

Letter of Notification for the Vassell - Curleys 345 kV Transmission Line Adjustment Project



An **AEP** Company

BOUNDLESS ENERGY™

PUCO Case No. 24-0792-EL-BLN

Submitted to:
The Ohio Power Siting Board
Pursuant to Ohio Administrative Code
Section 4906-6-05

Submitted by:
AEP Ohio Transmission Company, Inc.

August 21, 2024

LETTER OF NOTIFICATION FOR THE VASSELL – CURLEYS 345 KV TRANSMISSION LINE PROJECT

LETTER OF NOTIFICATION

AEP Ohio Transmission Company, Inc.

Vassell – Curleys 345 kV Transmission Line Project

4906-6-05 Accelerated Application Requirements

AEP Ohio Transmission Company, Inc. (the “Company”) provides the following information to the Ohio Power Siting Board (OPSB) in accordance with the accelerated application requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-05(B) General Information

B(1) Project Description

The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Letter of Notification.

The Company proposes the Vassell – Curleys 345 kV Transmission Line Adjustment Project (“Project”), located within Berkshire, Harlem, and Trenton townships in Delaware County, Ohio and Jersey and Monroe townships in Licking County, Ohio. The Project involves adjusting approximately 4.1 miles of the Vassell – Curleys 345 kV Transmission Line (approved OPSB Case No. 24-0118-EL-BLN). The proposed adjustments are near the existing Vassell 345 kV Station (approved Case No. 11-1313-EL-BSB) and the proposed Curleys 345 kV Station (to be filed under separate application). Additional proposed adjustments occur near Woodtown Road and South County Line Road. The five proposed adjustments are due to necessary engineering modifications. The location of the proposed transmission line (“Project Area”) is shown on Maps 1, 2, and 3 in Appendix A.

The Project meets the requirements for a Letter of Notification (“LON”) as defined by Items 1(d)(ii) of Appendix A to Ohio Administrative Code Section 4906-1-01, *Application Requirement Matrix for Electric Power Transmission Lines*:

(1) New construction, extension, or relocation of single or multiple circuit electric power transmission line(s), or upgrading existing transmission or distribution line(s) for operation at a higher transmission voltage, as follows:

(d) Line(s) primarily needed to attract or meet the requirements of a specific customer or customers as follows:

(ii) Any portion of the line is on property owned by someone other than the specific customer or applicant.

The Project has been assigned Case No. 24-0792-EL-BLN.

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B(2) Statement of Need

If the proposed Letter of Notification project is an electric power transmission line or gas or natural gas transmission line, a statement explaining the need for the proposed facility.

The Project involves adjusting approximately 4.1 miles of the Vassell – Curleys 345 kV Transmission Line. The need of the Project remains the same as what was reported in OPSB Case No. 24-0118-EL-BLN.

The New Albany area continues to see some of the fastest growing electric demand in the AEP system. The robust economic development activity in New Albany is creating a continued influx of new customer interconnection requests.

The approximate load in the New Albany area today is 500 MW and the demand is expected to exceed 2,000 MW by the end of 2027, and will continue to grow in future years. Due to the projected customer load, existing facilities that serve the area, including the 345 kV circuits between Corridor Station and Vassell Station, will exceed their thermal capacities under certain scenarios.

The Company proposes to introduce new 345 kV sources into the area to address identified planning criteria violations by constructing two new 345 kV transmission lines between the Company's Vassell Station and the Green Chapel and Curleys Stations, respectively. Several projects in the New Albany area will be needed to address issues created by the projected load growth and to serve the current demand of more than 10 new customer requests in the area.

Failure to move forward with the proposed Project and future projects will result in the inability to serve the various customer load expectations (existing and new customers). In addition to the direct customer service, failure to move forward with the Project would have a negative impact on economic development in the area.

Each customer need was presented and reviewed with stakeholders between February 2022 and April 2023, at the PJM SRRTEP or TEAC Meetings. The solution to the Project was presented in the December 5, 2023, PJM TEAC Meeting. The Project has not been assigned the PJM supplemental number at this time. The Project was included in the Company's 2024 Long Term Forecast Report (LTFR) on pages 123 and 124 (See Appendix B).

B(3) Project Location

The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the Project area.

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The location of the Project in relation to existing transmission lines and substations is shown on Maps 1 and 2 in Appendix A. Map 3 in Appendix A identifies the Project components on a 2022 aerial photograph.

B(4) Alternatives Considered

The applicant shall describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

Given the expedited schedule to meet the required in-service date, the LON submitted in March 2024 included a centerline that was subject to change. Over the past five months, detailed engineering, environmental surveys, and landowner negotiations have progressed and resulted in centerline shifts on the Vassell – Curleys 345 kV Transmission Line in five locations.

Two of the adjustments for the Project occur at both Vassell and Curleys Stations. The proposed route adjustments accommodate updated engineering designs specific to each station and align the proposed route to connection points at each station.

The proposed route adjustments located south of Woodtown Road, and near South County Line Road, reduce the severity of the turn angles to allow the intended design to be used at these locations. The Company would be required to install 2-pole structures if the proposed adjustment were not approved, causing additional land use impacts to property owners.

Approximately 0.5 mile east of the intersection of Montgomery Road and South County Line Road, the proposed route adjustment shifts the alignment between 5 and 10 feet to the west for approximately 2 miles. This modification ensures that the proposed 150-foot ROW for the Vassell – Curleys Transmission Line does not overlap with the proposed 150-foot ROW for the Vassell – Green Chapel Transmission Line (filed separately, see OPSB Case No. 24-0014-EL-BLN), which parallel one another for the approximately 2-mile stretch.

No additional wetland, streams, tree clearing or cultural resource impacts are anticipated, and the proposed adjustments do not affect any additional landowners. Based on the information gathered, the Company selected the proposed route and adjustments as shown on Map 3 in Appendix A, which represents the most suitable location and most appropriate solution for the Project.

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B(5) Public Information Program

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

The Project's public communications and outreach process began in early 2023 when the Company initiated stakeholder engagement by coordinating with local governments and agencies. Company representatives invited landowners within the Project area to in-person open house meetings, conducted on May 2 and May 3, 2023, and provided a link to the Project website to access information via a virtual open house. The landowners were also provided with contact information for the Company's outreach specialist and were encouraged to submit comments and questions.

Additionally, the Company will further inform affected property owners and tenants about this Project through several different mediums. Within seven days of filing this LON, the Company will issue a public notice in a newspaper of general circulation in the Project area. The notice will comply with all requirements of OAC Section 4906-6-08(A)(1-6). Further, the Company will mail a letter, via first class mail, to affected landowners, tenants, contiguous property owners and any other landowner the Company may approach for an easement necessary for the construction, operation, or maintenance of the Project. The letter will comply with all requirements of OAC Section 4906-6-08(B). The Company maintains a website (<http://aeptransmission.com/ohio/>) which hosts an electronic copy of this LON and the public notice of this LON. An electronic copy of the LON will be served to the public library in each political subdivision affected by this Project. In addition, the Company retains ROW land agents that discuss Project timelines, construction and restoration activities and convey this information to affected owners and tenants.

B(6) Construction Schedule

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.

Construction of the Project is planned to begin in January 2025 with an anticipated in-service date of March 2027.

B(7) Area Map

The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

Maps 1 and 2, in Appendix A, identify the location of the Project area on United States Geological Survey 1:24,000 topographic quadrangle maps (Jersey, Johnstown, and Sunbury). Appendix A, Map 3 shows the Project area on a 2022 aerial photograph.

To visit the northern terminus of the Project from downtown Columbus, Ohio, take I-670 E towards the airport for 0.7 miles, then take exit 5C to continue on I-71 N towards Cleveland for 22.1 miles. Take exit

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131 on the right for US-36 E for 3.7 miles. Continue straight onto W Cherry Street for 0.5 mile before turning right onto S Morning Street. Continue onto OH-37 E/ E Granville Street for 0.7 mile. The Company's existing Vassell 345 kV Station is located on the right, approximately 0.2 mile east of Joe Walker Road.

B(8) Property Agreements

The applicant shall provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained.

A list of properties required for the Vassell – Curleys Transmission Line Adjustment Project are provided in Appendix C. The easement form exhibit provided in Appendix C represents the minimum easement rights the Company would require in order to construct, operate, and maintain these facilities.

B(9) Technical Features

The applicant shall describe the following information regarding the technical features of the project.

B(9)(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The proposed Vassell – Curleys 345 kV Transmission Line adjustments do not require any additional structure changes. The information provided in the Vassell – Curleys 345 kV Transmission Line (approved OPSB Case No. 24-0118-EL-BLN) remains accurate.

B(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

B(9)(b)(i) Calculated Electric and Magnetic Field Strength Levels

Calculated Electric and Magnetic Field Levels

Not applicable. No occupied residences or institutions are located within 100 feet of the Project.

B(9)(b)(ii) Design Alternatives

A discussion of the applicant's consideration of design alternatives with respect to electric and magnetic fields and their strength levels, including alternate conductor configuration and phasing, tower height, corridor location, and right-of-way width.

Not applicable. No occupied residences or institutions are located within 100 feet of the Project.

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B(9)(b)(ii)(c) Project Cost

The estimated capital cost of the project.

There is no cost increases associated with the proposed engineering modifications.

B(10) Social and Ecological Impacts

The applicant shall describe the social and ecological impacts of the project:

B(10)(a) Operating Characteristics

Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

The Project is located in Berkshire, Harlem, and Trenton townships within Delaware County, Ohio and in Jersey and Monroe townships in Licking County, Ohio. The northern portion of the Project is bounded by the City of Sunbury and the city of New Albany is located in the southeastern portion of the Project area. Cultivated farmland is the dominant land use for the overall project area, followed by residential development, as classified by the county auditors or identified during field review.

Residential areas are primarily clustered around US-62 near Fancher Road and County Line Road, and in the central portion of the Project. There are no schools, parks, churches, or cemeteries within 1,000 feet of the centerline of the Project. The Project crosses an environmental conservation easement established by the Company, located approximately 0.3 mile south of the existing Vassell Station on Company property. No proposed structures are located within the environmental conservation easement.

B(10)(b) Agricultural Land Information

Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

The Licking County Auditor and Delaware County Auditor were contacted early in August 2024 to obtain updated information about agricultural district lands, and data received via email correspondence confirmed that the existing list of parcels is current and accurate on August 5, 2024 and August 6, 2024, respectively. No additional agricultural district lands are crossed by the Project in Delaware or in Licking County. In Licking County, one agricultural district land parcel that was crossed by the original filing in Approved OPSB Case No. 24-0118-EL-BLN is crossed by an adjustment for the Project north of Fancher Road (see pages 6-7 in Map 3, Appendix A). The Project occupies approximately 75 acres. Approximately 55 acres of the Project has historically been used for row crop land and less than 0.1 acre has historically been used for pasture/hayfields. However, agricultural impacts will be minimized by using monopole structures and the fact that agricultural activities are a compatible and permitted use within the transmission right-of-way.

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B(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant’s investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

The Company’s consultant completed Phase I Archaeological and Phase I History/Architectural surveys, which involved subsurface testing and visual inspection for an area encompassing the overall project in Delaware, Franklin, and Licking counties, Ohio. These investigations resulted in the identification of 15 previously unrecorded archaeological sites including 33DL3704-3707, 3711, LI3609, 3613, 3614, 3628-3630, and 3632-3635. The architectural field survey identified a total of 42 architectural resources 50 years of age or older within the Area of Potential Effects (APE). An assessment of effects was conducted for the historic property and, after careful consideration, a finding of ‘no historic properties affected’ was concluded. None of these sites are considered to be significant resources, they are not regarded as being landmarks or eligible for the National Register of Historic Places. A finding reflective of ‘no historic properties affected’ is considered to be appropriate and no further cultural resource work is considered to be necessary for this project (sui generis 36 CFR 800.5). The SHPO coordination letters are provided in Appendix D.

Additional coordination was conducted with SHPO for the revised alignment, recommending that the Project would have no adverse effect on historic properties and no further cultural resource work would be necessary. A copy of SHPO’s correspondence will be provided once received by the Company.

B(10)(d) Local, State, and Federal Agency Correspondence

Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

A Notice of Intent will be filed with the Ohio Environmental Protection Agency for authorization of construction stormwater discharges under General Permit OHC000006. The Company will also coordinate stormwater permitting needs with the appropriate local entities as required. The Company will implement and maintain best management practices (“BMPs”) as outlined in the Project-specific Storm Water Pollution Prevention Plan (“SWPPP”) to minimize erosion control sediment to protect surface water quality during storm events.

Wetland and stream delineation field surveys were completed within the Proposed Route’s 150-foot-wide ROW for the Project by the Company’s consultant in June 2023 and between September 2023 to January 2024, and again in July 2024 to account for proposed adjustments (see Appendix E). In the 39 acres of addendum ecological survey areas, the Company’s consultant identified no additional wetlands, streams, or ponds. One previously delineated pond is now outside of the proposed 150-foot ROW for the overall project. Two upland drainage features were identified within the additional survey area (see

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Addendum #1 Ecological Report in Appendix E). No additional impacts to delineated features are anticipated for the Project.

The Company is still evaluating construction and forestry needs to perform non-mechanized clearing of trees (i.e., root structures of trees remains intact) in order to determine the level of permitting for compliance with Clean Water Act (“CWA”) Permits. Prior to construction within jurisdictional waters (wetlands and/or streams), the Company intends to attain the necessary approvals from either or both the U.S. Army Corps of Engineers (“USACE”) or Ohio Environmental Protection Agency (“OEPA”), if warranted.

The FEMA Flood Insurance Rate Map (“FIRM”) was reviewed to identify any floodplains/flood hazard areas that have been mapped within the Project Area (specifically, map number 39041C0280K, 39089C0140H). Based on this mapping, FEMA-designated 100-year floodplains associated with Duncan Run and unnamed tributaries to Big Walnut Creek are crossed by the proposed alignment; however, no proposed structures are planned to be located within the floodplain areas. Local floodplain permitting, if deemed necessary for the Project, will be coordinated with agencies for the jurisdiction as applicable prior to construction.

B(10)(e) Threatened, Endangered, and Rare Species

Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

Coordination letters were sent to U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources-Division of Wildlife (ODNR-DOW). The USFWS response was received on September 11, 2023, and ODNR-DOW’s response was received on October 13, 2023. Copies of the agencies’ correspondence letters are provided in Appendix D. The proposed route adjustments are minor and an update to the USFWS or ODNR-DOW was not necessary, as the original correspondence is still valid.

As part of the ecological study completed for the overall project, a coordination letter was submitted to the United States Fish and Wildlife Service (“USFWS”) Ohio Ecological Services Field Office seeking technical assistance on the overall project for potential impacts to threatened or endangered species. The September 11, 2023, response letter from the USFWS (see Appendix D) indicated that the federally endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) occur throughout the state of Ohio. The USFWS indicated that seasonal tree clearing would be required if suitable bat habitat trees were identified. Any tree clearing required for the overall project will adhere to seasonal restrictions (March 31 through October 1); therefore, adverse impacts to protected bat species are not anticipated as a result of the Project. Due to the Project type, size, and location, USFWS

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does not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species.

A coordination letter was submitted to the Ohio Department of Natural Resources (“ODNR”) Division of Wildlife (“DOW”) Ohio Natural Heritage Program (“ONHP”) and the ODNR - Office of Real Estate seeking an environmental review of the overall project for potential impacts on state listed and federally listed threatened or endangered species. Correspondence from ODNR DOW/OHNP and the ODNR – Office of Real Estate was received on October 13, 2023 (See Appendix D). According to the DOW, the Project is within the range of the state and federally endangered Indiana bat, the state and federally endangered northern long-eared bat, the state endangered little brown bat (*Myotis lucifugus*), and the state endangered tricolored bat (*Perimyotis subflavus*). Additionally, the DOW indicated that the southern portion of the overall project is within the vicinity of records for the northern long-eared bat. Because of the presence of state endangered bat species established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. Similar to the USFWS response, ODNR recommends cutting between October 1 and March 31 to avoid impacts to these protected bat species. Based on a desktop survey for caves, mines, and other potential openings, no winter hibernacula were identified within 0.25 mile of the Project (See Appendix E). No The total acreage of tree clearing for the overall project remains unchanged by the proposed shifts. Approximately 30 acres of tree clearing are anticipated for the overall project, which will occur within the seasonal restrictions. Therefore, no additional coordination with ODNR regarding bat species is required.

The ODNR-DOW indicated that the overall project is within the range of five mussel species: the federally endangered rayed bean (*Villosa fabalis*), the federally endangered snuffbox (*Epioblasma triquetra*), the federally threatened rabbitsfoot (*Quadrula cylindrica cylindrica*), the state threatened salamander mussel (*Simpsonaias ambigua*), and the state threatened pondhorn (*Uniomermus tetralasmus*). No in-water work within a perennial stream is proposed for the overall project; therefore, these species are not anticipated to be impacted by the overall project.

In addition, the ODNR lists the overall project in the range of the northern harrier (*Circus hudsonius*). The ODNR recommends that nesting habitats for the listed species be avoided during their nesting periods. The professional survey completed for avian resources concluded no suitable habitat was observed for the northern harrier in the overall project area; therefore, no impacts to this bird species are anticipated.

Of the previous ten state and/or federal listed threatened and endangered species identified within range of the overall project area as identified within the Original Ecological Report (February 2024), no habitat for any of the listed aquatic or bird species were identified within the Addendum #1 Project Survey Area. However, the four bat species (Indiana bat, Northern long-eared bat, little brown bat, and tricolored bat) were identified as having potential summer roosting habitat and no hibernacula within the Addendum #1 Project Survey area, which is consistent with the original threatened and endangered species coordination for the original route. Further coordination with either the USFWS and/or ODNR is still warranted if tree clearing for the overall project cannot be completed during the seasonal tree

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clearing restriction (October 1 – March 31). A copy of the Addendum #1 Ecological Report with further discussion of threatened and endangered species has been provided in Appendix E.

B(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

As stated in Section B(10)(e), a copy of the correspondence letters received from the USFWS and ODNR-DOW are provided in Appendix D. USFWS indicated no impacts to proposed or designated critical habitats, which is still true with the proposed route adjustment.

The Company's consultant conducted a wetland and stream delineation survey in the overall project study area and prepared an Ecological Survey Report. The Company's consultant conducted additional surveys and an addendum to the report per the route alignment change. The Addendum #1 Ecological Report is provided in Appendix E.

Within the proposed 150-foot ROW, the Company's consultant has identified no new wetlands, streams, or ponds. One previously delineated pond is now outside of the proposed 150-foot ROW. No additional impacts are anticipated for the Project. Approximately 30 acres of tree clearing within the ROW is anticipated for the overall project, of which, 4.5 acres occur in delineated PFO wetlands. The acreages of tree clearing for the overall project remain unchanged by the proposed shifts.

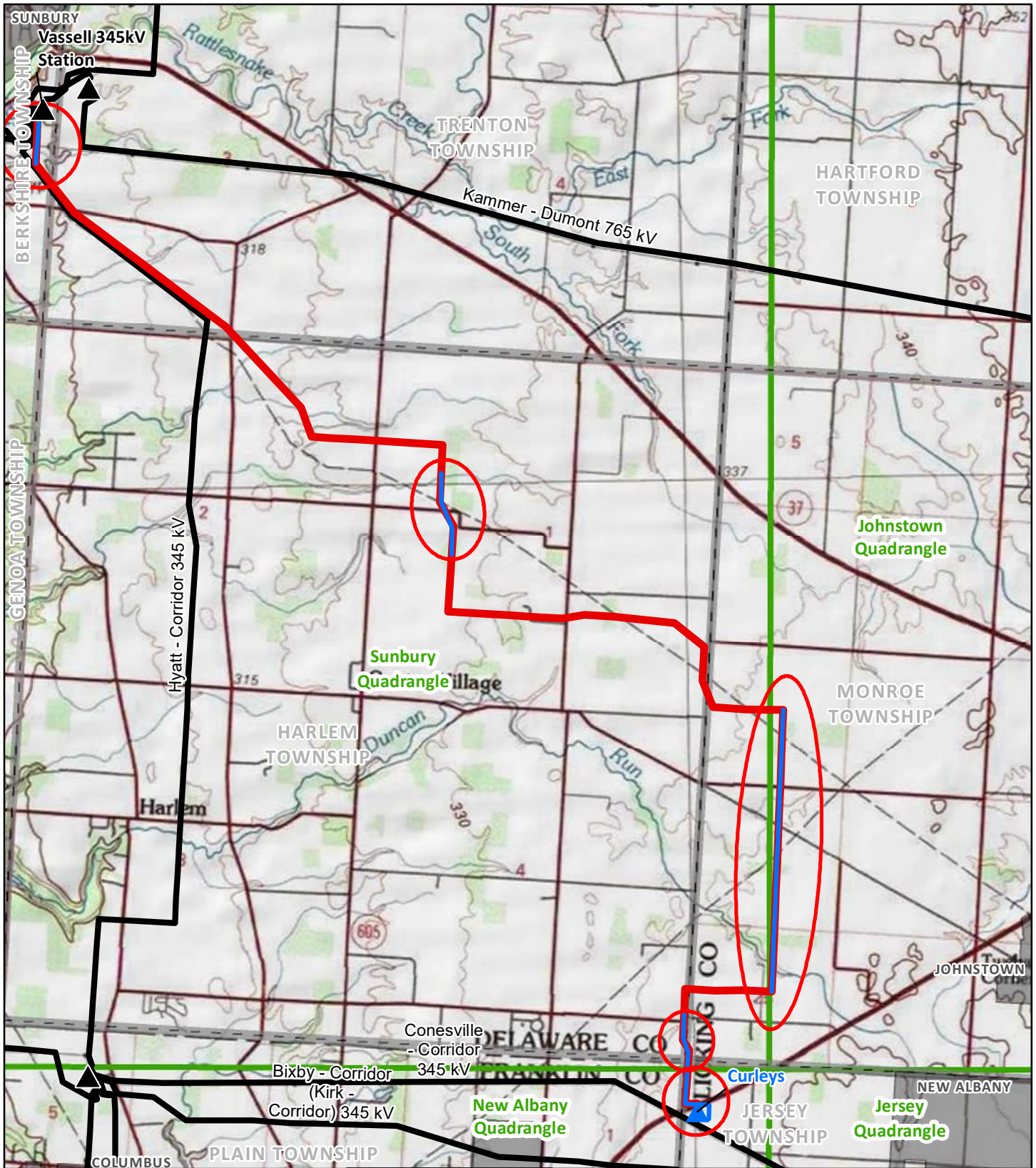
Based on a review of the Protected Areas Database of the United States as well as the Conservation Easement Database, there are no state or national parks, forests, or wildlife areas within the vicinity of the Project. However, the Project crosses an environmental conservation easement on Company-owned property, located approximately 0.3 mile south of the existing Vassell Station (see Map 3 in Appendix A), which is held by the Preservation Parks District of Delaware City. The environmental conservation easement was established by the Company to mitigate impacts on another Company site. No proposed structures are located within the environmental conservation easement.

B(10)(g) Unusual Conditions

Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of the Company's knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.

Appendix A Project Maps



- ▲ Proposed AEP Substation
- ▲ Existing AEP Substation
- Proposed Shifts
- Proposed Shifts Vassell - Curleys 345kV Transmission Line
- Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)
- Municipality
- Township Boundary
- USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2021)

StatePlane
Ohio North
NAD 83

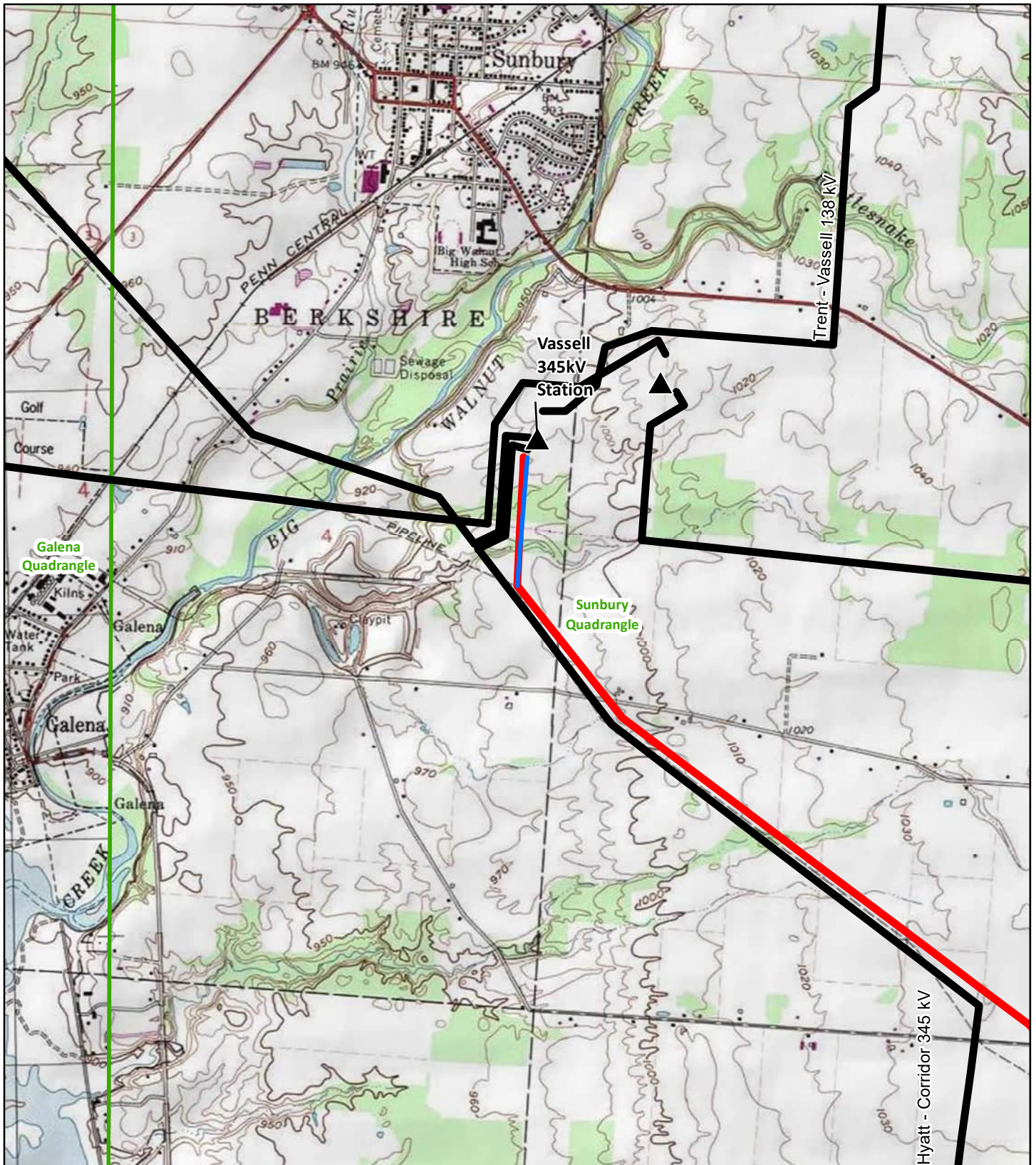
August 16, 2024








Map 1 Project Overview

Vassell - Curleys 345 kV
Transmission Line Project

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Miles



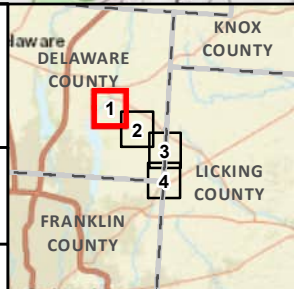
-  Existing AEP Substation
-  Proposed Shifts Vassell - Curleys 345 kV Transmission Line
-  Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)
-  Existing AEP Transmission Line
-  USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2021)

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StatePlane
Ohio North
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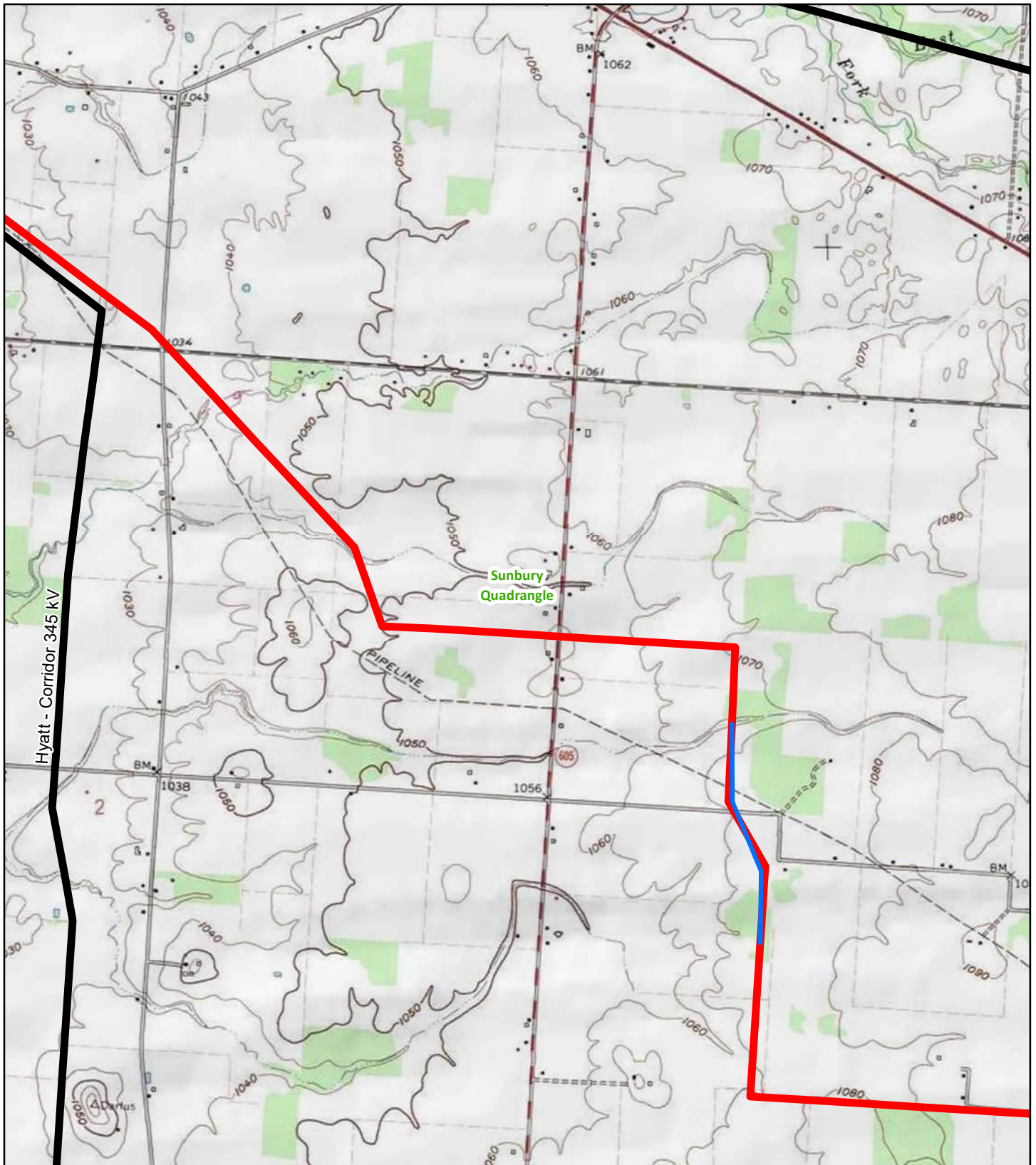
August 15, 2024



Map 2
Project Area

Vassell - Curleys 345 kV
Transmission Line Project

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Feet



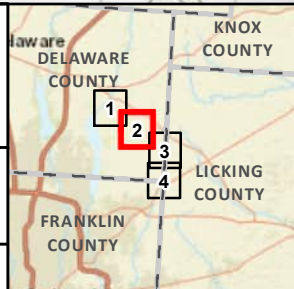
- Proposed Shifts Vassell - Curleys 345 kV Transmission Line
- Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)
- Existing AEP Transmission Line
- USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2021)

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StatePlane
Ohio North
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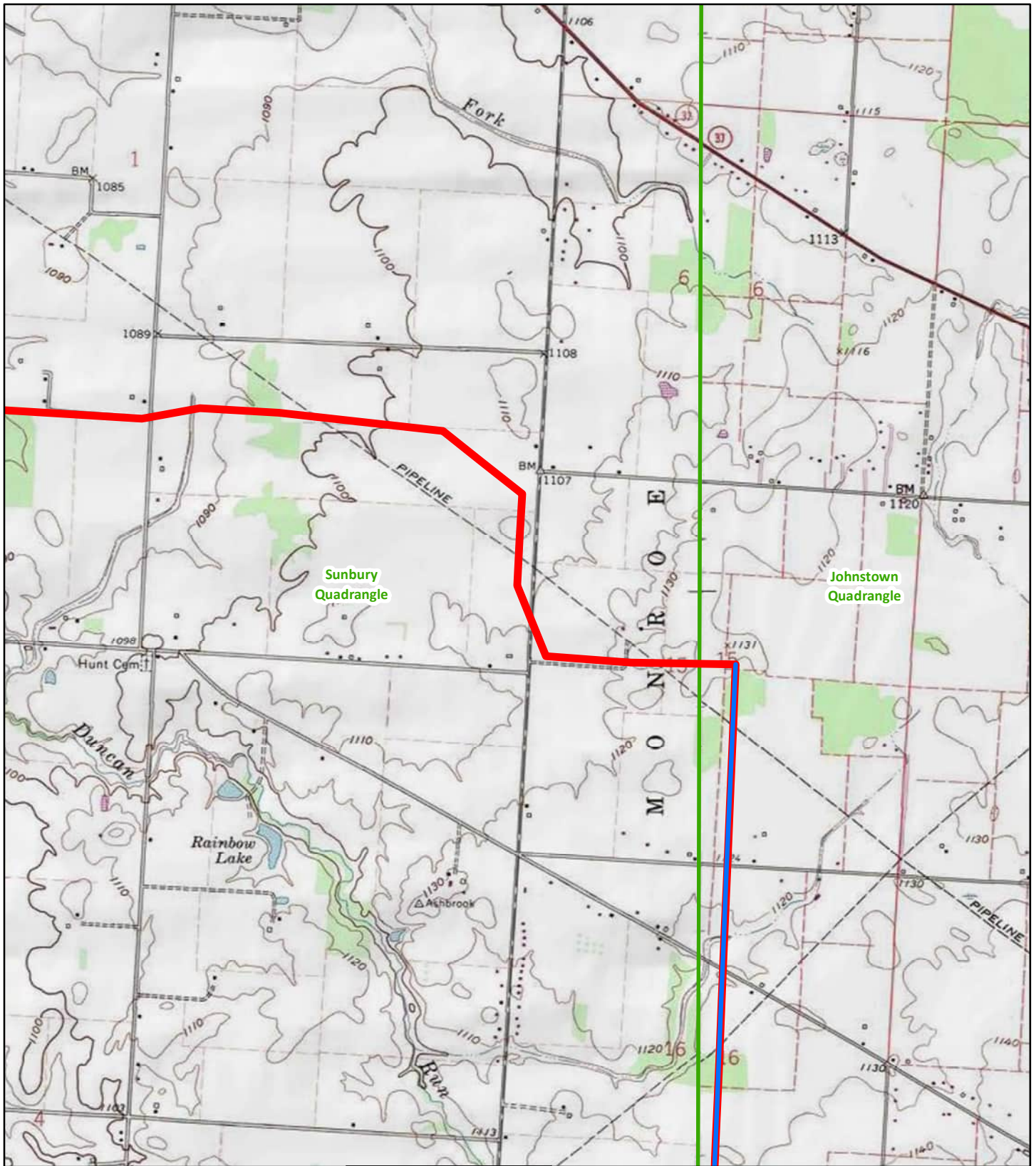
August 15, 2024






**Map 2
Project Area**

Vassell - Curleys 345 kV
Transmission Line Project

0 1,000 2,000 3,000
Feet




 Proposed Shifts Vassell - Curleys 345 kV Transmission Line
 Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)
 USGS 7.5' Topographic Quad Boundary

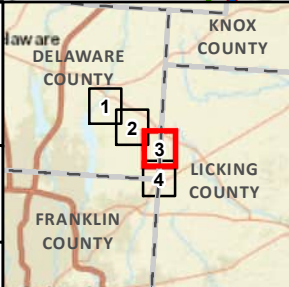
Sources:
 USGS (2021)

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 StatePlane
 Ohio North
 NAD 83




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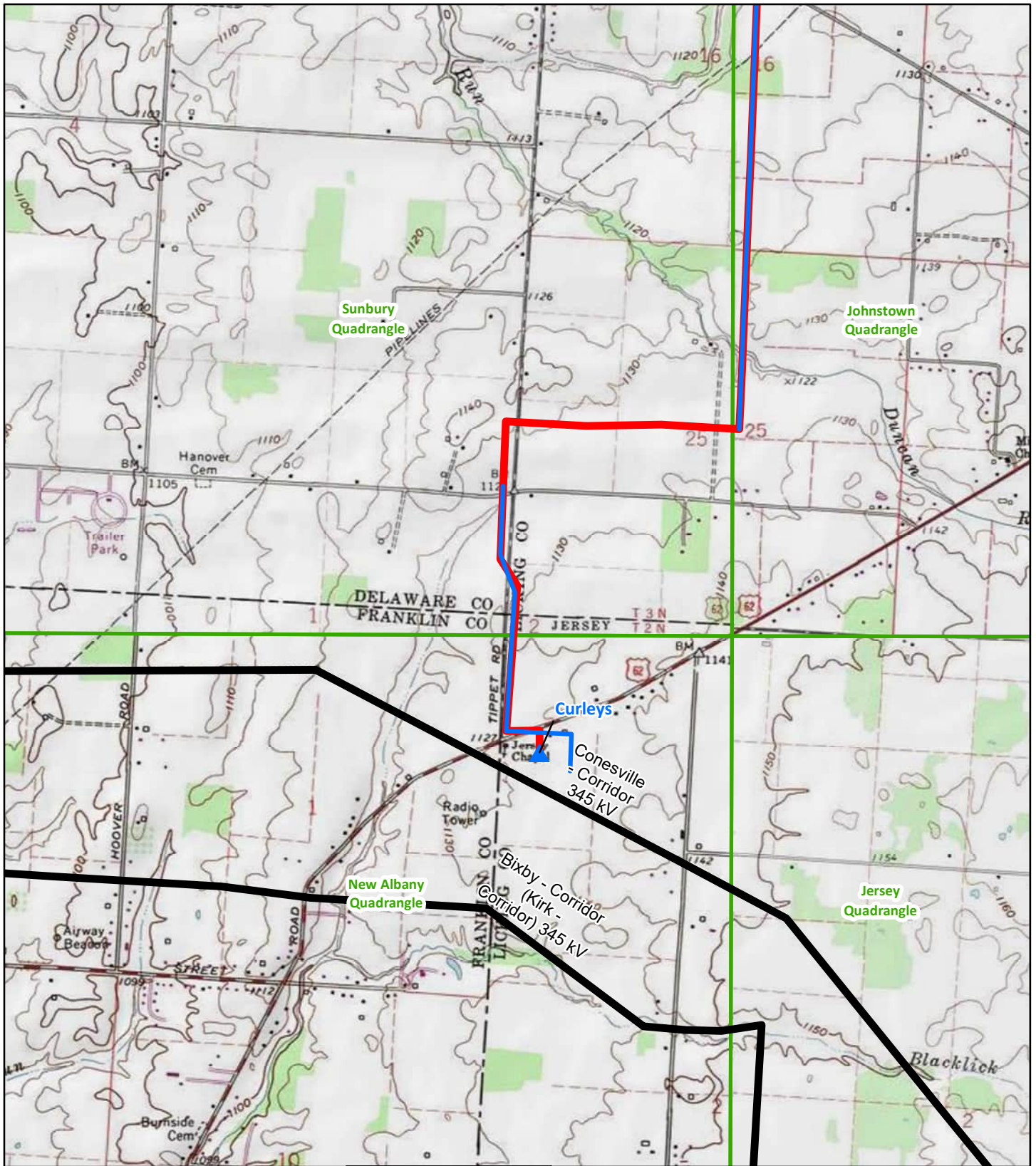


Map 2
Project Area

Vassell - Curleys 345 kV
Transmission Line Project



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Feet



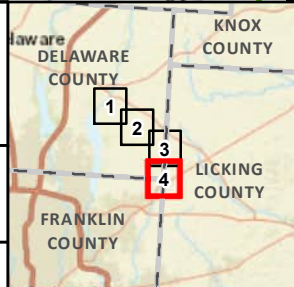
- ▲ Proposed AEP Substation
- Proposed Shifts Vassell - Curleys 345 kV Transmission Line
- Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)
- Existing AEP Transmission Line
- USGS 7.5' Topographic Quad Boundary

