

**Letter of Notification
Crooksville-North
Newark 138-kV
Transmission Line
Rebuild Project
(Newark Center-
Crooksville)**



An **AEP** Company

BOUNDLESS ENERGY™

PUCO Case No. 21-1206-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.

December 2, 2021

**Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project
(Newark Center-Crooksville)**

Letter of Notification

**AEP Ohio Transmission Company, Inc.
Crooksville-North Newark 138-kV Transmission Line Rebuild Project (Newark Center-
Crooksville)**

4906-6-05

AEP Ohio Transmission Company, Inc. (the “Company”) provides the following information in accordance with the requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-5(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 has identified the need to rebuild the Crooksville–North Newark 138-kilovolt (“kV”) Transmission Line Rebuild Project (Newark Center-Crooksville) (“Project”), located in Hopewell, Madison, Clayton, and Harrison Townships and the City of Crooksville, Perry County; Newton Township, Muskingum County; and Bowling Green and Franklin Townships, Licking County, Ohio. The Company proposes to rebuild approximately 23.3 miles of existing, predominately wood H-frame 138 kV transmission line between Newark Center and Crooksville stations with primarily steel H-frame structures. In September 2021, the Company submitted 8.3 miles of the Crooksville-North Newark 138 kV transmission line, between North Newark and Newark Center stations, to the Ohio Power Siting Board (OPSB) in Case Number 21-0852-EL-BLN.

The Project consists of rebuilding the 138 kV transmission line primarily within existing right-of-way (“ROW”), which is owned by Ohio Power Company, but will require supplemental easements for portions of the Project. **Figure 1** and **Figure 2** in **Appendix A** show the location of the Project in relation to the surrounding vicinity.

The Project meets the requirements for a Letter of Notification (LON) because it is within the types of projects defined by item 2(b) of Ohio Administrative Code Section 4906-1-01 Appendix A of the Application Requirement Matrix For Electric Power Transmission Lines:

(2) Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to an existing transmission line, or replacing structures with a different type of structure for a distance of:

(b) More than two miles.

Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project (Newark Center-Crooksville)

The Project has been assigned Public Utilities Commission of Ohio (PUCO) Case No. 21-1206-EL-BLN.

B(2) Statement of Need

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

The Company proposes the Crooksville-North Newark 138kV Transmission Line Rebuild (Newark Center-Crooksville) Project, which involves rebuilding approximately 23.3 miles of transmission line between AEP's Newark Center and Crooksville stations. The Project is a section of the Crooksville – North Newark 138kV rebuild project and approximately 8.3 miles of the line from North Newark Station to Newark Center Station was filed in a separate application to be consistent with environmental permitting. The 31.6 mile Crooksville – North Newark 138 kV project is wood pole construction from 1951 with 85% of the structures from the original vintage. The remaining poles were replaced between 1963-1973. All of the original conductor remains from 1951. This 31.6 mile line has 338 open conditions, including pole rot, insect damage, damaged conductor, and missing or broken ground and guy wires. There have been two permanent and one momentary outages on this line over the past five years. The Project is required to rebuild the line due to performance, condition, and risk.

There are two distribution delivery points (AEP's Isabella Station and a future Buckeye delivery point) to be served from this line, feeding a total load of 7.5 MW. Failure to move forward with this project will diminish the ability to serve these planned loads, exposing customers served from these proposed stations to outages as the line continues to deteriorate. This line is the only 138 kV line in the area; considering the location of the requested station connection points, retirement of the 138 kV line is not practical.

The need and solution for this Project was presented to PJM on 06/17/2019 and 12/18/2019, then subsequently assigned a PJM # of s2160. The Project was listed in the 2021 AEP Ohio Long-Term Forecast Report, page 58 (Form FE-T7, Characteristics of Existing Transmission Lines), 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.

