue Below Surface (S8) **(LRR K, L)**
- __ Thin Dark Surface (S9) **(LRR K, L)**
- __ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- __ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- __ Red Parent Material (F21) **(outside MLRA 145)**
- __ Very Shallow Dark Surface (F22)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: Gravel/Fill
Depth (inches): 3

Hydric Soil Present? Yes ____ **No** ✘

Remarks:
The criterion for hydric soil is not met.

OEPA ORAM Field Form

Background Information

Name: Erin Van Nort
Date: 3/28/2024
Affiliation: TRC Companies, Inc.
Address: 1382 West Ninth Street, Suite 400 Cleveland, OH 44113
Phone Number: (216) 347-3342
e-mail address: EVanNort@trccompanies.com
Name of Wetland: W-EVN-1
Vegetation Communit(ies): PEM, PSS, PFO
HGM Class(es): Depression, Riverine
Location of Wetland: include map, address, north arrow, landmarks, distances, roads, etc. See Figure 5: Delineated Resources Map and Surface Water Delineation Report for further details.

Lat/Long or UTM Coordinate	41.265871, -80.768493
USGS Quad Name	Champion, OH and Warren, OH
County	Trumbull
Township	Howland and Bazetta
Section and Subsection	N/A
Hydrologic Unit Code	050301030503
Site Visit	3/28/2024
National Wetland Inventory Map	See Report
Ohio Wetland Inventory Map	See Report
Soil Survey	See Report
Delineation report/map	See Report

Name of Wetland: W-EVN-1	
Wetland Size (acres, hectares):	>50 acres (>20.2 hectares)

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

See Figure 5: Delineated Resources Map and Surface Water Delineation Report for further details.

Comments, Narrative Discussion, Justification of Category Changes:

Based on interim scoring breakpoints for wetland regulatory categories for ORAM, W-EVN-1 scored as a "2 or 3 gray zone" and was therefore rounded up to a Category 3.

Final score : 61.5	**Category:**	3

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland*. In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	X	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.	X	
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	X	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	X	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		X
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.	X	

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	(NO) Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	(NO) Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	(NO) Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	(NO) Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	(NO) Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	(NO) Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	(NO) Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	(NO) Go to Question 8b

8b	**Mature forested wetlands**. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands**. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies**. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	0ak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: FirstEnergy, Niles Central-Packard 138kV Rebuild Project **Rater(s):** Erin Van Nort, Emma Given **Date:** 2024-03-28

6	6
max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- [x] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [ ] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [ ] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [ ] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

5	11
max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- [ ] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [ ] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [x] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [ ] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- [ ] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [x] LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- [x] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [ ] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

21	32
max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- [ ] High pH groundwater (5)
- [ ] Other groundwater (3)
- [x] Precipitation (1)
- [ ] Seasonal/Intermittent surface water (3)
- [x] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

- [x] 100 year floodplain (1)
- [ ] Between stream/lake and other human use (1)
- [x] Part of wetland/upland (e.g. forest), complex (1)
- [x] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

- [x] >0.7 m (>27.6 in) (3)
- [ ] 0.4 to 0.7 m (15.7 to 27.6 in) (2)
- [ ] <0.4 m (<15.7 in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

- [x] Semi- to permanently inundated/saturated (4)
- [ ] Regularly inundated/saturated (3)
- [ ] Seasonally inundated (2)
- [ ] Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- [ ] None or none apparent (12)
- [x] Recovered (7)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [x] ditch
- [ ] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [x] filling/grading
- [x] road bed/RR track
- [ ] dredging
- [ ] other

12.5	44.5
max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- [ ] None or none apparent (4)
- [x] Recovered (3)
- [ ] Recovering (2)
- [ ] Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- [ ] Excellent (7)
- [ ] Very good (6)
- [x] Good (5)
- [ ] Moderately good (4)
- [ ] Fair (3)
- [ ] Poor to fair (2)
- [ ] Poor (1)

4c. Habitat alteration. Score one or double check and average.

- [ ] None or none apparent (9)
- [x] Recovered (6)
- [x] Recovering (3)
- [ ] Recent or no recovery (1)

Check all disturbances observed

- [x] mowing
- [ ] grazing
- [ ] clearcutting
- [x] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [ ] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [x] sedimentation
- [ ] dredging
- [ ] farming
- [ ] nutrient enrichment

44.5
subtotal this page

Site: FirstEnergy, Niles Central-Packard 138kV Rebuild Project	Rater(s): Erin Van Nort, Emma Given	Date: 2024-03-28

44.5
subtotal first page

Metric 5. Special Wetlands.

0 max 10 pts. | 44.5 subtotal

Check all that apply and score as indicated.

- [ ] Bog (10)
- [ ] Fen (10)
- [ ] Old growth forest (10)
- [ ] Mature forested wetland (5)
- [ ] Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- [ ] Lake Erie coastal/tributary wetland-restricted hydrology (5)
- [ ] Lake Plain Sand Prairies (Oak Openings) (10)
- [ ] Relict Wet Prairies (10)
- [ ] Known occurrence state/federal threatened or endangered species (10)
- [ ] Significant migratory songbird/water fowl habitat or usage (10)
- [ ] Category 1 Wetland. See Question 1 Qualitative Rating (-10)

Metric 6. Plant communities, interspersion, microtopography.

17 max 20 pts. | 61.5 subtotal

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [1] Aquatic Bed
- [2] Emergent
- [2] Shrub
- [2] Forest
- [ ] Mudflats
- [1] Open water
- [ ] Other _____

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [x] Moderately high (4)
- [ ] Moderate (3)
- [ ] Moderately low (2)
- [ ] Low (1)
- [ ] None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- [ ] Extensive >75% cover (-5)
- [x] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

- [1] Vegetated hummucks/tussucks
- [2] Coarse woody debris >15cm (6in)
- [2] Standing dead >25cm (10in) dbh
- [3] Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

61.5

CATEGORY 3

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES NO	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	6	
	Metric 2. Buffers and surrounding land use	5	
	Metric 3. Hydrology	21	
	Metric 4. Habitat	12.5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	17	
	TOTAL SCORE	61.5	Category based on score breakpoints 3

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	(NO)	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	(NO)	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	(NO)	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	(NO)	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	(YES) Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	(NO) Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category

Choose one	Category 1	Category 2	(Category 3)

End of Ohio Rapid Assessment Method for Wetlands.

Stream Form

Ohio EPA Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score: 50.50

Stream & Location: S-EVN-1 (UNT to Mosquito Creek) North of N River Rd NE,Howland Twp, OH **RM:** _ _ _._ **Date:** 3 / 28 / 24

FirstEnergy, Niles Central-Packard 138kV Rebuild Project **Scorers Full Name & Affiliation:** E. Given & E. Van Nort, TRC

River Code: _ _ _ - _ _ _ - _ _ _ **STORET #:** _ _ _ _ _ _ **Lat./ Long.:** (NAD 83 - decimal °) 41 . 265881 /8 0 . 768490 **Office verified location** ☐

1] SUBSTRATE

Check *ONLY* **Two** substrate *TYPE BOXES*; estimate % or note every type present

Check ONE (*Or 2 & average*)

BEST TYPES	POOL	RIFFLE	OTHER TYPES	POOL	RIFFLE	ORIGIN	QUALITY
☐ ☐ BLDR /SLABS [10]			☐ ☐ HARDPAN [4]			☐ LIMESTONE [1]	☐ HEAVY [-2]
☐ ☐ BOULDER [9]	5		☐ ☐ DETRITUS [3]	10		☑ TILLS [1]	☐ MODERATE [-1]
☐ ☐ COBBLE [8]	15		☐ ☑ MUCK [2]	21		☐ WETLANDS [0]	☑ NORMAL [0]
☑ ☐ GRAVEL [7]	30		☐ ☐ SILT [2]			☐ HARDPAN [0]	☐ FREE [1]
☐ ☐ SAND [6]	19		☐ ☐ ARTIFICIAL [0]			☐ SANDSTONE [0]	SILT ☐ EXTENSIVE [-2]
☐ ☐ BEDROCK [5]			(Score natural substrates; ignore sludge from point-sources)			☐ RIP/RAP [0]	EMBEDDEDNESS ☐ MODERATE [-1]
						☐ LACUSTURINE [0]	☑ NORMAL [0]
						☐ SHALE [-1]	☐ NONE [1]
						☐ COAL FINES [-2]	

NUMBER OF BEST TYPES: ☑ 4 or more [2] ☐ 3 or less [0]

Comments

Substrate 12.00 *Maximum 20*

2] INSTREAM COVER

Indicate presence 0 to 3: **0**-Absent; **1**-Very small amounts or if more common of marginal quality; **2**-Moderate amounts, but not of highest quality or in small amounts of highest quality; **3**-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