Sources:
USGS (2021)

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StatePlane
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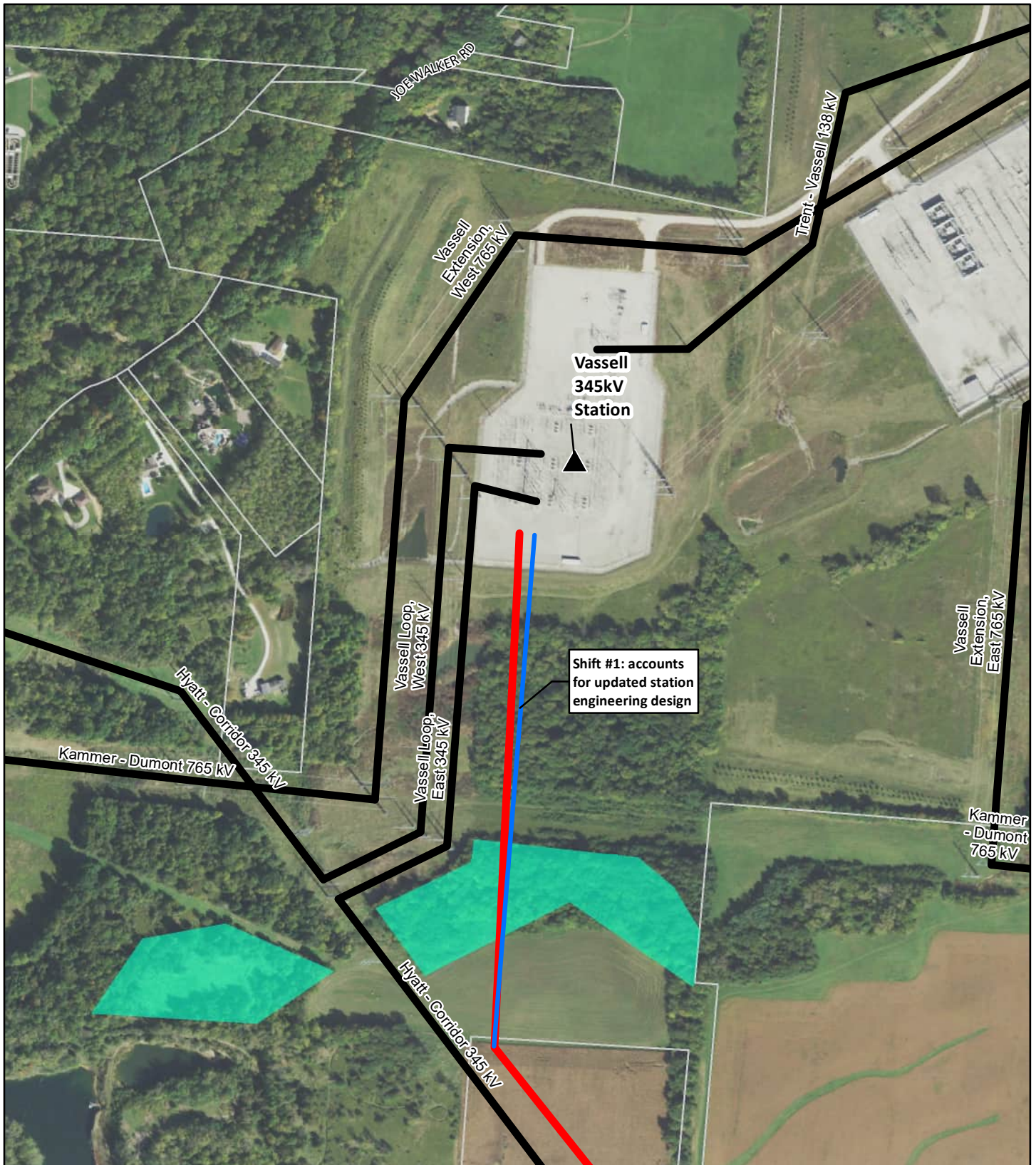
**Map 2
Project Area**

Vassell - Curleys 345 kV
Transmission Line Project

An AEP Company

0 1,000 2,000 3,000

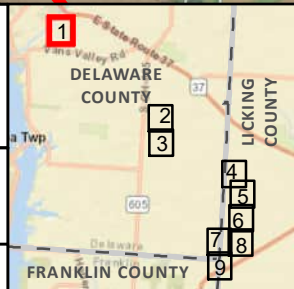
Feet



Existing AEP Substation
 Parcel Boundary
 Proposed Shift Vassell - Curleys 345kV Transmission Line
 Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)
 Existing AEP Transmission Line
 Environmental Conservation Easement

Sources:
 NAIP Imagery (USDA 2022)
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 StatePlane Ohio South NAD 83

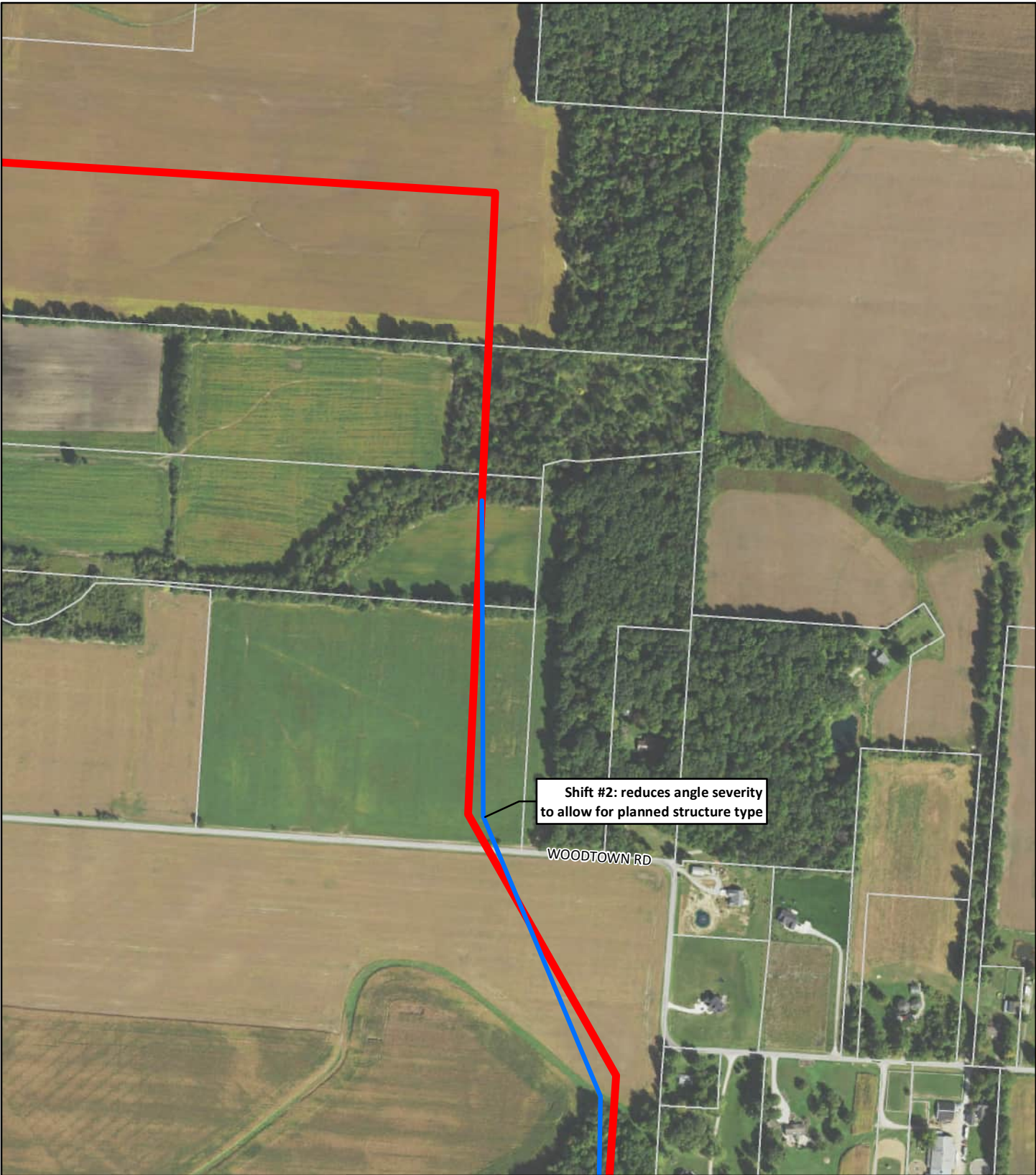
 August 15, 2024



Map 3
Aerial Map




 Vassell - Curleys 345 kV Transmission Line Project

 Feet



Shift #2: reduces angle severity to allow for planned structure type


WOODTOWN RD

Proposed Shift Vassell -
 Curleys 345kV Transmission Line
 Vassell - Curleys 345kV
 Transmission Line (Approved Case No. 24-0118-EL-BLN)
 Parcel Boundary

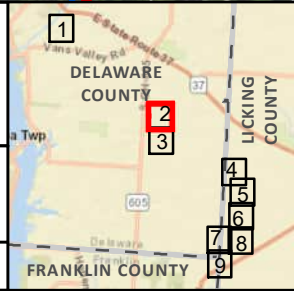
Sources:
NAIP Imagery (USDA 2022)

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StatePlane
Ohio South
NAD 83



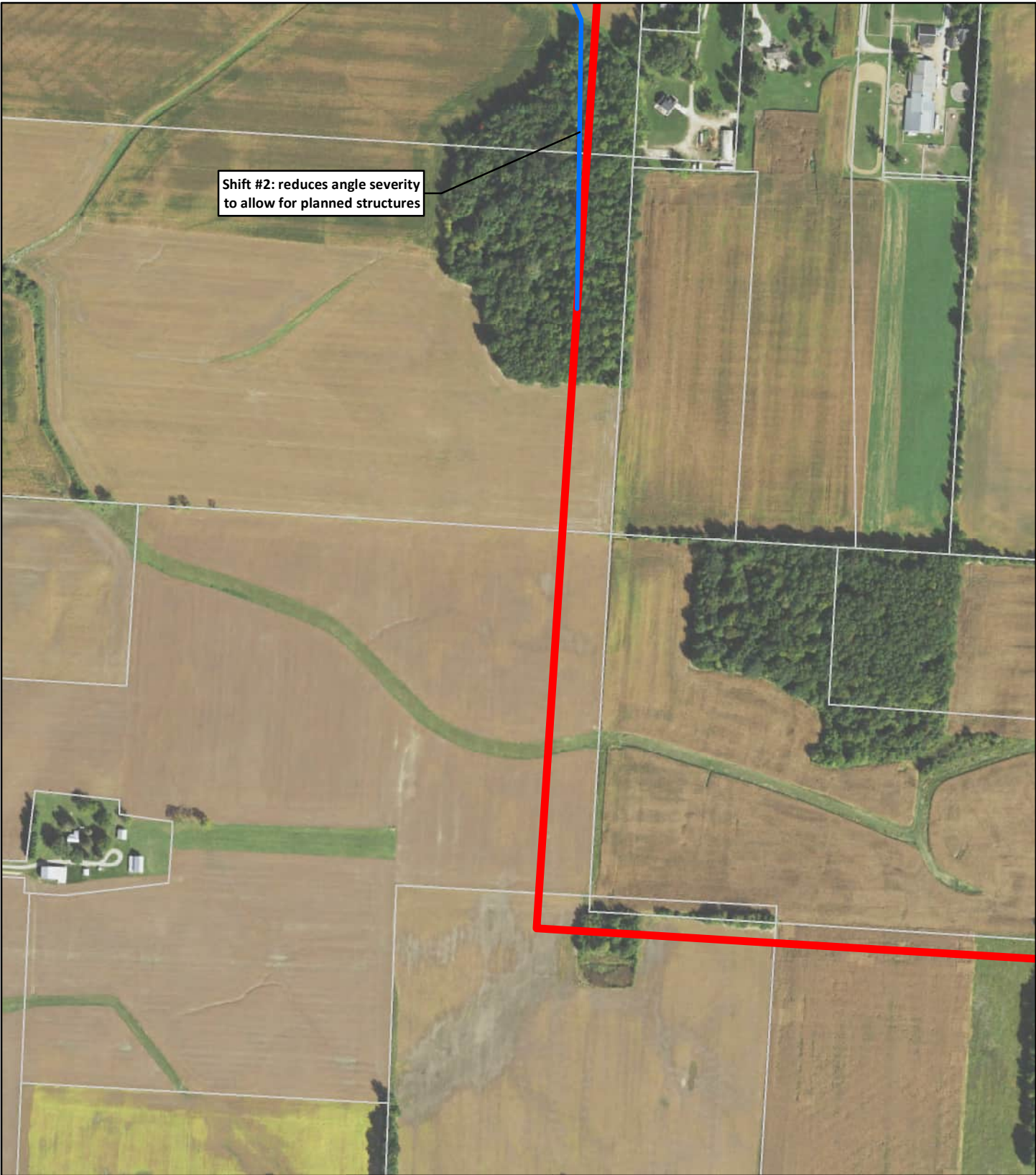
August 15, 2024



Map 3
Aerial Map

 Vassell - Curleys 345 kV
Transmission Line Project

0 250 500 750
Feet



Shift #2: reduces angle severity to allow for planned structures

Proposed Shift Vassell - Curleys 345kV Transmission Line

Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)

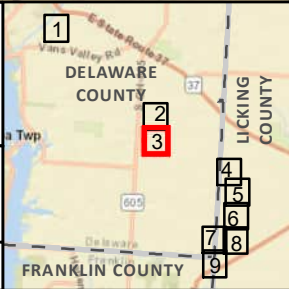
Parcel Boundary

Sources:
NAIP Imagery (USDA 2022)

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Ohio South
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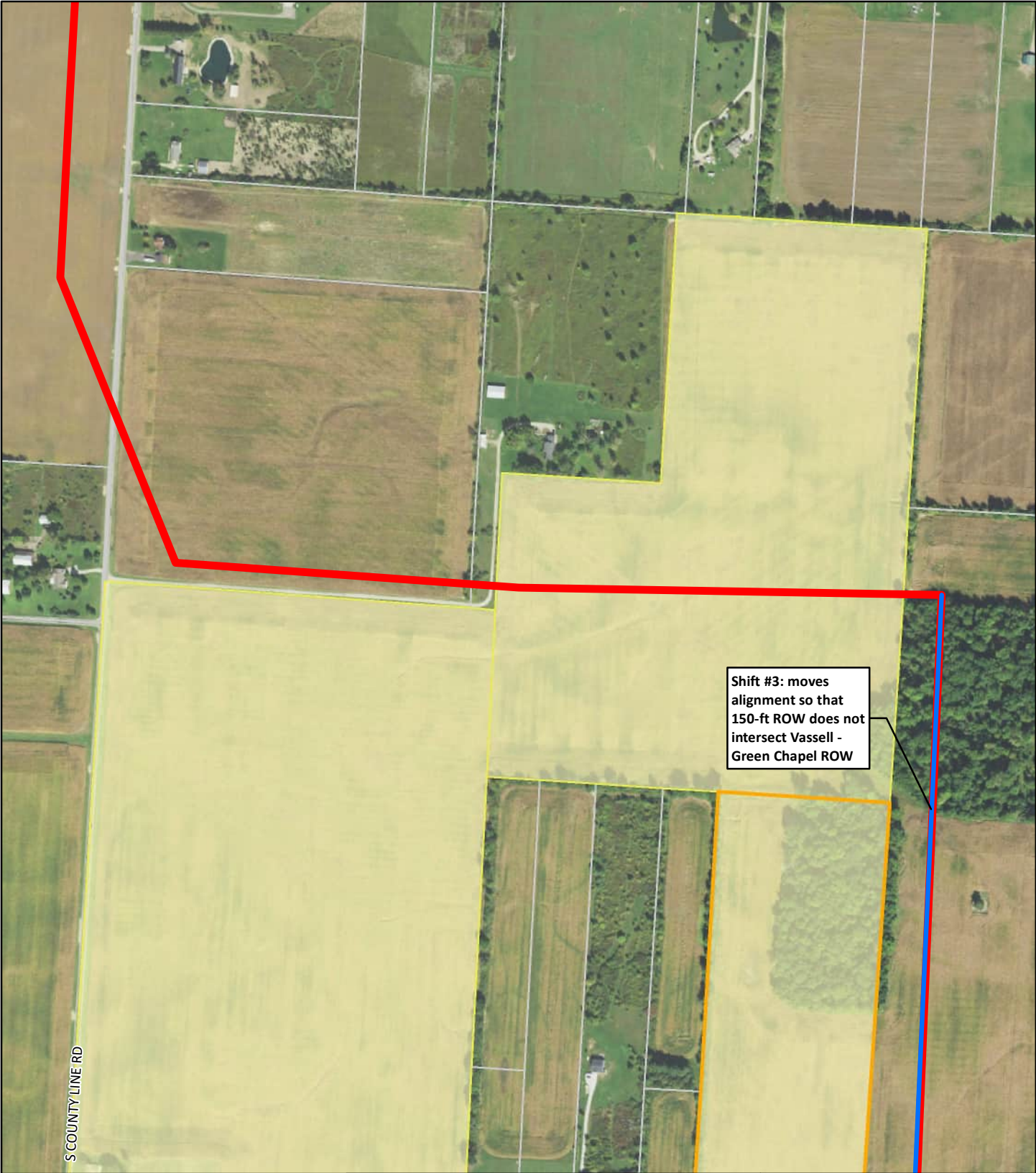
August 15, 2024



Map 3
Aerial Map

Vassell - Curleys 345 kV
Transmission Line Project

0 250 500 750
Feet



Shift #3: moves alignment so that 150-ft ROW does not intersect Vassell - Green Chapel ROW

S COUNTY LINE RD

Proposed Shift Vassell - Curleys 345kV Transmission Line

Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)

ODA Conservation Easement

Agricultural District Parcel

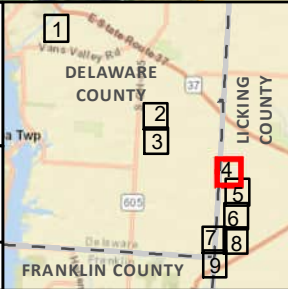
Parcel Boundary

Sources:
NAIP Imagery (USDA 2022)

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StatePlane Ohio South NAD 83

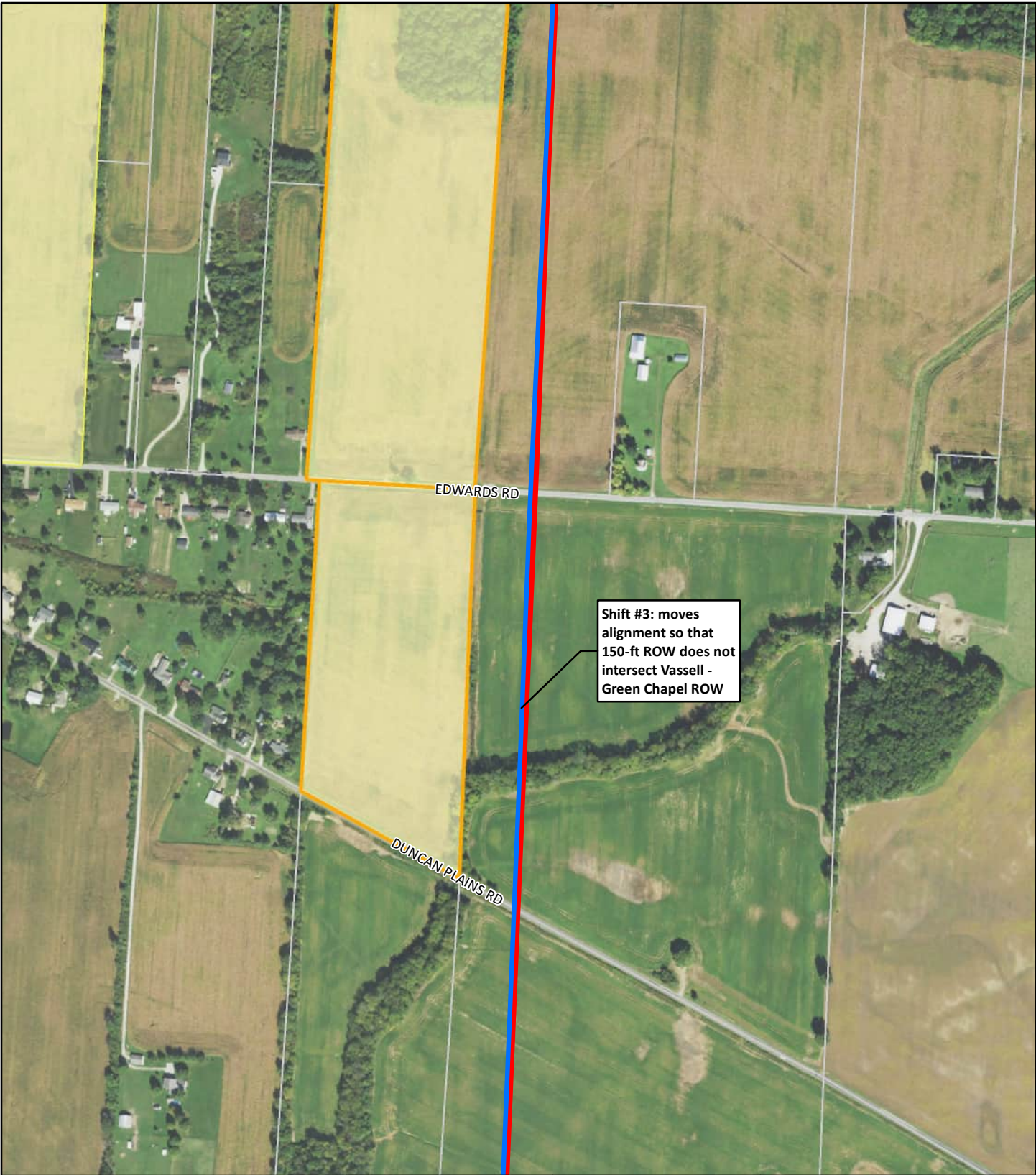
August 15, 2024



Map 3
Aerial Map

Vassell - Curleys 345 kV Transmission Line Project

0 250 500 750 Feet



Proposed Shift Vassell - Curleys 345kV Transmission Line

Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)

ODA Conservation Easement

Agricultural District Parcel

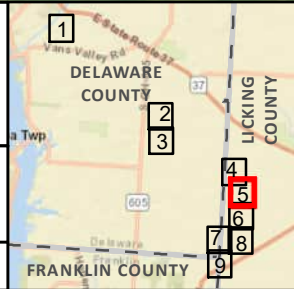
Parcel Boundary

Sources:
NAIP Imagery (USDA 2022)

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Ohio South
NAD 83

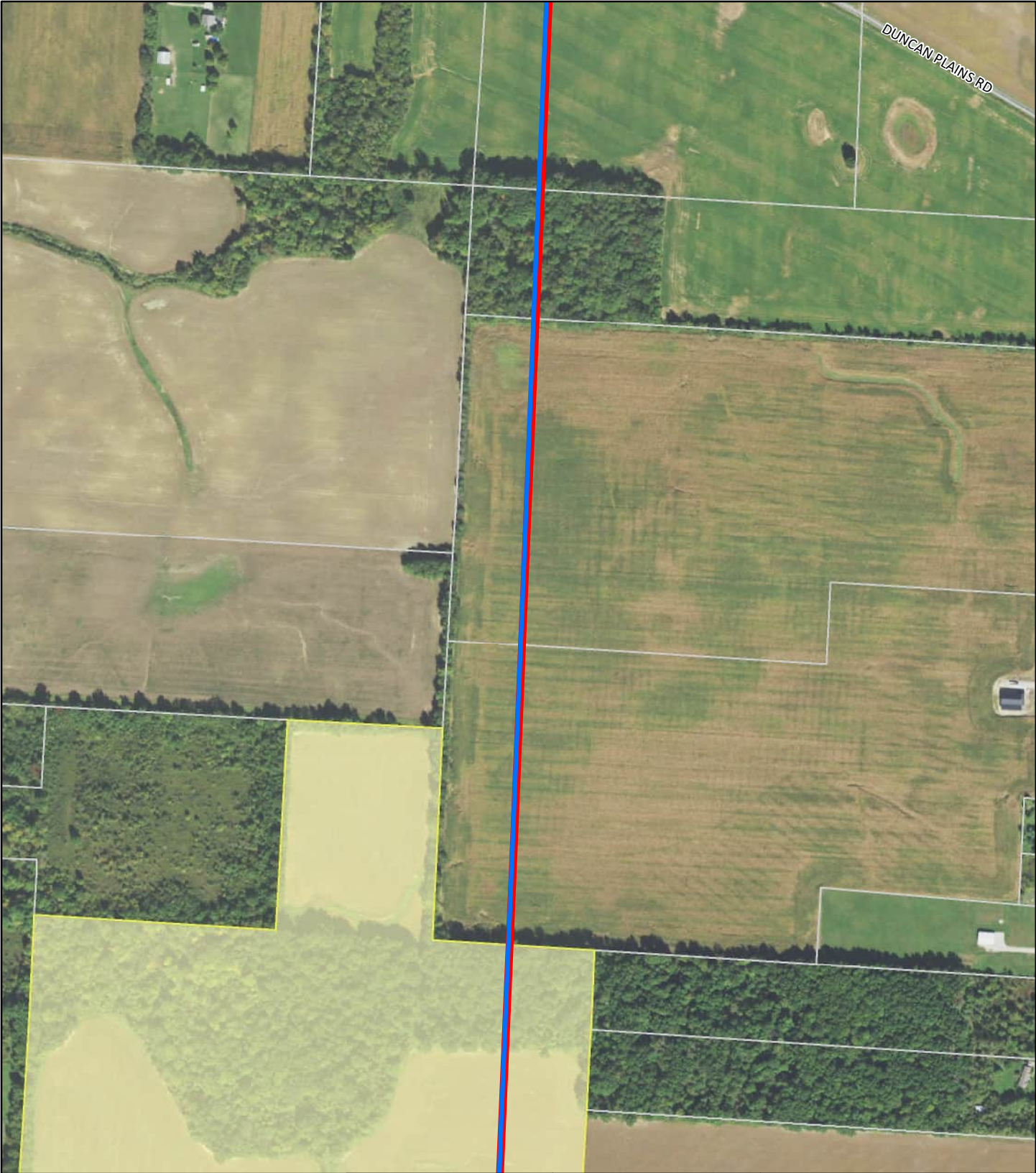
August 15, 2024



Map 3
Aerial Map

Vassell - Curleys 345 kV
Transmission Line Project

0 250 500 750
Feet



DUNCAN PLAINS RD

Proposed Shift Vassell - Curleys 345kV Transmission Line

Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)

Agricultural District Parcel

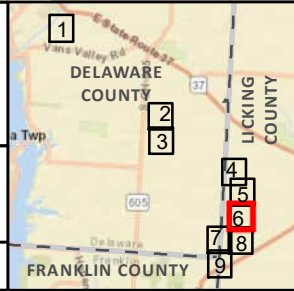
Parcel Boundary

Sources:
NAIP Imagery (USDA 2022)

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StatePlane Ohio South NAD 83

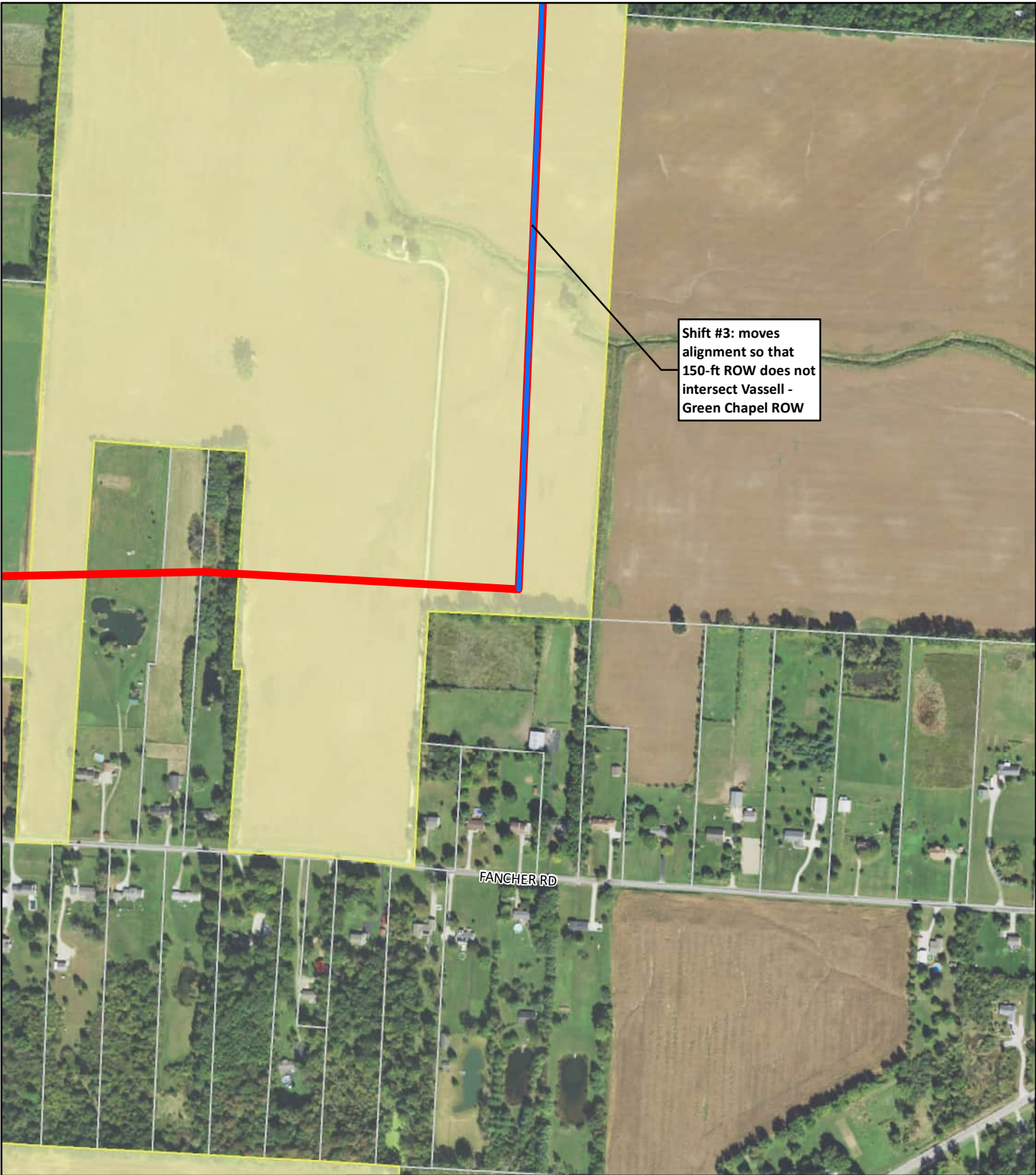
August 15, 2024



Map 3
Aerial Map

Vassell - Curleys 345 kV Transmission Line Project

0 250 500 750 Feet



Shift #3: moves alignment so that 150-ft ROW does not intersect Vassell - Green Chapel ROW

FANCHER RD

Proposed Shift Vassell - Curleys 345kV Transmission Line

Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)

Agricultural District Parcel

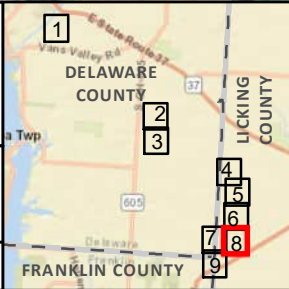
Parcel Boundary

Sources:
NAIP Imagery (USDA 2022)

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StatePlane
Ohio South
NAD 83

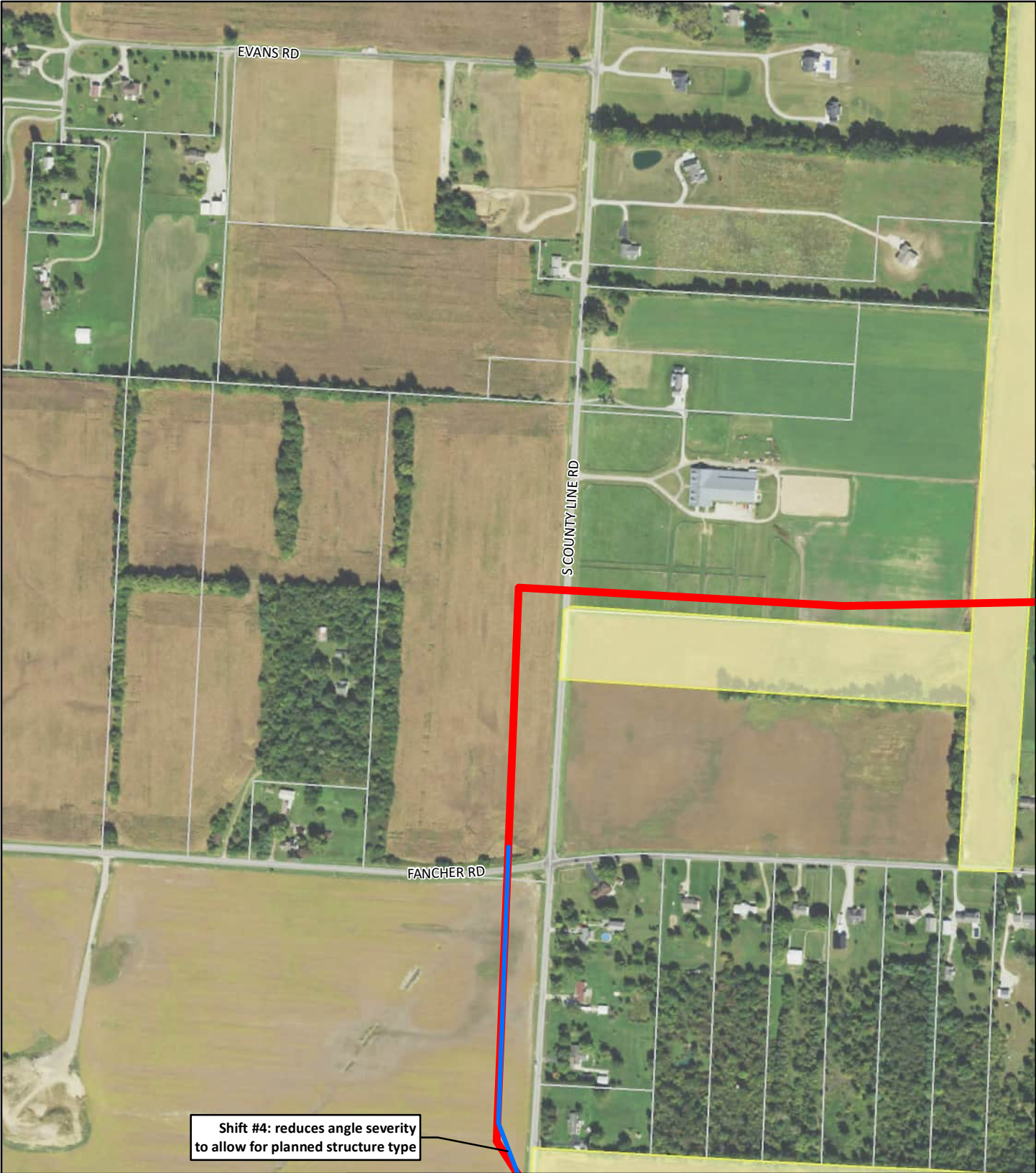
August 15, 2024



Map 3
Aerial Map

Vassell - Curleys 345 kV Transmission Line Project

0 250 500 750
Feet



Shift #4: reduces angle severity to allow for planned structure type

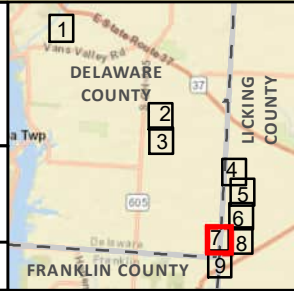
- Proposed Shift Vassell - Curleys 345kV Transmission Line
- Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)
- Agricultural District Parcel
- Parcel Boundary

Sources:
NAIP Imagery (USDA 2022)

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StatePlane
Ohio South
NAD 83

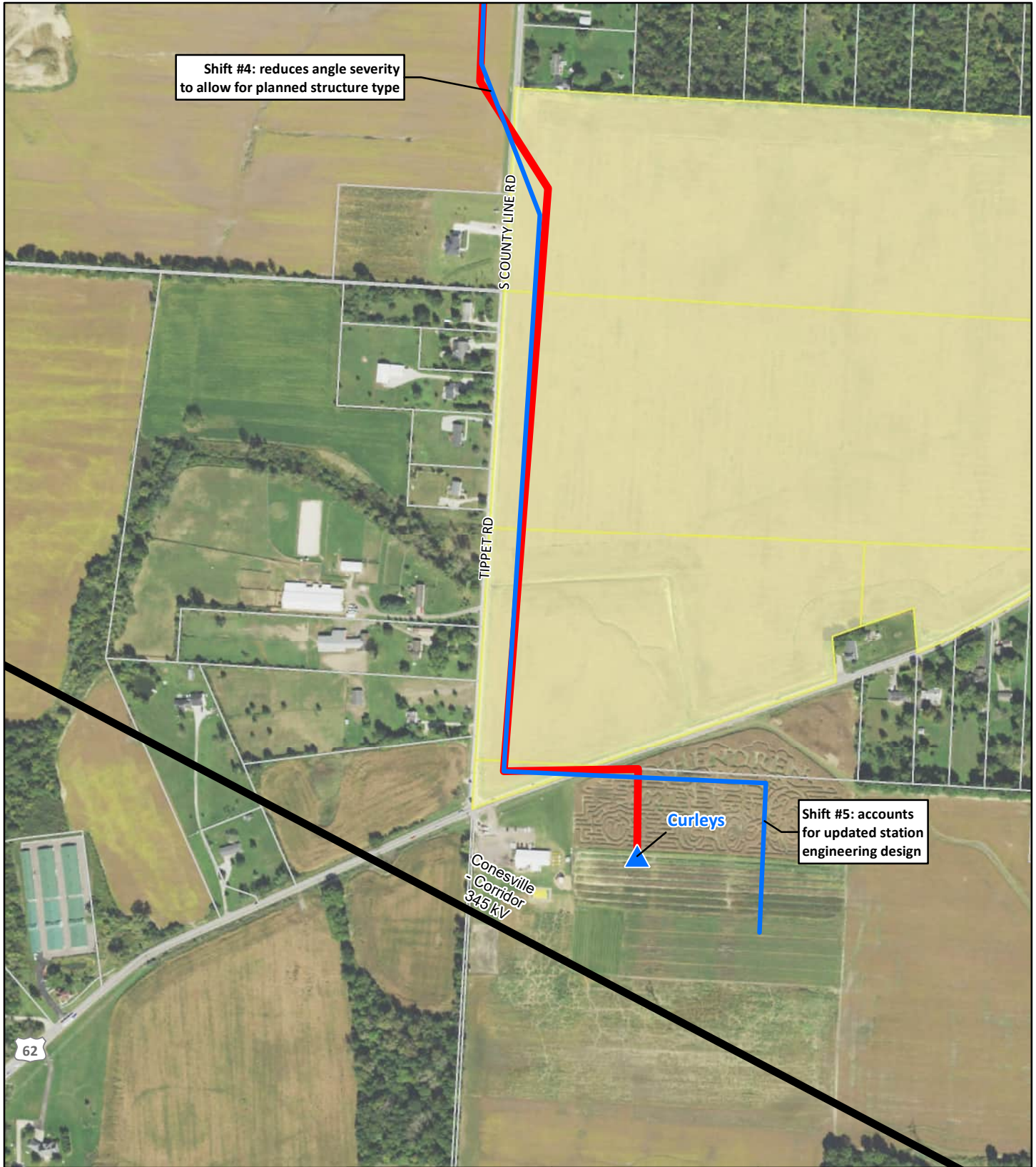
August 15, 2024



Map 3
Aerial Map

Vassell - Curleys 345 kV Transmission Line Project

0 250 500 750
Feet









Shift #4: reduces angle severity to allow for planned structure type

Shift #5: accounts for updated station engineering design

Curleys

Conesville - Corriville 345 kV

62

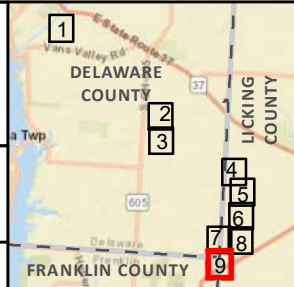
-  Proposed AEP Substation
-  Parcel Boundary
-  Proposed Shift Vassell - Curleys 345kV Transmission Line
-  Vassell - Curleys 345kV Transmission Line (Approved Case No. 24-0118-EL-BLN)
-  Existing AEP Transmission Line
-  Agricultural District Parcel

Sources:
NAIP Imagery (USDA 2022)


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StatePlane
Ohio South
NAD 83

August 15, 2024



Map 3 Aerial Map

 Vassell - Curleys 345 kV
Transmission Line Project

0 250 500 750
Feet

Appendix B PJM Solution

PUCO Form FE-T9: Ohio Transmission Company
Specifications of Planned Electric Transmission Lines

12	CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION	Potential for increased transmission line outages
13	MISCELLANEOUS:	
1	LINE NAME AND NUMBER:	Vassell - Green Chapel 345 kV (TP2022981)
2	POINTS OF ORIGIN AND TERMINATION	Vassell - Green Chapel INTERMEDIATE STATION - N/A
3	RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS	~12.5 mi / 150 ft / 2 circuit
4	VOLTAGE: DESIGN / OPERATE	345 kV / 345 kV
5	APPLICATION FOR CERTIFICATE:	2024
6	CONSTRUCTION:	2025 - 2027
7	CAPITAL INVESTMENT:	\$75 M
8	PLANNED SUBSTATION:	N/A
9	SUPPORTING STRUCTURES:	Steel
10	PARTICIPATION WITH OTHER UTILITIES	N/A
11	PURPOSE OF THE PLANNED TRANSMISSION LINE	Mitigate overloading on multiple transmission facilities including other 345 kV transmission lines and 345-138 kV transformers
12	CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION	Potential for increased transmission line outages
13	MISCELLANEOUS:	
1	LINE NAME AND NUMBER:	Vassell - Curleys 345 kV (TP2022981)
2	POINTS OF ORIGIN AND TERMINATION	Vassell - Curleys INTERMEDIATE STATION - N/A

PUCO Form FE-T9: Ohio Transmission Company
 Specifications of Planned Electric Transmission Lines

3	RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS	~12.5 mi / 150 ft / 2 circuit
4	VOLTAGE: DESIGN / OPERATE	345 kV / 345 kV
5	APPLICATION FOR CERTIFICATE:	2024
6	CONSTRUCTION:	2025 - 2027
7	CAPITAL INVESTMENT:	\$75 M
8	PLANNED SUBSTATION:	N/A
9	SUPPORTING STRUCTURES:	Steel
10	PARTICIPATION WITH OTHER UTILITIES	N/A
11	PURPOSE OF THE PLANNED TRANSMISSION LINE	Mitigate overloading on multiple transmission facilities including other 345 kV transmission lines and 345-138 kV transformers
12	CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION	Potential for increased transmission line outages
13	MISCELLANEOUS:	
1	LINE NAME AND NUMBER:	Conesville - Corridor 345 kV (TP2023011)
2	POINTS OF ORIGIN AND TERMINATION	1). Bermuda - Corridor INTERMEDIATE STATION - N/A 2). Bermuda - Innovation INTERMEDIATE STATION - N/A
3	RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS	~7.8 mi total ~1.85 mi double circuit ~ 5.95 mi single / 150 ft / 1 & 2 circuit (1.85 mi double circuit work)
4	VOLTAGE: DESIGN / OPERATE	345 kV / 345 kV
5	APPLICATION FOR CERTIFICATE:	2024
6	CONSTRUCTION:	2024 - 2025
7	CAPITAL INVESTMENT:	\$21.01 M
8	PLANNED SUBSTATION:	Bermuda

Appendix C Property Agreements and Form Easement

Line Name: Vassell - Curleys
Line No.: TLN380:OH480
Easement No.:

EASEMENT AND RIGHT OF WAY

On this _____ day of _____, 202__, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and the covenants hereinafter set forth, [landowner name and marital status], whose address is _____ (“Grantor”), whether one or more persons, hereby grants, sells, conveys, and warrants to AEP Ohio Transmission Company, Inc., an Ohio corporation, a unit of American Electric Power, whose principal business address is 1 Riverside Plaza, Columbus, Ohio 43215 (“AEP”), and its successors and affiliates, a permanent easement and right of way (“Easement”) for a single electric transmission line, not to exceed 345 kV, and for internal communication purposes related to the supply of electricity (the “Transmission Line”), being, in, on, over, under, through and across the following described lands of Grantor, situated in the State of Ohio, County of _____, and Township of _____ and being a part of [abbreviated legal description] (“Grantor’s Property”).