The Project is located in Perry, Muskingum, and Licking counties in Ohio. **Figures 1A-1F and 2A-2R in Appendix A**, show the location of the proposed Project in relation to the existing 138 kV transmission lines.

**Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project
(Newark Center-Crooksville)**

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.

No other alternatives were considered for the Project since rebuilding in the existing right of way is the least impactful. The location of the Project was dictated by the existing transmission line infrastructure between the two stations and minimizes impact to existing property, as the transmission line has already been established. Additionally, as this is the only 138 kV transmission line in the area, it is not feasible to retire the line. The current Project design minimizes construction impact outside of the Company's ROW. The location of the Project minimizes impacts to the community and the environment and represents the most suitable location and most appropriate solution for meeting the Company's needs.

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 Company will 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 Ohio Revised Code ("OAC") Section 4906-6-08(A)(1-6). Further, the Company has mailed (or will mail) a letter, via first class mail, to affected landowners, tenants, contiguous 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 provides the public access to an electronic copy of this LON and the public notice for this LON. An electronic copy of the LON will be served to the public library in each political subdivision for this Project. The Company retains ROW land agents that discuss Project timelines, construction and restoration activities and convey information to affected owners and tenants throughout the Project.

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 March 2022, and the anticipated in-service date will be December 2023.

Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project (Newark Center-Crooksville)

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.

Figures 1A-1F provides the proposed Project area and the locations of the existing transmission lines and the proposed Newark Center-Crooksville 138-kV transmission line on a map of 1:48,000-scale (1-inch equals 4,000 feet) on the United States Geological Survey (USGS) 7.5-minute topographic map of the Hanover, Genford, Gratiot, Fultonham, and Crooksville, Ohio quadrangles. **Figures 2A-2R** shows the Project area on recent aerial photography, dated 2020, as provided by the ESRI World Imagery, at a scale of 1:6,000-scale (1-inch equals 500 feet).

To visit the Project site from Columbus, Ohio, take S 3rd Street toward E State Street for 0.3 miles; Turn left onto E Main Street, Turn right onto S 5th Street, Turn left onto E Fulton Street, and then merge onto I-70 E via the ramp to Wheeling. Take I-70 E for approximately 31 miles) to OH13/Newark/Thornville. Turn right onto OH-13 S/Jacksonstown Road (13.6 miles); continue straight onto OH-13 S/S Columbus Street for 1.8 miles. Turn left onto OH-669 E for 7 miles; Turn right to stay on OH-669 E for 3.2 miles; Turn right onto OH-669 E/OH-93 S for 0.2 miles; Turn left onto W Main Street, then right onto Old School Road. Arrive at Crooksville Substation, latitude 39.769560 longitude, -82.097889.

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.

The Project will be constructed within existing ROW, but will require supplemental easements. **Appendix C** provides a table of property parcel numbers with an indication as to whether the easement/option necessary to construct and operate the facility has been obtained.

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 Crooksville-North Newark 138-kV transmission line rebuild (North Newark-Newark Center) is estimated to include the following:

Voltage:	138-kV
Conductors:	(3) 795 kcmil 26/7 Strands DRAKE ACSR
Static Wire:	(2) 7#10 Alumoweld (Str#2 -> Str#157) (2) 7#8 Alumoweld (Crooksville -> Str#2)
Insulators:	Polymer
ROW Width:	70' ROW Width (Str# 140-141) 80' ROW Width (Crooksville Station-Str# 2; 36-37; 46-48; 77-79)

**Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project
(Newark Center-Crooksville)**

100' ROW Width (Str# 2-3; 6-9; 11-16; 18-22; 25-34; 37-46; 49-76; 80-106; 111-132; 135-151; 154-157)
110' ROW Width (Str# 9-11; 17; 23-25; 35-36 ; 133-134; 152-153)
120' ROW Width (Str# 107-110)

Structure Types:

One (1) Double Circuit, Steel 2-Pole Dead-End
Three (3) Double Circuit, Steel Monopole Dead-Ends
One (1) Double Circuit, Steel Monopole Suspension
Six (6) Single Circuit, Steel Guyed Steel H-Frame
One Hundred Twenty-Eight (128) Single Circuit, Steel H-Frame Suspension
Two (2) Single Circuit, Steel Monopole Dead-ends
One (1) Single Circuit, Steel Monopole Tangent
Thirteen (13) Single Circuit, Steel Three Pole Dead-Ends
Five (5) Single Circuit, Steel Three Pole Suspension
Two (2) Single Circuit, Wood H-Frame Suspension

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

i) Calculated Electric and Magnetic Field Levels

Three loading conditions were examined: (1) Normal Maximum Loading, (2) Emergency Loading, and (3) Winter Normal Conductor Rating, consistent with the OPSB requirements. Normal Maximum Loading represents the peak flow expected with all system facilities in service; daily/hourly flows fluctuate below this level. Emergency loading is the maximum current flow during unusual (contingency) conditions, which exist only for short periods of time. Winter normal (WN) conductor rating represents the maximum current flow that a line, including its terminal equipment, can carry during winter conditions. **It is not anticipated that this circuit of this line would operate at its WN rating in the foreseeable future.**

EMF levels were computed one meter above ground under the line and at the ROW edges (50/50 feet, left/right, of centerline).

The Company's results, calculated using EPRI's EMF Workstation 2015 software, are summarized below.

Crooksville-North Newark 138 kV Line					
Condition	Load (A)	Phasing Arrangements	Ground Clearance (feet)	Electric Field (kV/m)*	Magnetic Field (mG)*
(1) Normal Max. Loading^	58.57	A-B-C	31.7	0.64/1.63/0.64	3.57/13.46/3.57

**Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project
(Newark Center-Crooksville)**

(2) Emergency Line Loading^{^^}	263.58	A-B-C	25.4	0.63/2.62/0.63	17.88/95.54/18.11
(3) Winter Conductor Rating^{^^^}	1359.74	A-B-C	31.7	0.64/1.63/0.64	88.48/312.00/90.57

*EMF levels (left ROW edge/maximum/right ROW edge) computed one meter above ground at the point of minimum ground clearance, assuming balanced phase currents and 1.0 P.U. Voltages. ROW width is 50 feet (left) and 50 feet (right) of centerline, respectively.

[^]Peak line flow expected with all system facilities in service.

^{^^}Maximum flow during a critical system contingency

^{^^^}Maximum continuous flow that the line, including its terminal equipment, can withstand during winter conditions.

For power-frequency EMF, IEEE Standard C95.6TM-2002 recommends the following limits:

	General Public	Controlled Environment
	-----	-----
Electric Field Limit (kV/m)	5.0	20.0
Magnetic Field Limit (mG)	9040	27,100

The above EMF levels are well within the limits specified in IEEE Standard C95.6TM-2002. Those limits have been established to "prevent harmful effects in human beings exposed to electromagnetic fields in the frequency range of 0-3 kHz.

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.

Design alternatives were not considered due to EMF strength levels. Transmission lines, when energized, generate EMF. Laboratory studies have failed to establish a strong correlation between exposure to EMF and effects on human health. However, some people are concerned that EMF have impacts on human health. Due to these concerns, EMF associated with the new circuits was calculated and set forth in the table above. The EMF was computed in a manner to maximize the estimate, assuming the highest reasonable input values based on conditions along the proposed transmission line rebuild. Normal daily EMF levels would be less than these, which were calculated at maximum load conditions. Based on studies from the National Institutes of Health, the magnetic field (measured in milliGauss, or mG) associated with emergency loading at the highest EMF value for this transmission line is lower than those associated with normal household appliances like microwave ovens, electric shavers, and hair dryers. For additional information regarding EMF, the National Institutes of Health has posted information on their website: <http://www.niehs.nih.gov/health/topics/agents/emf/>. Additionally, information on electric and magnetic fields is available on the Company's website: <https://www.aepohio.com/info/projects/emf/OurPosition.aspx>. The information found on the Company's website describes the basics of electromagnetic field theory, scientific research activities, and EMF

Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project (Newark Center-Crooksville)

exposures encountered in everyday life. Similar material will be made available for those affected by the construction activities for this Project.