0	UNDERCUT BANKS [1]	0	POOLS > 70cm [2]	1	OXBOWS, BACKWATERS [1]
1	OVERHANGING VEGETATION [1]	0	ROOTWADS [1]	2	AQUATIC MACROPHYTES [1]
2	SHALLOWS (IN SLOW WATER) [1]	1	BOULDERS [1]	1	LOGS OR WOODY DEBRIS [1]
0	ROOTMATS [1]				

AMOUNT Check ONE (*Or 2 & average*)

☐ EXTENSIVE >75% [11]
☐ MODERATE 25-75% [7]
☑ SPARSE 5-<25% [3]
☐ NEARLY ABSENT <5% [1]

Comments

Cover *Maximum 20* 9.00

3] CHANNEL MORPHOLOGY

Check ONE in each category (*Or 2 & average*)

SINUOSITY	DEVELOPMENT	CHANNELIZATION	STABILITY
☐ HIGH [4]	☐ EXCELLENT [7]	☐ NONE [6]	☐ HIGH [3]
☐ MODERATE [3]	☐ GOOD [5]	☑ RECOVERED [4]	☐ MODERATE [2]
☑ LOW [2]	☑ FAIR [3]	☑ RECOVERING [3]	☑ LOW [1]
☐ NONE [1]	☑ POOR [1]	☐ RECENT OR NO RECOVERY [1]	

Comments

Channel *Maximum 20* 8.50

4] BANK EROSION AND RIPARIAN ZONE

Check **ONE** in each category for ***EACH BANK*** (*Or 2 per bank & average*)

River right looking downstream

EROSION L	EROSION R	RIPARIAN WIDTH L	RIPARIAN WIDTH R	FLOOD PLAIN QUALITY L	FLOOD PLAIN QUALITY R		
☑	☑ NONE / LITTLE [3]	☑	☑ WIDE > 50m [4]	☑	☑ FOREST, SWAMP [3]	☐	☐ CONSERVATION TILLAGE [1]
☐	☐ MODERATE [2]	☐	☐ MODERATE 10-50m [3]	☐	☐ SHRUB OR OLD FIELD [2]	☐	☐ URBAN OR INDUSTRIAL [0]
☐	☐ HEAVY / SEVERE [1]	☐	☐ NARROW 5-10m [2]	☐	☐ RESIDENTIAL, PARK, NEW FIELD [1]	☐	☐ MINING / CONSTRUCTION [0]
		☐	☐ VERY NARROW < 5m [1]	☐	☐ FENCED PASTURE [1]		
		☐	☐ NONE [0]	☐	☐ OPEN PASTURE, ROWCROP [0]		

Indicate predominant land use(s) past 100m riparian.

Comments

Riparian *Maximum 10* 10.00

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

MAXIMUM DEPTH Check **ONE** (*ONLY!*)

☐ > 1m [6]
☑ 0.7-<1m [4]
☐ 0.4-<0.7m [2]
☐ 0.2-<0.4m [1]
☐ < 0.2m [0]

CHANNEL WIDTH Check ONE (*Or 2 & average*)

☐ POOL WIDTH > RIFFLE WIDTH [2]
☑ POOL WIDTH = RIFFLE WIDTH [1]
☐ POOL WIDTH > RIFFLE WIDTH [0]

CURRENT VELOCITY Check ALL that apply

☐ TORRENTIAL [-1]
☐ VERY FAST [1]
☐ FAST [1]
☑ MODERATE [1]
☑ SLOW [1]
☐ INTERSTITIAL [-1]
☐ INTERMITTENT [-2]
☐ EDDIES [1]

Indicate for reach - pools and riffles.

Recreation Potential
Primary Contact
Secondary Contact
(circle one and comment on back)

Comments

Pool / Current *Maximum 12* 7.00

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (*Or 2 & average*). ☑ NO RIFFLE [metric=0]

RIFFLE DEPTH	RUN DEPTH	RIFFLE / RUN SUBSTRATE	RIFFLE / RUN EMBEDDEDNESS
☐ BEST AREAS > 10cm [2]	☐ MAXIMUM > 50cm [2]	☐ STABLE (e.g., Cobble, Boulder) [2]	☐ NONE [2]
☐ BEST AREAS 5-10cm [1]	☐ MAXIMUM < 50cm [1]	☐ MOD. STABLE (e.g., Large Gravel) [1]	☐ LOW [1]
☐ BEST AREAS < 5cm [metric=0]		☐ UNSTABLE (e.g., Fine Gravel, Sand) [0]	☐ MODERATE [0]
			☐ EXTENSIVE [-1]

Comments

Riffle / Run *Maximum 8* 0.00

6] GRADIENT

(61.7 ft/mi) ☑ VERY LOW - LOW [2-4] ☐ MODERATE [6-10] ☐ HIGH - VERY HIGH [10-6]

DRAINAGE AREA (3.37 mi²)

%POOL: 0 **%GLIDE:** 0 **%RUN:** 100 **%RIFFLE:** 0

Gradient *Maximum 10* 4.00

A] SAMPLED REACH

Check ALL that apply

Comment RE: Reach consistency/ Is reach typical of steam?*, Recreation/* Observed - Inferred, *Other/* Sampling observations, Concerns, Access directions, etc.

ph: 7.22; Temperature: 8.4 C

METHOD

- ☐ BOAT
- ☑ WADE
- ☐ L. LINE
- ☐ OTHER

STAGE

1st -sample pass-	2nd
☐ HIGH	☐
☐ UP	☐
☑ NORMAL	☐
☐ LOW	☐
☐ DRY	☐

DISTANCE

- ☐ 0.5 Km
- ☐ 0.2 Km
- ☐ 0.15 Km
- ☐ 0.12 Km
- ☑ OTHER

0.6 meters

CLARITY

1st --sample pass--	2nd
☐ < 20 cm	☐
☐ 20-<40 cm	☐
☐ 40-70 cm	☐
☐ > 70 cm/ CTB	☐
☐ SECCHI DEPTH	☐

CANOPY

- ☑ > 85%- OPEN
- ☐ 55%-<85%
- ☐ 30%-<55%
- ☐ 10%-<30%
- ☐ <10%- CLOSED

1st pass _____ cm

2nd _____ cm

B] AESTHETICS

- ☑ NUISANCE ALGAE
- ☑ INVASIVE MACROPHYTES
- ☐ EXCESS TURBIDITY
- ☐ DISCOLORATION
- ☑ FOAM / SCUM
- ☐ OIL SHEEN
- ☐ TRASH / LITTER
- ☑ NUISANCE ODOR
- ☐ SLUDGE DEPOSITS
- ☐ CSOs/SSOs/OUTFALLS