Contingent provision: [Spouse of Grantor, if any] join herein for the purpose of releasing all dower rights in regard to the Easement.

Grantor claims title by [name of vesting instrument] dated _____ from [name of first grantor], recorded on _____ at [record volume, page] in the _____ County Recorder’s Office.

Auditor/Key/Tax Number: [Tax Parcel Number]

The Easement Area is more fully described and depicted on Exhibit “A”, a copy of which is attached hereto and made a part hereof (“Easement Area”).

GRANTOR FURTHER GRANTS AEP THE FOLLOWING RIGHTS:

The right, now or in the future, to construct, reconstruct, operate, maintain, alter, improve, inspect,

patrol, protect, repair, remove, replace, upgrade and relocate within the Easement Area, structures and appurtenant equipment necessary for the Transmission Line.

The right, in AEP's discretion, now or in the future, to cut down, trim or remove, and otherwise control, any and all trees, overhanging branches, vegetation or brush situated within the Easement Area and any temporary access roads or temporary workspaces identified on Exhibit "A" outside the Easement Area. Provided, however, that AEP shall not use herbicides or similar products for these purposes on any portions of the Grantor's Property maintained for residential or agricultural use. AEP shall also have the right to cut down, trim or remove trees situated on Grantor's Property which adjoin the Easement Area within the Tree Protection Zone when in the reasonable opinion of AEP those trees are dead, dying, diseased, leaning, or structurally defective and may endanger the safety of, or interfere with the construction, operation or maintenance of AEP's facilities or ingress or egress to, from or along the Easement Area. The Tree Protection Zone extends eighty feet on all sides of the Easement Area depicted in Exhibit A.

AEP shall also have the right of reasonable ingress and egress over, across and upon the Easement Area only, unless additional access routes are depicted in the attached Exhibit A. Provided, however, that in the event access over, across and upon the Easement Area – and access routes, if any, shown in Exhibit A – shall become blocked or otherwise rendered unsafe or hazardous for use, AEP may temporarily access the Easement Area from other points across Grantor's Property, so long as that access is both reasonable and limited to the duration of the interference or safety hazard. AEP shall return the access area to its preexisting condition or pay damages to Grantor.

AEP shall also have the right to use temporary workspaces and temporary access roads outside the Easement Area, if any are shown on Exhibit A, in connection with its initial construction of the Transmission Line. AEP may shift the location of such temporary workspaces, if any, up to twenty (20) feet in any direction, and also shift the location of such temporary access roads, if any, up to twenty (20) feet in any direction, as field conditions or other requirements dictate. Upon completion of the overall Transmission Line project, but in no event later than two (2) years following the start of construction on Grantor's Property, AEP shall remove its equipment from all such temporary workspaces and temporary access roads outside the Easement Area, and AEP's temporary rights outside of the Easement Area shall automatically cease, terminate and revert to Grantor. AEP shall return any such areas to their preexisting condition or pay damages to Grantor as soon as practicable.

THIS GRANT IS SUBJECT TO THE FOLLOWING CONDITIONS:

Grantor reserves the right to cultivate annual crops, pasture, construct fences (provided gates are installed that adequately provide AEP the access rights conveyed herein) and roads or otherwise use Grantor's Property encumbered by this Easement in any way not inconsistent with the rights herein granted. In no event, however, shall Grantor, its heirs, successors, affiliates and assigns plant or cultivate any trees or place, construct, install, erect or permit any temporary or permanent building, structure, improvement or obstruction including but not limited to, storage tanks, billboards, signs, sheds, dumpsters, light poles, water impoundments, above ground irrigation systems, swimming pools or wells, or permit any alteration of the ground elevation, over, or within the Easement Area. AEP may, at Grantor's cost, remove any structure or obstruction if placed

within the Easement Area, and may re-grade any alterations of the ground elevation within the Easement Area.

AEP agrees to repair or pay Grantor for actual damages sustained by Grantor to crops, fences, gates, irrigation and drainage systems, drives, or lawns that are permitted herein, when such damages arise out of AEP's exercise of the rights herein granted.

Pursuant to R.C. 163.02, Grantor possesses a right of repurchase pursuant to R.C. 163.211 if AEP decides not to use Grantor's Property for the purpose stated in the appropriation petition and Grantor provides timely notice of a desire to repurchase.

This instrument contains the complete agreement, expressed or implied between the parties herein and shall inure to the benefit of and be binding on their respective successors, affiliates, heirs, executors, and administrators.

This Easement may be executed in counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument.

Any remaining space on this page left intentionally blank. See next page(s) for signature(s).

IN WITNESS WHEREOF, said Grantor hereunto set their hand(s) and seal(s) as of the last date set forth below.

GRANTOR

SIGNATURE BLOCK FOR A BUSINESS ENTITY / TRUST:

[name of entity/trust & kind of business association identified]

By: _____

Print name: _____

Its Authorized Signer

State of Ohio §

§ SS:

County of _____ §

This instrument was acknowledged before me on this _____ day of _____, 202__ by _____, the _____ [title] _____ of _____ [name of entity/trust] _____, a/an _____ [state of incorporation and type of entity/trust] _____, on behalf of _____ [name of entity/trust] _____.

Notary

SIGNATURE BLOCK FOR AN INDIVIDUAL:

[Typed name of individual] _____

State of Ohio §

§ SS:

County of _____ §

This instrument was acknowledged before me on this _____ day of _____, 202__ by _____ [name of individual] _____.

Notary

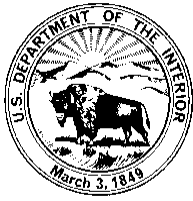
This instrument prepared by Marland Turner, American Electric Power Service Corporation, 1 Riverside Plaza, Columbus, OH 43215 for and on behalf of AEP Ohio Transmission Company, Inc., a unit of American Electric Power.

When recorded return to: American Electric Power – Transmission Right of Way, 8600 Smith’s Mill Road, New Albany, OH 43054.

Property Parcel Number	Agreement Type	Easement or Option Obtained (Yes/No)
095-111408-00.000	New Easement	No
037-111408-00.001	New Easement	Yes
037-112284-00.000	New Easement	No
037-111402-00.001	New Easement	No
037-111402-00.000	New Easement	No
037-172530-00.000	New Easement	No
316-440-01-054-000	New Easement	Yes
316-440-01-057-000	New Easement	Yes
052-172908-00.002	New Easement	Yes
052-172590-00.000	New Easement	No
052-172584-00.001	New Easement	Yes
052-172584-02.000	New Easement	Yes
052-172584-01.000	New Easement	Yes
052-174156-00.000	New Easement	No
052-174156-00.009	New Easement	No
052-173844-00.000	New Easement	No
052-173616-00.000	New Easement	Yes
052-172668-00.000	New Easement	No
052-174000-00.000	New Easement	Yes
052-172614-00.000	New Easement	No
316-140-01-049-000	New Easement	No
316-140-01-051-000	New Easement	No
316-140-01-054-000	New Easement	No
316-140-01-052-000	New Easement	No
316-140-01-012-004	New Easement	Yes
316-140-01-012-009	New Easement	Yes
316-140-01-012-010	New Easement	Yes
316-140-01-013-000	New Easement	Yes
316-140-01-016-002	New Easement	Yes
316-140-01-016-004	New Easement	No
316-140-01-022-004	New Easement	Yes
316-140-01-022-005	New Easement	Yes
316-140-01-020-000	New Easement	Yes
316-130-01-056-001	New Easement	No
316-130-01-054-003	New Easement	Yes
316-130-01-053-000	New Easement	Yes
316-130-01-016-002	New Easement	Yes
316-130-01-014-000	New Easement	No
316-120-01-021-000	New Easement	No

Property Parcel Number	Agreement Type	Easement or Option Obtained (Yes/No)
316-120-01-020-000	New Easement	Yes
316-120-01-019-000	New Easement	Yes
316-120-01-018-000	New Easement	Yes
316-120-01-016-000	New Easement	Yes
316-210-01-070-000	New Easement	Yes
316-210-01-070-001	New Easement	No
316-210-01-071-002	New Easement	No
316-210-01-011-000	New Easement	No
316-210-01-009-000	New Easement	Yes
316-210-01-007-001	New Easement	Yes
316-210-01-007-000	New Easement	No
316-210-01-007-004	New Easement	No
416-340-01-045-000	New Easement	No
416-330-01-040-000	New Easement	No
416-330-01-042-000	New Easement	No
416-330-01-041-000	New Easement	No
416-330-01-035-000	New Easement	No
416-330-01-023-000	New Easement	No
416-330-01-021-000	New Easement	No
416-330-01-016-000	New Easement	No
416-330-01-017-000	New Easement	No
416-330-01-014-000	New Easement	No
416-330-01-013-000	New Easement	Yes
416-330-01-013-001	New Easement	No
417-440-01-028-000	New Easement	No
417-440-01-016-000	New Easement	No
417-414-01-002-001	New Easement	No

Appendix D Agency Coordination



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



September 11, 2023

Project Code: 2023-0125820

Dear Anna Findish:

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.

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,

A handwritten signature in blue ink that reads "Scott Hicks". The signature is written in a cursive style.

Scott Hicks
Acting Field Office Supervisor

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



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, OH 43229
Phone: (614) 265-6661
Fax: (614) 267-4764

October 13, 2023

Anna Findish
AECOM
707 Grant Street
Pittsburgh, Pennsylvania 15219

Re: 23-1066; AEP Vassell - Green Chapel North Enhancement

Project: The proposed project involves the implementation of improvements between the existing Vassell Station and a proposed station (approximately 12.4 miles).

Location: The proposed project is located in Berkshire, Trenton, and Harlem townships, Delaware County, and Monroe and Jersey townships, Licking 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: A review of the Ohio Natural Heritage Database indicates there are no records of state or federally listed plants or animals within one mile of the specified project area. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular 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 portion of the project south of Duncan Plains Road is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species. Because presence of state endangered bat species has been established in this area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be

acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, 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 bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. The DOW recommends tree 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. However, if trees are present within this area, (outside of the area delineated above) 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.

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.

This project is within the range of the following listed mussel species.

Federally Endangered

rayed bean (*Villosa fabalis*)

snuffbox (*Epioblasma triquetra*)

Federally Threatened

rabbitsfoot (*Quadrula cylindrica cylindrica*)

State Threatened

Salamander Mussel (*Simpsonaias ambigua*)

pondhorn (*Unio merus tetralasmus*)

This project must not have an impact on native mussels. This applies to both listed and non-listed species, as all species of mussel are protected in Ohio. Per the Ohio Mussel Survey Protocol (2022), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 5 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide

information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the [Ohio Mussel Survey Protocol](#). If there is no in-water work proposed, impacts to mussels are not likely.

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 aquatic species.

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.

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



In reply, refer to
2023-DEL-59893

March 19, 2024

Ryan Weller
Weller & Associates, Inc.
1395 W. Fifth Ave.
Columbus, OH 43212
rweller@wellercrm.com

RE: Vassell-Green Chapel 345kV South Transmission Line Greenfield Project, Delaware, Franklin, and Licking Counties, Ohio

Dear Mr. Weller:

This letter is in response to the correspondence received February 29, 2024, regarding the proposed Vassell-Green Chapel 345kV South Transmission Line Greenfield Transmission Line Greenfield Project, Delaware, Franklin, and Licking Counties, 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 and the Ohio Power Siting Board rules for siting this project (OAC 4906-4 & 4906-5). 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 following comments pertain to the *Phase I Archaeological Investigations for the 19.6 km (12.2mi) Vassell-Green Chapel 345kV South Transmission Line Greenfield Project in Delaware, Franklin, and Licking Counties, Ohio* by Ryan J. Weller (Weller & Associates, Inc. 2024). This project investigated a proposed transmission line corridor.

A literature review, visual inspection, surface collection, shovel probes, and shovel test excavation were conducted as part of the investigations. Portions of the project area had been previously investigated for cultural resources. Three (3) previously identified archaeological sites are located in the project area, Ohio Archaeological Inventory (OAI) #33DL2604, 33DL3024, and 33DL3595. These archaeological sites were previously determined not eligible for listing in the National Register of Historic Places (NRHP), and our office agrees with this recommendation. Fifteen (15) archaeological sites, OAI #33DL3704-33DL3707, 33DL3711, 33LI3609, 33LI3613, 33LI3614, 33LI3628-33LI3630, and 33LI3632-33LI3635, were identified within the project during survey. None of the sites are recommended eligible for listing in the NRHP. Our office agrees with this recommendation and no additional archaeological survey is needed.

The following comments pertain to the *History/Architecture Investigations for the 19.6 km (12.2 mi) Vassell-Green Chapel 345kV South Transmission Line Greenfield Project in Delaware, Franklin, and Licking Counties, Ohio* by Scott McIntosh (Weller & Associates, Inc. 2024).

A literature review and field survey were conducted as part of the investigations. A total of forty-two (42) resources fifty years of age or older were identified in the Area of Potential Effects (APE). It is Weller's

recommendation that none of the resources are eligible for listing in the NRHP. Our office agrees with Weller's recommendations of eligibility.

Based on the information provided, we continue to agree the project, as proposed, will have no adverse effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional archaeological resources are discovered during the implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me by e-mail at cgullett@ohiohistory.org or Ms. Joy Williams at jwilliams@ohiohistory.org. Thank you for your cooperation.

Sincerely,



Catherine Gullett, Project Reviews Coordinator
Resource Protection and Review
State Historic Preservation Office

RPR Serial No: 1102045 and 1102046

Appendix E Wetland Delineation Report

VASSELL-CURLEY 345 KV TRANSMISSION LINE - ADDENDUM #1

DELAWARE, FRANKLIN, AND LICKING COUNTY, OHIO

ADDENDUM #1 ECOLOGICAL REPORT

Prepared for:

American Electric Power Ohio Transmission Company
8600 Smiths Mill Road
New Albany, Ohio 43054



Prepared by:

AECOM

525 Vine Street, Suite 1900
Cincinnati, Ohio 45202

Project #: 60702698

August 2024

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APPENDIX A	February 2024 – Original Report and Addendum #1 Comparison Map
APPENDIX B	Habitat Photographic Record
APPENDIX C	Upland Drainage Feature Photos

1.0 INTRODUCTION

American Electric Power, Ohio Transmission Company (AEP Ohio Transco) is proposing improvements between the existing Vassell Station and a proposed station as part of the Vassell-Curleys 345 kV Transmission Line Project (Project), which was covered in the February 2024 Original Ecological Report (AECOM, 2024). Since the February 2024 – Original Ecological Report, the Addendum #1 Ecological Report was completed to capture the following adjustments:

- Structures re-numbered to incorporate previously named Structures 19a and 26a to be in numerical order from south to north along alignment; and
- Alignment shift between current/previously named Structures 4 and 5 to address future development issues by others within Project area;
- Alignment shift between current proposed named Structures 39 and 42 to address landowner concerns;
- New alignment adjusted for tie-in to Vassell Station;
- Two potential shifts between Structure 25 to 29 and 47 to 49

For visual representation of these changes, a summary figure has been provided within **Appendix A** that displays the original and revised routes, structures, as well as survey areas associated with the February 2024 – Original Ecological Report and this Addendum #1 Ecological Report. This Addendum #1 Ecological Report specifies any features identified within 39.0 acres of additional review areas identified as Addendum #1 Project Survey Area in Delaware, Franklin, and Licking Counties, Ohio (OH). The Addendum #1 Project Survey Area associated with this Addendum #1 Ecological Report is located within the New Albany, and Sunbury, OH United States Geological Survey (USGS) 7.5-minute topographical quadrangles as displayed on the Project Overview (Figure 1).

The purpose of the field survey was to assess the presence of wetlands and possible “waters of the United States” (WOTUS) that occur within the proposed Project area. Secondly, land uses were also recorded to classify and characterize potential habitat for threatened and endangered species. This report will be used to assist AEP Ohio Transco’s efforts to identify potential WOTUS as well as threatened and endangered species habitat present within the proposed Project area to avoid or minimize impacts during construction activities.

2.0 METHODOLOGY

A comprehensive methodology of the field surveys and data reviews are included within the February 2024 - Original Ecological Report and a brief summary of the delineation and agency coordination methodology has been provided below.

The field survey was completed for Addendum #1 Project Survey Area for a 300-foot corridor along the proposed transmission line centerline and expanded study areas to cover the proposed 150-ft rights-of-way (ROW). The Addendum #1 Project Survey Area is approximately 39.0 acres. Prior to conducting field surveys, digital United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey data, United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data, USGS National Hydrography Dataset (NHD), FEMA 100-year floodplain data (FEMA), and USGS 7.5-minute topographic maps were reviewed as an exercise to identify the occurrence and location of potential wetland areas.

Field survey activities included recording the physical boundaries of observed water features using sub-meter capable EOS Arrow Global Positioning System (GPS) units in conjunction with the ArcGIS Field Maps application on iPad tablets. The GPS data was imported into ArcMap Geographic Information System (GIS) software, where the data was reviewed, edited for accuracy, and compiled in a format suitable for transfer and use by AEP Ohio Transco. Water features were delineated and assessed based upon the appropriate procedures detailed below. Land uses observed within the Project Survey Area were assigned a general classification based upon the principal land characteristics and vegetative cover of the location.

3.0 RESULTS

The ecological assessments were completed prior to the February 2024 Original Report for assessments that were completed for several viable routes at the same time of the original field survey as well as new areas included within the scope of review. These ecological assessments were completed from June 2023 to April 2024 within the Addendum #1 Project Survey Area.

AECOM ecologists walked the Addendum #1 Project Survey Area to conduct the site assessment. Within the Addendum #1 Project Survey Area, no new features were delineated. Previously recorded data forms and photographs of delineated AECOM wetlands, streams, ponds, and upland drainage features within the vicinity of the Project Survey Area are contained within the February 2024 - Original Ecological Report (AECOM, 2024).

3.1 WETLAND DELINEATION

3.1.1 PRELIMINARY SOILS EVALUATION

According to the USDA/NRCS Web Soil Survey, Delaware, Franklin, and Licking Counties have a total of six soil map units identified within the Addendum #1 Project Survey Area for the three counties (USDA NRCS, 2023b). These soil map units are:

- Bennington silt loam, 0 to 2 percent slopes (BeA)
- Bennington silt loam, 2 to 6 percent slopes (BeB)
- Centerburg silt loam, 6 to 12 percent slopes, eroded (Cen1C2)
- Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes (Pe)

- Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes (Pm)
- Pewamo silty clay loam, 0 to 1 percent slopes (PwA)

Of these, all six soil map units were previously described in the February 2024 - Original Ecological Report and characteristics of hydric conditions was previously provided within this report. Soil Map units located in the Addendum #1 Project Survey Area and vicinity are shown in **Figure 2**.

3.1.2 NATIONAL WETLANDS INVENTORY MAP REVIEW

According to NWI data covering the Project location, the Addendum #1 Project Survey Area does not contain any NWI mapped wetlands. The locations of the NWI mapped wetlands in the Project vicinity are shown on **Figure 2**.

3.1.3 DELINEATED WETLANDS

During the field survey, no new wetlands were delineated within the Addendum #1 Project Survey Area. None of the previously delineated wetlands included within the February 2024 – Original Ecological Report were extended within the Addendum #1 Project Survey Area. The boundaries for the previously delineated wetland boundaries are displayed on **Figure 3**. Text that is highlighted in yellow indicates a change from the February 2024 – Original Ecological Report.

Due to renumbering of the routes, structure numbers were adjusted within Table 1, with changes highlighted as “yellow”. No changes to wetland boundaries or categories occurred as a result of this Addendum #1 Ecological Survey Report. Previous data forms and photographs of other features within the Original Project Survey Area are contained within the February 2024 – Original Ecological Report.

TABLE 1: SUMMARY OF DELIENATED WETLANDS WITHIN THE ADDENDUM #1 PROJECT SURVEY AREA

Wetland ID	Location		Isolated?	Habitat Type	Delineated Area (acre)	ORAM		Nearest Structure # (Existing / Proposed)	Existing Structure # in Wetland	Proposed Structure # in Wetland	Structure Installation Method	Proposed Impacts	
	Latitude	Longitude				Score	Category					Temporary Matting Area (acre)	Permanent Impact Area (acre)
W-MRK-004	40.14816	82.74864	Yes	PFO	0.37	35	2	15	None	None	N/A	TBD	TBD
W-MRK-009	40.18984	82.79656	No	PFO	0.35	29	1	42	None	None	N/A	TBD	TBD
W-MRK-010	40.19047	82.79650	No	PEM	0.06	21	1	42	None	None	N/A	TBD	TBD
W-MRK-017	40.14042	82.74910	Yes	PFO	0.15	35	2	12	None	None	N/A	TBD	TBD
W-MRK-018	40.14013	82.74965	No	PFO	0.09	27	1	12	None	None	N/A	TBD	TBD
W-MRK-019	40.13378	82.75477	Yes	PEM	1.16	18	1	9	None	None	N/A	TBD	TBD
W-MRK-021	40.22406	82.85344	No	PFO	0.44	42	2	63	None	None	N/A	TBD	TBD
W-MRK-023	40.21723	82.84852	No	PEM	2.67	23	1	60	None	None	N/A	TBD	TBD
W-MRK-024	40.21279	82.84142	No	PSS	1.40	16	1	57	None	None	N/A	TBD	TBD
W-MRK-025	40.19767	82.81806	No	PFO	0.17	30	2	49	None	None	N/A	TBD	TBD
W-MRK-027	40.17381	-82.79446	Yes	PEM	0.53	21	1	37	None	None	N/A	TBD	TBD
W-MRK-028	40.17378	82.78747	No	PFO	1.56	42	2	35	None	None	N/A	TBD	TBD
W-MRK-029	40.17388	82.78568	No	PFO	1.07	42	2	35	None	None	N/A	TBD	TBD
W-MRK-030	40.16174	82.74871	Yes	PEM	4.89	45	2	21	None	None	N/A	TBD	TBD
	40.16163	-82.74894		PFO	8.92	45	2		None	None	N/A	TBD	TBD
W-MRK-031	40.14055	82.74988	No	PFO	0.08	30	2	12	None	None	N/A	TBD	TBD
W-MRK-032	40.13307	82.75424	Yes	PEM	0.08	14	1	9	None	None	N/A	TBD	TBD
W-MRK-033	40.12324	82.76209	No	PEM	0.02	19	1	3	None	None	N/A	TBD	TBD
W-MRK-037	40.18247	-82.79458	Yes	PFO	0.12	31	2	39	None	None	N/A	TBD	TBD
W-MRK-038	40.17420	-82.77283	No	PFO	0.78	27	1	31	None	None	N/A	TBD	TBD
P-MRK-001	40.13314	-82.75506	No	-	0.08	N/A	N/A	9	None	None	N/A	TBD	TBD
P-MRK-002	40.22639	-82.85423	No	-	0.52	N/A	N/A	64	None	None	N/A	TBD	TBD
Total:					25.510							TBD	TBD

Note: Attributes highlighted as "Yellow" within the table above illustrate the changes since the February 2024 – Original Report. The changes identified are the renumbering of structures.

3.2 STREAM DELINATION

During the field survey, no new streams were delineated within the Addendum #1 Project Survey Area. The previously delineated streams are provided on **Figure 3**. As a result, no additional data forms and/or photographs are provided within this Addendum #1 Ecological Report. Previous photographs and data forms are enclosed within the February 2024 – Original Ecological Report.

AECOM has provided a provisional determination that all delineated streams within the Project Survey Area appear to be jurisdictional (i.e., WOTUS), based on their observed or presumed confluence with downstream waters. Final jurisdictional status can only be determined by the USACE, and AECOM assessments are provisional. A summary of the delineated streams for the entire Project, both Original and Addendum #1 Project Survey Area, are provided in Table 2. As displayed in Table 2; no changes to extent of streams have occurred since the February 2024 – Original Ecological Report.

TABLE 2: SUMMARY OF DELIENATED STREAMS WITHIN THE ADDENDUM #1 PROJECT SURVEY AREA

Stream ID	Location		Stream Type	Stream Name	Delineated Length (feet)	Bankfull Width (feet)	OHWM Width (feet)	Field Evaluation			Ohio EPA 401 Eligibility	Stream Crossing?	Proposed Impacts		
	Latitude	Longitude						Method	Score	Category / Rating / OAC Designation			Fill Type	Area (acre)	
S-MRK-005	40.152913	-82.748472	Perennial	UNT to Duncan Run	356	16	9	QHEI	44	Fair	Eligible	TBD	TBD	TBD	
S-MRK-010	40.123051	-82.761323	Perennial	UNT to Blacklick Creek	318	7	4	HHEI	47	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-011	40.202097	-82.823271	Perennial	UNT to Big Walnut Creek	344	13	9	QHEI	42	Poor	Eligible	TBD	TBD	TBD	
S-MRK-012	40.189335	-82.796647	Perennial	UNT to Big Walnut Creek	328	13	8.5	QHEI	47.5	Fair	Eligible	TBD	TBD	TBD	
S-MRK-013	40.173518	-82.776552	Perennial	UNT to Duncan Run	318	16	5	HHEI	56	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-018	40.136214	-82.748887	Perennial	Duncan Run	841	15	6	Chapter 3745-1	N/A	Warmwater Habitat	Eligible	TBD	TBD	TBD	
S-MRK-020	40.224050	-82.853620	Perennial	UNT to Prairie Run	425	14	3	HHEI	60	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-021	40.225220	-82.853530	Ephemeral	UNT to Prairie Run	325	3.5	1.5	HHEI	24	Class I PHW	Eligible	TBD	TBD	TBD	
S-MRK-022	40.226050	-82.853530	Perennial	UNT to Prairie Run	561	9	7	HHEI	42	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-024	40.217340	-82.848540	Intermittent	UNT to Prairie Run	380	3	3.5	HHEI	28	Class I PHW	Eligible	TBD	TBD	TBD	
S-MRK-025	40.216800	-82.847870	Intermittent	UNT to Prairie Run	844	3	7	HHEI	41	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-026	40.212550	-82.840120	Perennial	UNT to Big Walnut Creek	630	4.5	2	QHEI	54	Warmwater Habitat - Good	Eligible	TBD	TBD	TBD	
S-MRK-027	40.212300	-82.839510	Ephemeral	UNT to Big Walnut Creek	494	2.5	1.5	HHEI	28	Class I PHW	Eligible	TBD	TBD	TBD	
S-MRK-028	40.196960	-82.817160	Intermittent	UNT to Big Walnut Creek	158	4	5.5	HHEI	45	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-029	40.196060	-82.816130	Intermittent	UNT to Big Walnut Creek	951	13	13	HHEI	56	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-030	40.123020	-82.761980	Intermittent	UNT to Blacklick Creek	76	3.5	7	HHEI	52	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-032	40.196690	-82.817468	Intermittent	UNT to Big Walnut Creek	82	3.5	1.5	HHEI	30	Class II PHW	Eligible	TBD	TBD	TBD	
S-MRK-033	40.19761	-82.81884	Intermittent	UNT to Blacklick Creek	200	6	3	HHEI	54	Class II PHW	Eligible	TBD	TBD	TBD	
Total:					7,631										0

Note: No changes within table since the February 2024 – Original Report.

3.2.1 OEPA STREAM ELIGIBILITY

OEPA stream eligibility for 401 Water Quality Certification mapping was reviewed for the Addendum #1 Project Survey Area. The Addendum #1 Project Survey Area crosses three OEPA stream eligibility watersheds which were included in the February 2024 - Original Ecological Report, those three watersheds are:

- Prairie Run-Big Walnut Creek, 050600011306 (Eligible)
- Hoover Reservoir – Big Walnut Creek, 050600011308 (Eligible)
- Headwaters Blacklick Creek, 050600011503 (Possibly Eligible)

Please refer to the original report for detailed information regarding the stream eligibility (AECOM, 2024). Updated OEPA stream eligibility mapping for the Project vicinity is provided on **Figure 2**.

3.3 FEMA 100 YEAR FLOODPLAINS

Mapped FEMA designated 100-year floodplains and floodways are displayed on **Figure 2**. There are no regulated FEMA 100-year floodplains within the Addendum #1 Project Survey Area, or the original Project Survey Area (FEMA, 2009). The mapped 100-year floodplain within the vicinity of the Addendum #1 Project Survey Area are displayed on **Figure 2**.

3.4 PONDS

No ponds were identified within the Addendum #1 Project Survey Area.

3.5 UPLAND DRAINAGE FEATURES AND PONDS

Two upland drainage features (UDFs) were identified within the Addendum #1 Project Survey Area. The extent of the upland drainage features are displayed on **Figures 2 and 3**. Photographs of all delineated upland drainage features are provided in **Appendix C**. No ponds were identified within the additional Survey Area.

3.6 VEGETATIVE COMMUNITIES

AECOM ecologists conducted a general habitat survey in conjunction with the stream and wetland field surveys. As described in **Table 3** below, the habitat types observed within the Addendum #1 Project Survey Area included Agricultural Row-Crop, Landscaped Areas, Old Field, Wetlands/Streams/Ponds, Urban, and Woodlands Habitat. Vegetative communities are depicted visually on aerial photography in **Figure 5**. Representative photographs of the vegetative communities in the Project Survey Area are provided as **Appendix B**.

TABLE 3: VEGETATIVE COMMUNITIES WITHIN THE ADDENDUM #1 PROJECT SURVEY AREA

Vegetative Community	Description	Approximate Acreage Within the Project Survey Area	Approximate Percentage Within the Project Survey Area
Agriculture Row-Crop	Agricultural lands being utilized for row-crop production and associated activities, typically devoid of vegetation outside of the target crop and opportunistic/invasive species.	35.12	89.96%
Landscaped Areas	Landscaped areas, including residential properties and commercial properties, were observed within the Project vicinity. These landscaped areas within the Project Survey Area and adjacent areas are frequently mowed grasses and forbs.	0.53	1.36%
Old Field	Herbaceous cover exists alongside roads, field borders, and abandoned fields within the Survey Area of the Project in the form of successional old-field communities. These communities are the earliest stages of recolonization by plants following disturbance. This community type is typically short-lived, giving way progressively to shrub and forest communities unless periodically re-disturbed, in which case they remain as old fields. The old-field areas within the study corridors and adjacent areas are infrequently mowed areas of grasses, forbs, and occasional shrubs.	0.01	0.00%
Streams/Wetlands/Ponds	Streams, ponds, and wetlands were observed both within and beyond the survey area for the Project.	0.08	0.20%
Urban	Urban areas are areas developed with residential and commercial land uses, including roads, buildings and parking lots. These areas are generally devoid of significant woody and herbaceous vegetation.	2.26	5.79%
Woodlands (Mixed-Deciduous)	Woodlands (floodplain, upland, successional-mixed, etc) are present along the Project Survey Area. Woody species dominating these areas included Box elder (<i>Fraxinus pennsylvanica</i>), and Red maple (<i>Acer rubrum</i>)	1.05	2.69%
Totals:		39.04	100%

3.7 RARE, THREATENED AND ENDANGERED SPECIES AGENCY COORDINATION

Protected Species Agency Consultation –

A species list and overall assessment of the potential for rare, threatened, and endangered species, is provided within the February 2024 - Original Ecological Report. The Addendum #1 Project Survey Area is located within the previously consulted areas in September and October 2023 and no further coordination is necessary.

4.0 SUMMARY

The ecological field survey of the Addendum #1 Project Survey Area did not identify any new or extend any previously identified streams, wetlands, ponds, and upland drainage features. This June 2024 – Addendum #1 Ecological report incorporates the renumbering of structures, shifts of alignments, and potential route adjustments as clarified within the introduction of this Report (See **Appendix A**).

Of the previously ten state and/or federal listed threatened or endangered species identified within range of the Project area as identified within the February 2024 – Original Report, no habitat for any of the listed

aquatic or bird species were identified within the Addendum #1 Project Survey Area. However, the four bat species (Indiana bat – *Myotis sodalist*, Northern long-eared bat - *Myotis septentrionalis*; little brown bat – *Myotis lucifugus*; and tricolored bat – *Perimyotis subflavus*) were identified as having potential summer roosting habitat within the Addendum #1 Project Survey area, which is consistent with the February 2024 – Original Report. If tree clearing cannot be completed during the seasonal tree clearing restriction (October 1 to March 31), further coordination with the ODNR/USFWS is still warranted as part of the Addendum #1 Ecological Report. Therefore, the original assessment regarding threatened and endangered species included within the February 2024 – Original Report is still consistent with the Addendum #1 Ecological Report findings and no further coordination with ODNR and/or USFWS is warranted.

The field survey results presented herein apply to the existing and reasonably foreseeable site conditions at the time of our assessment. They cannot apply to site changes of which AECOM is unaware and has not had the opportunity to review. Changes in the condition of a property may occur with time due to natural processes or human impacts at the project site or on adjacent properties. Changes in applicable standards may also occur as a result of legislation or the expansion of knowledge over time. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes beyond the control of AECOM.