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately \$38.4 million. Pursuant to the PJM OATT, the costs for this Project will be recovered in the AEP Ohio Transmission Company's FERC formula rate (Attachment H-20 to the PJM OATT) and allocated to the AEP Zone.

B(10) Social and Economic Impacts

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

B(10)(a) Land Use 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.

An aerial photograph of the Project vicinity is provided as **Figures 2A-2R**. The Project location and vicinity have historically been existing transmission line right-of-way, surrounded by agricultural land with scattered woodlots. The Project is mapped within, Hopewell, Madison, Clayton, and Harrison Townships and the City of Crooksville in Perry County, Newton Township in Perry County, and Bowling Green and Franklin Townships in Licking County. The Project vicinity is currently rural in nature and is comprised primarily of agricultural land used for row crops, and lesser amounts of old fields, forested land, landscaped areas, and scattered residences. The City of Crooksville presents the greatest area of residential and commercial properties. Several railroads, state and local roadways, and interstate highway I-70 will be aerially crossed by the project. One mining area will be crossed, but utilizes existing Ohio Power Company ROW, along Old Rainer Road (Township Road-3).

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, Perry and Muskingum County Auditors provided a list of parcels registered as Agricultural District Land on November 19, 2021. Approximately 10 parcels, totaling 17.6 acres within the Project ROW are identified as agricultural lands.

It is anticipated that only the small footprint of the proposed pole locations along the 138-kV transmission lines will be converted from agricultural use as a result of the Project.

**Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project
(Newark Center-Crooksville)**

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.

A cultural resource survey and report were completed by the Company's consultant for the Project in November 2020. The Company's consultant indicated in the Phase I Archaeological Investigations report that two previously identified archeological sites were located within the Project area. The two sites were determined to not be eligible for listing in the National Register of Historic Places. No new archeological sites were identified during the survey. The Company's consultant also conducted a history/architecture investigation and indicated in the corresponding report that 128 resources older than fifty years of age were identified within the survey area. The identified properties were determined to not be eligible for inclusion in the National Registry of Historic Places.

A second Phase I Archaeological Investigations report was submitted in November 2020, which provided additional information on the Project. The second report included six previously identified archeological sites were located within the Project area. Of the six archeological sites, two sites were re-identified during survey, three were not re-identified during survey, and one site was not surveyed due to its sensitive nature. Of all six sites, two were recommended for avoidance or additional testing. Additionally, 37 new archaeological sites were identified during survey. None of the 37 sites are recommended eligible for listing and no further investigation was required. The Company's consultant also conducted a history/architecture investigation and indicated in the corresponding report that 28 resources older than fifty years of age were identified within the survey area. The identified properties were determined to not be eligible for inclusion in the National Registry of Historic Places.

The Company intends to comply with the recommended avoidance of the two identified archeological resources, and a letter of no effect was issued on November 30, 2020, December 2, 2020, and December 10, 2020, November 30, 2020 (**Appendix D**).

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 storm water discharges under General Permit OHC000005. The Company will also coordinate storm water permitting needs with local government agencies, as necessary. The Company will implement and maintain best management practices 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.

Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project (Newark Center-Crooksville)

The Company will coordinate with the United States Army Corps of Engineers (USACE) regional, general, and special conditions associated with the Nationwide Permit (NWP-3) for maintenance under section 404 of the Clean Water Act (CWA), as well as Ohio Nationwide Permits and Special Limitations and Conditions for NWP-3. If Project changes occur to access and work areas that require a Pre-Construction Notification (PCN) under the NWP-3, the Company intends to coordinate with the USACE for application approvals.