C] RECREATION

AREA DEPTH

POOL: ☐ >100ft² ☐ >3ft

D] MAINTENANCE

Circle some & *COMMENT*

PUBLIC / PRIVATE / BOTH / NA ✓ ✓

ACTIVE / HISTORIC / BOTH / NA ✓

YOUNG-SUCCESSION-OLD

SPRAY / SNAG / REMOVED

MODIFIED / DIPPED OUT / NA

LEVEED / ONE SIDED

RELOCATED / CUTOFFS

MOVING-BEDLOAD-STABLE

ARMOURED / SLUMPS

ISLANDS / SCOURED

IMPOUNDED / DESICCATED

FLOOD CONTROL / DRAINAGE

E] ISSUES

WWTP / CSO / NPDES / INDUSTRY

HARDENED / URBAN / DIRT&GRIME

CONTAMINATED / LANDFILL

BMPs-CONSTRUCTION-SEDIMENT

LOGGING / IRRIGATION / COOLING

BANK / EROSION / SURFACE

FALSE BANK / MANURE / LAGOON

WASH H_20 / TILE / H_20 TABLE

ACID / MINE / QUARRY / FLOW

NATURAL / WETLAND / STAGNANT

PARK / GOLF / LAWN / HOME

ATMOSPHERE / DATA PAUCITY

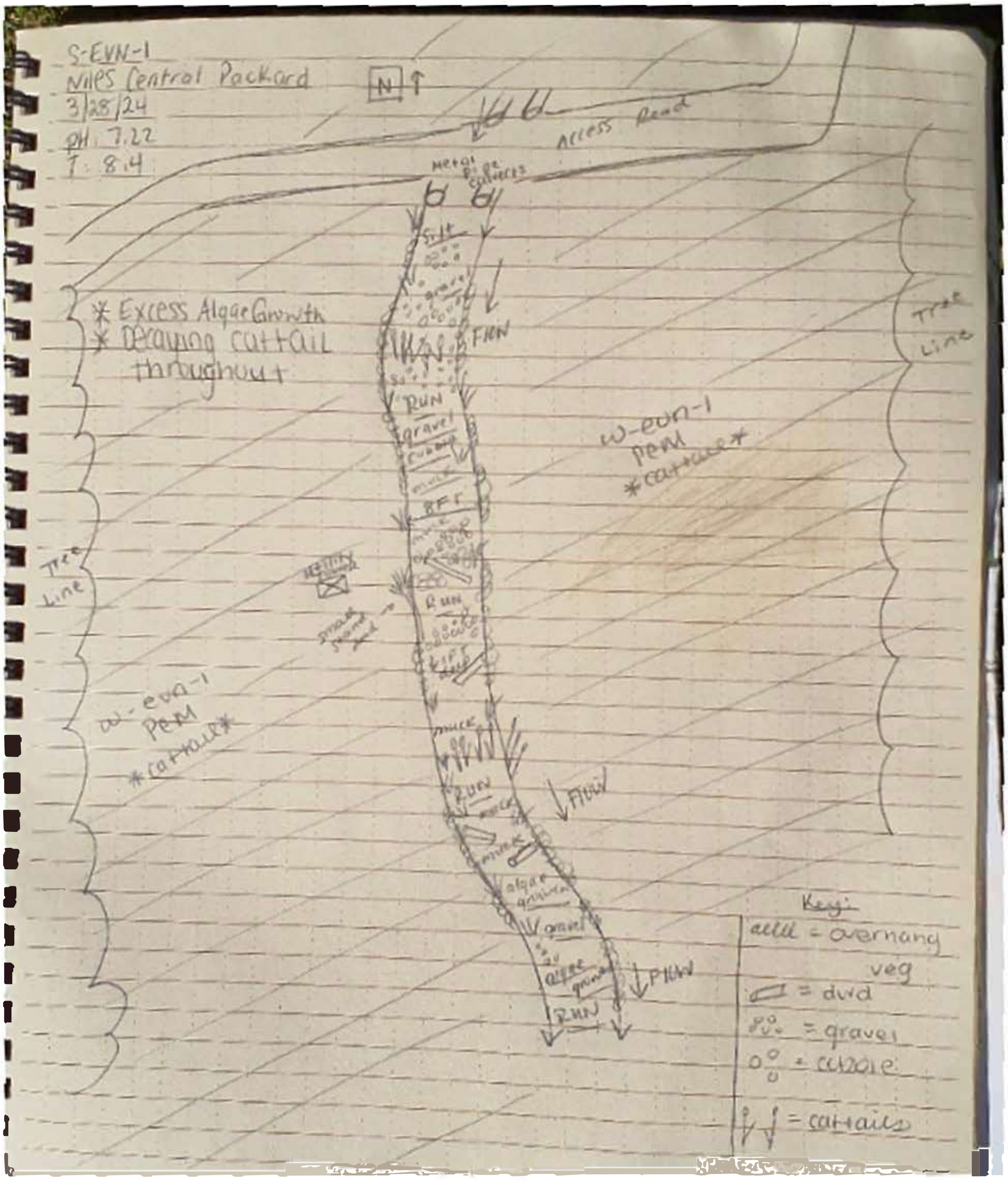
F] MEASUREMENTS

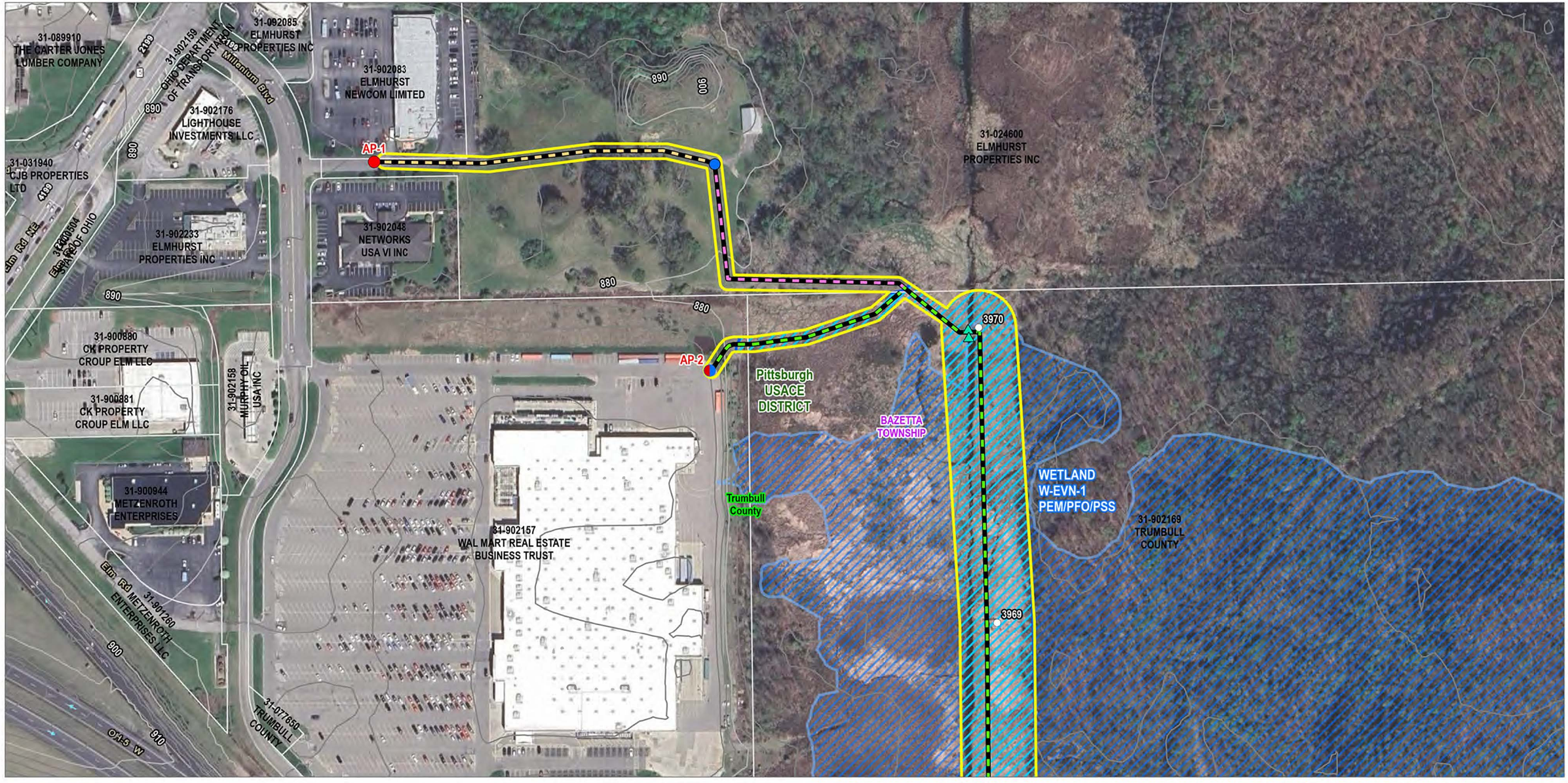
- $\bar{x}$ width 2.6m
- $\bar{x}$ depth 0.25m
- max. depth 0.56m
- $\bar{x}$ bankfull width
- bankfull $\bar{x}$ depth
- W/D ratio 10.4
- bankfull max. depth
- floodprone x_2 width
- entrench. ratio

Legacy Tree:

Stream Drawing:

See Next Page


S-EVN-1
Niles Central Packard
3/28/24
pH: 7.22
T: 8.4
N
Access Road
Metal Pipe Culverts
* Excess Algae Growth
* Decaying cattail throughout
Silt
gravel
FLOW
RUN
gravel
cobble
muck
BFT
RUN
muck
RUN
muck
algae
gravel
RUN
FLOW
FLOW
Tree Line
Tree Line
W-EVN-1
PEM
cattail
W-EVN-1
PEM
cattail
Key:
= overhang veg
= dwd
= gravel
= cobble
= cattails



- PROJECT STUDY AREA
- EXISTING STRUCTURE
- COUNTY BOUNDARY
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- USACE DISTRICT
- PARCEL BOUNDARIES
- 100-YEAR FLOODPLAIN
- TOPOGRAPHIC CONTOUR (10' INTERVAL)
- TOPOGRAPHIC CONTOUR (2' INTERVAL)
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- DELINEATED WETLAND
- ACCESS POINT
- ACCESS POINT / TCE
- TCE
- EXISTING CULVERT
- ACCESS ROAD/ROUTE
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- OVERLAND ACCESS

EXHIBIT 13 A

BASE MAP: GOOGLE MAPS

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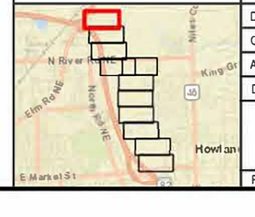