5.0 REFERENCES

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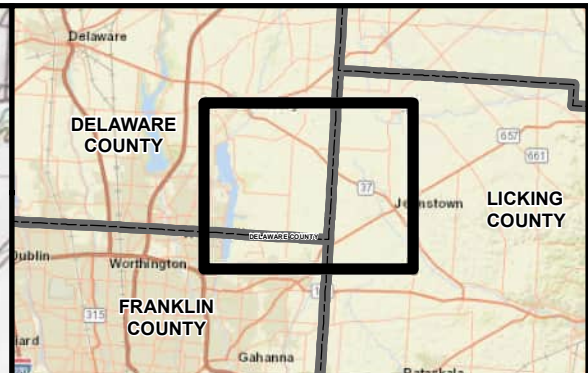
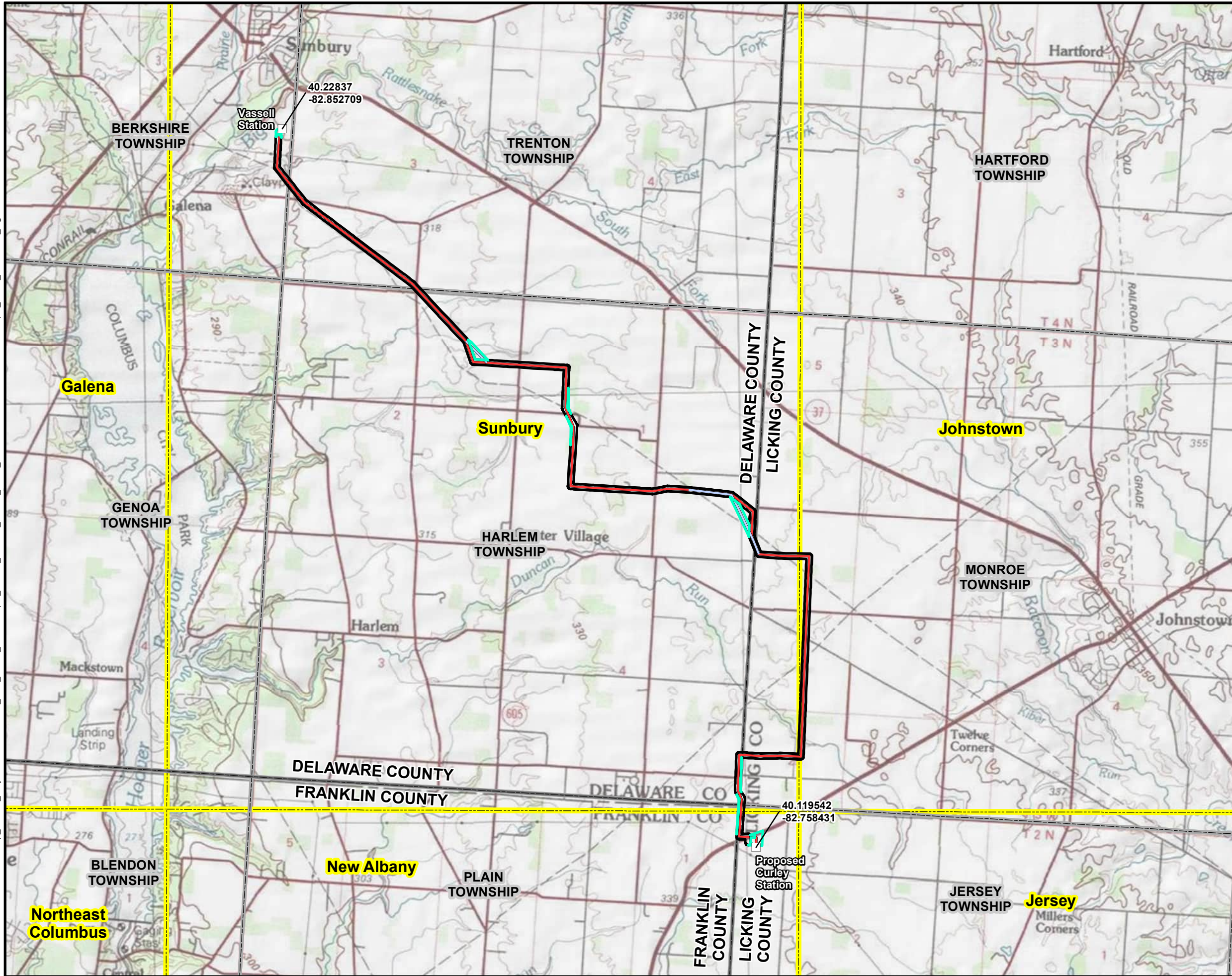
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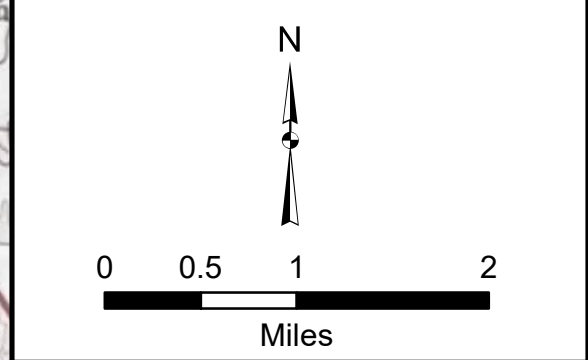
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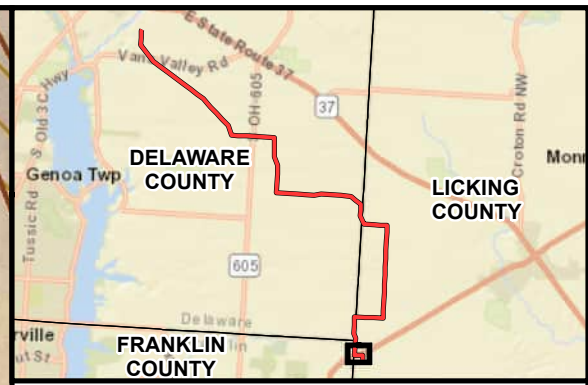
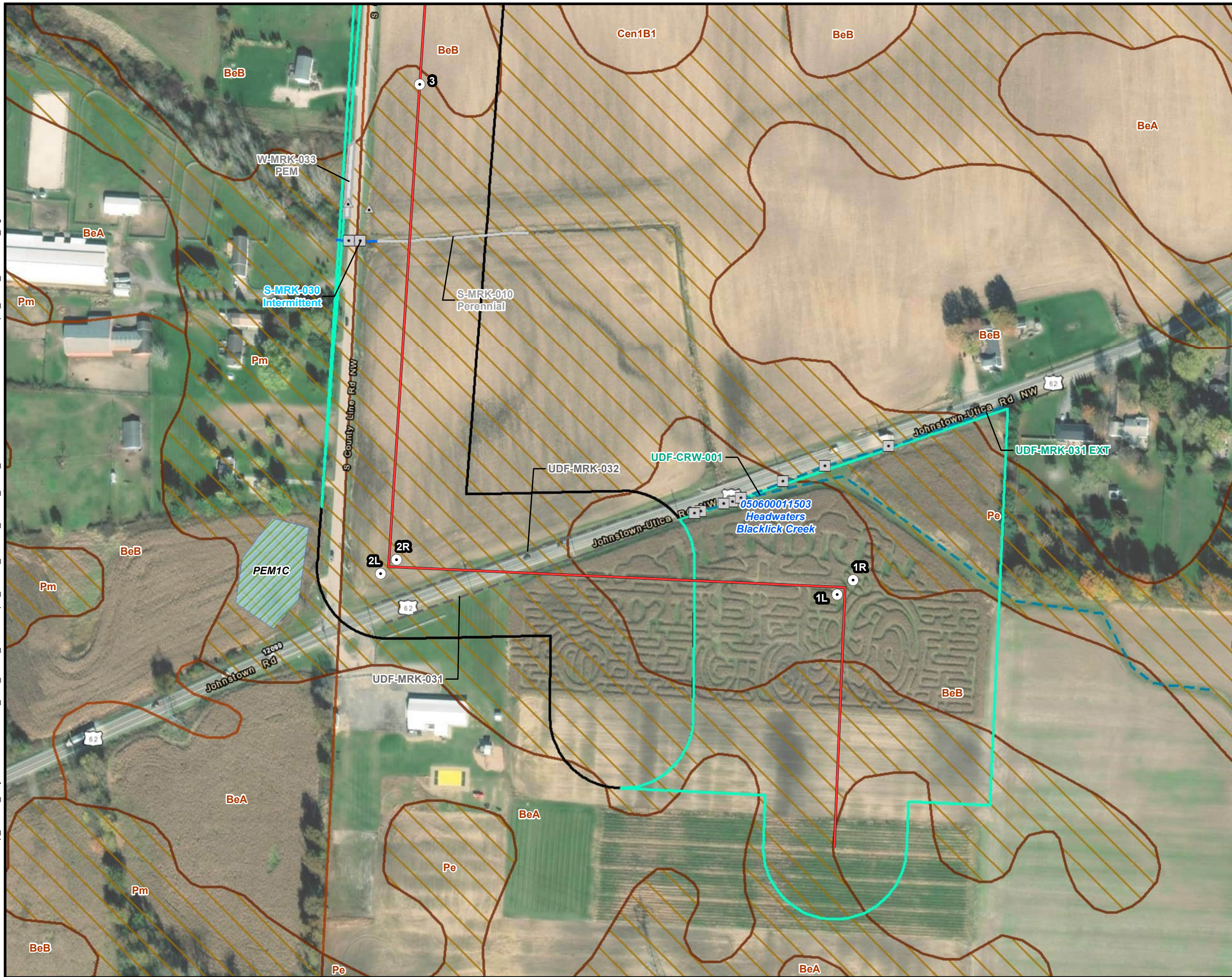
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 - Potential
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1
 - Ohio USGS 7.5' Topographic Quadrangle
 - Township Boundary
 - County Boundary



Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

FIGURE 1 PROJECT OVERVIEW	
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Legend

- Proposed Structures
- Culvert
- Delineated Upland Drainage Feature
- ▲ Previous Wetland Data Points
- Vassel - Curley 345 kV Transmission Line
- Previously Delineated Upland Drainage Feature
- Delineated Intermittent Stream
- Previously Delineated Perennial Stream
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- ▭ Previously Delineated PEM Wetland
- ▨ NWI Wetland (USFWS)
- ▨ HUC 12 (USGS)
- ▨ SSURGO Soil Map Unit (NRCS)
- ▨ Hydric SSURGO Soil Map Unit (NRCS)
- BeA - Bennington silt loam, 0 to 2 percent slopes
- BeB - Bennington silt loam, 2 to 6 percent slopes
- Pe - Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes
- Pm - Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes

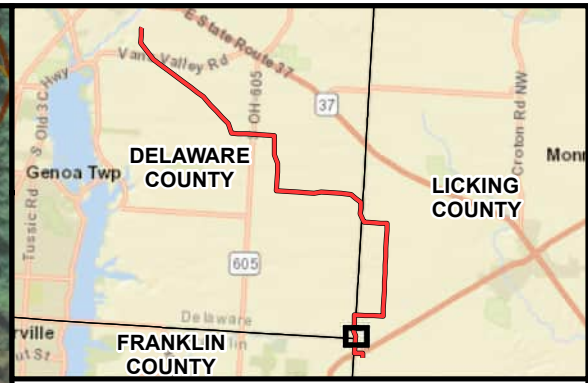
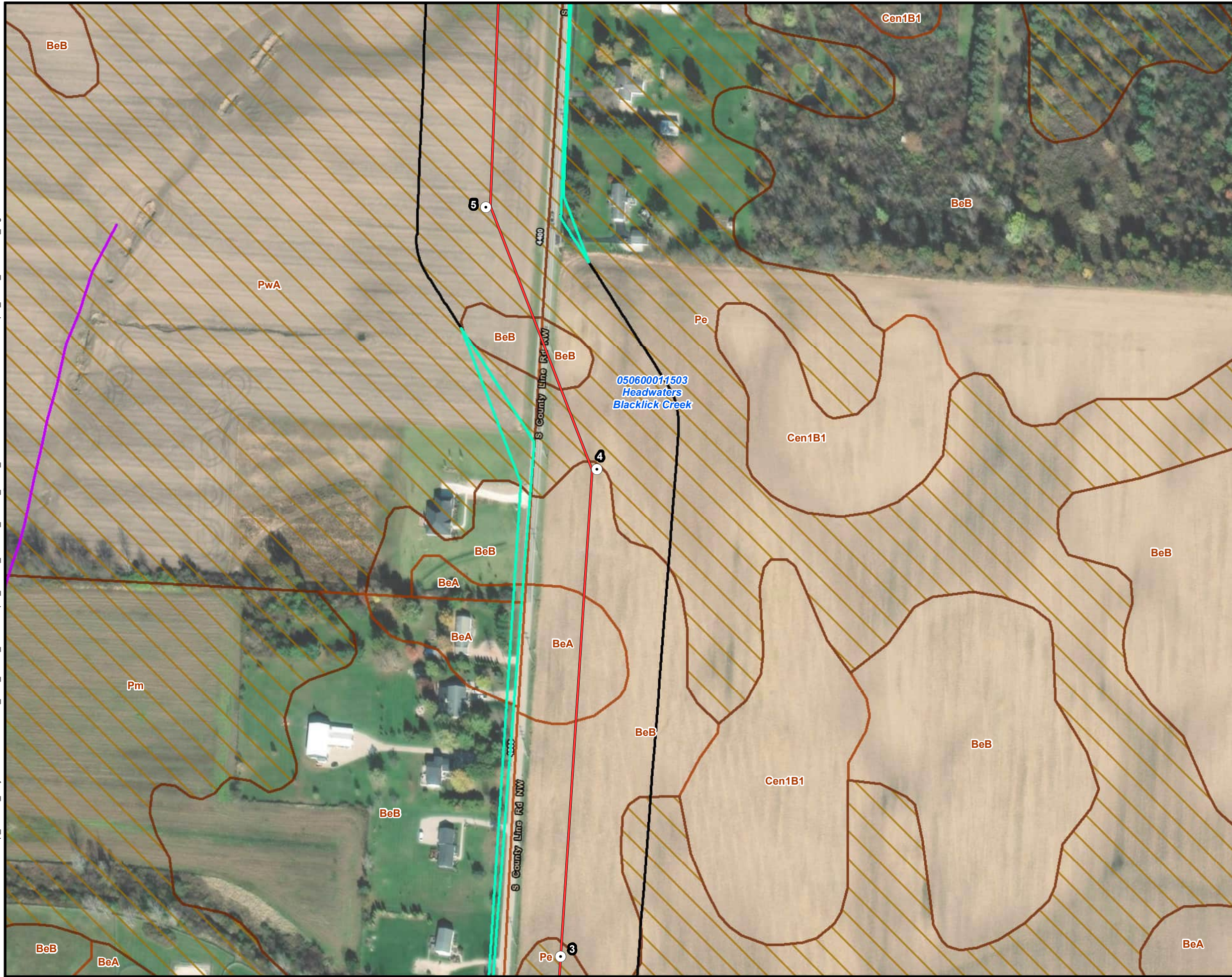
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Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

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Legend

- Proposed Structures
- Vassel - Curley 345 kV Transmission Line
- NHD Stream (USGS)
- February 2024 Report - Project Survey Area
- Project Survey Area - Addendum 1
- HUC 12 (USGS)
- SSURGO Soil Map Unit (NRCS)
- Hydric SSURGO Soil Map Unit (NRCS)

BeA - Bennington silt loam, 0 to 2 percent slopes
 BeB - Bennington silt loam, 2 to 6 percent slopes
 Pe - Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes
 PwA - Pewamo silty clay loam, 0 to 1 percent slopes

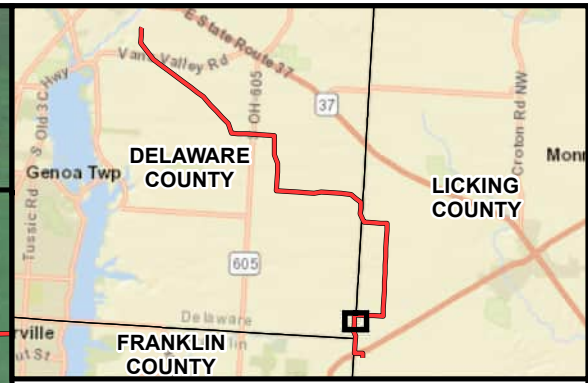
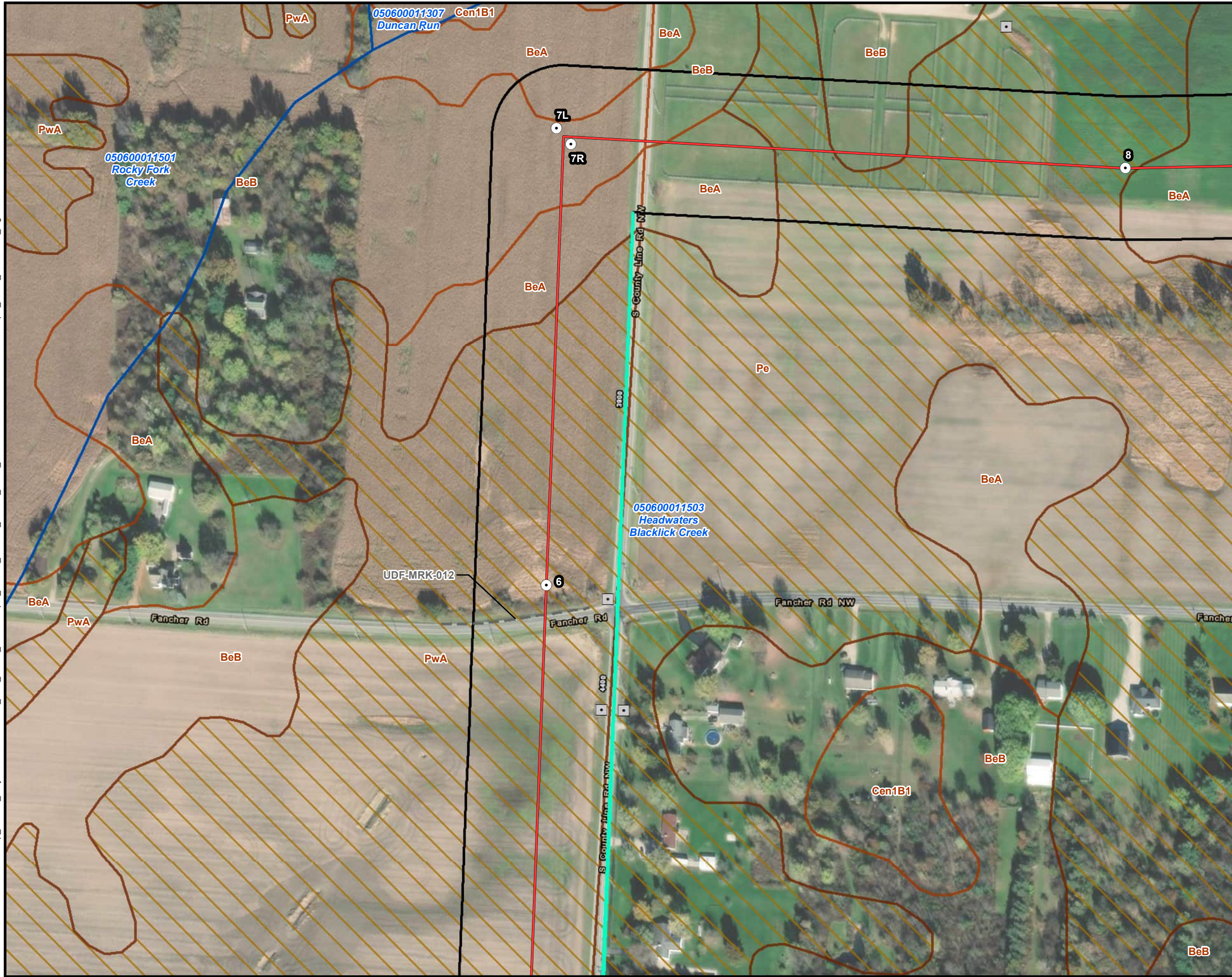
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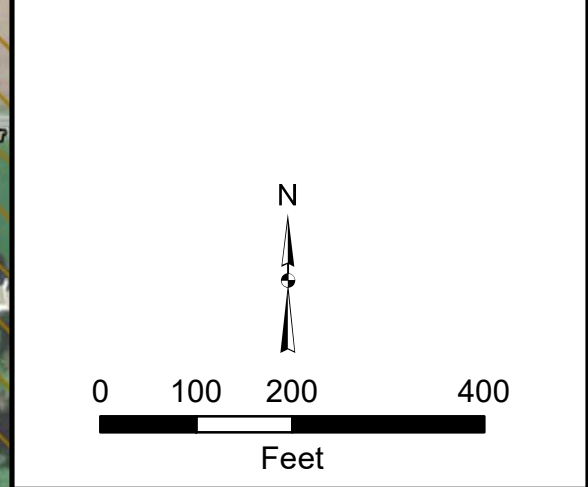
Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

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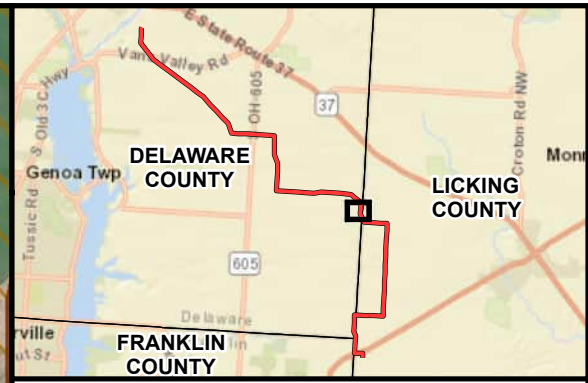
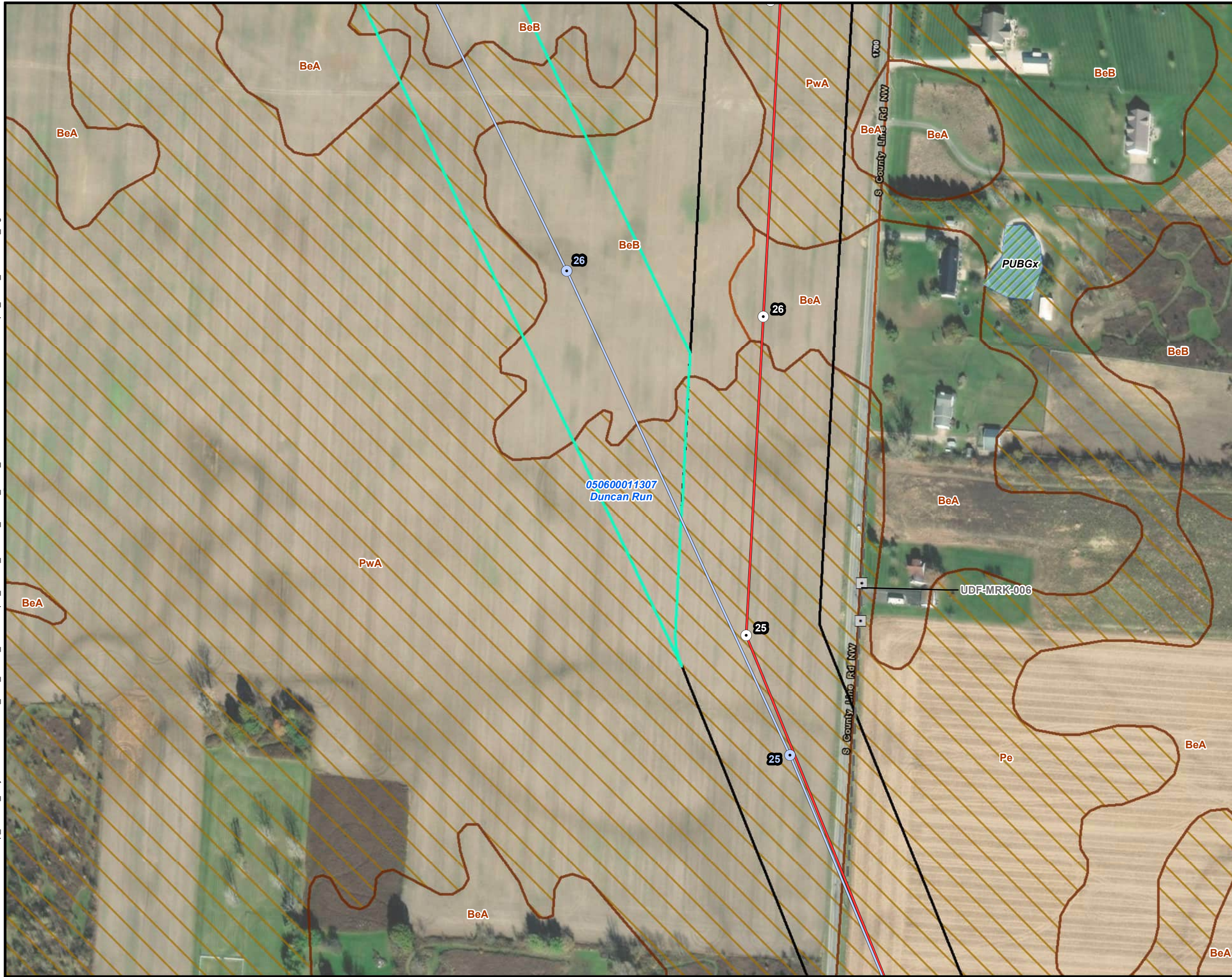


- ### Legend
- Proposed Structures
 - Culvert
 - Vassel - Curley 345 kV Transmission Line
 - - - Previously Delineated Upland Drainage Feature
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - ▭ HUC 12 (USGS)
 - ▭ SSURGO Soil Map Unit (NRCS)
 - ▭ Hydric SSURGO Soil Map Unit (NRCS)
- BeA - Bennington silt loam, 0 to 2 percent slopes
 BeB - Bennington silt loam, 2 to 6 percent slopes
 Pe - Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes
 PwA - Pewamo silty clay loam, 0 to 1 percent slopes



Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

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Legend

- Proposed Structures
- Proposed Alternative Structures
- Culvert
- Vassell - Curley 345 kV Transmission Line
- Potential Alternative
- - - Previously Delineated Upland Drainage Feature
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- ▨ NWI Wetland (USFWS)
- ▭ HUC 12 (USGS)
- ▭ SSURGO Soil Map Unit (NRCS)
- ▨ Hydric SSURGO Soil Map Unit (NRCS)

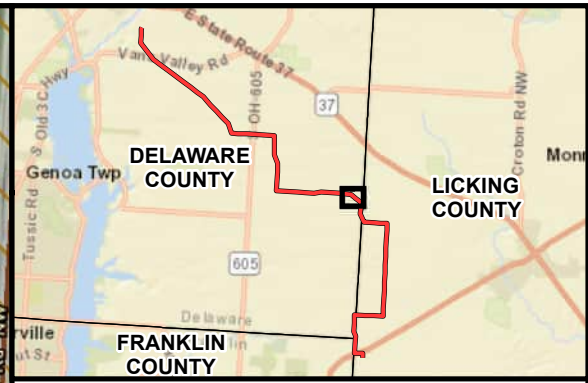
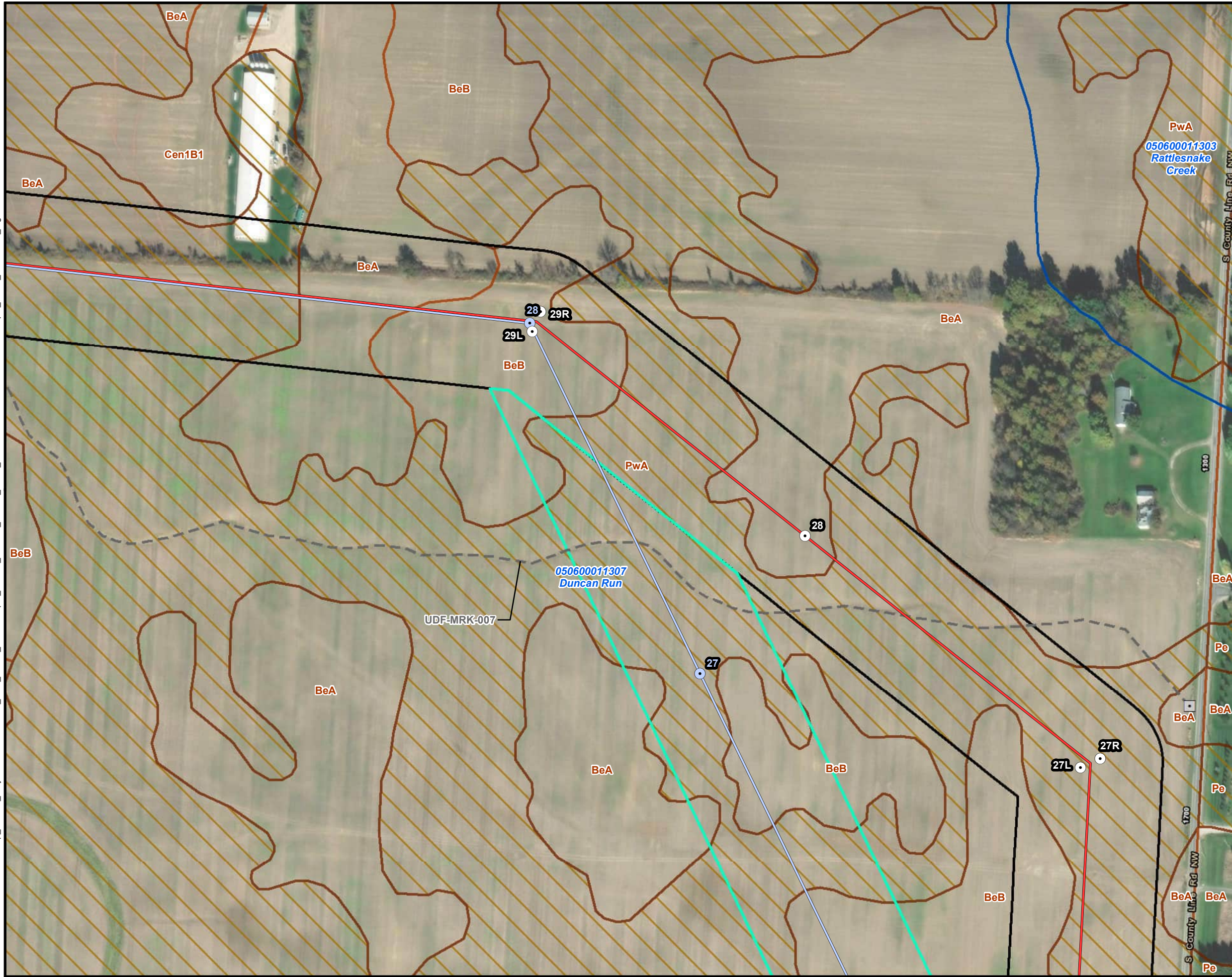
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 PwA - Pewamo silty clay loam, 0 to 1 percent slopes

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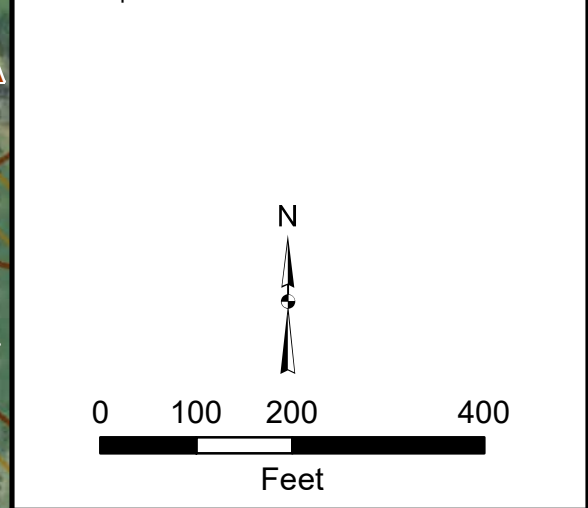
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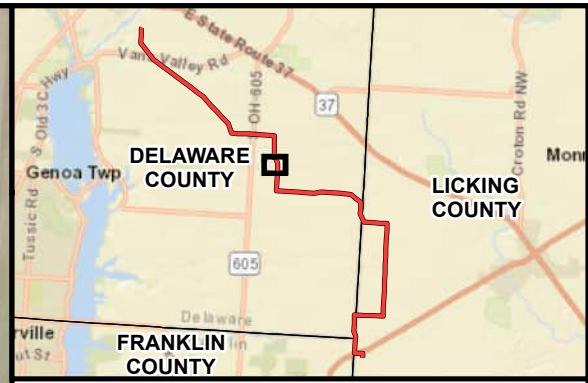
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- Proposed Structures
 - Proposed Alternative Structures
 - Culvert
 - Vassel - Curley 345 kV Transmission Line
 - Potential Alternative
 - - - Previously Delineated Upland Drainage Feature
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - ▭ HUC 12 (USGS)
 - ▭ SSURGO Soil Map Unit (NRCS)
 - ▭ Hydric SSURGO Soil Map Unit (NRCS)
- BeA - Bennington silt loam, 0 to 2 percent slopes
 BeB - Bennington silt loam, 2 to 6 percent slopes
 PwA - Pewamo silty clay loam, 0 to 1 percent slopes



Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 2 SHEET 5 OF 9 SOIL MAP AND NATIONAL WETLANDS INVENTORY MAP	
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Legend

- Proposed Structures
- Proposed Alternative Structures
- ▲ Previous Wetland Data Points
- Vassell - Curley 345 kV Transmission Line
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- ▭ Previously Delineated PFO Wetland
- ▨ NWI Wetland (USFWS)
- ▭ NHD Waterbody (USGS)
- ▭ HUC 12 (USGS)
- ▭ SSURGO Soil Map Unit (NRCS)
- ▭ Hydric SSURGO Soil Map Unit (NRCS)

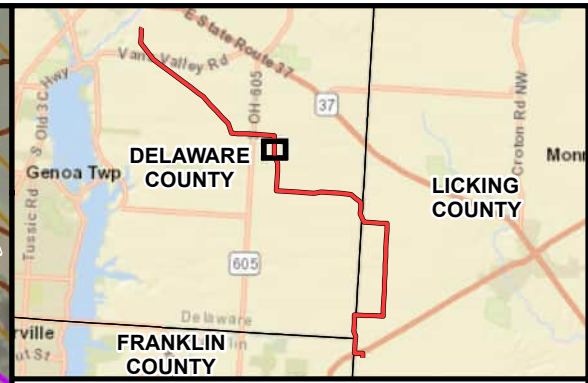
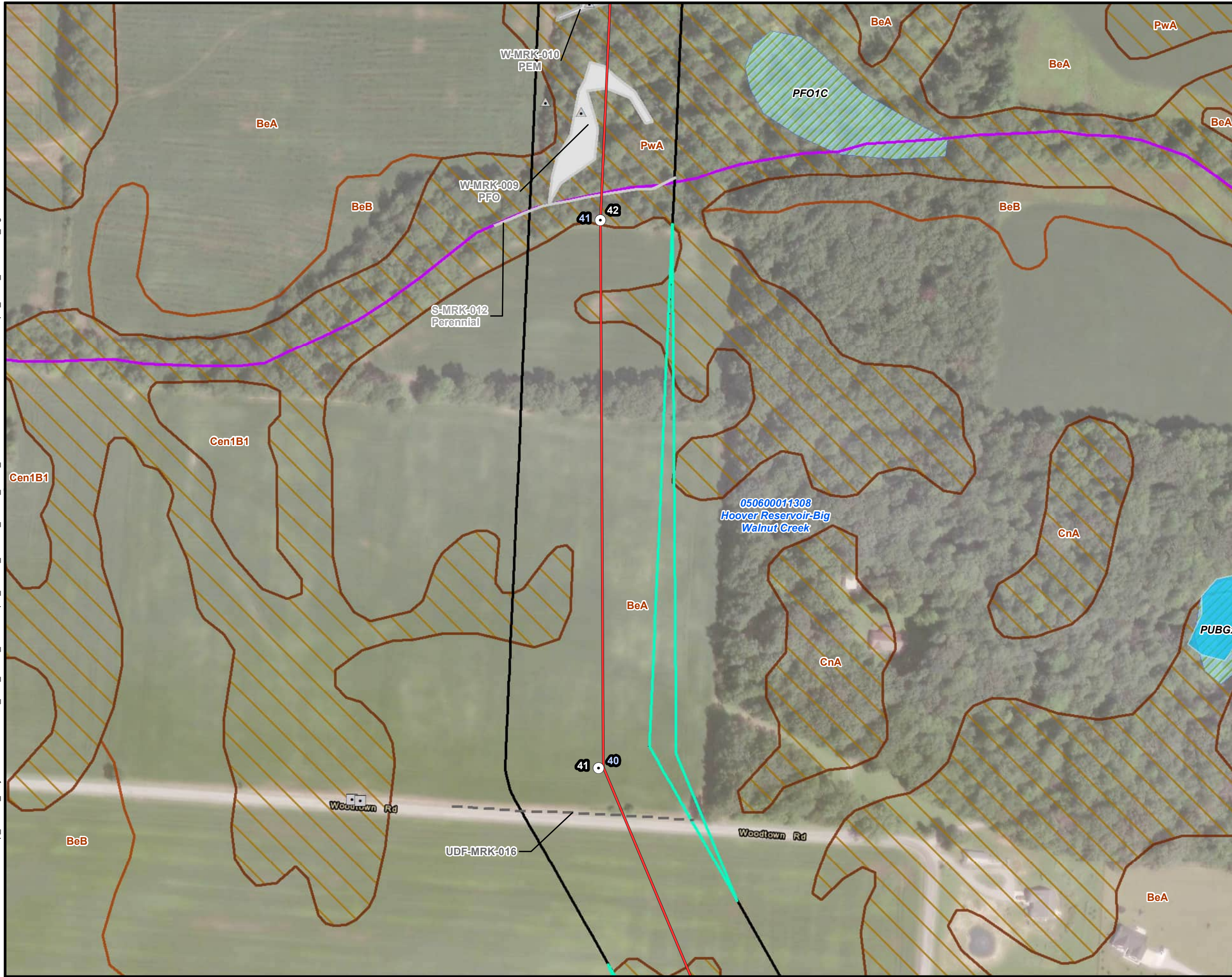
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 PwA - Pewamo silty clay loam, 0 to 1 percent slopes

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Legend

- Proposed Structures
- Proposed Alternative Structures
- Culvert
- Previous Wetland Data Points
- Vassell - Curley 345 kV Transmission Line
- Previously Delineated Upland Drainage Feature
- Previously Delineated Perennial Stream
- NHD Stream (USGS)
- February 2024 Report - Project Survey Area
- Project Survey Area - Addendum 1
- Previously Delineated PFO Wetland
- Previously Delineated PEM Wetland
- NWI Wetland (USFWS)
- NHD Waterbody (USGS)
- HUC 12 (USGS)
- SSURGO Soil Map Unit (NRCS)
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BeA - Bennington silt loam, 0 to 2 percent slopes
 PwA - Pewamo silty clay loam, 0 to 1 percent slopes



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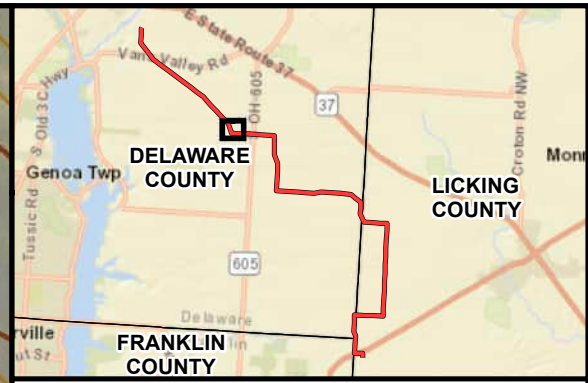
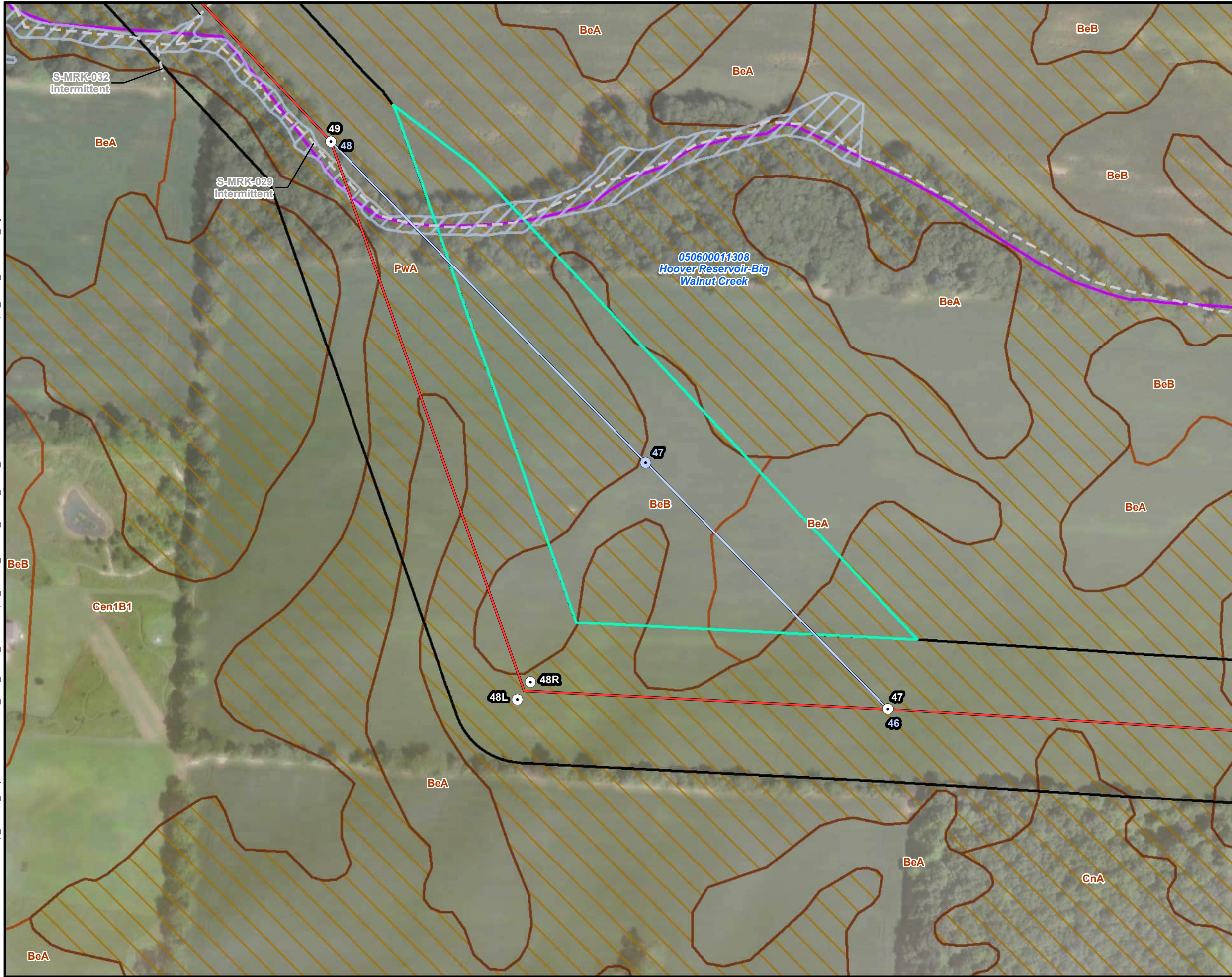


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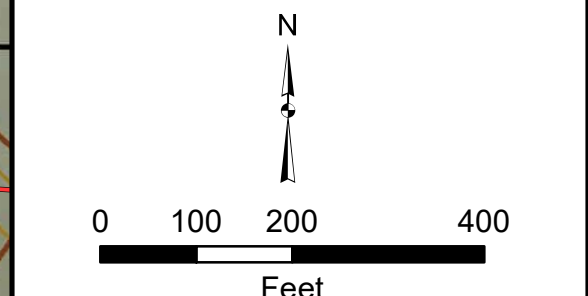
Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