Coordination with Licking, Perry, and Muskingum Counties will also occur for impacts within 100-year floodplains, associated with the removal of existing structures, installation of the new proposed structures, and temporary access roads and workspaces for construction activities. Streams are not anticipated to be impacted, outside of the activities within the floodplain and aerial crossings.

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.

The United States Fish and Wildlife Service (USFWS) Ohio County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species (available at <https://www.fws.gov/midwest/Endangered/lists/pdf/OhioCtyList29Jan2018.pdf>) was reviewed to identify the threatened and endangered species known to occur in the Project counties. This USFWS publication lists the Indiana bat (*Myotis sodalis*; federally endangered) and northern long-eared bat (*Myotis septentrionalis*; federally threatened) in the Project county. In October 2019, coordination letters were sent to USFWS and the Ohio Department of Natural Resources (ODNR) soliciting responses.

Responses were received from the USFWS on December 11, 2020 and from the ODNR on November 20, 2019. The USFWS and Division of Wildlife (DOW) advised that the Project area occurs within the range of the state and federal endangered Indiana bat and northern long-eared bat. The USFWS and ODNR proposed implementation of seasonal tree cutting (clearing of trees ≥ 3 inches diameter at breast height between October 1 and March 31) to avoid impacts to Indiana bats and northern long-eared bats, if suitable habitat occurs within the Project area. Successional hardwood woodland habitat is present within the Project and presents potentially suitable habitat for the Indiana bat and the northern long-eared bat. If seasonal tree cutting is implemented, impacts to these species are not likely. If seasonal tree cutting is not possible, ODNR requests that a net survey be conducted between June 1 and August 15, prior to cutting. Based on review of the Project area, some tree clearing and/or trimming is necessary for the Project. The Company is planning to complete tree clearing during the recommended timeframe but should implementation of the seasonal tree cutting recommendation not be feasible, the USFWS and ODNR will be contacted for further guidance.

The ODNR Division of Wildlife (DOW) advised that the Project area occurs within the range of the sheepsfoot (*Plethobasus cyphus*), a state endangered and federally endangered mussel, the fanshell (*Cyprogenia stegaria*), a state endangered and federally endangered mussel, the snuffbox (*Epioblasma*

Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project (Newark Center-Crooksville)

triquetra), a state endangered and federally endangered mussel, the rabbitsfoot (*Quadrula cylindrica cylindrica*), a state endangered and federally threatened mussel, the Ohio pigtoe (*Pleurobema cordatum*), a state endangered mussel, the long-solid (*Fusconaia maculata*), a state endangered mussel, the sharp-ridged pocketbook (*Lampsilis ovata*), a state endangered mussel, the wartyback (*Quadrula nodulata*), a state endangered mussel, the black sandshell (*Ligumia recta*), a state threatened mussel, the fawnsfoot (*Truncilla donaciformis*), a state threatened mussel, and the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel. Due to the location of the project, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The ODNR Division of Wildlife (DOW) advised that the Project area occurs within the range of the northern madtom (*Noturus stigmatosus*), a state endangered fish, the paddlefish (*Polyodon spathula*) a state threatened fish, the mountain madtom (*Noturus eleutherus*), a state threatened fish, and the channel darter (*Percina copelandi*), a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The ODNR Division of Wildlife (DOW) advised that the project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact this species.

The ODNR Division of Wildlife (DOW) advised that the project is also within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions. Due to the location, and the type of habitat present at the project site, and within the vicinity of the project area, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus cyaneus*), 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 May 15 to August 1. If this habitat will not be impacted, this project is not likely to impact this species. The Company anticipates being able to comply with time of year requirements for habitat avoidance, if this becomes unfeasible the Company will continue coordination with ODNR to minimize potential impacts from clearing.

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.