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NILES CENTRAL-PACKARD 138KV REBUILD PROJECT
TRUMBULL COUNTY, OH

TITLE: ACCESS MAPS

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APPROVED BY:	B. FALKINBURG		PAGE 1 OF 11
DATE:	OCTOBER 2024		

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1382 WEST NINTH STREET
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CLEVELAND, OH 44113
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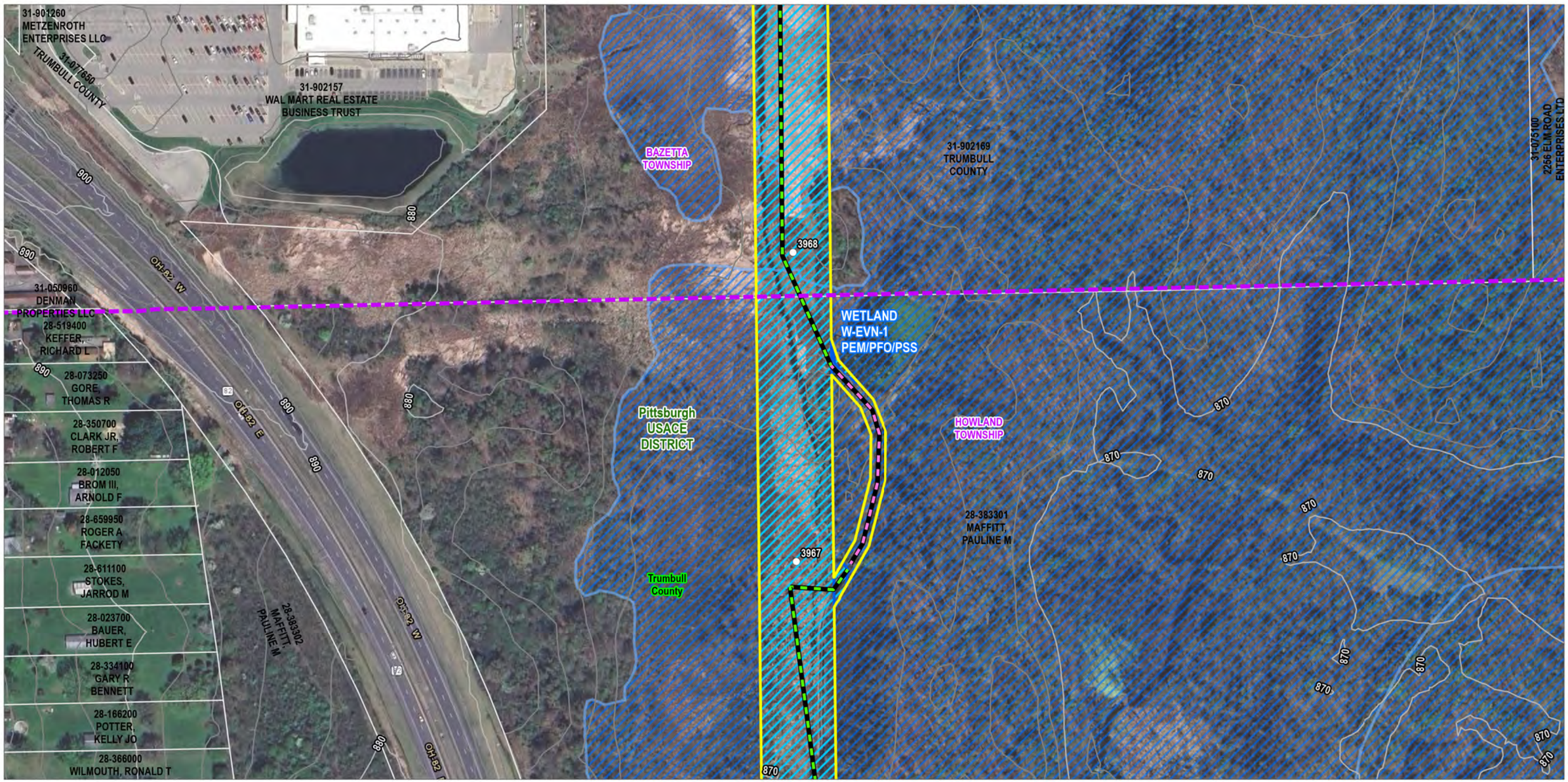

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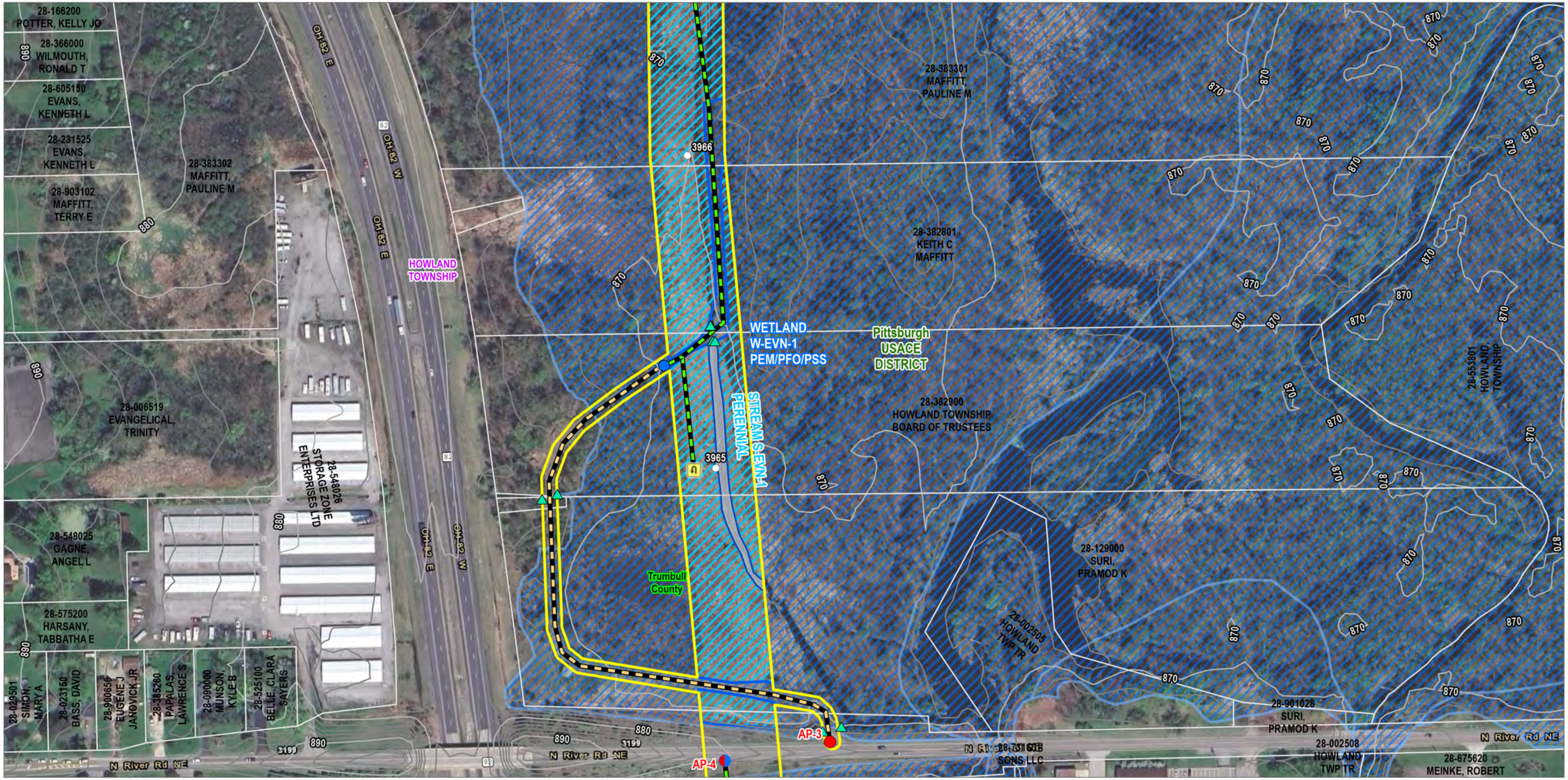