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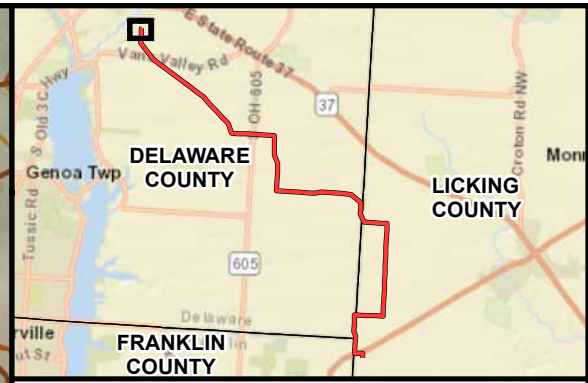
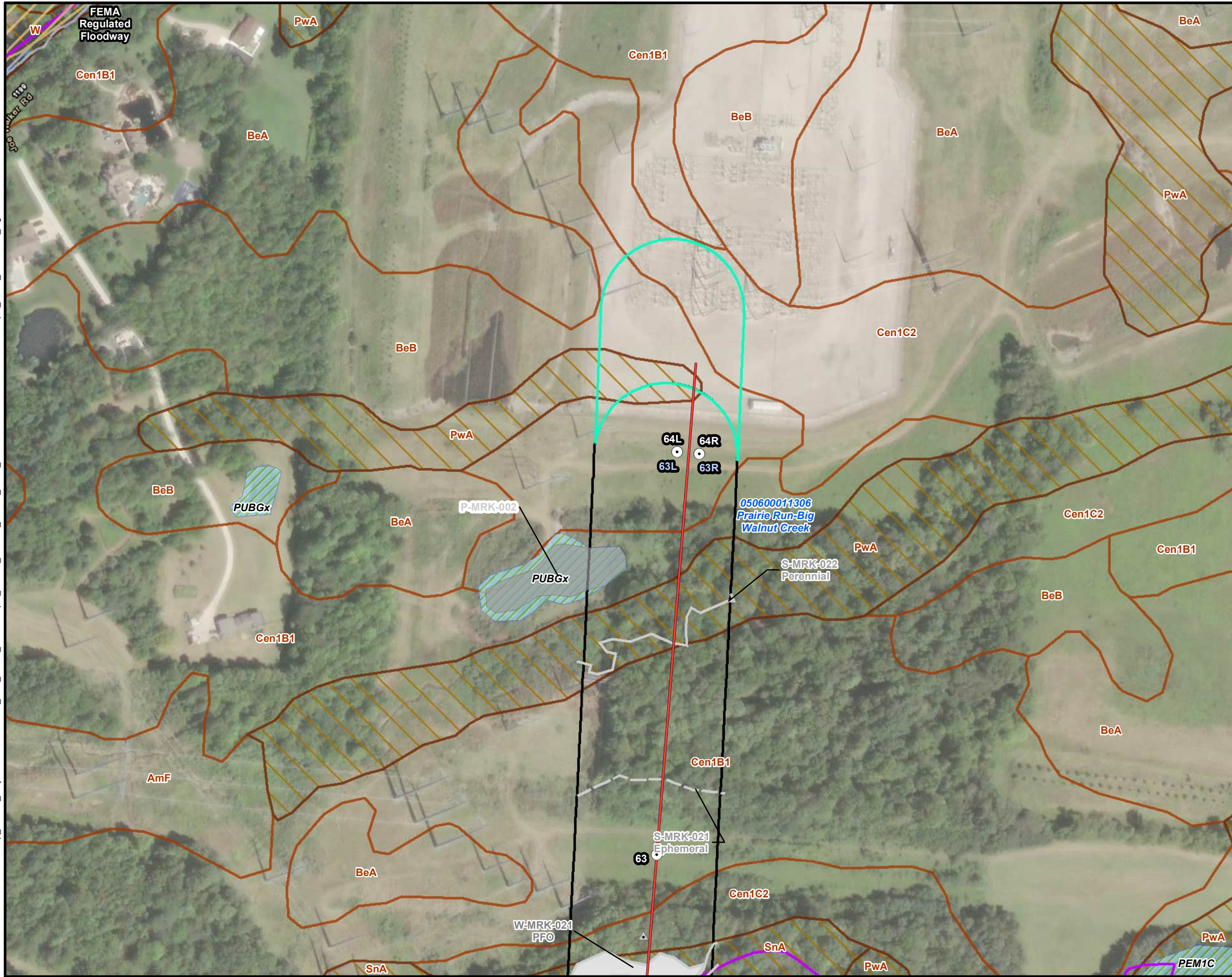
- ### Legend
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 - Proposed Alternative Structures
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 - Potential Alternative
 - - - Previously Delineated Intermittent Stream
 - NHD Stream (USGS)
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - ▭ NFHL 100-Year Floodplain (FEMA)
 - ▭ HUC 12 (USGS)
 - ▭ SSURGO Soil Map Unit (NRCS)
 - ▭ Hydric SSURGO Soil Map Unit (NRCS)
- BeA - Bennington silt loam, 0 to 2 percent slopes
 BeB - Bennington silt loam, 2 to 6 percent slopes
 Cen1B1 - Centerburg silt loam, 2 to 6 percent slopes
 CnA - Condit silt loam, 0 to 1 percent slopes
 PwA - Pewamo silty clay loam, 0 to 1 percent slopes



Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 2 SHEET 8 OF 9 SOIL MAP AND NATIONAL WETLANDS INVENTORY MAP	
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Legend

- Proposed Structures
- Proposed Alternative Structures
- ▲ Previous Wetland Data Points
- Vassell - Curley 345 kV Transmission Line
- Previously Delineated Perennial Stream
- Previously Delineated Ephemeral Stream
- NHD Stream (USGS)
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- ▭ Previously Delineated PFO Wetland
- ▭ Previously Delineated Pond
- ▭ NWI Wetland (USFWS)
- ▭ NFHL 100-Year Floodplain (FEMA)
- ▭ NFHL Floodway (FEMA)
- ▭ HUC 12 (USGS)
- ▭ SSURGO Soil Map Unit (NRCS)
- ▭ Hydric SSURGO Soil Map Unit (NRCS)

BeB - Bennington silt loam, 2 to 6 percent slopes
 Cen1B1 - Centerburg silt loam, 2 to 6 percent slopes
 Cen1C2 - Centerburg silt loam, 6 to 12 percent slopes, eroded
 PwA - Pewamo silty clay loam, 0 to 1 percent slopes
 SnA - Sloan silt loam, till substratum, 0 to 2 percent slopes, occasionally flooded

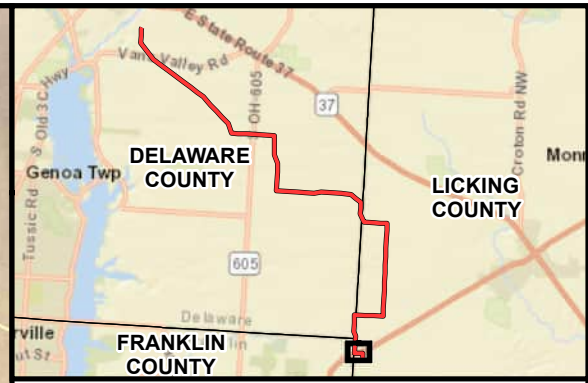
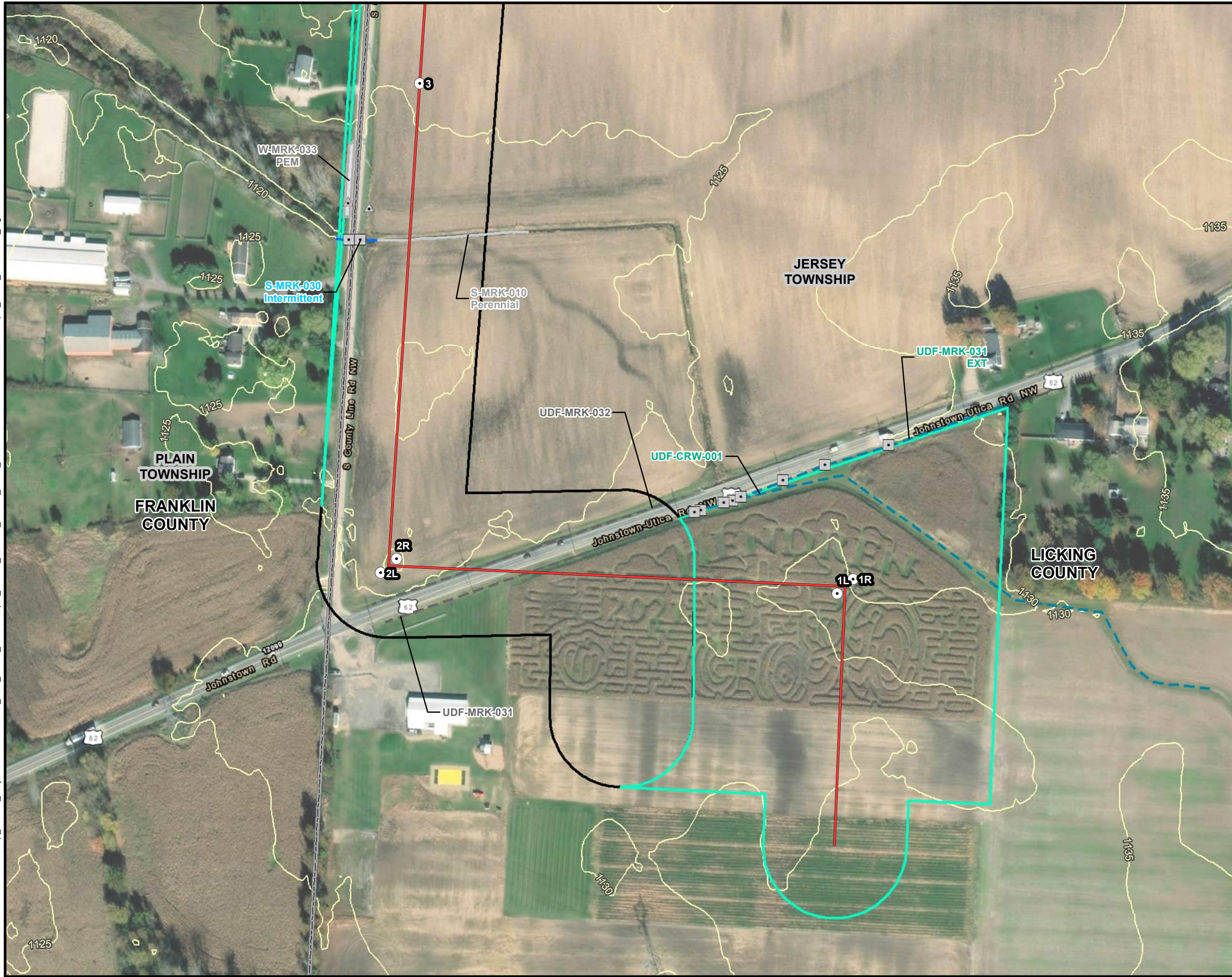
N

0 100 200 400
Feet

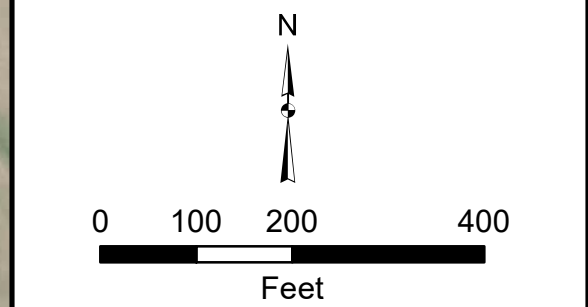
Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 2 SHEET 9 OF 9 SOIL MAP AND NATIONAL WETLANDS INVENTORY MAP	
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CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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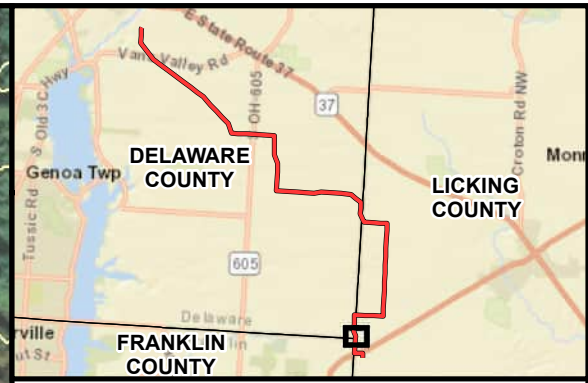
- ### Legend
- Proposed Structures
 - ▲ Previous Wetland Data Points
 - Culvert
 - Vassel - Curley 345kV Transmission Line
 - Delineated Upland Drainage Feature
 - Delineated Intermittent Stream
 - Previously Delineated Perennial Stream
 - Previously Delineated Upland
 - Contour (5-Ft)
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - ▭ Previously Delineated PEM Wetland



Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

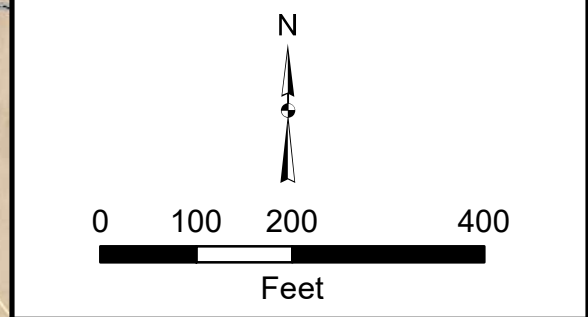
FIGURE 3 SHEET 1 OF 9 WETLAND DELINEATION AND STREAM ASSESSMENT MAP	
DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\EN\60702685_AEP_Vassel_GreenChapel_North\2_MXD\1_South_Route\Addendum 1\Vassel\GreenChapel_South_WDRAdd1_Fig3.mxd



Legend

- Proposed Structures
- Vassell - Curley 345kV Transmission Line
- NHD Stream (USGS)
- Contour (5-Ft)
- February 2024 Report - Project Survey Area
- Project Survey Area - Addendum 1



Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

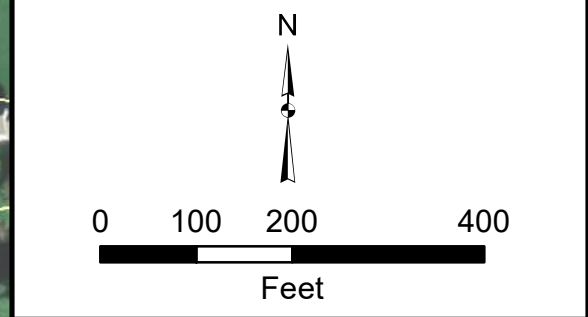
FIGURE 3
SHEET 2 OF 9
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM



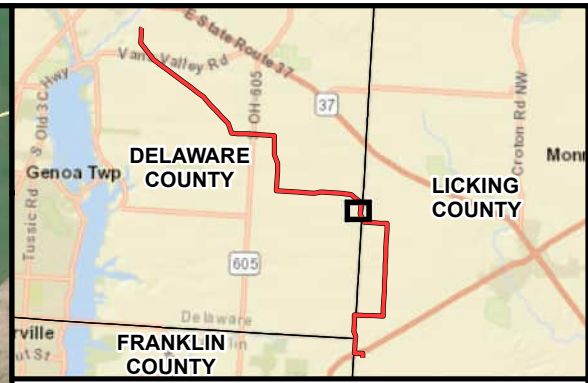
Legend

- Proposed Structures
- Culvert
- Vassel - Curley 345kV Transmission Line
- - - Previously Delineated Upland
- Contour (5-Ft)
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1

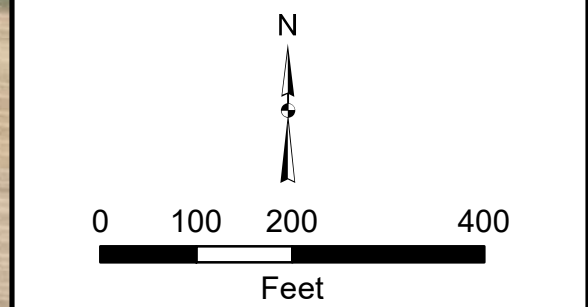


Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 3 SHEET 3 OF 9 WETLAND DELINEATION AND STREAM ASSESSMENT MAP	
DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM



- Legend**
- Proposed Structures
 - Proposed Alternative Structures
 - Culvert
 - Vassell - Curley 345kV Transmission Line
 - Potential Alternative
 - - - Previously Delineated Upland
 - Contour (5-Ft)
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1

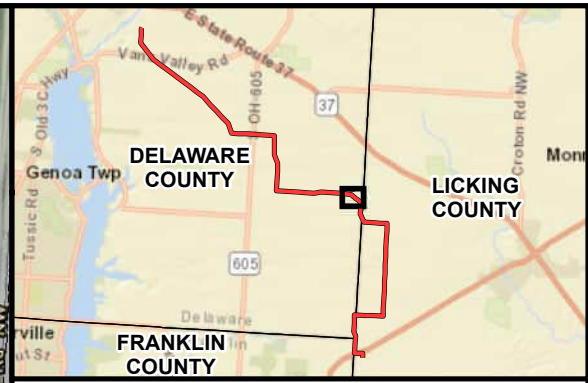
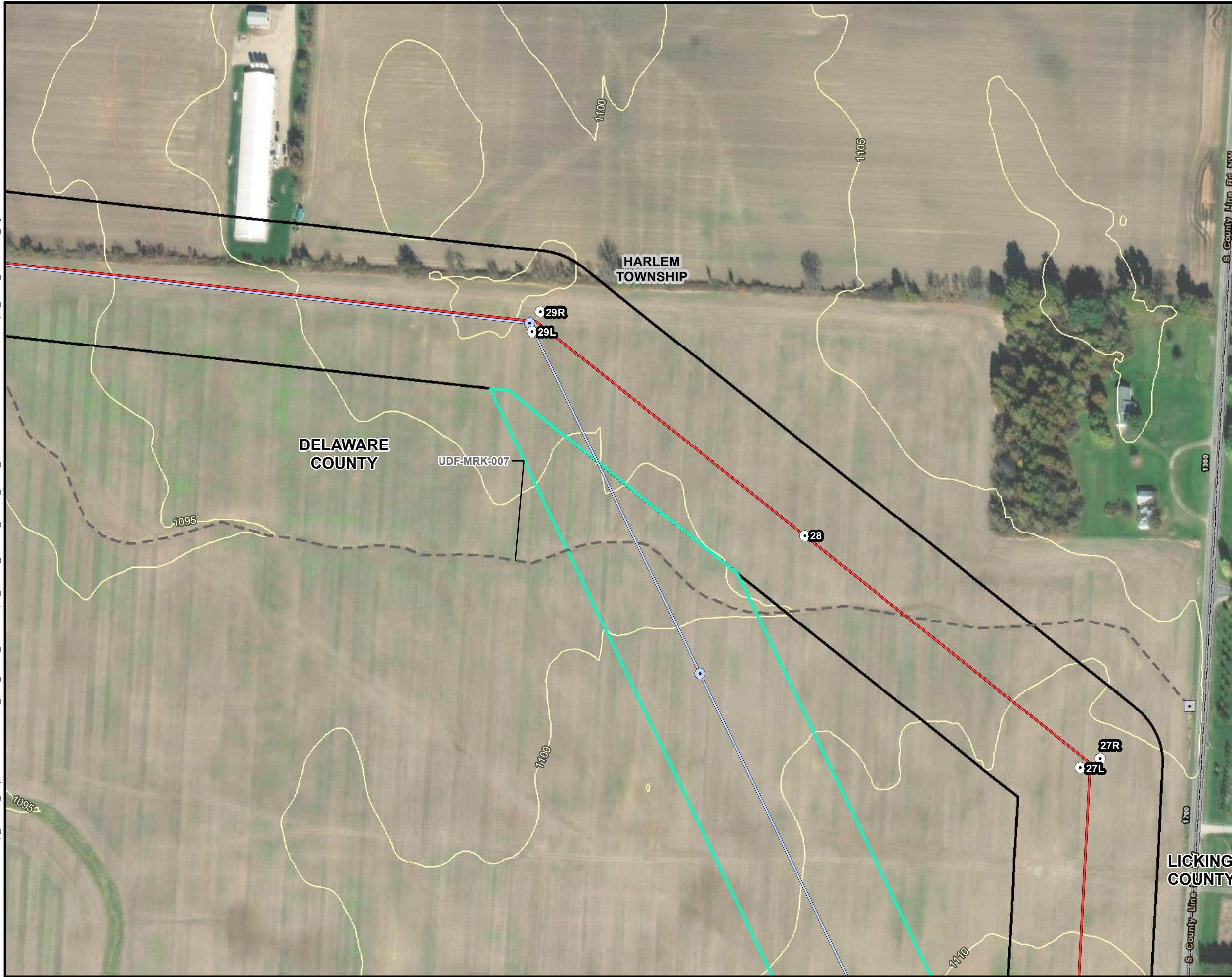


Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 3
 SHEET 4 OF 9
 WETLAND DELINEATION AND
 STREAM ASSESSMENT MAP

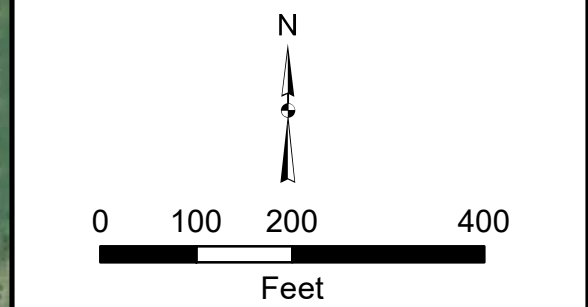
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Date Saved: 8/6/2024
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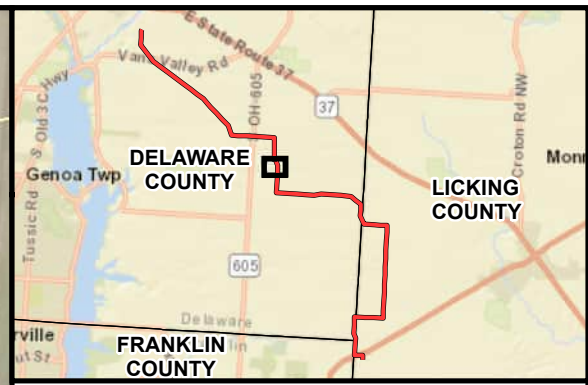
Legend

- Proposed Structures
- Proposed Alternative Structures
- Culvert
- Vassel - Curley 345kV Transmission Line
- Potential Alternative
- Previously Delineated Upland
- Contour (5-Ft)
- February 2024 Report - Project Survey Area
- Project Survey Area - Addendum 1



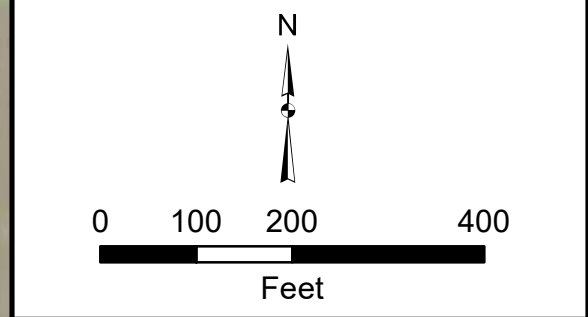
Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

FIGURE 3 SHEET 5 OF 9 WETLAND DELINEATION AND STREAM ASSESSMENT MAP	
DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM



Legend

- Proposed Structures
- Proposed Alternative Structures
- ▲ Previous Wetland Data Points
- Vassell - Curley 345kV Transmission Line
- Contour (5-Ft)
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- ▭ Previously Delineated PFO Wetland

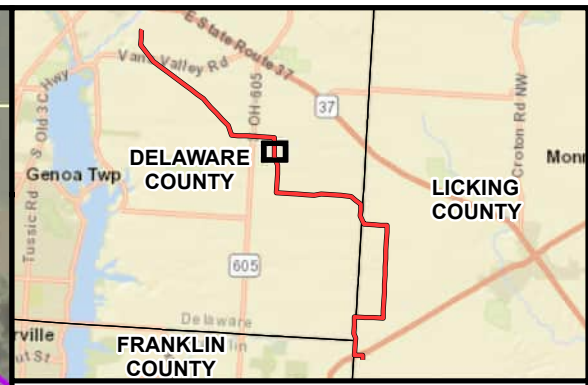
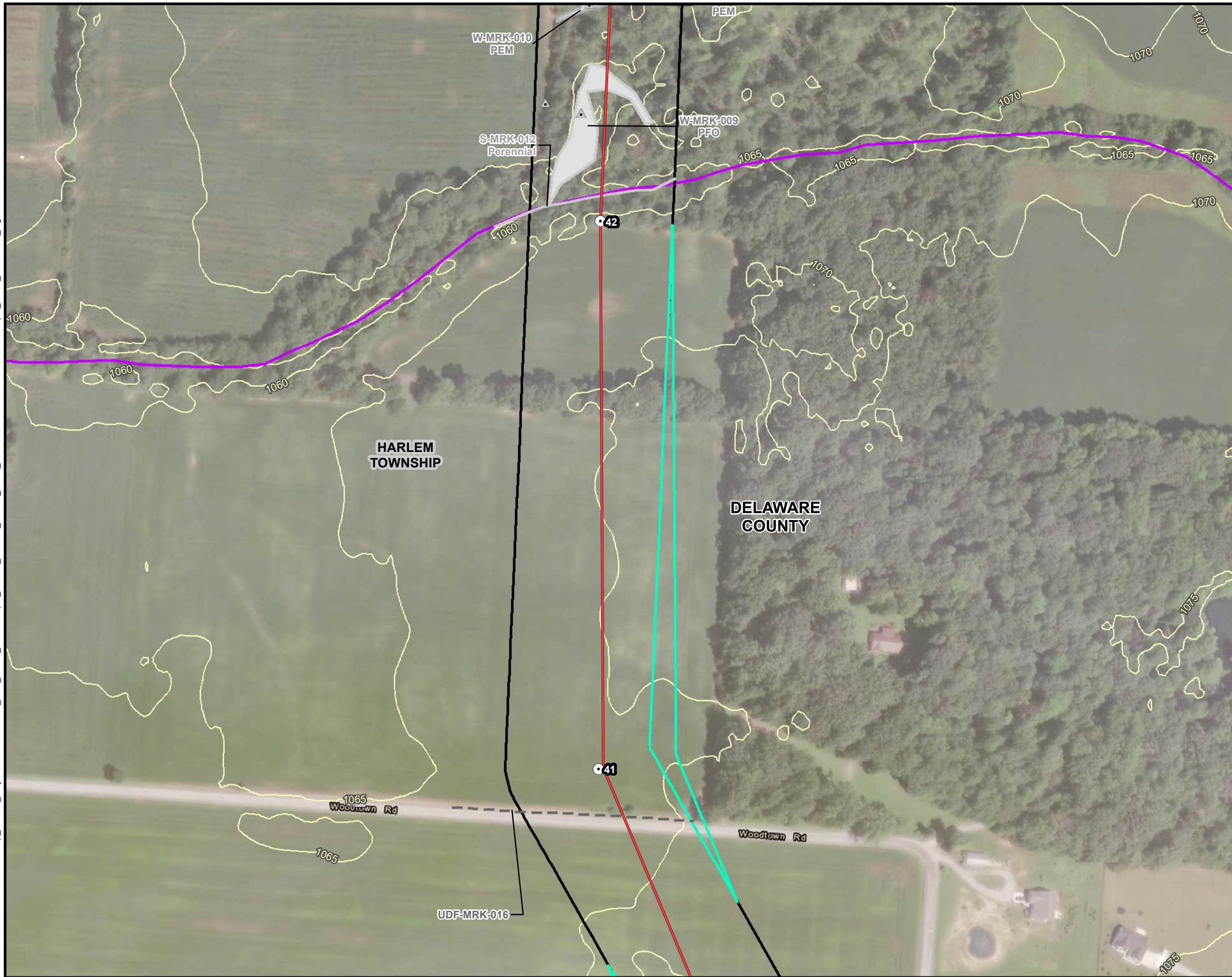


Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

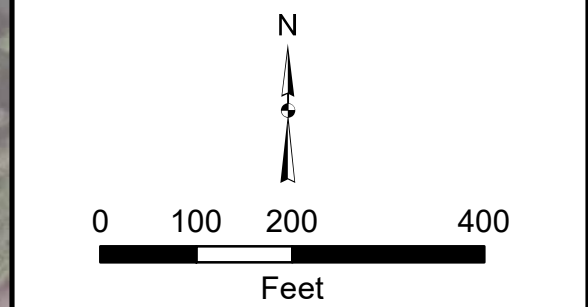
FIGURE 3
 SHEET 6 OF 9
 WETLAND DELINEATION AND
 STREAM ASSESSMENT MAP

DATE: 8/6/2024	1 INCH = 200 FEET
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JOB NO.: 60702685	AECOM

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- ### Legend
- Proposed Structures
 - Proposed Alternative Structures
 - Previous Wetland Data Points
 - Culvert
 - Vassell - Curley 345kV Transmission Line
 - Previously Delineated Perennial Stream
 - Previously Delineated Upland
 - NHD Stream (USGS)
 - Contour (5-Ft)
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1
 - Previously Delineated PFO Wetland
 - Previously Delineated PEM Wetland

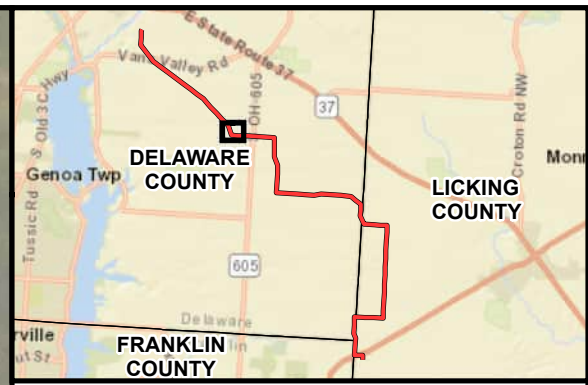


Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

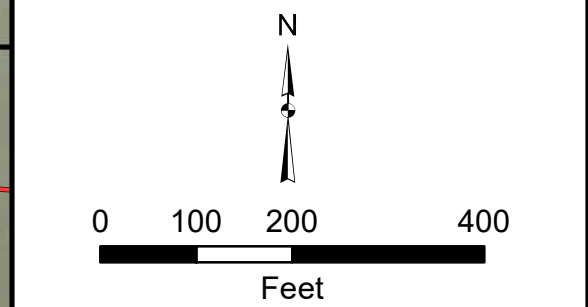
FIGURE 3
SHEET 7 OF 9
WETLAND DELINEATION AND
STREAM ASSESSMENT MAP

DATE: 8/6/2024	1 INCH = 200 FEET
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JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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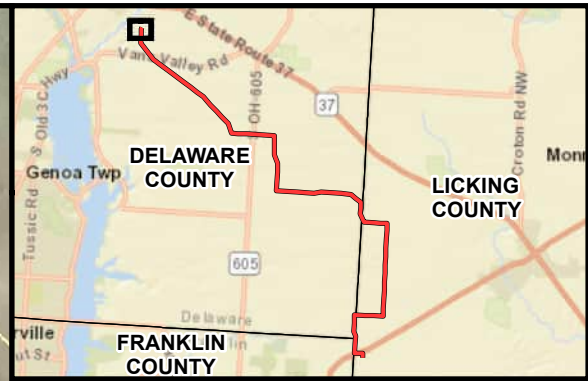
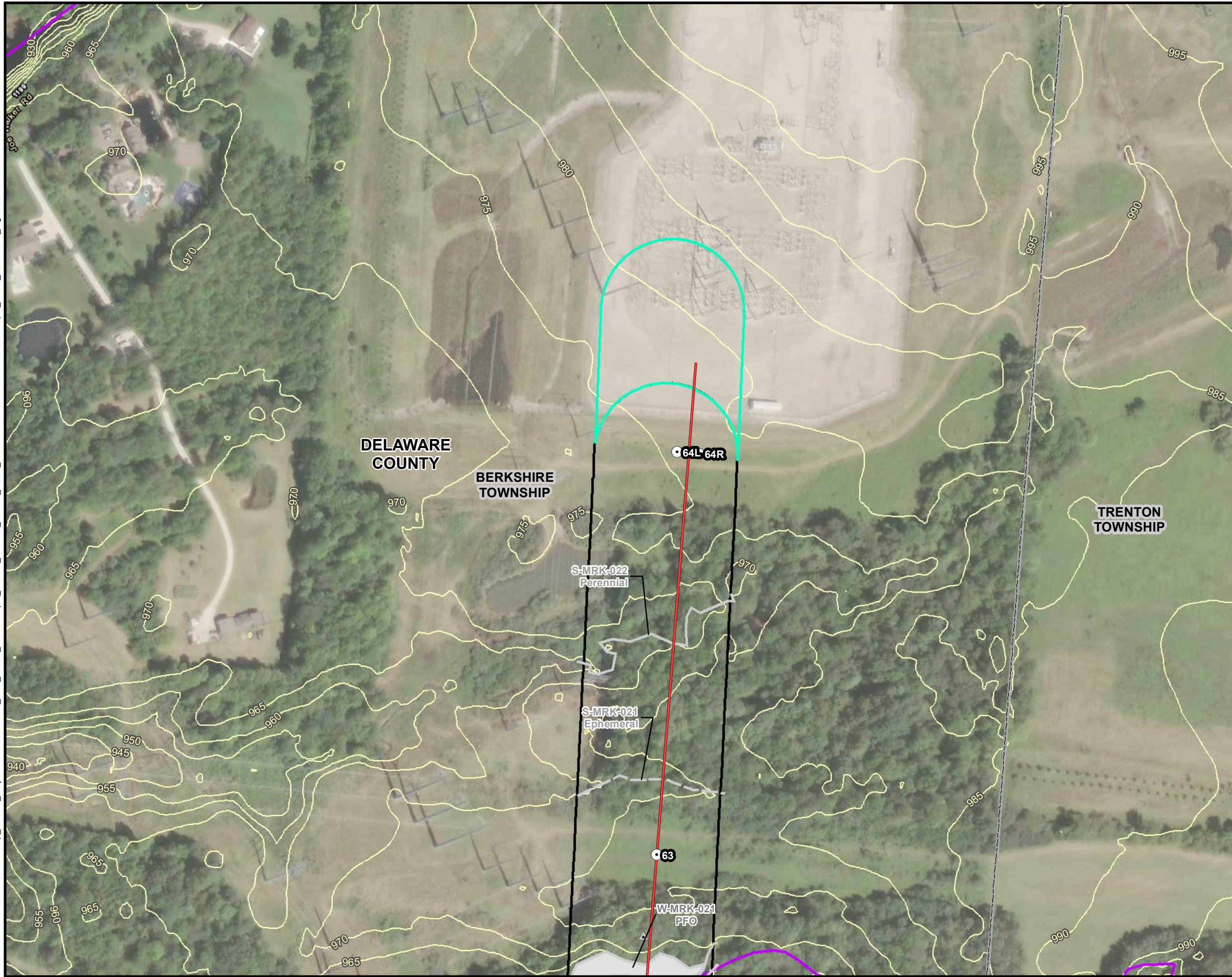
- ### Legend
- Proposed Structures
 - Proposed Alternative Structures
 - Vassell - Curley 345kV Transmission Line
 - Potential Alternative
 - Previously Delineated Intermittent Stream
 - NHD Stream (USGS)
 - Contour (5-Ft)
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1



Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

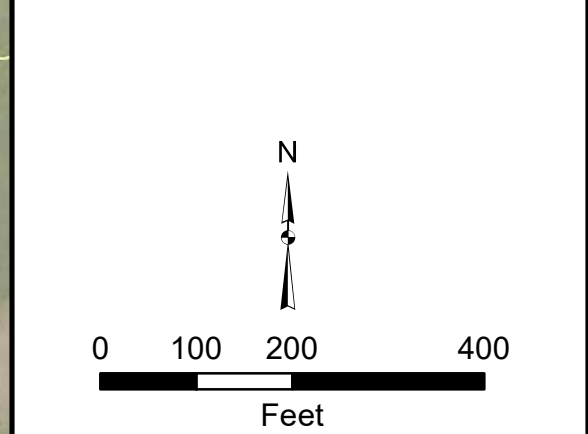
FIGURE 3 SHEET 8 OF 9 WETLAND DELINEATION AND STREAM ASSESSMENT MAP	
DATE: 8/6/2024	1 INCH = 200 FEET
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JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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Legend

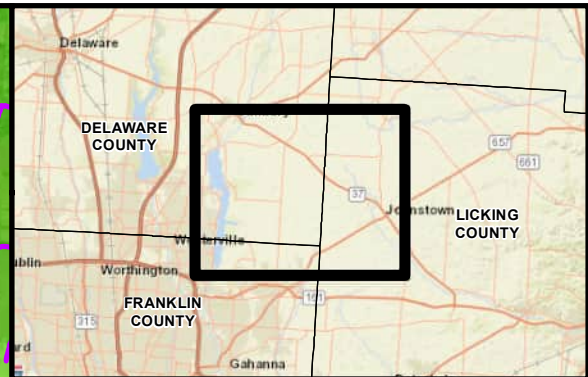
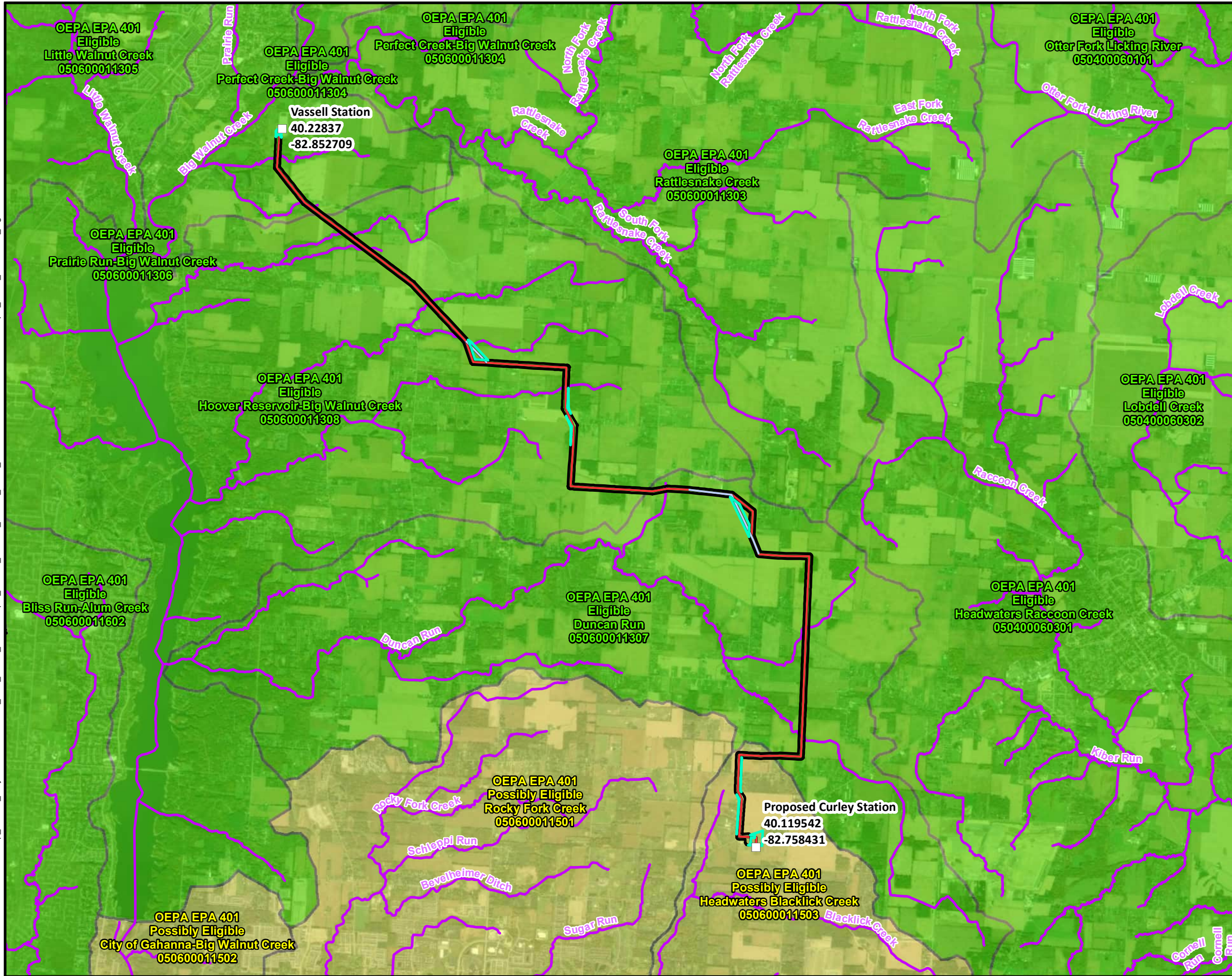
- Proposed Structures
- Proposed Alternative Structures
- ▲ Previous Wetland Data Points
- Vassel - Curley 345kV Transmission Line
- Previously Delineated Perennial Stream
- - - Previously Delineated Ephemeral Stream
- NHD Stream (USGS)
- Contour (5-Ft)
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- ▭ Previously Delineated PFO Wetland



Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 3 SHEET 9 OF 9 WETLAND DELINEATION AND STREAM ASSESSMENT MAP	
DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/1/2024
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Legend

- Station
- Vassell - Curley 345kV Transmission Line
- Potential Alternative
- NHD Stream (USGS)
- February 2024 Report - Project Survey Area
- Project Survey Area - Addendum 1

OEPA Eligibility:

- Eligible
- Possibly Eligible

N

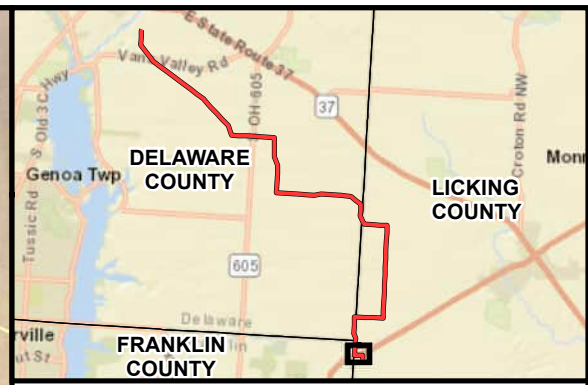
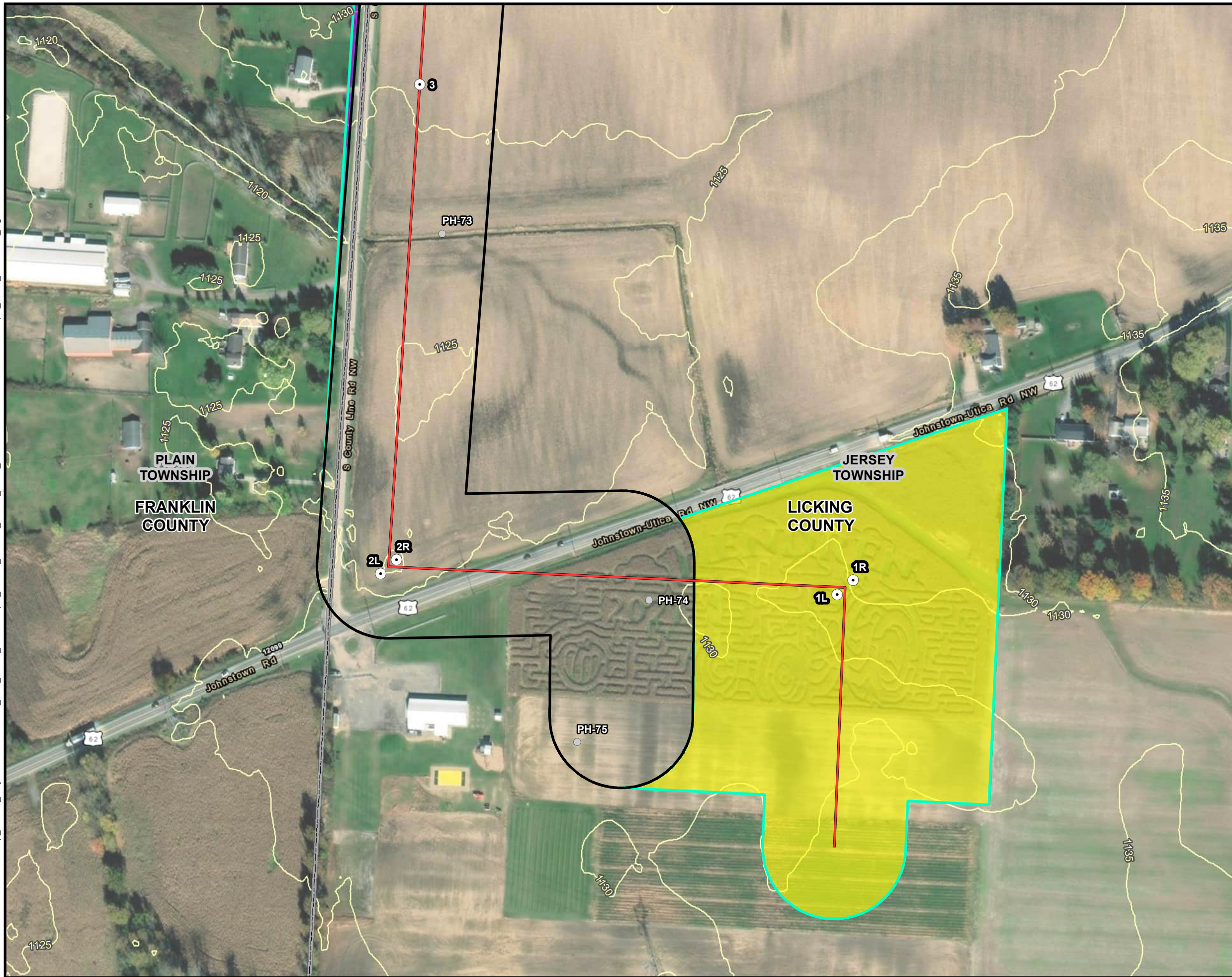
0 0.5 1 2

Miles

Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

FIGURE 4	
STREAM ELIGIBILITY MAP	
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Date Saved: 8/1/2024
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Legend

- Proposed Structures
- February 2024 Report Photographs
- Vassel - Curley 345kV Transmission Line
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- Contour (5-Ft)

Vegetative Communities

- Agricultural Row-Crop
- Landscaped
- Urban
- Wetlands/Streams/Ponds

N

0 100 200 400

Feet

Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

FIGURE 5 SHEET 1 OF 9 VEGETATIVE COMMUNITIES ASSESSMENT MAP	
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CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

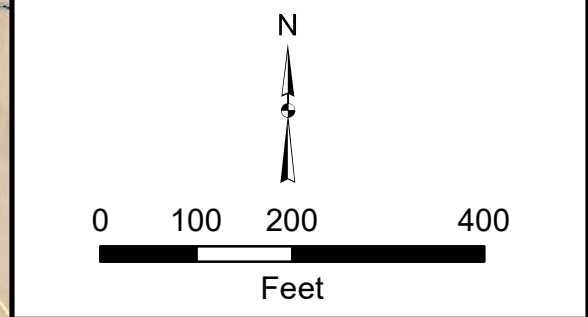


Legend

- Proposed Structures
- February 2024 Report Photographs
- Vassell - Curley 345kV Transmission Line
- NHD Stream (USGS)
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- Contour (5-Ft)

Vegetative Communities

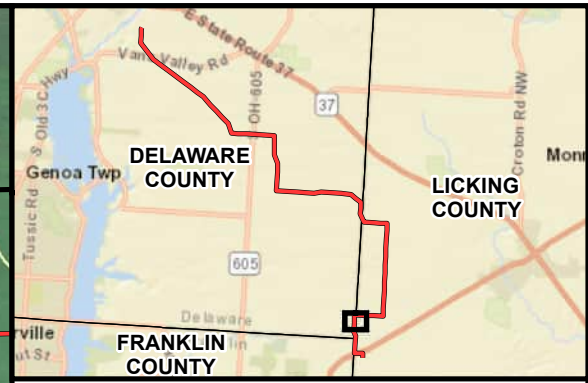
- Agricultural Row-Crop
- Landscaped
- Urban



Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 5
 SHEET 2 OF 9
 VEGETATIVE COMMUNITIES
 ASSESSMENT MAP

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
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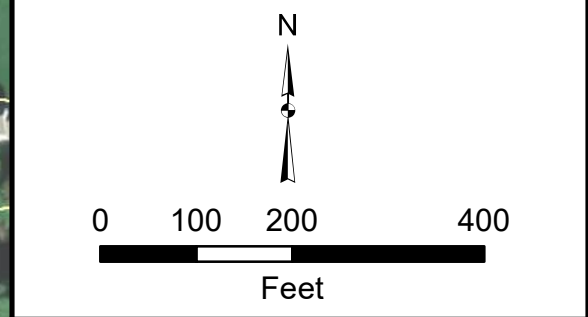


Legend

- Proposed Structures
- February 2024 Report Photographs
- Vassell - Curley 345kV Transmission Line
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- Contour (5-Ft)

Vegetative Communities

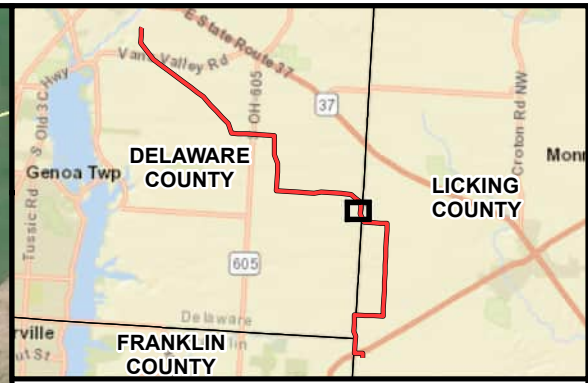
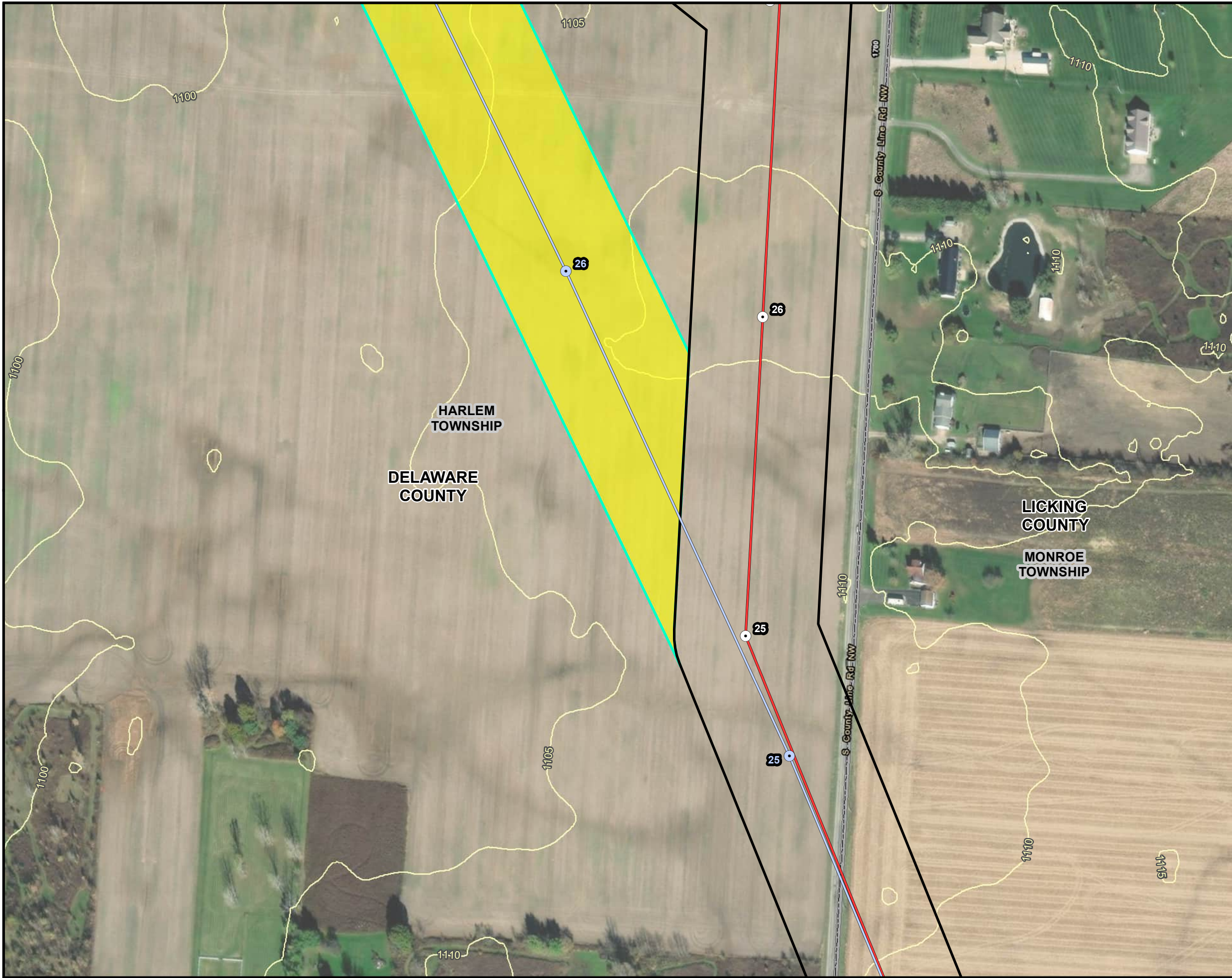
- Agricultural Row-Crop
- Landscaped
- Urban



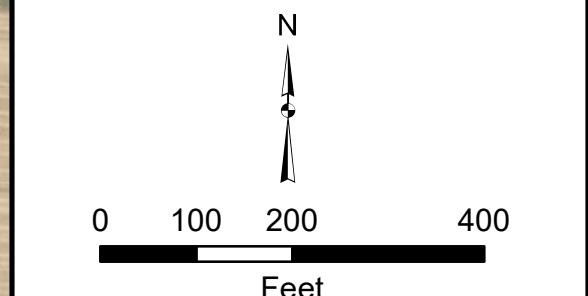
Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 5 SHEET 3 OF 9 VEGETATIVE COMMUNITIES ASSESSMENT MAP	
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JOB NO.: 60702685	AECOM

Date Saved: 8/1/2024
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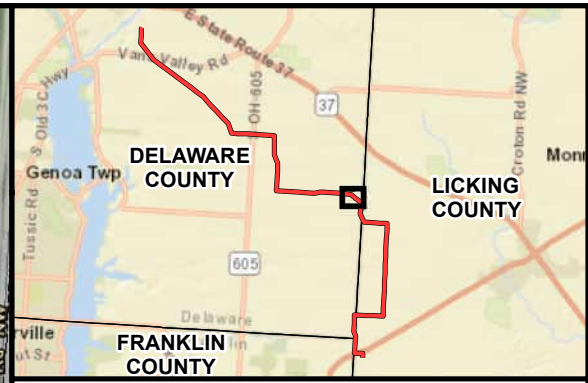
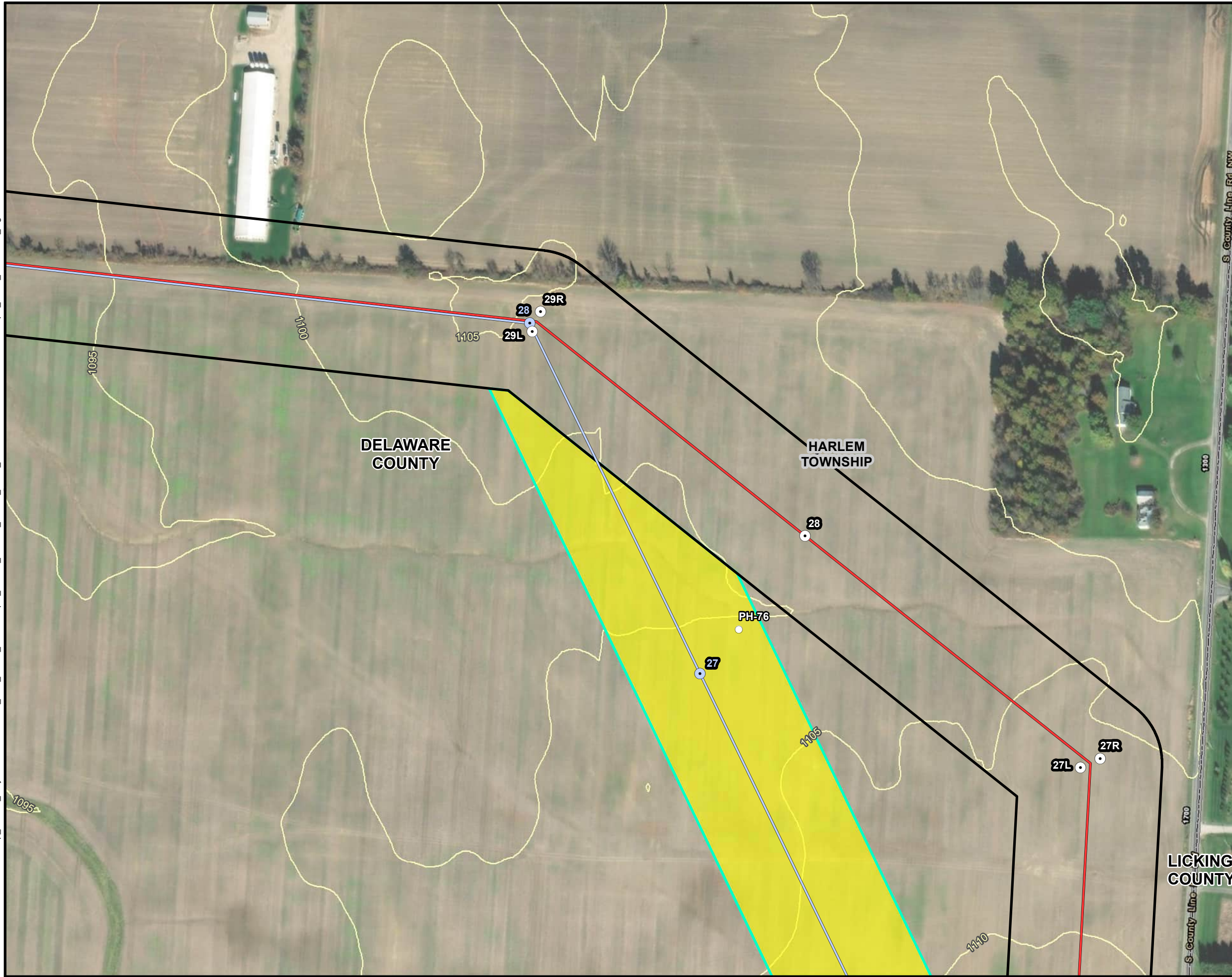
- Legend**
- Proposed Structures
 - Proposed Alternative Structures
 - Vassell - Curley 345kV Transmission Line
 - Potential Alternative
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - Contour (5-Ft)
- Vegetative Communities**
- Agricultural Row-Crop



Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 5 SHEET 4 OF 9 VEGETATIVE COMMUNITIES ASSESSMENT MAP	
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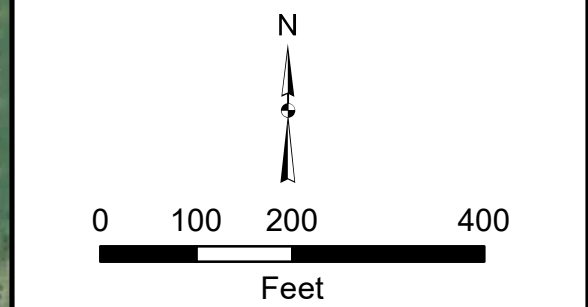


Legend

- Proposed Structures
- Proposed Alternative Structures
- April 2024 Report - Addendum #1 Photographs
- Vassel - Curley 345kV Transmission Line
- Potential Alternative
- February 2024 Report - Project Survey Area
- Project Survey Area - Addendum 1
- Contour (5-Ft)

Vegetative Communities

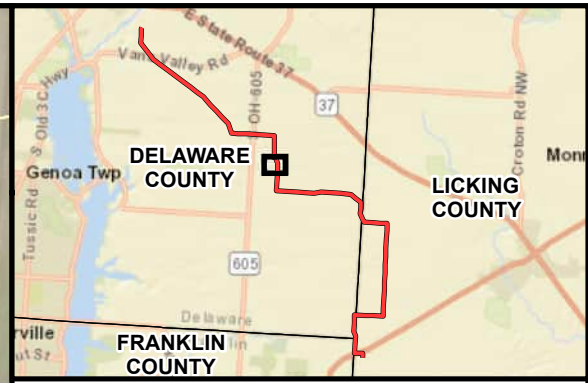
- Agricultural Row-Crop



Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

FIGURE 5
SHEET 5 OF 9
VEGETATIVE COMMUNITIES
ASSESSMENT MAP

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
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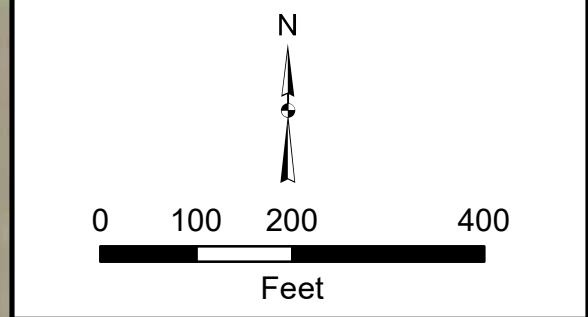


Legend

- Proposed Structures
- Proposed Alternative Structures
- February 2024 Report Photographs
- Vassell - Curley 345kV Transmission Line
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- Contour (5-Ft)

Vegetative Communities

- Agricultural Row-Crop
- Woodlands

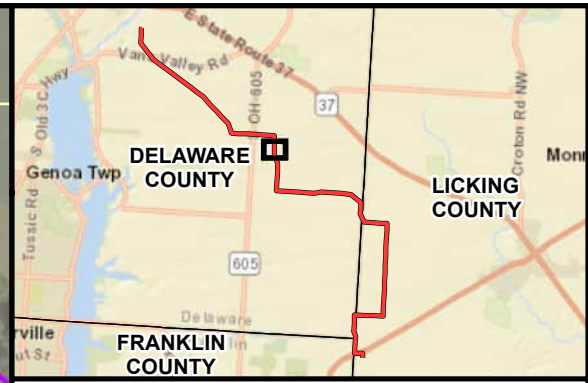
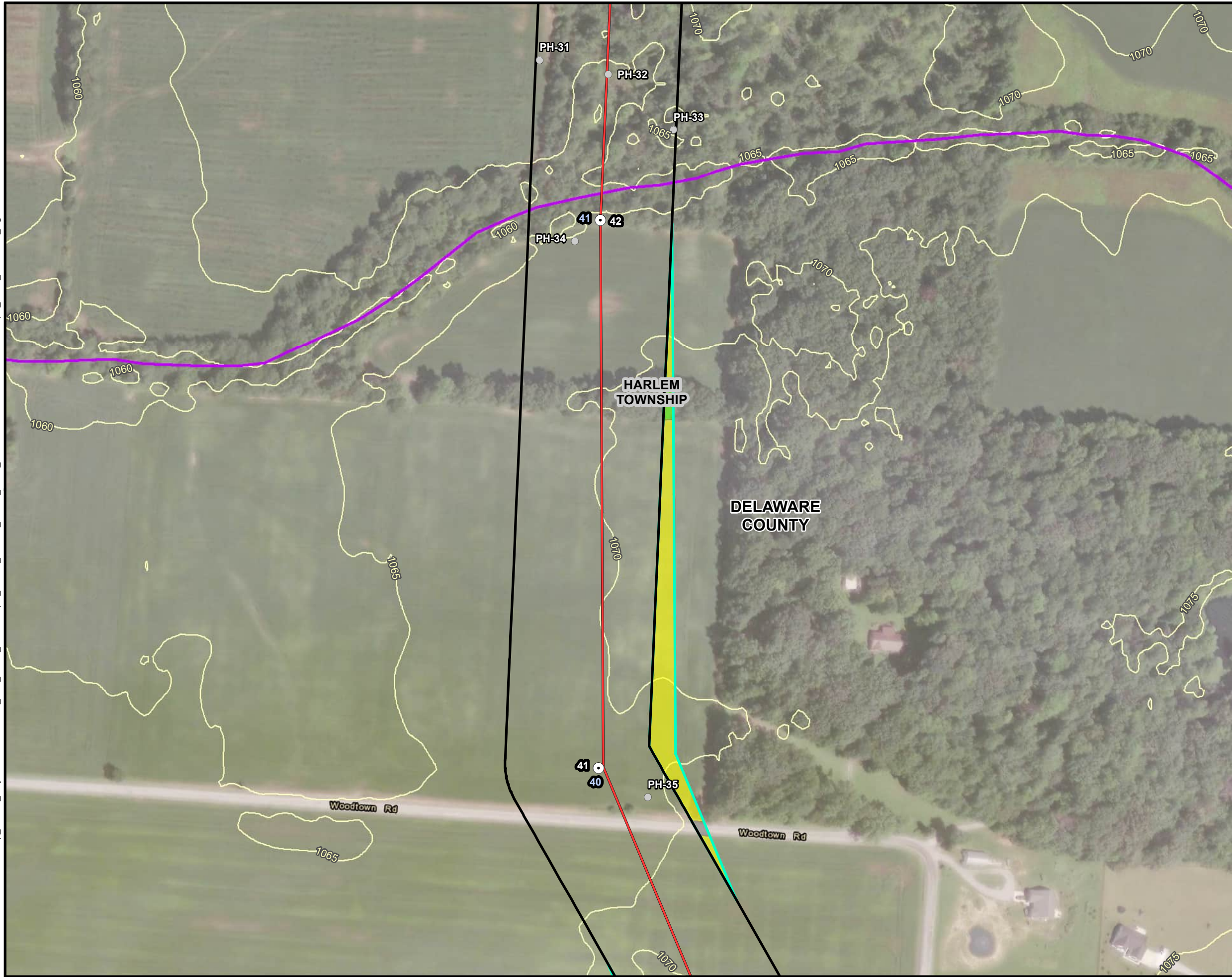


Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

FIGURE 5
 SHEET 6 OF 9
 VEGETATIVE COMMUNITIES
 ASSESSMENT MAP

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

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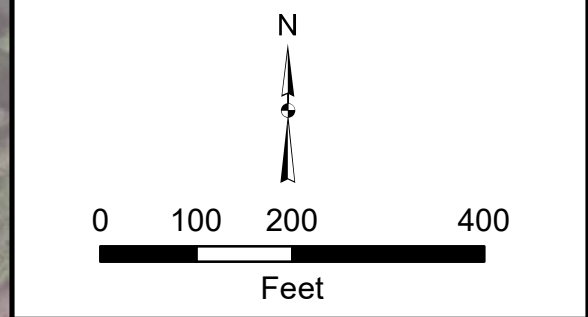


Legend

- Proposed Structures
- Proposed Alternative Structures
- February 2024 Report Photographs
- Vassell - Curley 345kV Transmission Line
- NHD Stream (USGS)
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- Contour (5-Ft)

Vegetative Communities

- Agricultural Row-Crop
- Urban
- Woodlands

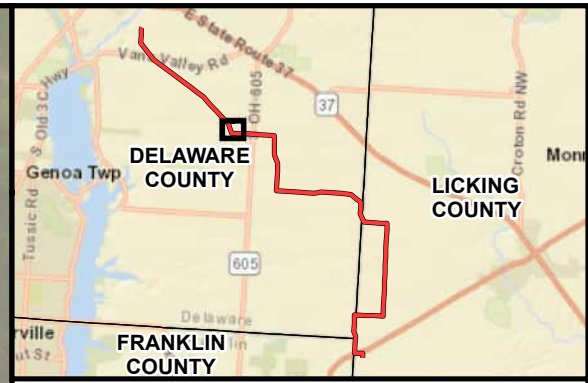


Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

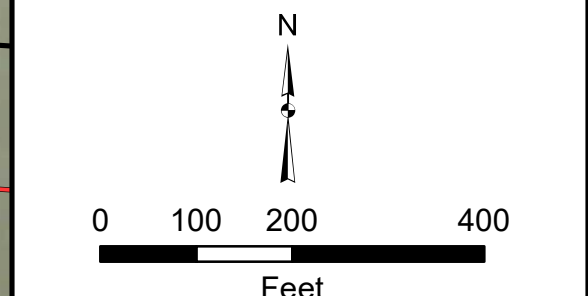
FIGURE 5
 SHEET 7 OF 9
 VEGETATIVE COMMUNITIES
 ASSESSMENT MAP

DATE: 8/6/2024	1 INCH = 200 FEET
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Date Saved: 8/1/2024
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- Legend**
- Proposed Structures
 - Proposed Alternative Structures
 - April 2024 Report - Addendum #1 Photographs
 - February 2024 Report Photographs
 - Vassel - Curley 345kV Transmission Line
 - Potential Alternative
 - NHD Stream (USGS)
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - Contour (5-Ft)
 - ▨ NFHL 100-Year Floodplain (FEMA)
- Vegetative Communities**
- Agricultural Row-Crop
 - Wetlands/Streams/Ponds
 - Woodlands

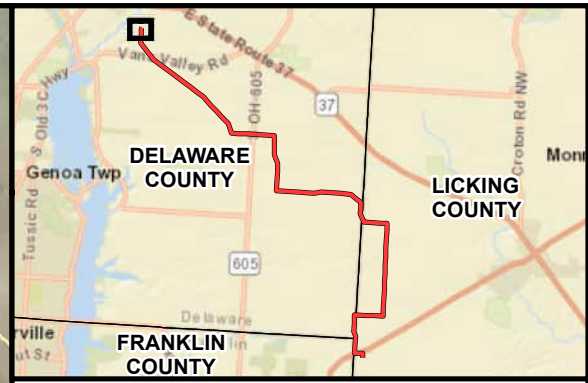
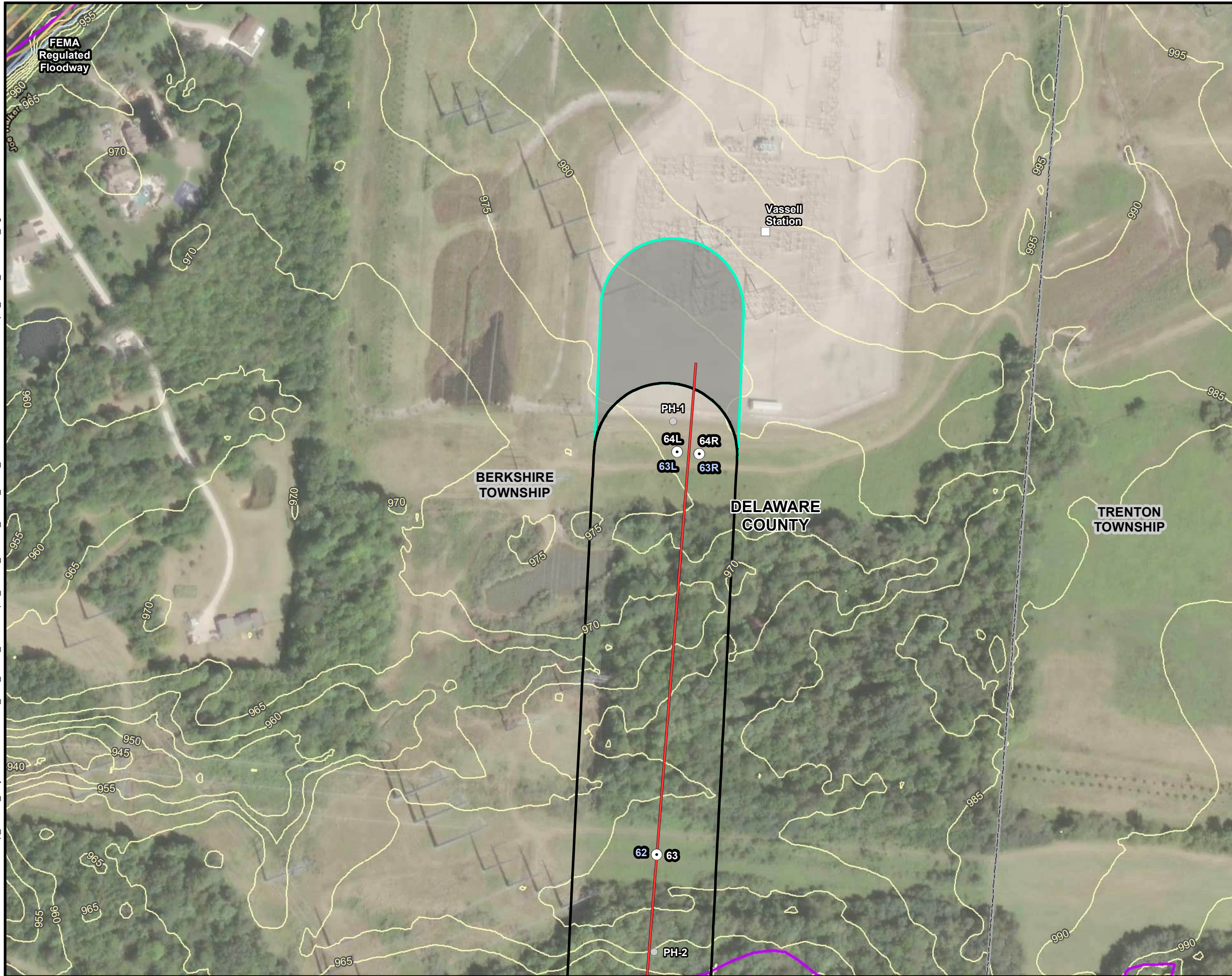


**Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1**

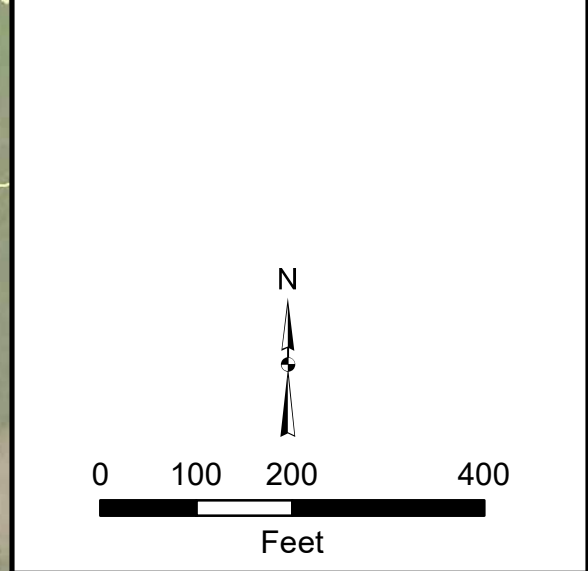
**FIGURE 5
 SHEET 8 OF 9
 VEGETATIVE COMMUNITIES
 ASSESSMENT MAP**

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/1/2024
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- Legend**
- Proposed Structures
 - Proposed Alternative Structures
 - Station
 - February 2024 Report Photographs
 - Vassell - Curley 345kV Transmission Line
 - NHD Stream (USGS)
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - Contour (5-Ft)
 - ▭ NFHL 100-Year Floodplain (FEMA)
 - ▭ NFHL Floodway (FEMA)
- Vegetative Communities**
- Old Field
 - Urban



Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

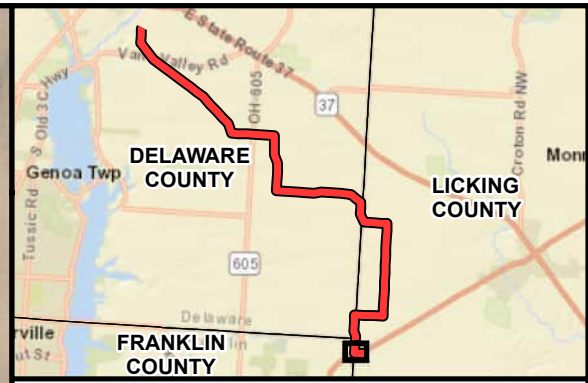
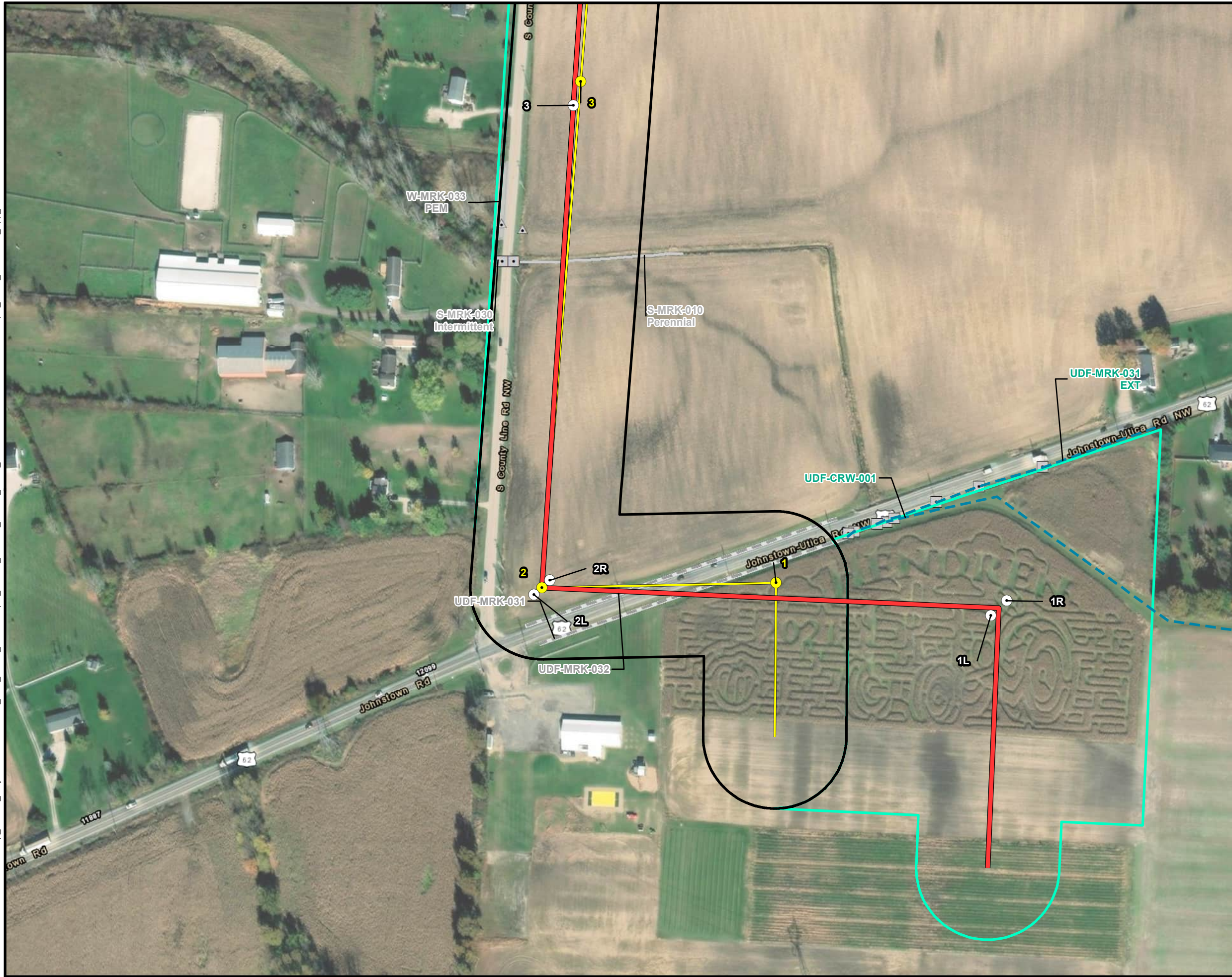
FIGURE 5
 SHEET 9 OF 9
 VEGETATIVE COMMUNITIES
 ASSESSMENT MAP

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JOB NO.: 60702685	AECOM

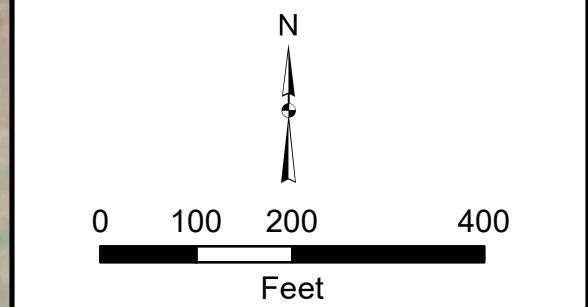
APPENDIX A

FEBRUARY 2024 – ORIGINAL REPORT AND ADDENDUM #1 COMPARISON MAP

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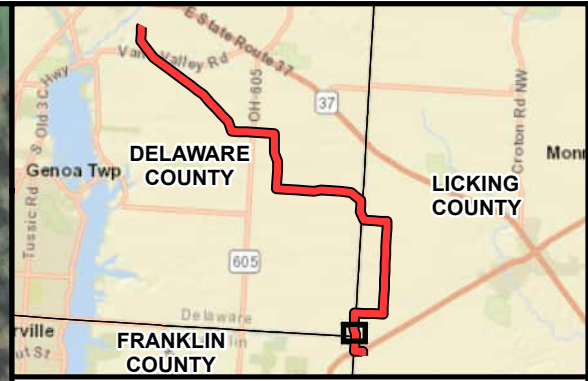
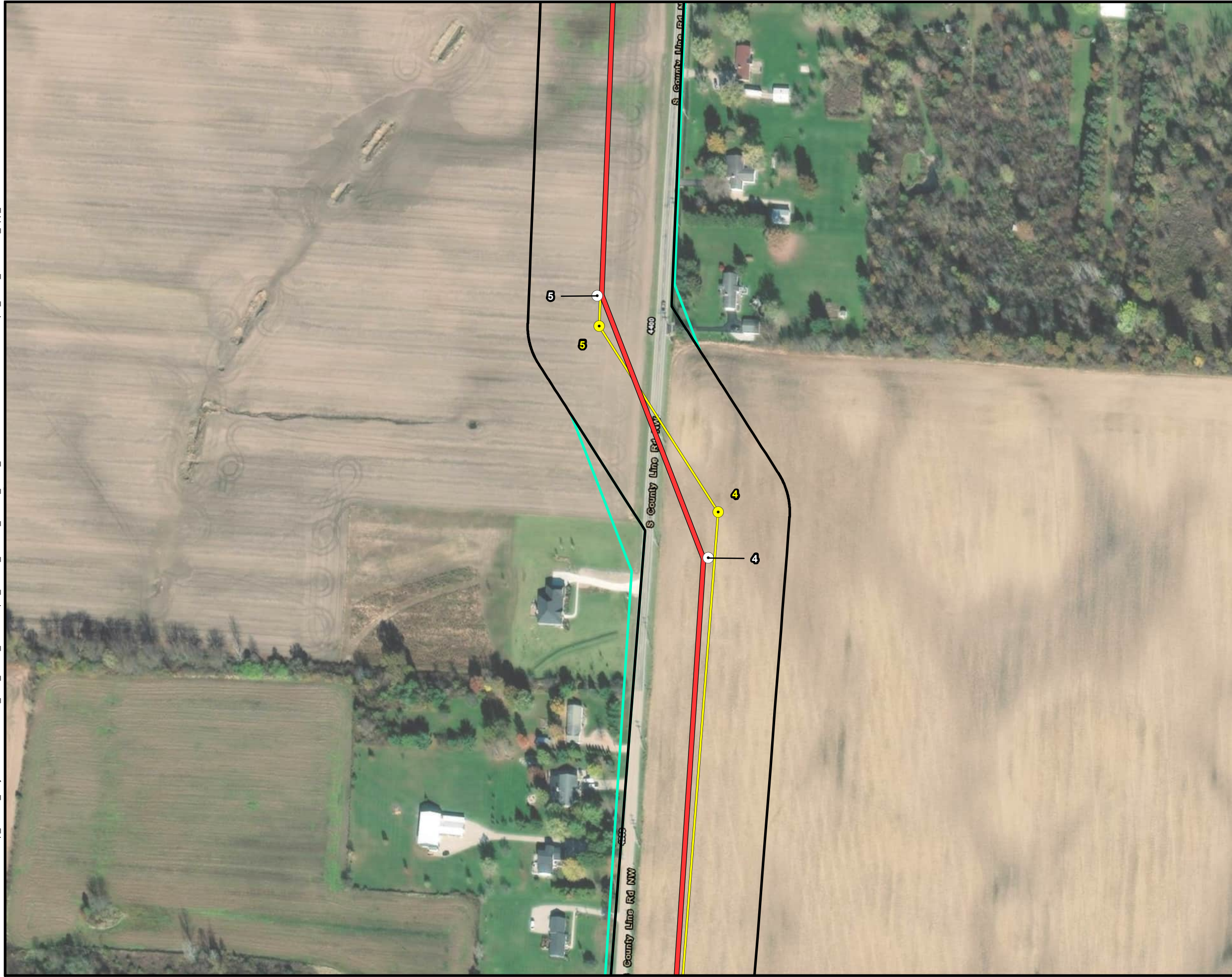
- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassel - Curley 345kV Transmission Line
 - Vassel - Green Chapel South Route (February 2024 - Report)
 - Delineated Upland Drainage Feature
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1
 - Culvert
 - ▲ Previous Wetland Data Points
 - Previously Delineated Upland Drainage Feature
 - Previously Delineated Intermittent Stream
 - Previously Delineated Perennial Stream
 - Previously Delineated PEM Wetland



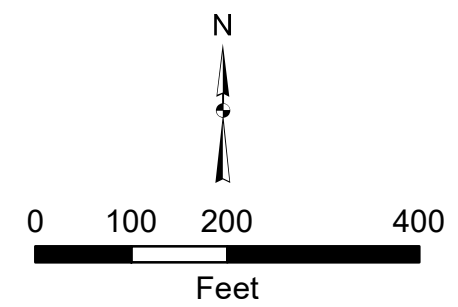
Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

APPENDIX A
 SHEET 1 OF 29
 FEBRUARY 2024 - ORIGINAL REPORT AND
 ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
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JOB NO.: 60702685	AECOM



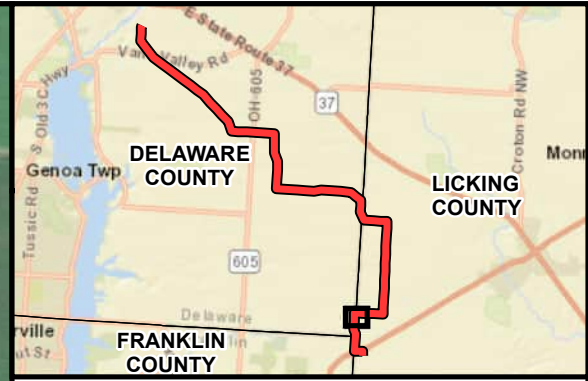
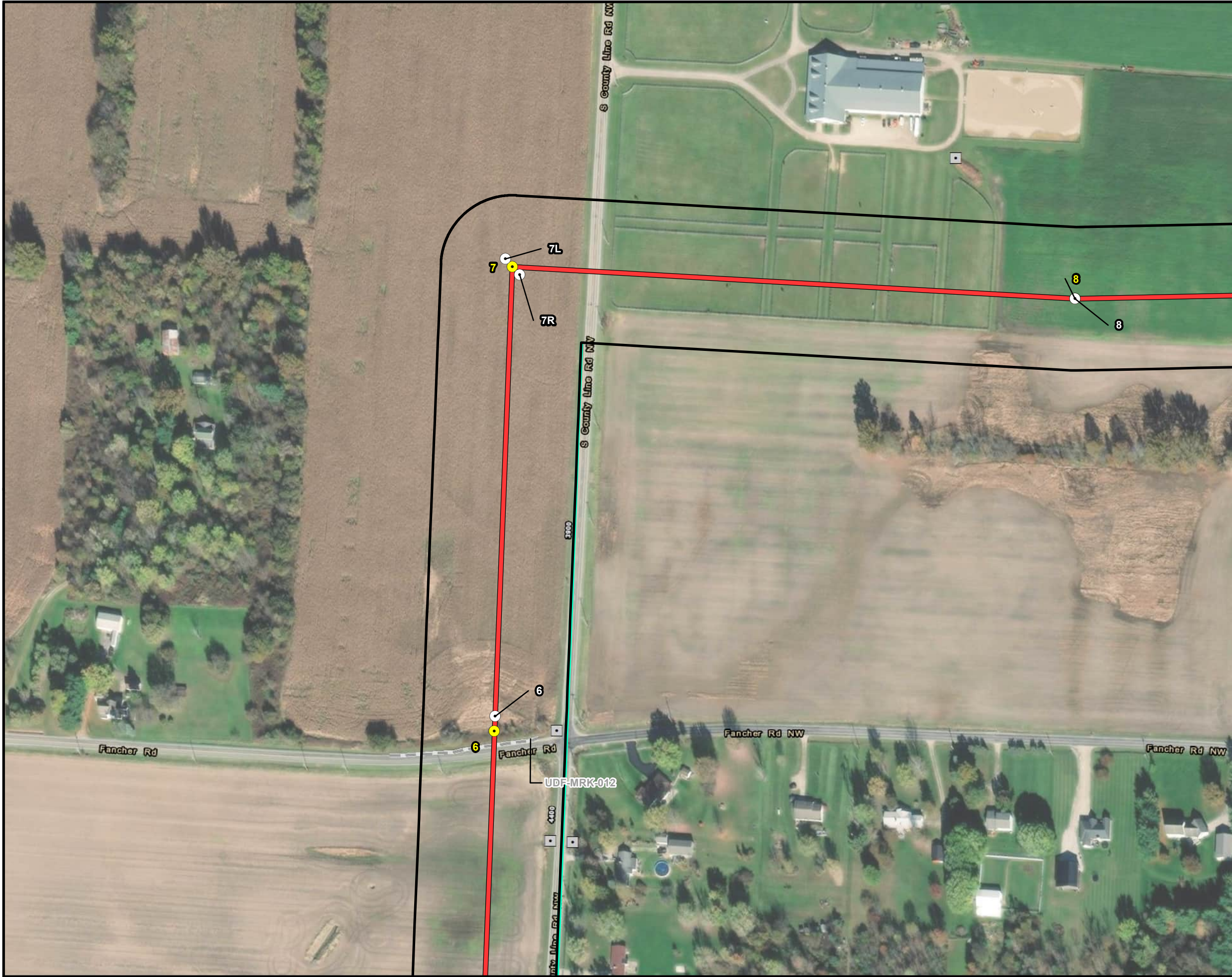
- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1



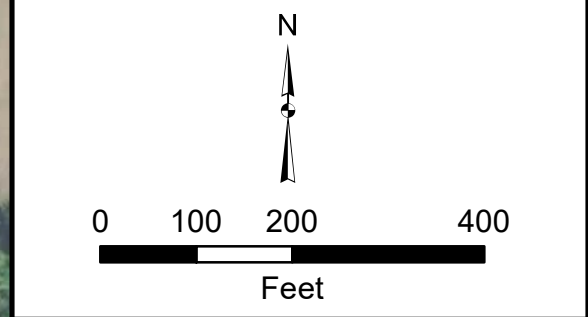
Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

APPENDIX A
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 FEBRUARY 2024 - ORIGINAL REPORT AND
 ADDENDUM #1 ECOLOGICAL REPORT

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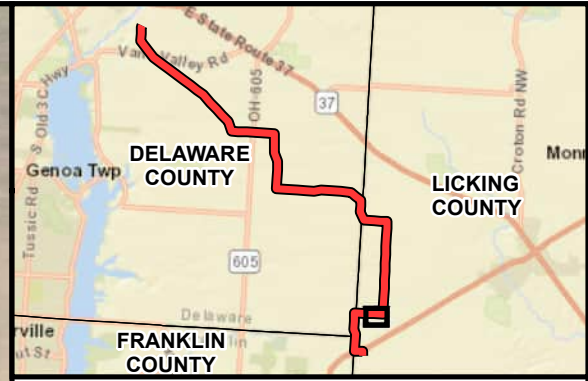


- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1
 - Culvert
 - Previously Delineated Upland Drainage Feature



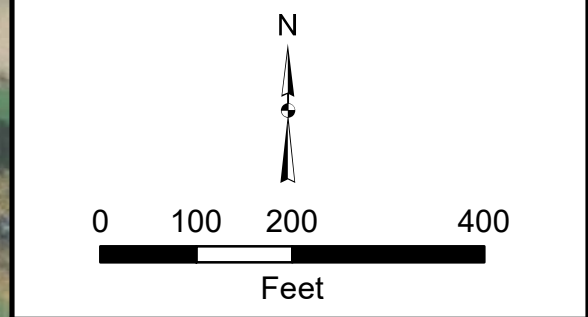
Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

APPENDIX A SHEET 3 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
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JOB NO.: 60702685	AECOM



Legend

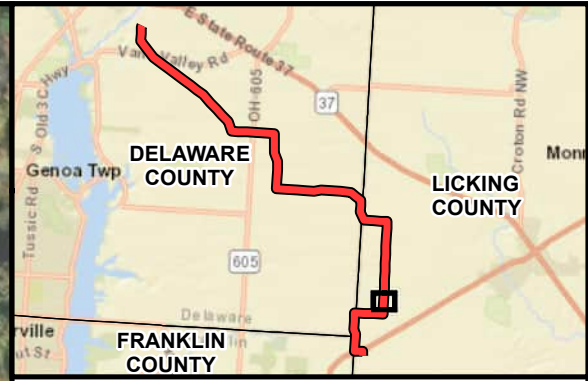
- Structure (February 2024 Report)
- Structure (Addendum 1)
- Vassell - Curley 345kV Transmission Line
- Vassell - Green Chapel South Route (February 2024 - Report)
- February 2024 Report - Project Survey Area
- ▲ Previous Wetland Data Points
- Previously Delineated PEM Wetland



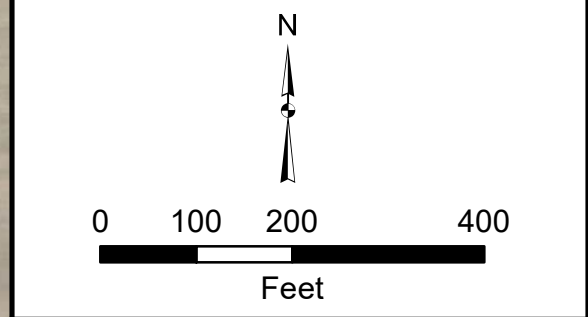
Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

APPENDIX A SHEET 4 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
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CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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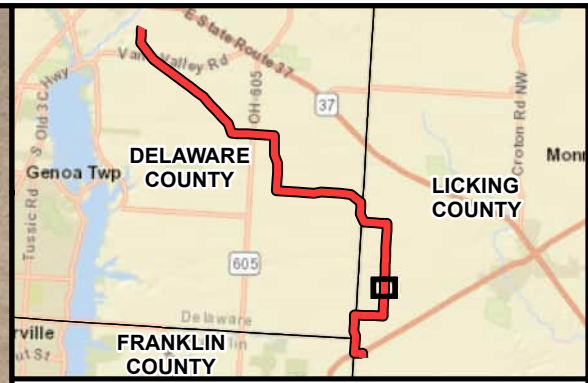
- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - ▲ Previous Wetland Data Points
 - Previously Delineated Perennial Stream
 - ▭ Previously Delineated PFO Wetland



Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

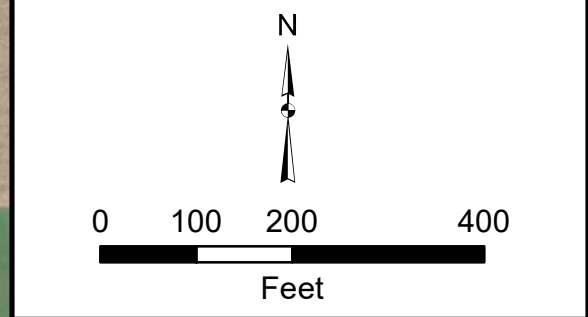
APPENDIX A
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FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

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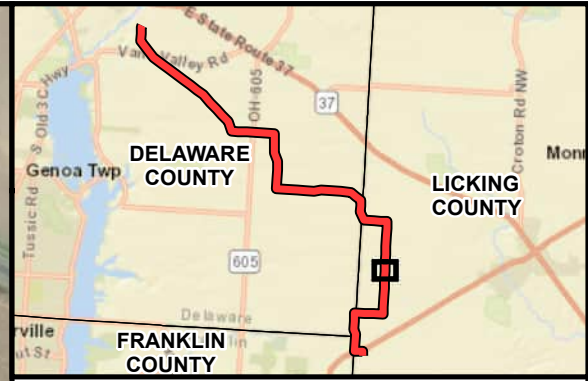
- Structure (February 2024 Report)
- Structure (Addendum 1)
- Vassell - Curley 345kV Transmission Line
- Vassell - Green Chapel South Route (February 2024 - Report)
- February 2024 Report - Project Survey Area
- ▲ Previous Wetland Data Points
- Previously Delineated PFO Wetland



Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

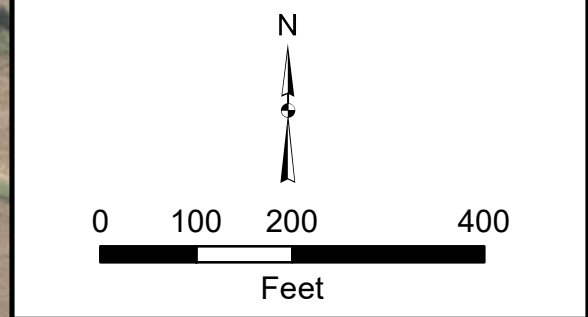
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 SHEET 6 OF 29
 FEBRUARY 2024 - ORIGINAL REPORT AND
 ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
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JOB NO.: 60702685	AECOM



Legend

- Structure (February 2024 Report)
- Structure (Addendum 1)
- Vassell - Curley 345kV Transmission Line
- Vassell - Green Chapel South Route (February 2024 - Report)
- February 2024 Report - Project Survey Area
- ▲ Previous Wetland Data Points
- Previously Delineated PFO Wetland

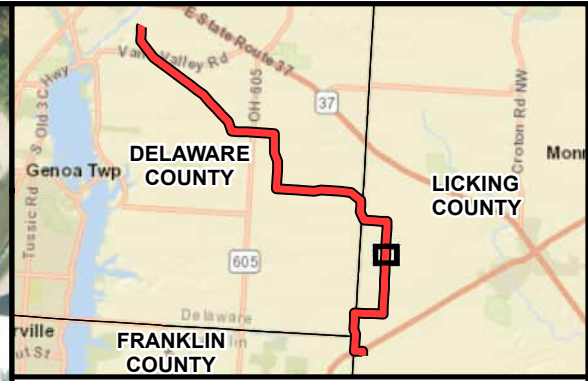


Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

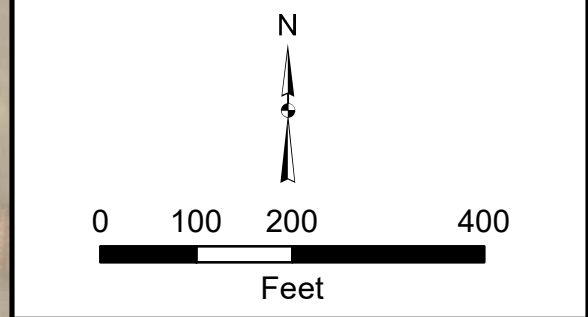
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 SHEET 7 OF 29
 FEBRUARY 2024 - ORIGINAL REPORT AND
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DATE: 8/6/2024	1 INCH = 200 FEET
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JOB NO.: 60702685	AECOM

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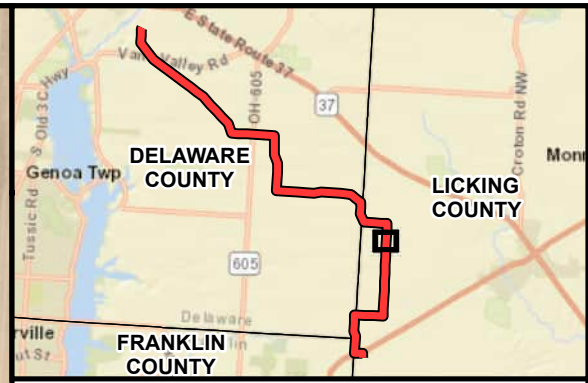
- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassel - Curley 345kV Transmission Line
 - Vassel - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Previously Delineated Upland Drainage Feature
 - Previously Delineated Perennial Stream



 Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

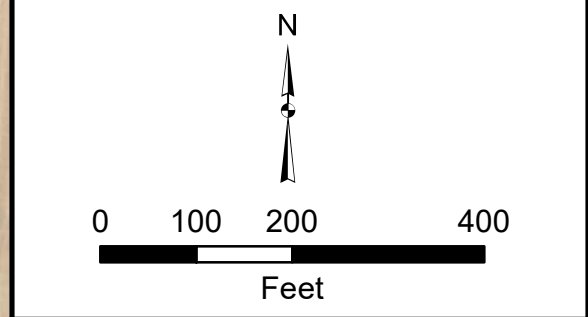
APPENDIX A
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FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
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JOB NO.: 60702685	AECOM



Legend

- Structure (February 2024 Report)
- Structure (Addendum 1)
- Vassel - Curley 345kV Transmission Line
- Vassel - Green Chapel South Route (February 2024 - Report)
- February 2024 Report - Project Survey Area
- Culvert
- ▲ Previous Wetland Data Points
- Previously Delineated PFO Wetland

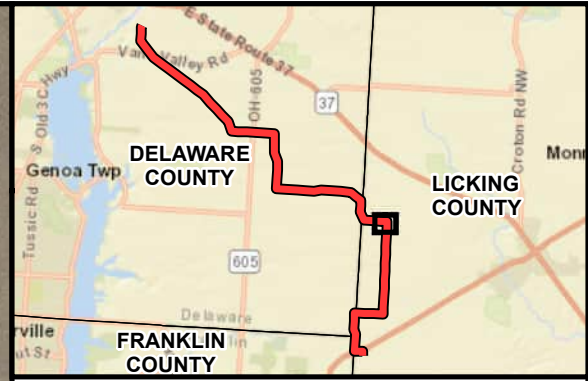


Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

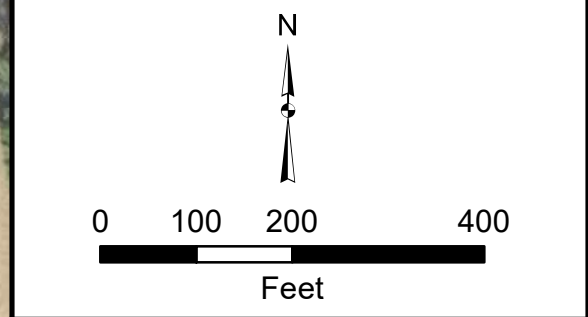
APPENDIX A
SHEET 9 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

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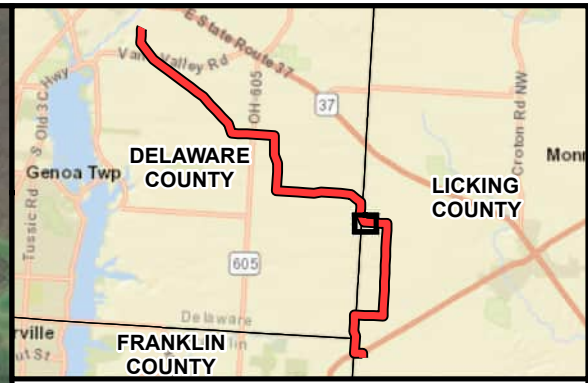
- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - ▲ Previous Wetland Data Points
 - ◻ Previously Delineated PEM Wetland
 - ◻ Previously Delineated PFO Wetland



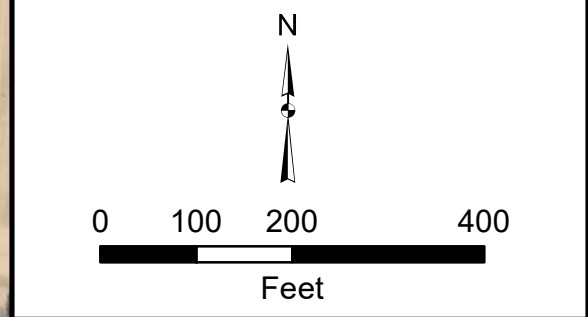
 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

APPENDIX A
SHEET 10 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

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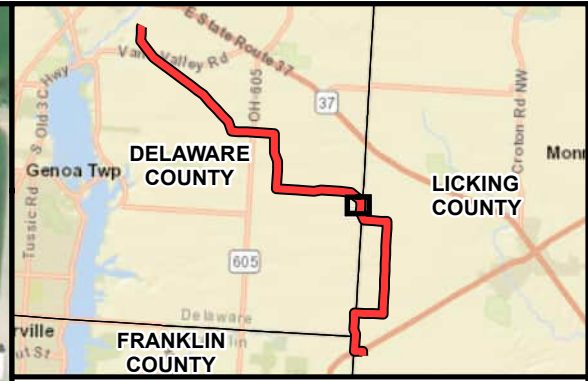


- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassel - Curley 345kV Transmission Line
 - Potential Alternative
 - Vassel - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Previously Delineated Upland Drainage Feature

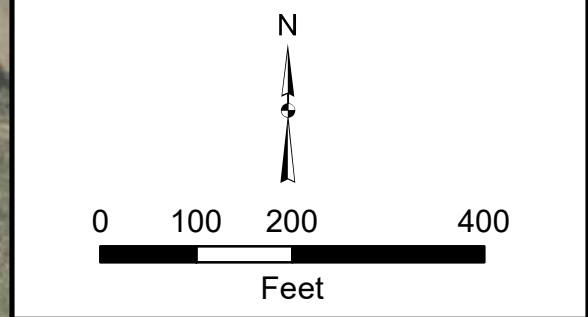


Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

APPENDIX A SHEET 11 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
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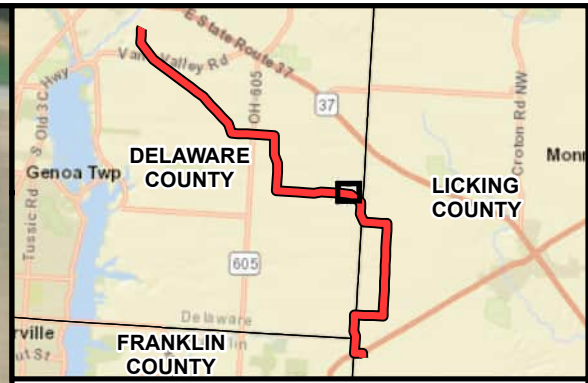
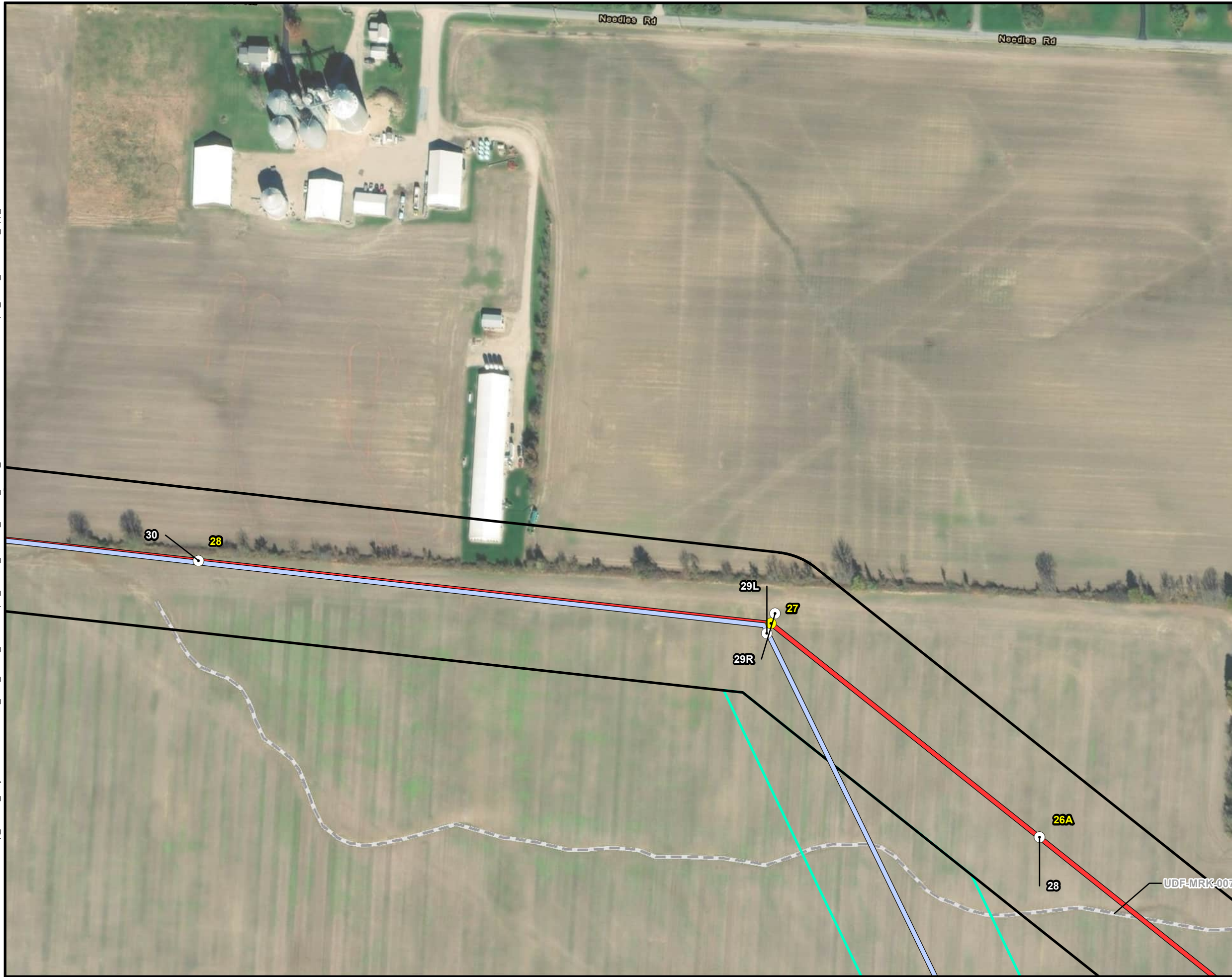
- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Potential Alternative
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1
 - Culvert
 - Previously Delineated Upland Drainage Feature



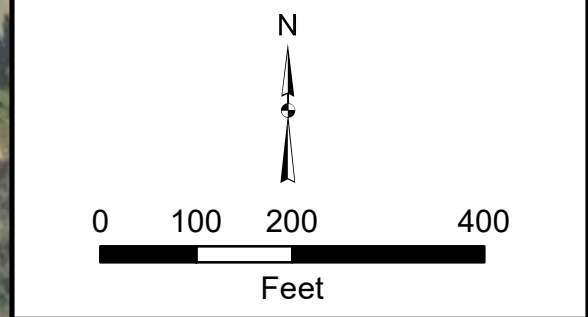
Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

APPENDIX A SHEET 12 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
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JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Potential Alternative
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - - - Previously Delineated Upland Drainage Feature

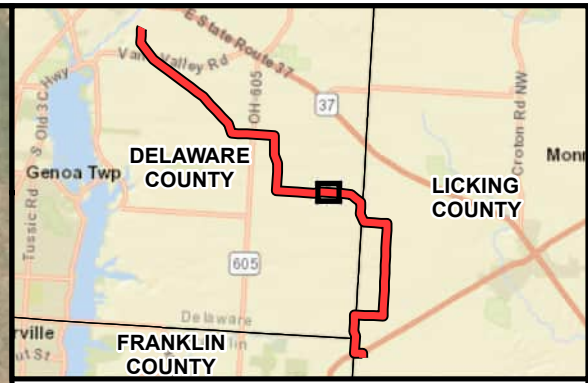


Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

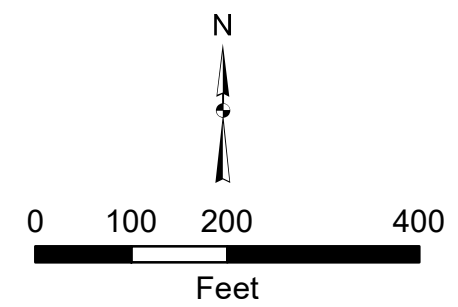
APPENDIX A
SHEET 13 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
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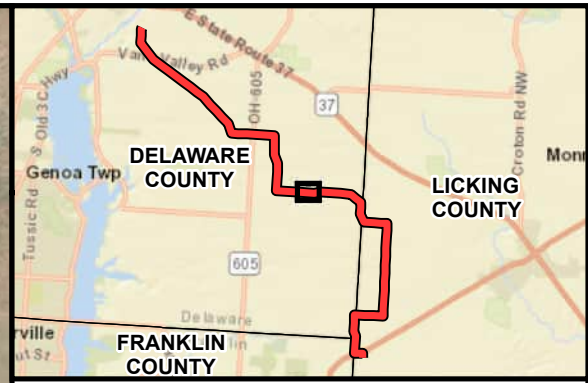
- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Potential Alternative
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Culvert
 - ▲ Previous Wetland Data Points
 - Previously Delineated Perennial Stream
 - Previously Delineated PFO Wetland



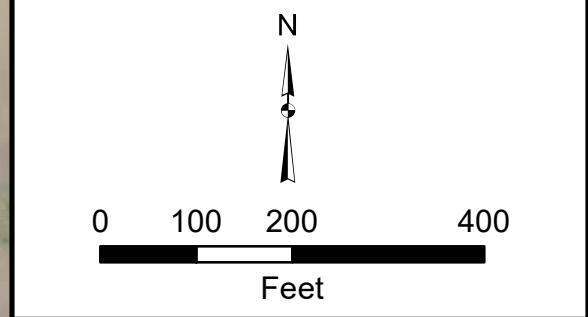
Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

APPENDIX A SHEET 14 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
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- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - ▲ Previous Wetland Data Points
 - ▭ Previously Delineated PFO Wetland

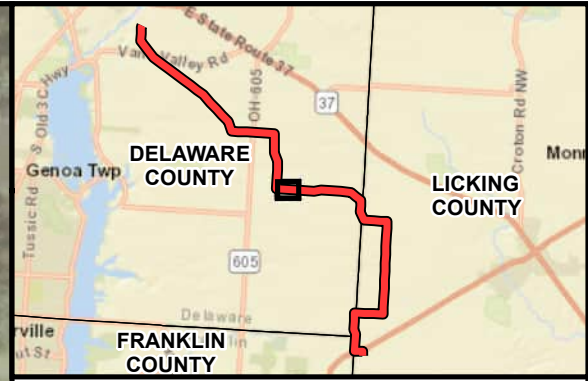


 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

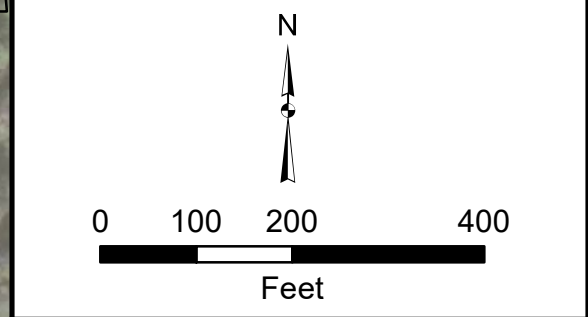
APPENDIX A
SHEET 15 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

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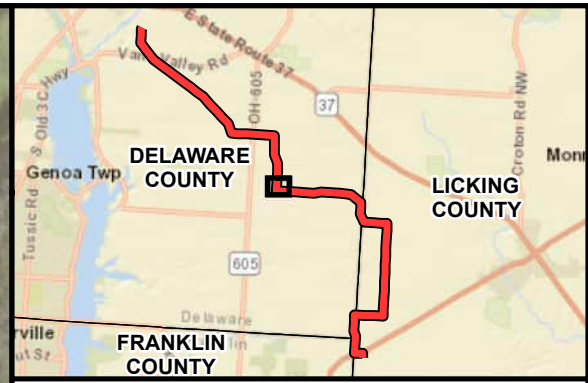
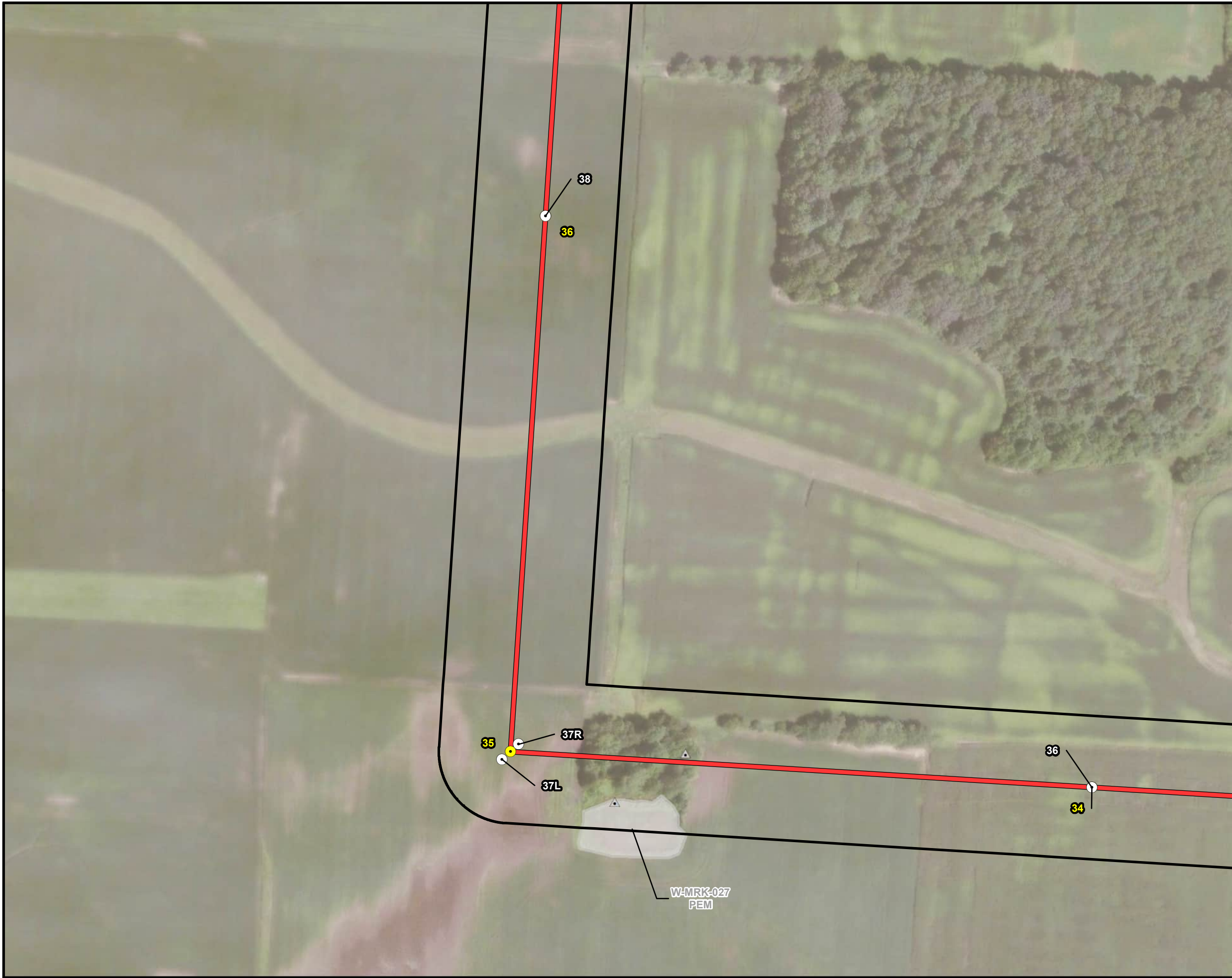
- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - ▲ Previous Wetland Data Points
 - ◻ Previously Delineated PEM Wetland
 - ◻ Previously Delineated PFO Wetland



 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

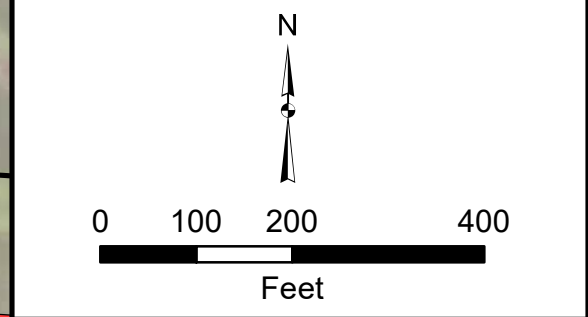
APPENDIX A
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FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM