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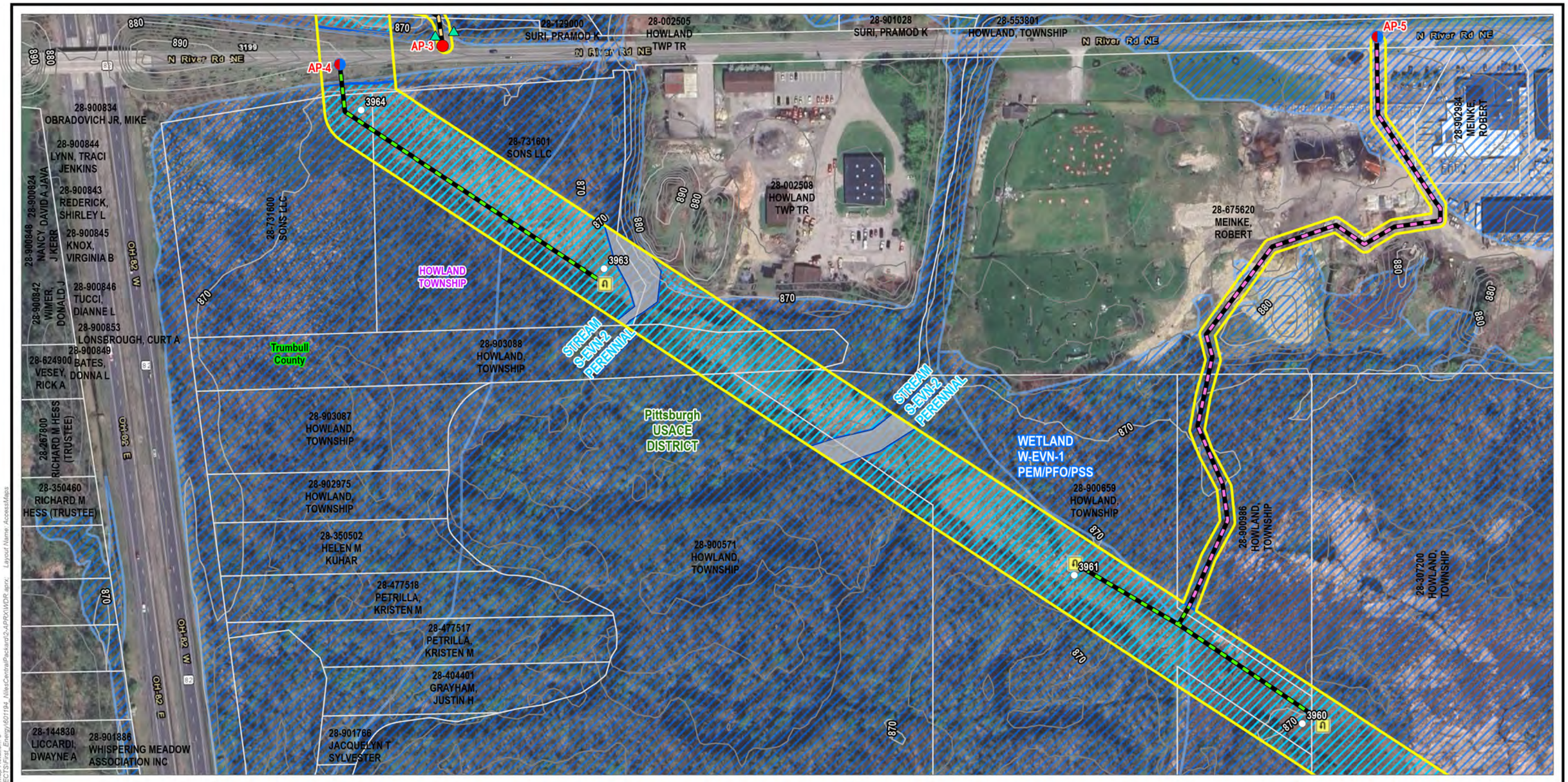

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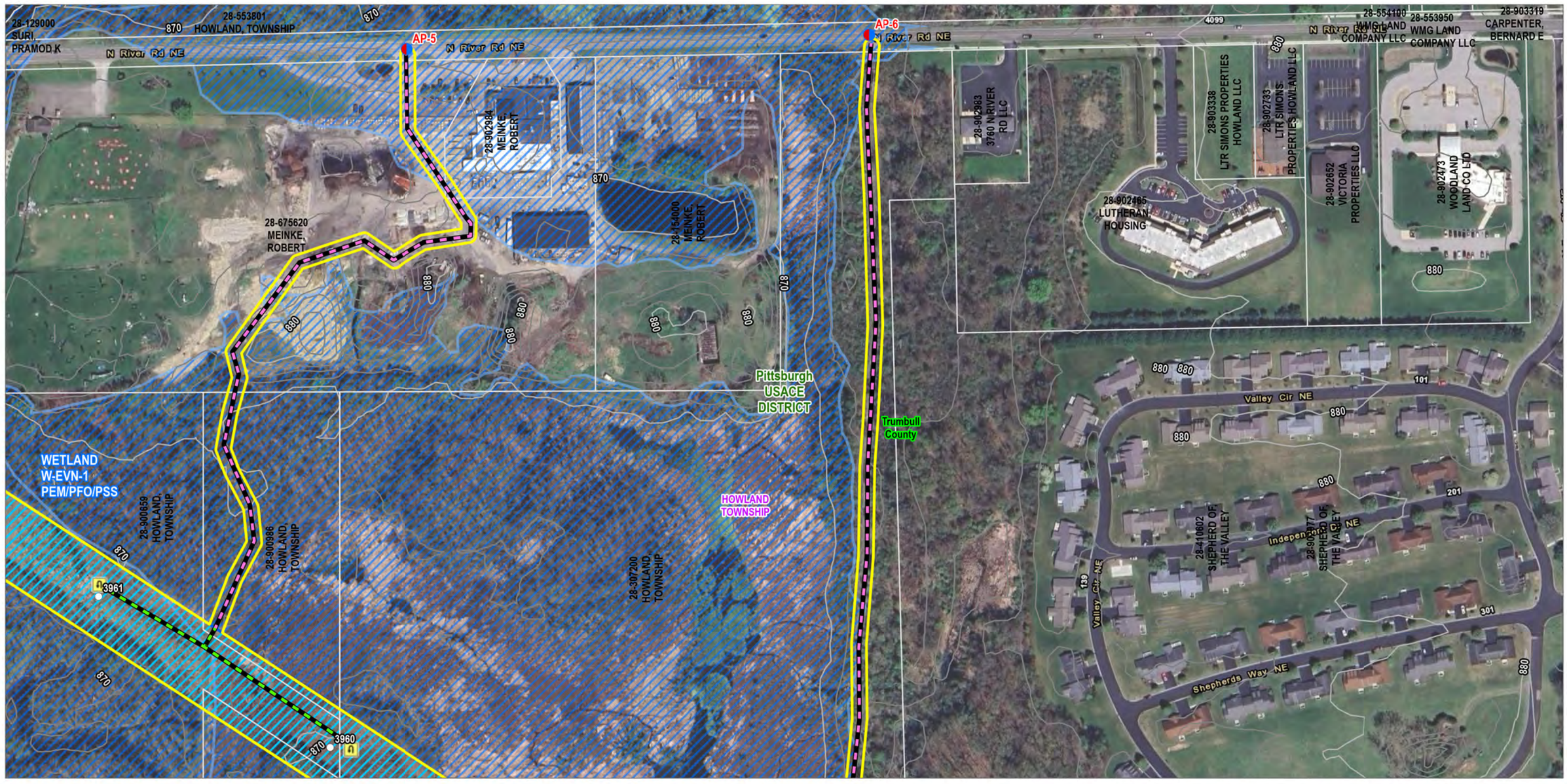

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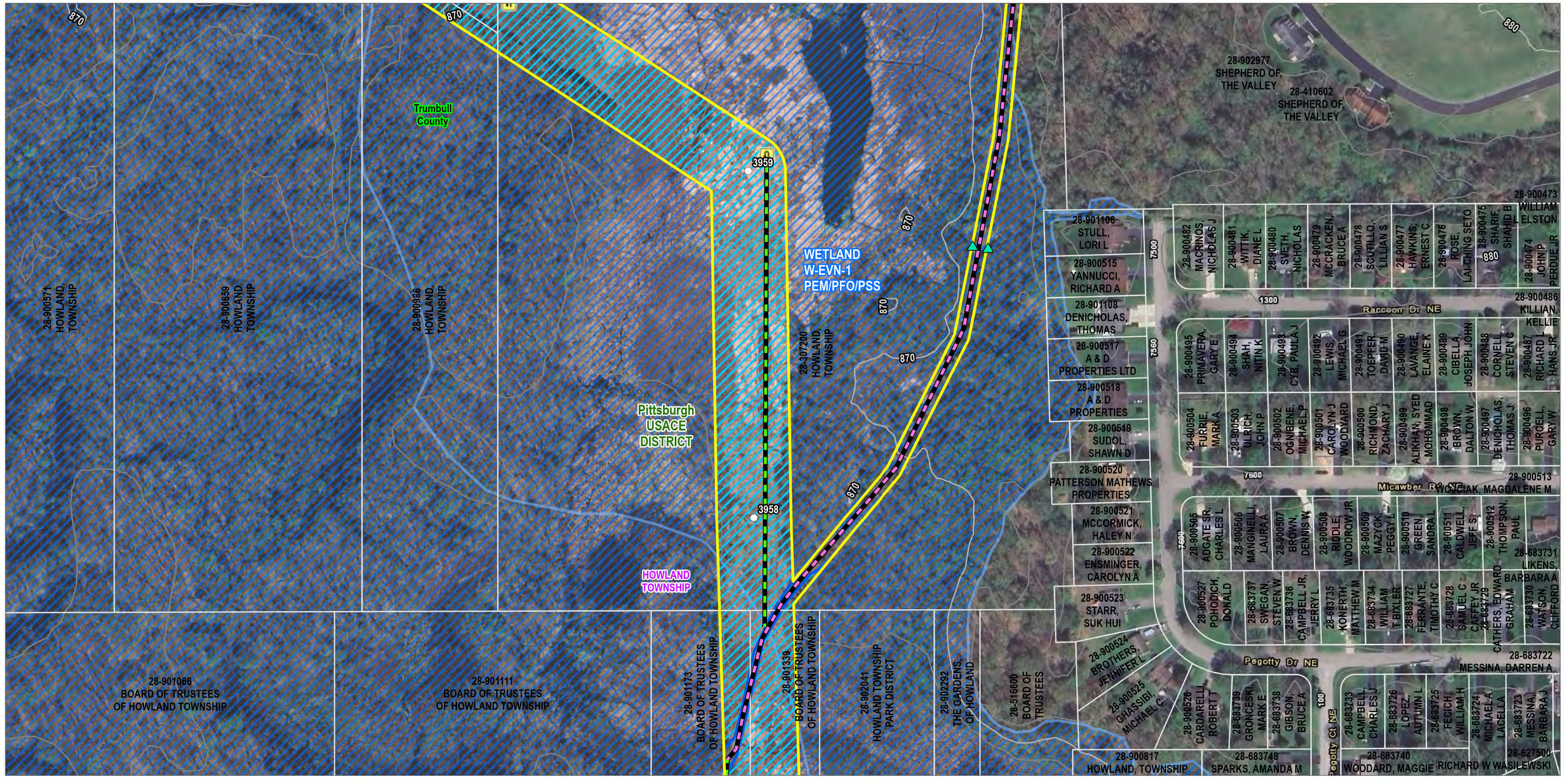

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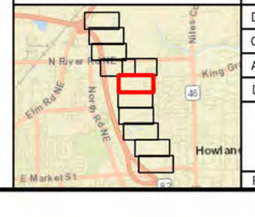

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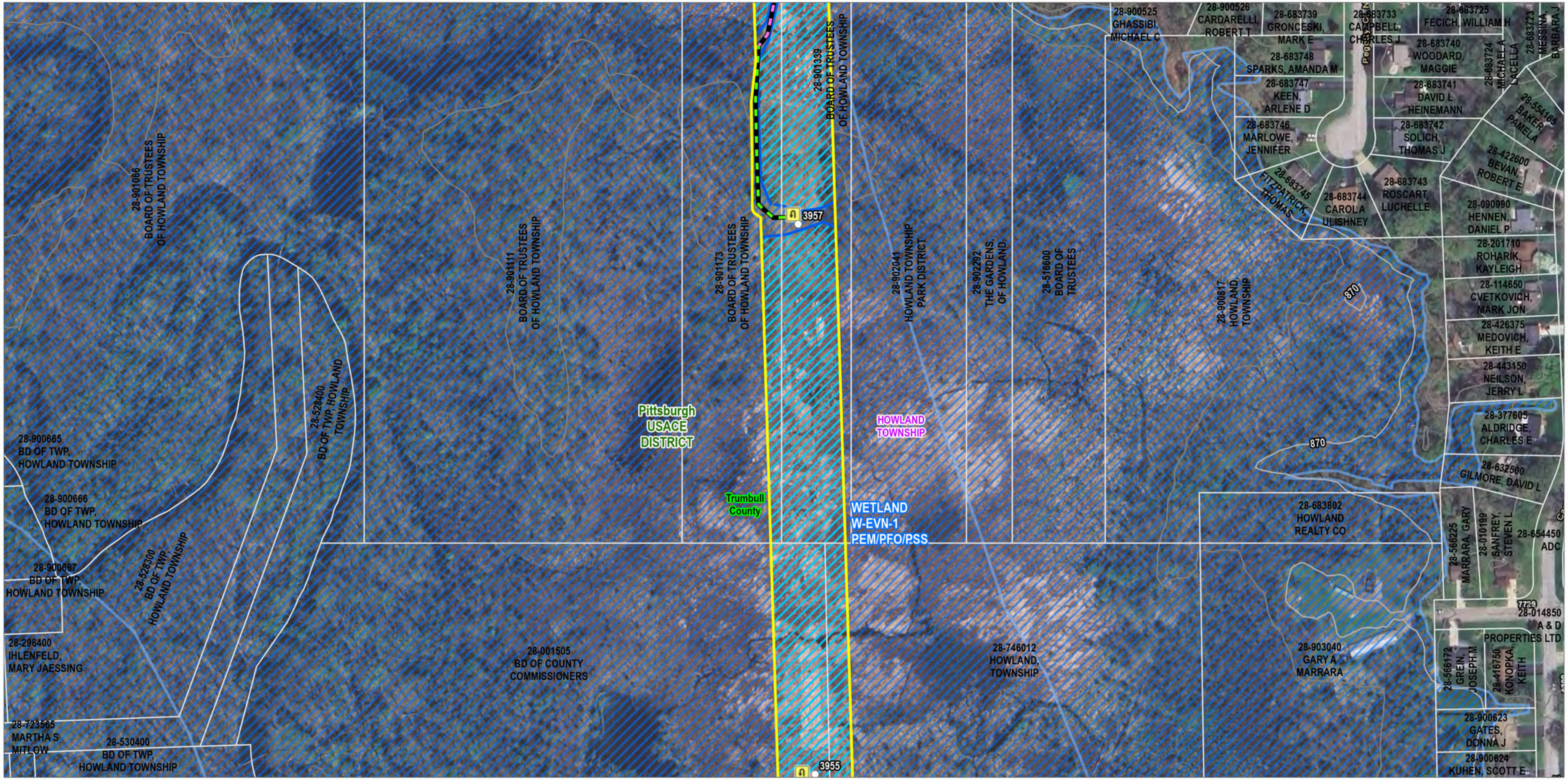

PROJECT STUDY AREA	TOPOGRAPHIC CONTOUR (10' INTERVAL)
EXISTING STRUCTURE	TOPOGRAPHIC CONTOUR (2' INTERVAL)
COUNTY BOUNDARY	DELINEATED STREAM
CITY BOUNDARY	DELINEATED WETLAND
TOWNSHIP BOUNDARY	TURNAROUND
USACE DISTRICT	TIMBER MATTED ACCESS
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100-YEAR FLOODPLAIN	

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DATE:	OCTOBER 2024		

TRC
1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: WDR.APRX

PROJECT STUDY AREA
EXISTING STRUCTURE
COUNTY BOUNDARY
CITY BOUNDARY
TOWNSHIP BOUNDARY
USACE DISTRICT
PARCEL BOUNDARIES
100-YEAR FLOODPLAIN
TOPOGRAPHIC CONTOUR (10' INTERVAL)
TOPOGRAPHIC CONTOUR (2' INTERVAL)
DELINEATED STREAM
DELINEATED WETLAND
ACCESS POINT / TCE
TURNAROUND
EXISTING CULVERT
TIMBER MATTED ACCESS

BASE MAP: GOOGLE MAPS

ATSI®
American Transmission Systems, Inc.
a subsidiary of FirstEnergy Corp.

0 100 200 FEET
1:2,400 1" = 200'

PROJECT: FIRSTENERGY
NILES CENTRAL-PACKARD 138KV REBUILD PROJECT
TRUMBULL COUNTY, OH

TITLE: ACCESS MAPS

DRAWN BY:	M. OPEL	PROJ. NO.:	601194
CHECKED BY:	P. SZPAICHLER	PAGE 8 OF 11	
APPROVED BY:	B. FALKINBURG		
DATE:	OCTOBER 2024		