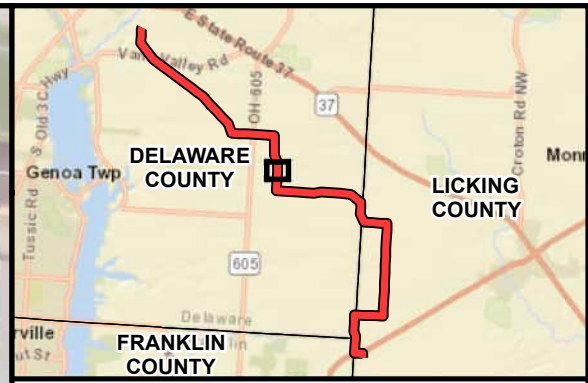
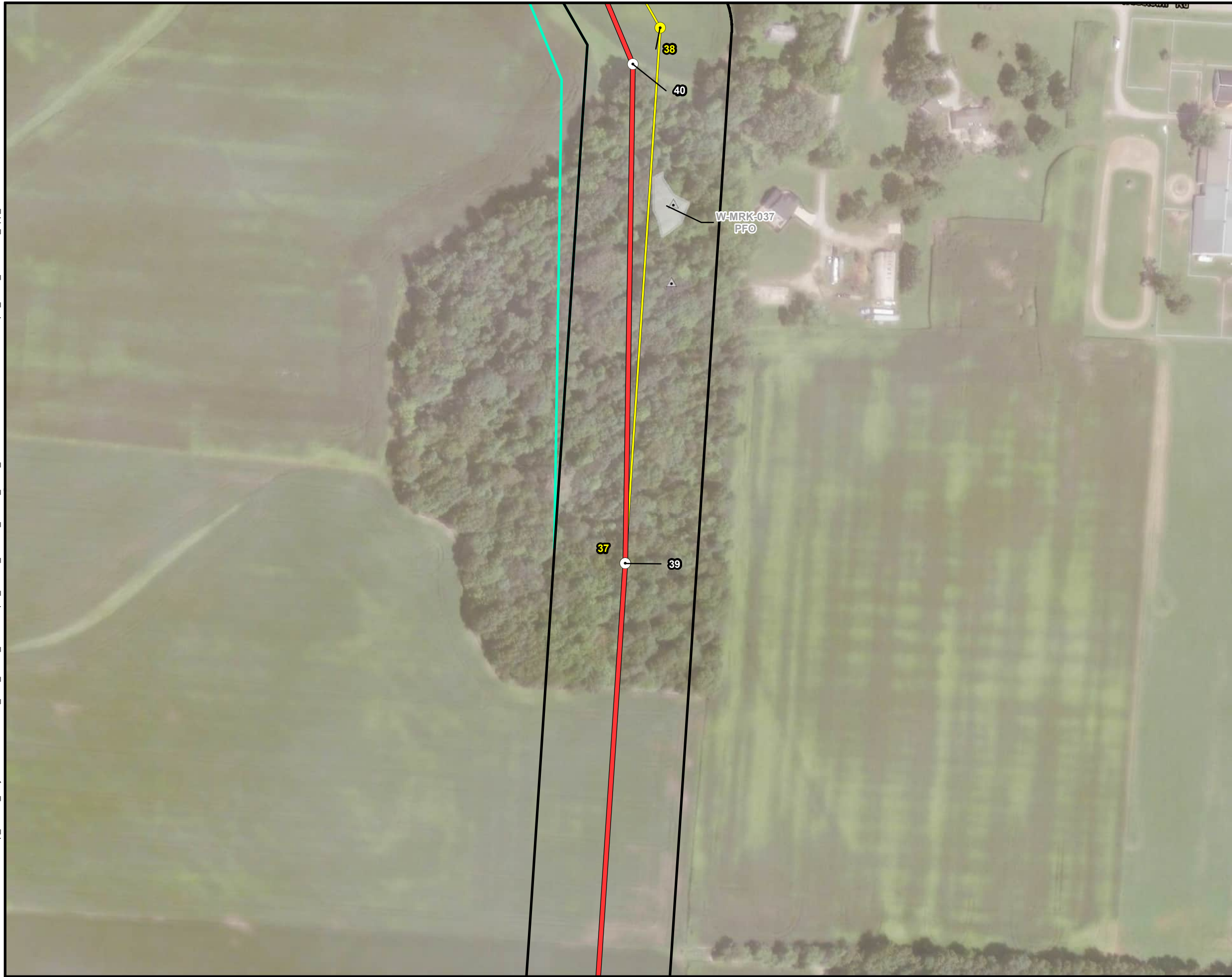
Legend

- Structure (February 2024 Report)
- Structure (Addendum 1)
- Vassell - Curley 345kV Transmission Line
- Vassell - Green Chapel South Route (February 2024 - Report)
- February 2024 Report - Project Survey Area
- ▲ Previous Wetland Data Points
- Previously Delineated PEM Wetland



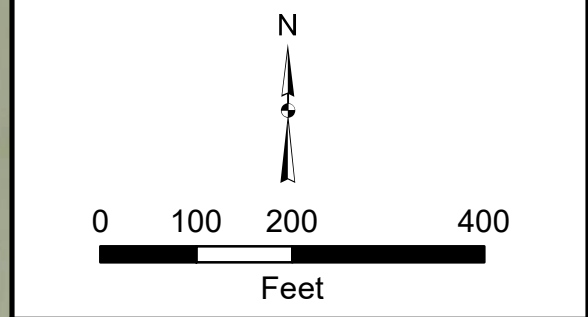
Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

APPENDIX A SHEET 17 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM



Legend

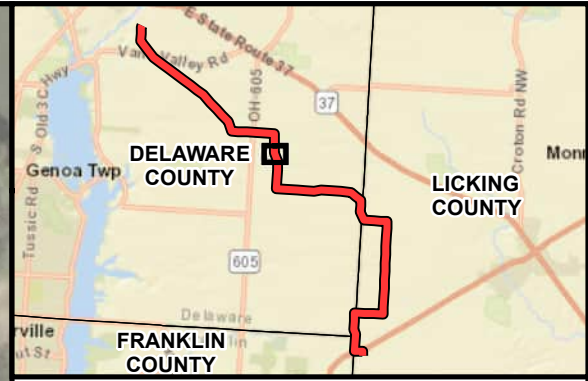
- Structure (February 2024 Report)
- Structure (Addendum 1)
- Vassell - Curley 345kV Transmission Line
- Vassell - Green Chapel South Route (February 2024 - Report)
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- ▲ Previous Wetland Data Points
- ▭ Previously Delineated PFO Wetland



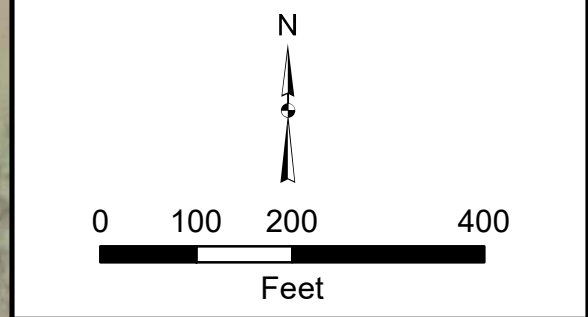
 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

APPENDIX A
SHEET 18 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM



- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1
 - Culvert
 - - - Previously Delineated Upland Drainage Feature

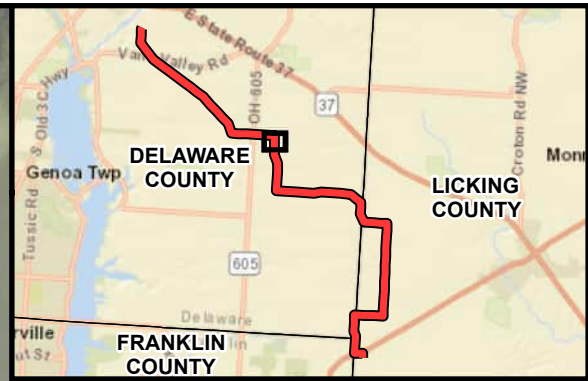


Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

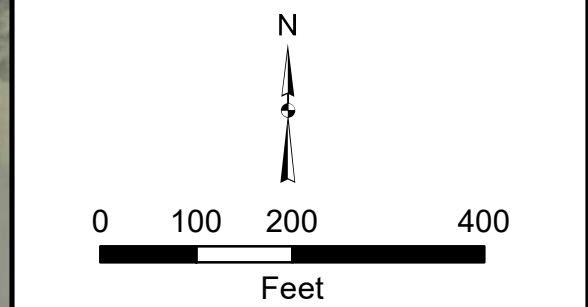
APPENDIX A
 SHEET 19 OF 29
 FEBRUARY 2024 - ORIGINAL REPORT AND
 ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1
 - ▲ Previous Wetland Data Points
 - Previously Delineated Perennial Stream
 - Previously Delineated PEM Wetland
 - Previously Delineated PFO Wetland

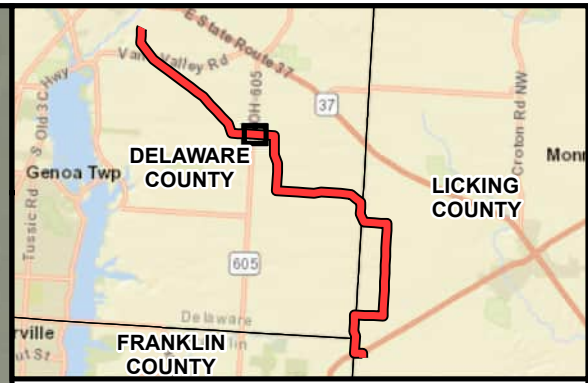
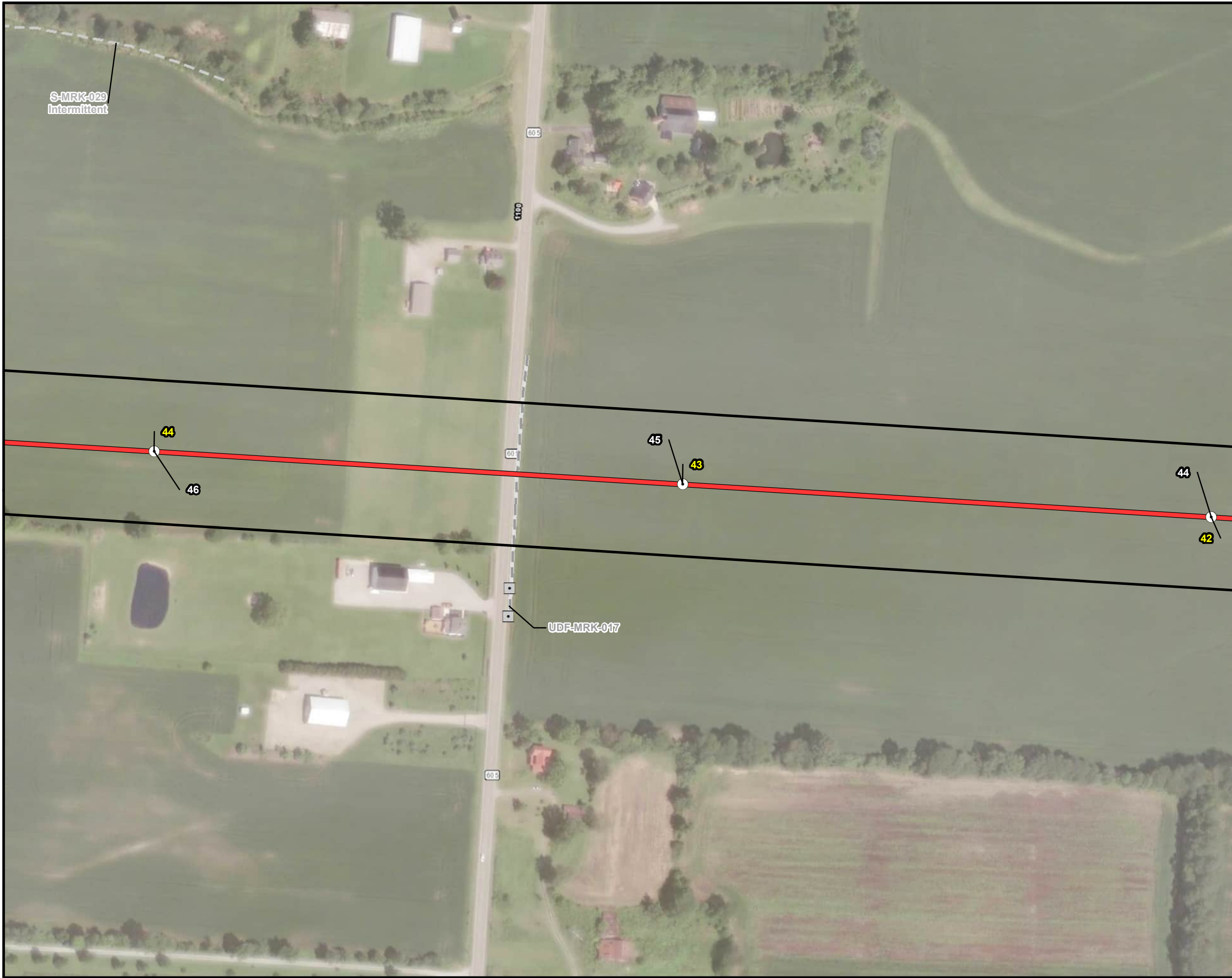


Vassel - Curley 345 kV
 Transmission Line Project
 Addendum 1

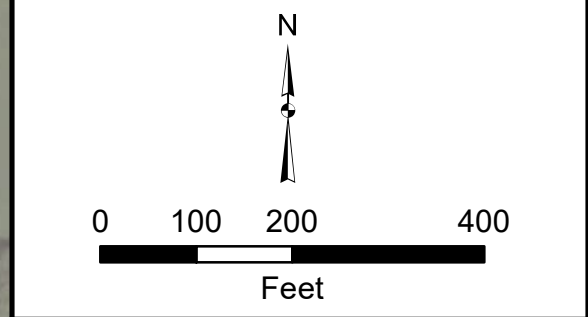
APPENDIX A
 SHEET 20 OF 29
 FEBRUARY 2024 - ORIGINAL REPORT AND
 ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENR\60702685_AEP_Vassel_GreenChapel_North\2_MXD\1_WDR\1_South_Route\Addendum 1\Vassel\GreenChapel_South_WDRAdd1_App_A.mxd



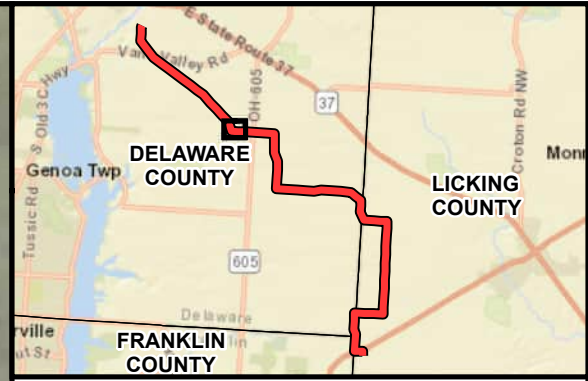
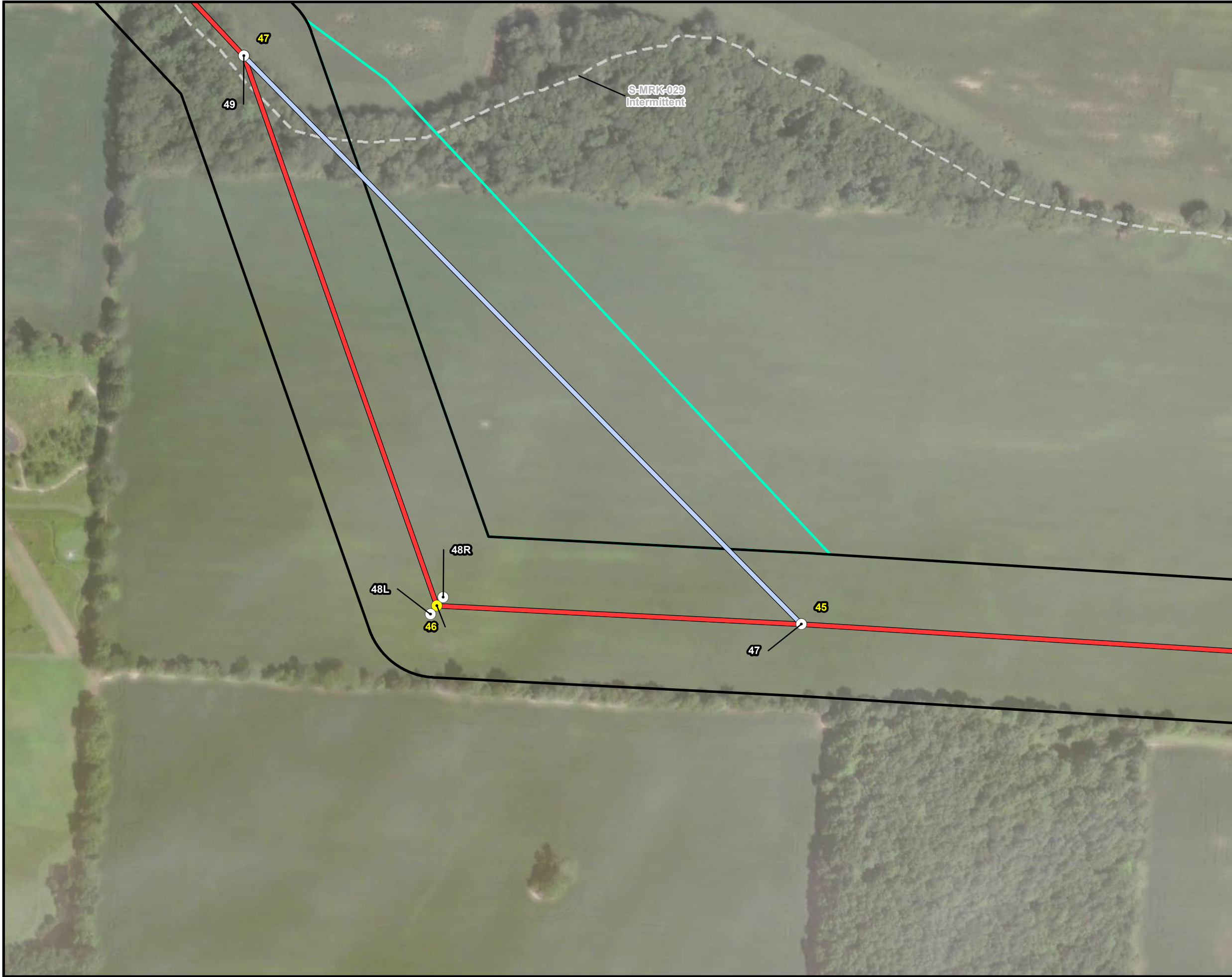
- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - Culvert
 - Previously Delineated Upland Drainage Feature
 - Previously Delineated Intermittent Stream



 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

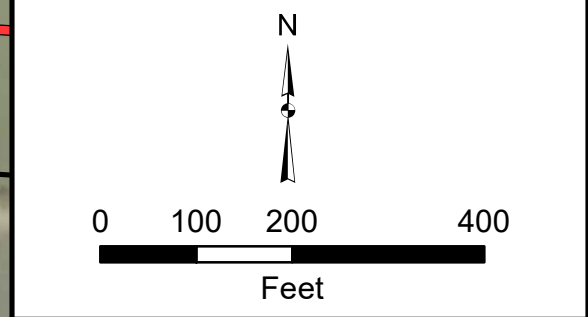
APPENDIX A SHEET 21 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
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CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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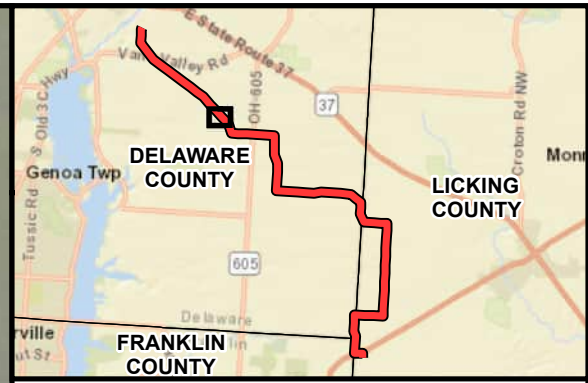
Legend

- Structure (February 2024 Report)
- Structure (Addendum 1)
- Vassell - Curley 345kV Transmission Line
- Potential Alternative
- Vassell - Green Chapel South Route (February 2024 - Report)
- ▭ February 2024 Report - Project Survey Area
- ▭ Project Survey Area - Addendum 1
- - - Previously Delineated Intermittent Stream

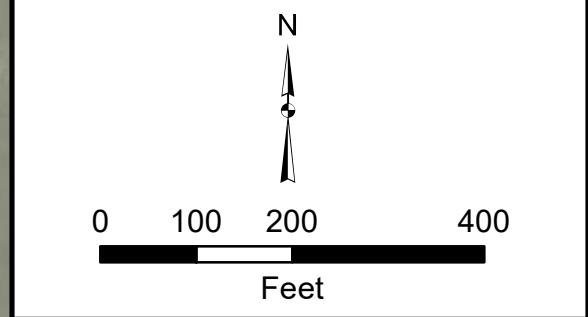


 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

APPENDIX A SHEET 22 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM



- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Potential Alternative
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Project Survey Area - Addendum 1
 - ▲ Previous Wetland Data Points
 - - - Delineated Intermittent Stream
 - - - Previously Delineated Intermittent Stream
 - Previously Delineated PFO Wetland

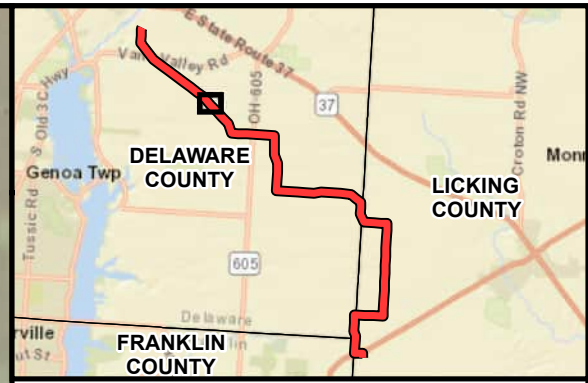


Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

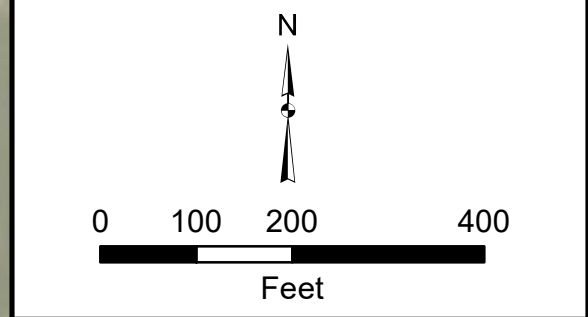
APPENDIX A
 SHEET 23 OF 29
 FEBRUARY 2024 - ORIGINAL REPORT AND
 ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENV\60702685_AEP_Vassel_GreenChapel_North2_MXD\1_South_Route\Addendum 1\Vassel\GreenChapel_South_WDRAdd1_App_A.mxd



- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - Culvert
 - Previously Delineated Upland Drainage Feature
 - Previously Delineated Perennial Stream

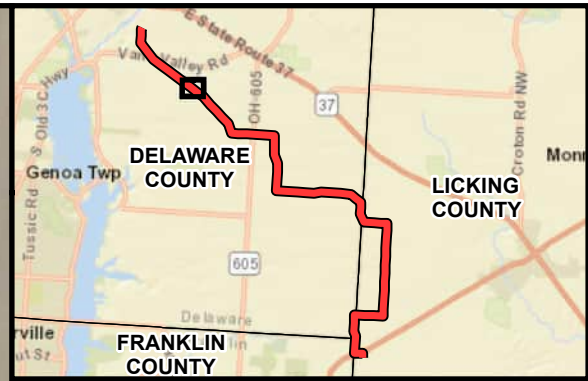


 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

APPENDIX A
SHEET 24 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

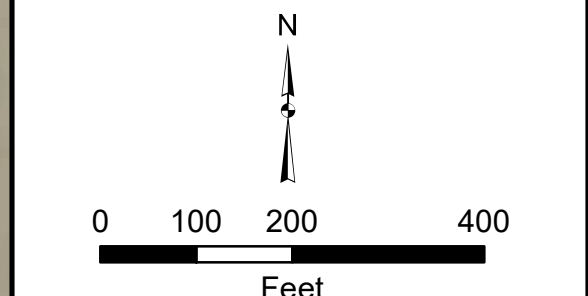
DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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Legend

- Structure (February 2024 Report)
- Structure (Addendum 1)
- Vassell - Curley 345kV Transmission Line
- Vassell - Green Chapel South Route (February 2024 - Report)
- ▭ February 2024 Report - Project Survey Area

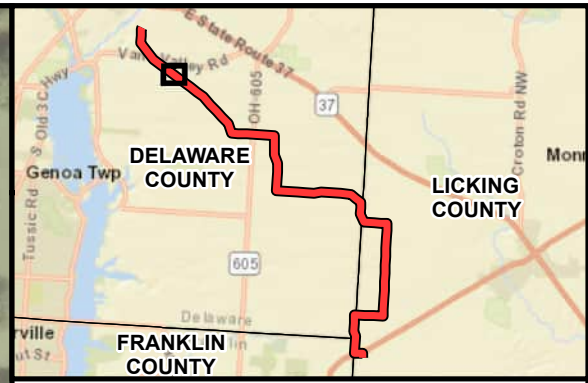
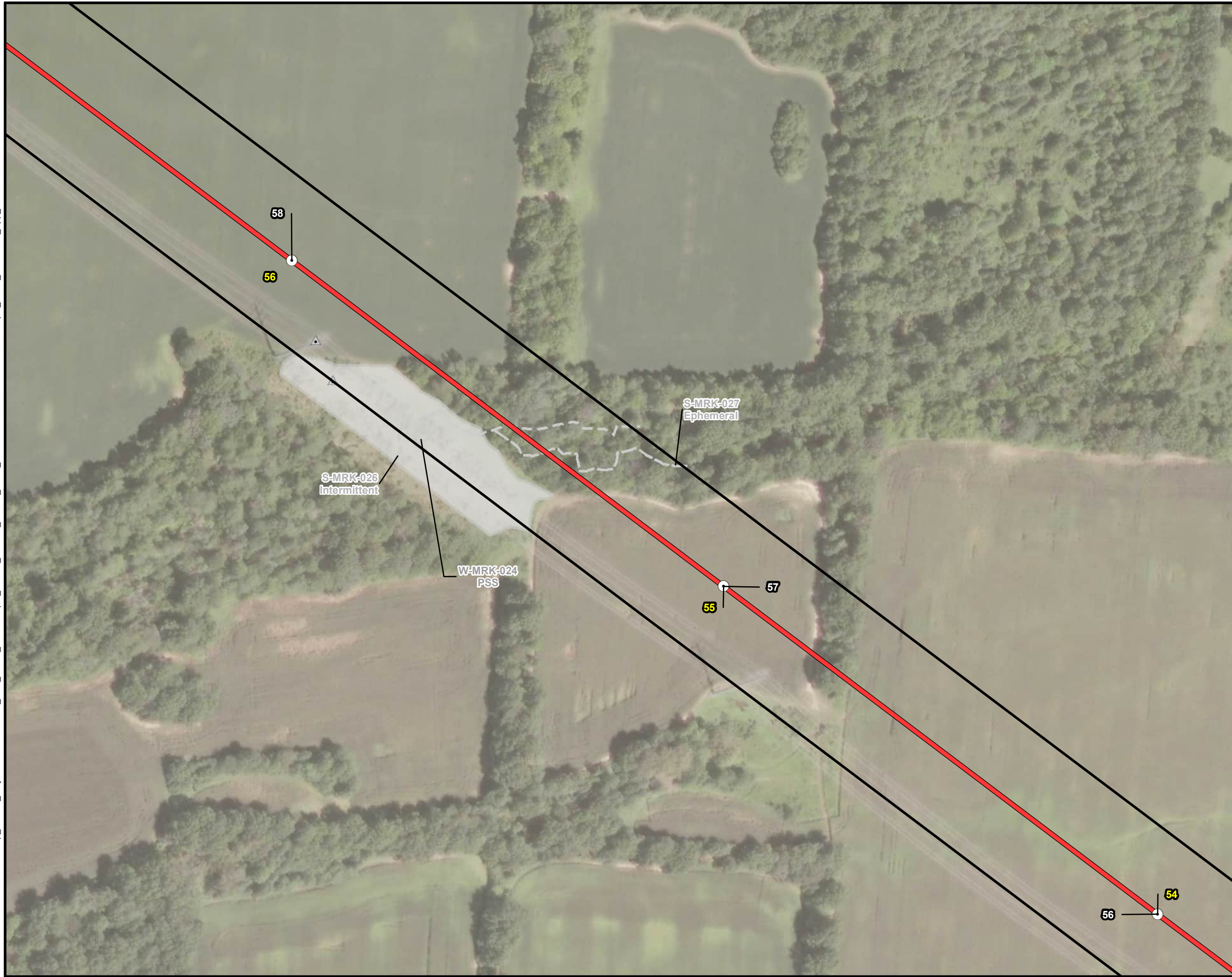


Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

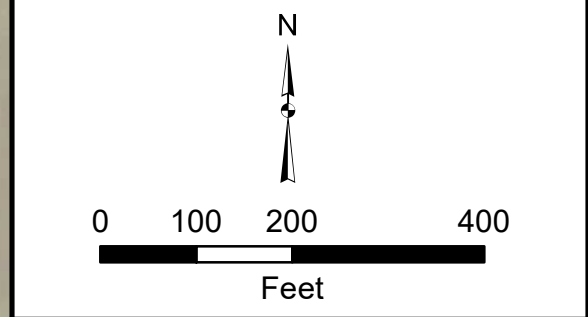
APPENDIX A
SHEET 25 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\EN\60702685_AEP_Vassel_GreenChapel_North\2_MXD\1_WDR1_South_Route\Addendum 1\Vassel\GreenChapel_South_WDRAdd1_App_A.mxd



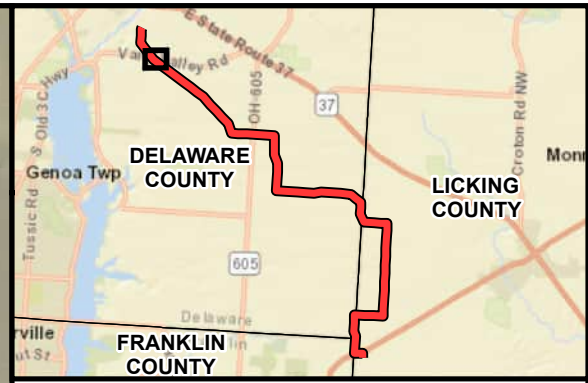
- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - ▲ Previous Wetland Data Points
 - - - Previously Delineated Ephemeral Stream
 - - - Previously Delineated Intermittent Stream
 - ▭ Previously Delineated PSS Wetland



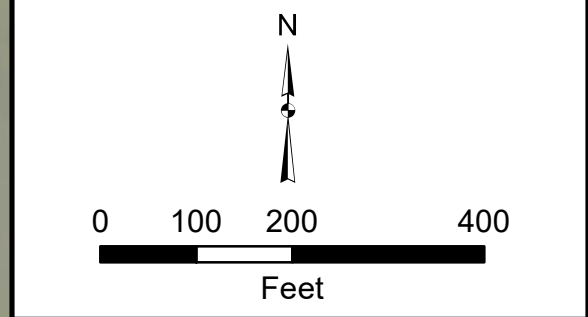
 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

APPENDIX A SHEET 26 OF 29 FEBRUARY 2024 - ORIGINAL REPORT AND ADDENDUM #1 ECOLOGICAL REPORT	
DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassel - Curley 345kV Transmission Line
 - Vassel - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - Culvert
 - ▲ Previous Wetland Data Points
 - Previously Delineated Intermittent Stream
 - Previously Delineated PEM Wetland

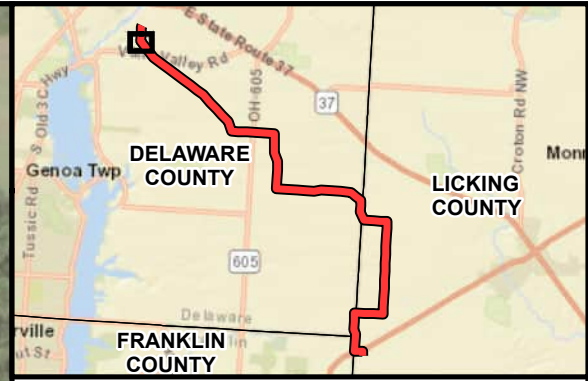


Vassel - Curley 345 kV
Transmission Line Project
Addendum 1

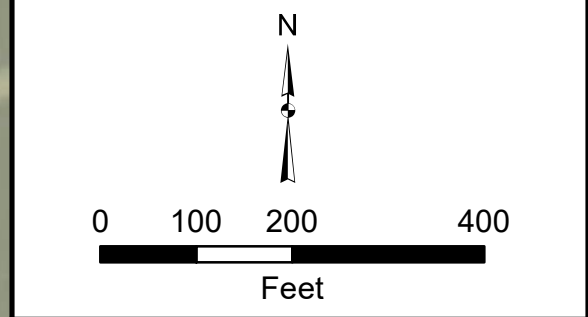
APPENDIX A
SHEET 27 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
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- Legend**
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - February 2024 Report - Project Survey Area
 - ▲ Previous Wetland Data Points
 - Previously Delineated Perennial Stream
 - Previously Delineated PFO Wetland

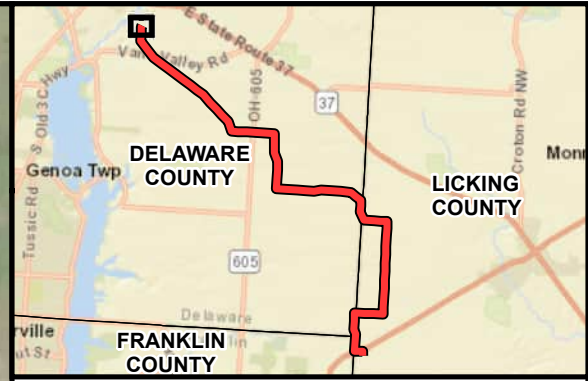
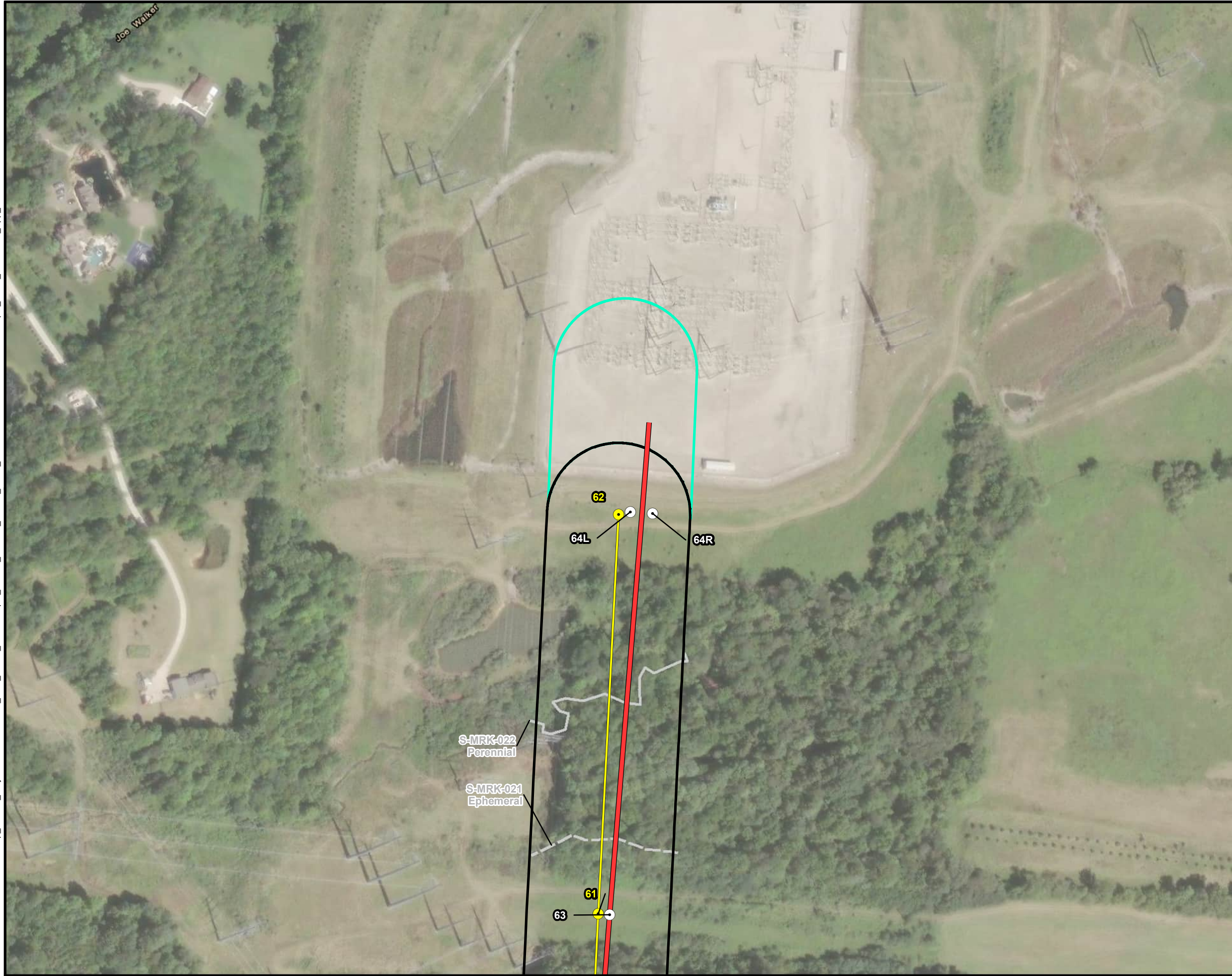


Vassell - Curley 345 kV
 Transmission Line Project
 Addendum 1

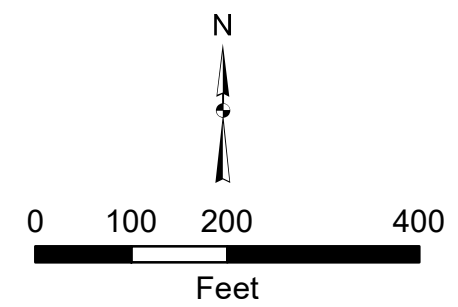
APPENDIX A
 SHEET 28 OF 29
 FEBRUARY 2024 - ORIGINAL REPORT AND
 ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

Date Saved: 8/6/2024
Document Path: X:\DCS\GIS\ArcMap_GeoDB_Projects\ENVI\60702685_AEP_Vassel_GreenChapel_North2_MXD\1_WDR1_South_Route\Addendum 1\Vassel\GreenChapel_South_WDRAdd1_App_A.mxd



- ### Legend
- Structure (February 2024 Report)
 - Structure (Addendum 1)
 - Vassell - Curley 345kV Transmission Line
 - Vassell - Green Chapel South Route (February 2024 - Report)
 - ▭ February 2024 Report - Project Survey Area
 - ▭ Project Survey Area - Addendum 1
 - - - Previously Delineated Ephemeral Stream
 - Previously Delineated Perennial Stream



 Vassell - Curley 345 kV
Transmission Line Project
Addendum 1

APPENDIX A
SHEET 29 OF 29
FEBRUARY 2024 - ORIGINAL REPORT AND
ADDENDUM #1 ECOLOGICAL REPORT

DATE: 8/6/2024	1 INCH = 200 FEET
CREATED BY: NB	CHECKED BY: BG
JOB NO.: 60702685	AECOM

APPENDIX B
HABITAT PHOTOGRAPHIC RECORD

Client Name: AEP	Site Location: Vassell – Curleys 345 kV Transmission Line Addendum #1 Project	Project No. 60702698
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PH-76	
Date: September 12, 2023	
Description: Agriculture Row-Crop Facing North	

PH-77	
Date: September 12, 2023	
Description: Agriculture Row-Crop Facing East	

Client Name: AEP	Site Location: Vassell – Curleys 345 kV Transmission Line Addendum #1 Project	Project No. 60702698
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PH-78
Date: June 22, 2023
Description: Landscaped Facing South



APPENDIX C
UPLAND DRAINAGE FEATURE PHOTOS

Client Name: AEP	Site Location: Vassell – Curleys 345 kV Transmission Line Addendum #1 Project	Project No. 60702698
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UDF-CRW-001	
Date: June 6, 2023	
Description: Facing Upstream	

UDF-CRW-001	
Date: June 6, 2023	
Description: Facing Downstream	

Client Name: AEP	Site Location: Vassell – Curleys 345 kV Transmission Line Addendum #1 Project	Project No. 60702698
----------------------------	--	--------------------------------

UDF-CRW-001
Date: June 6, 2023
Description: Facing Substrate



Client Name: AEP	Site Location: Vassell – Curleys 345 kV Transmission Line Addendum #1 Project	Project No. 60702698
----------------------------	--	--------------------------------

UDF-MRK-031 EXT
Date: December 1, 2023
Description: Facing Upstream



UDF-MRK-031 EXT
Date: December 1, 2023
Description: Facing Downstream



Client Name: AEP	Site Location: Vassell – Curleys 345 kV Transmission Line Addendum #1 Project	Project No. 60702698
----------------------------	--	--------------------------------

UDF-MRK-031 EXT
Date: December 1, 2023
Description: Facing Substrate