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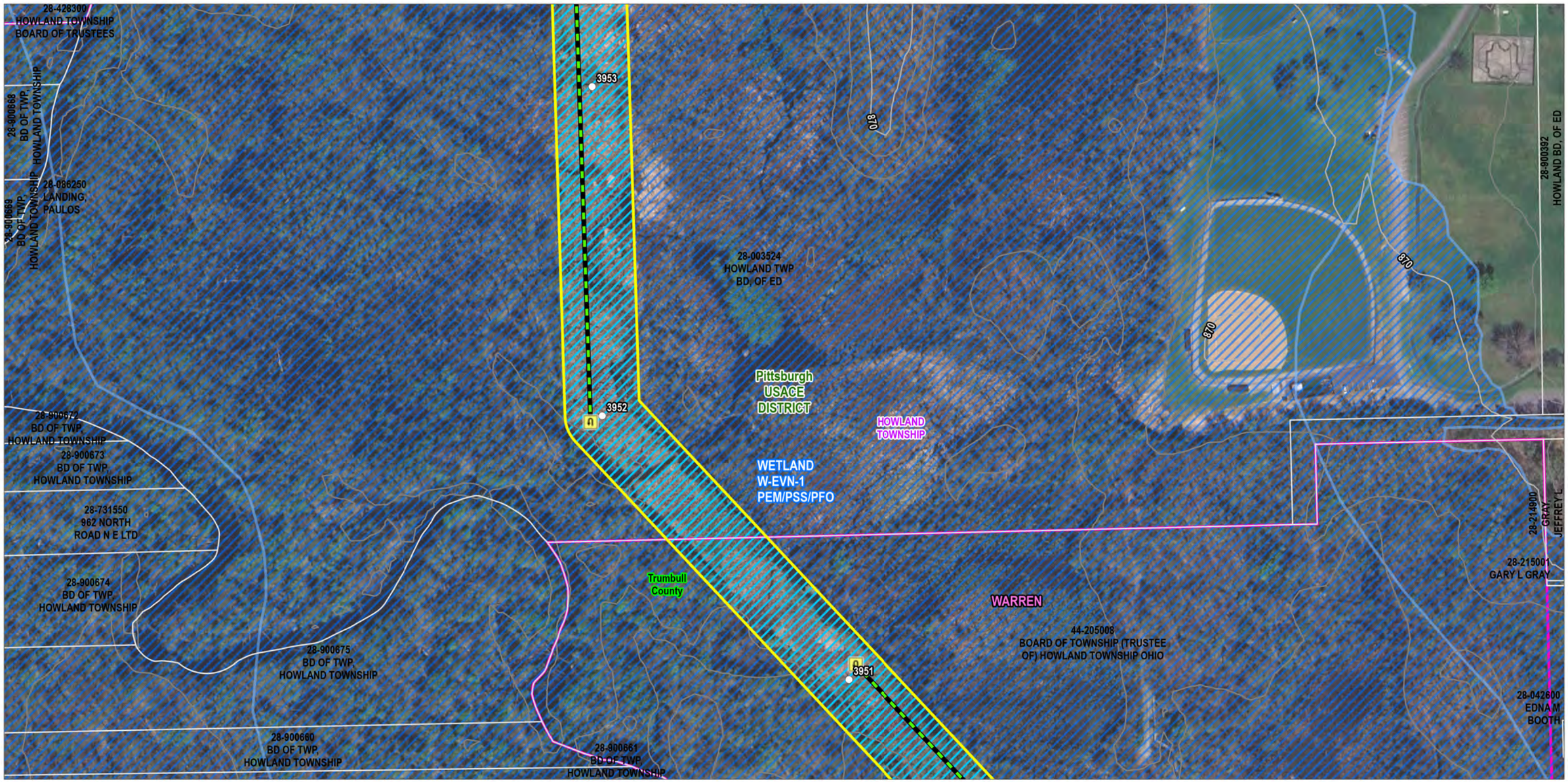

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet Map Rotation: 0
Saved By: MOPEL on 10/10/2024 @ 8:20:19 AM File Path: T:\PROJECTS\First_Energy\601194_NilesCentralPackard\2-APRX\WDR.aprx Layout Name: AccessMaps

- PROJECT STUDY AREA
- EXISTING STRUCTURE
- COUNTY BOUNDARY
- CITY BOUNDARY
- TOWNSHIP BOUNDARY
- USACE DISTRICT
- PARCEL BOUNDARIES
- 100-YEAR FLOODPLAIN
- TOPOGRAPHIC CONTOUR (10' INTERVAL)
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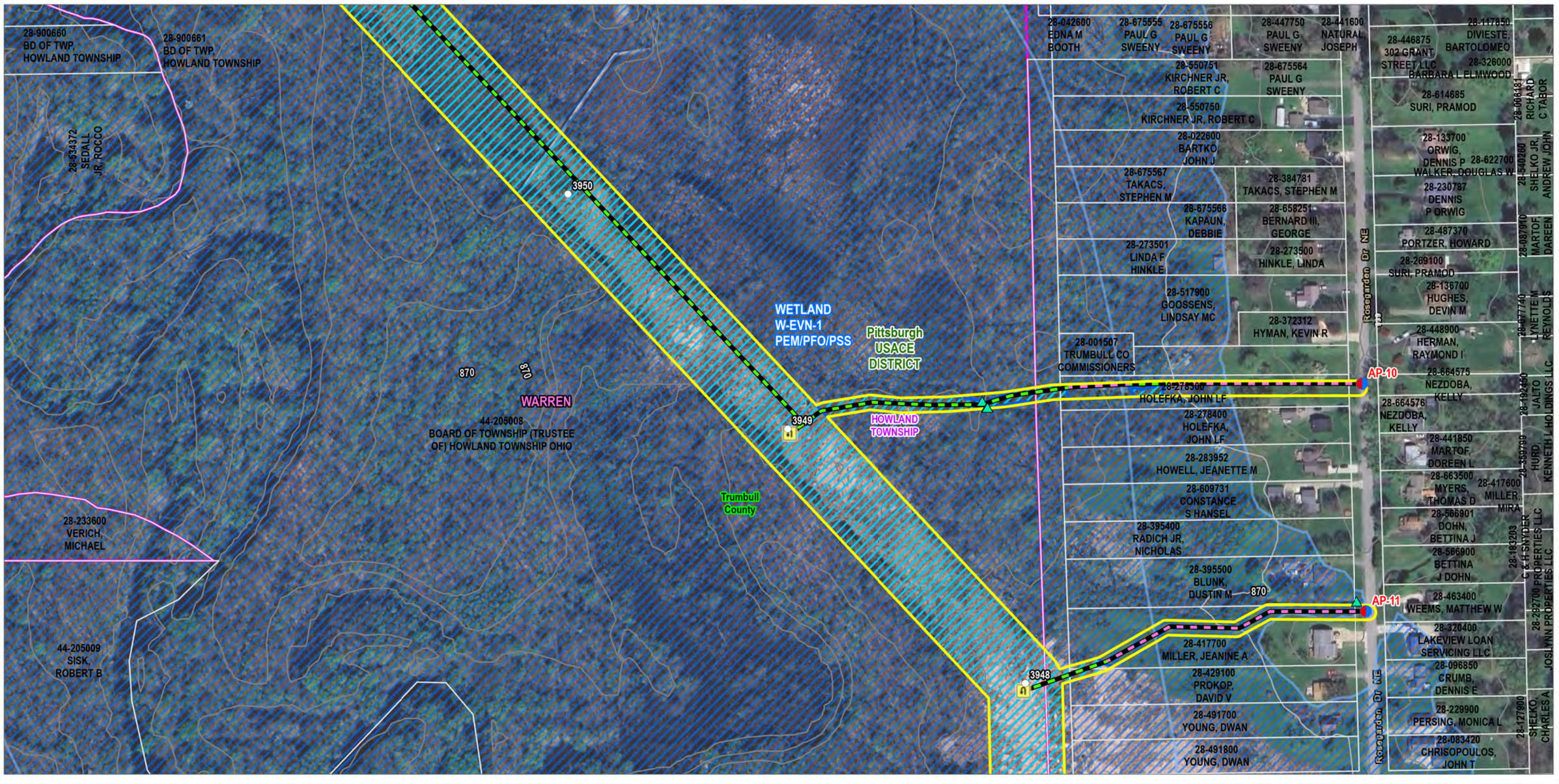

PROJECT STUDY AREA
EXISTING STRUCTURE
COUNTY BOUNDARY
CITY BOUNDARY
TOWNSHIP BOUNDARY
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100-YEAR FLOODPLAIN
TOPOGRAPHIC CONTOUR (10' INTERVAL)
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DELINEATED WETLAND
ACCESS POINT / TCE
TURNAROUND
EXISTING CULVERT
TIMBER MATTED ACCESS
OVERLAND ACCESS

BASE MAP: GOOGLE MAPS

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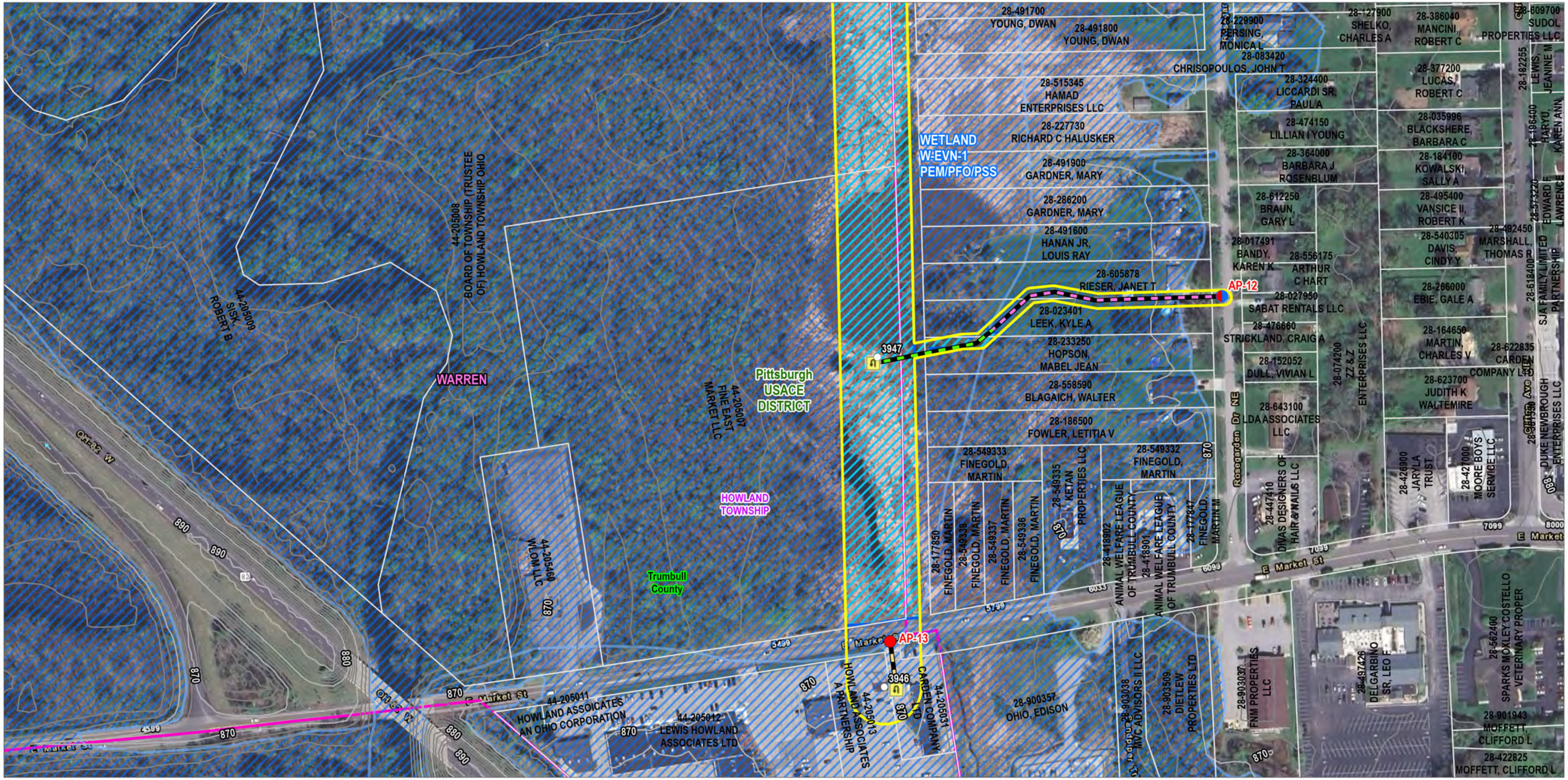

PROJECT STUDY AREA	PARCEL BOUNDARIES
EXISTING STRUCTURE	100-YEAR FLOODPLAIN
COUNTY BOUNDARY	TOPOGRAPHIC CONTOUR (10' INTERVAL)
CITY BOUNDARY	TOPOGRAPHIC CONTOUR (2' INTERVAL)
TOWNSHIP BOUNDARY	DELINEATED STREAM
USACE DISTRICT	DELINEATED WETLAND

- ACCESS POINT
- ACCESS POINT / TCE
- TURNAROUND
- ACCESS ROAD/ROUTE
- TIMBER MATTED ACCESS
- OVERLAND ACCESS

BASE MAP: GOOGLE MAPS

ATSI
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0 100 200 FEET
1:2,400 1" = 200'

PROJECT: FIRSTENERGY
NILES CENTRAL-PACKARD 138KV REBUILD PROJECT
TRUMBULL COUNTY, OH

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EXHIBIT 14

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PITTSBURGH DISTRICT
PITTSBURGH DISTRICT OFFICE
1000 LIBERTY AVENUE SUITE 2200
PITTSBURGH PENNSYLVANIA 15222-4186

February 28, 2025

Regulatory Division
LRP-2024-00550

FirstEnergy Corporation
c/o Amy Ruszala
341 White Pond Drive
Akron, OH 44320

Dear Ms. Ruszala:

This letter is in response to your Pre-Construction Notification (PCN) for the *Niles Central – Packard 138kV Line Rebuild* project submitted to the Pittsburgh District on December 31, 2024, regarding your proposal to replace 21 wooden pole electrical transmission structures with new single or double wooden pole electrical transmission structures within an approximately 62 acre right-of-way (ROW). The project will impact one palustrine emergent, scrub shrub, and forested wetland complex with 4.58 acres of temporary fill through the placement of timber mats for construction access and staging and with 0.07 acre of permanent fill for 6-foot diameter wooden pole structure foundations in the City of Warren, Howland Township, and Bazetta Township, Trumbull County, Ohio.

Activities associated with projects of this type are authorized by Nationwide Permit (NWP) No. 57, Electric Utility Line and Telecommunications Activities. This NWP was previously issued by the Corps of Engineers, for purposes of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. This project has been verified to comply with all applicable regional conditions.

The Section 401 Water Quality Certification for this NWP is waived as published in Public Notice CELRP 21-14 on March 8, 2021. This NWP was published in the January 13, 2021 issue of the Federal Register. For a list of conditions which must be followed for the NWP to be valid, refer to:

https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll15/id/1757

Project Specific Special Conditions:

1. The project site lies within the range of the Indiana Bat (*Myotis sodalis*) and the Northern Long-eared Bat (*Myotis septentrionalis*), which are federally-listed endangered species. Several factors have contributed to the two species decline including habitat loss, fragmentation of habitat, and the disease White Nose Syndrome. During winter, the two bat species hibernate in caves and abandoned mines. Suitable summer habitat for Indiana bats and the Northern Long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent edges of agricultural fields, old fields, and pastures. This includes forests and woodlots containing potential roosts (i.e. live trees and/or snags ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows, and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. The permittee will preserve wooded/forested habitats exhibiting any of the characteristics listed above wherever possible. Should suitable habitat be present that cannot be saved during construction activities, any trees ≥ 3 inches dbh will only be cut between October 1 and March 31. No tree clearing is to be conducted outside of the October 1 to March 31 timeframe. If necessary tree clearing becomes required outside of the timeframe, the applicant shall contact the Army Corps of Engineers to discuss measures that must be taken to avoid impacts to Indiana Bats and Northern Long-eared Bats.

The proposed work must be accomplished in accordance with the general permit conditions, any regional conditions, the special conditions listed in this letter, the application materials, and the enclosed plans. Please note, the enclosed Compliance Certification Form must be signed and returned to this office upon completion of the proposed work.

The verification of this NWP is valid until March 14, 2026, unless the NWPs are modified, suspended, or revoked. If project specifications are changed or work has not been initiated before March 14, 2026, please contact this office for further verification.

The verification of this NWP will not relieve you of the responsibility to obtain any other required state, local, or Federal authorizations.

If you have any questions, please contact Lauren L. Heidingsfelder by phone at (412) 395-7188 or email at lauren.l.heidingsfelder@usace.army.mil. Please complete our customer survey online and provide us with feedback at https://regulatory.ops.usace.army.mil/customer-service-survey/.

Sincerely,

//SIGNED//

Tyler J. Bintrim
Chief, North Branch
Regulatory Division

Enclosure(s)

cc:

Erin Van Nort, TRC Environmental Corporation
Trumbull County Soil & Water Conservation District
Ohio Environmental Protection Agency

Compliance Certification Form

Permit Number: LRP-2024-00550

County: Trumbull

Permittee: FirstEnergy Corporation

Project Name: Niles Central – Packard 138kV Line Rebuild

Date Verification Issued: February 28, 2025

Project Manager: Lauren L. Heidingsfelder

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification, and return it to the following address:

US ARMY CORPS OF ENGINEERS
Pittsburgh District
Attn: Lauren L. Heidingsfelder
Regulatory Division, Room 2200
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186
or
Regulatory.Permits@usace.army.mil

Please note that your permitted activity is subject to a compliance inspection by a U. S. Army Corps of Engineers representative. Failure to comply with any terms or conditions of this authorization may result in the Corps suspending, modifying or revoking the authorization and/or issuing a Class I administrative penalty, or initiating other appropriate legal action.

I hereby certify that the work, and mitigation (if applicable), authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit including any general or specific conditions.

_____ _____

Signature of Permittee