Letter of Notification for Crooksville-North Newark 138-kV Transmission Line Rebuild Project (Newark Center-Crooksville)

The Company's consultant prepared a Wetland Delineation and Stream Assessment Report, see **Appendix E**. The ecological survey of the Project survey corridor identified 97 wetlands, 93 streams, and 12 ponds with the Project. The wetlands consisted of 72 PEM wetlands, 15 palustrine shrub/scrub (PSS) wetlands, 9 palustrine forested (PFO) wetlands, and 1 PEM/PFO complex. The streams consisted of 23 ephemeral, 57 intermittent, and 13 perennial streams. No permanent impacts to streams are anticipated. One existing structure is mapped within wetlands and will be replaced within the same wetland, at approximately the same location. Minimal temporary impacts to wetlands are anticipated from timber matting associated with work pads and access roads.

The Project crosses 10 areas of 100-year floodplain (flood area IDs 39089C-459, 39089C-2542, 39127C-1166, 39127C-1167, 39127C-1144, 39127C-744, 39127C-602, 39127C-47, 39127C-113, and 39127C-118) based on review of the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) datasets for Perry, Muskingum, and Licking Counties. Six proposed structures will replace 6 existing structures that are mapped within the 100-year floodplain.

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.

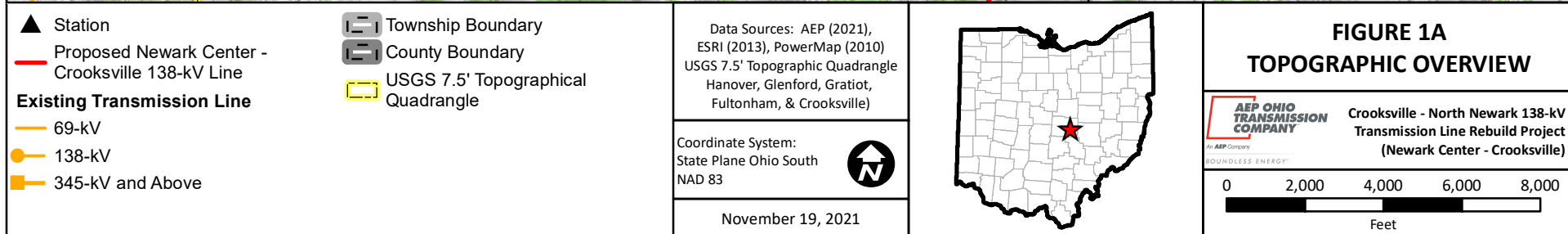
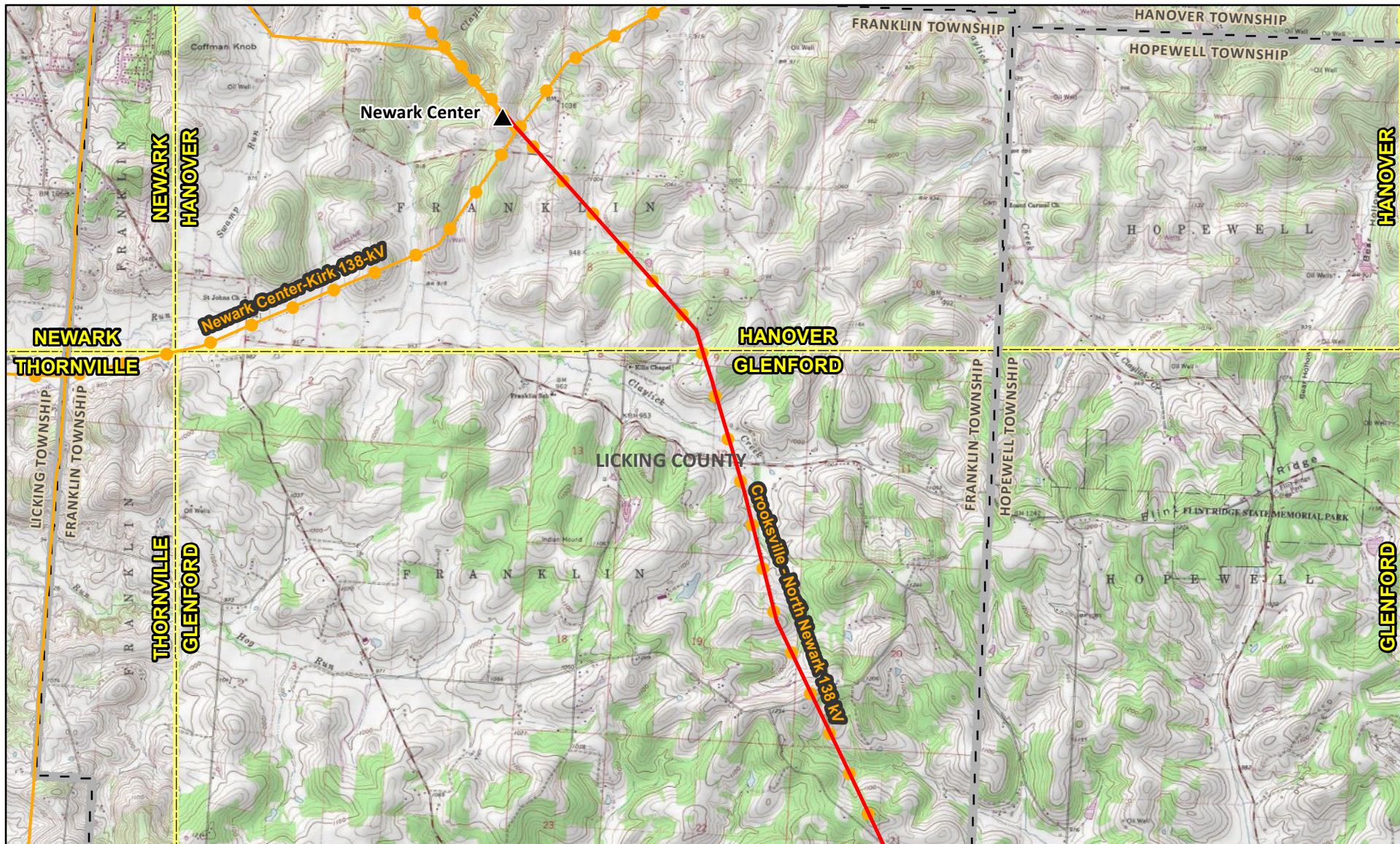
Appendix A Figures

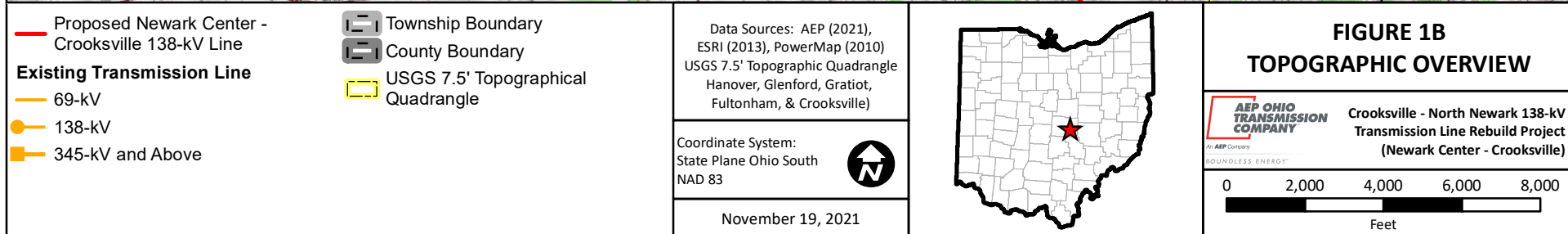
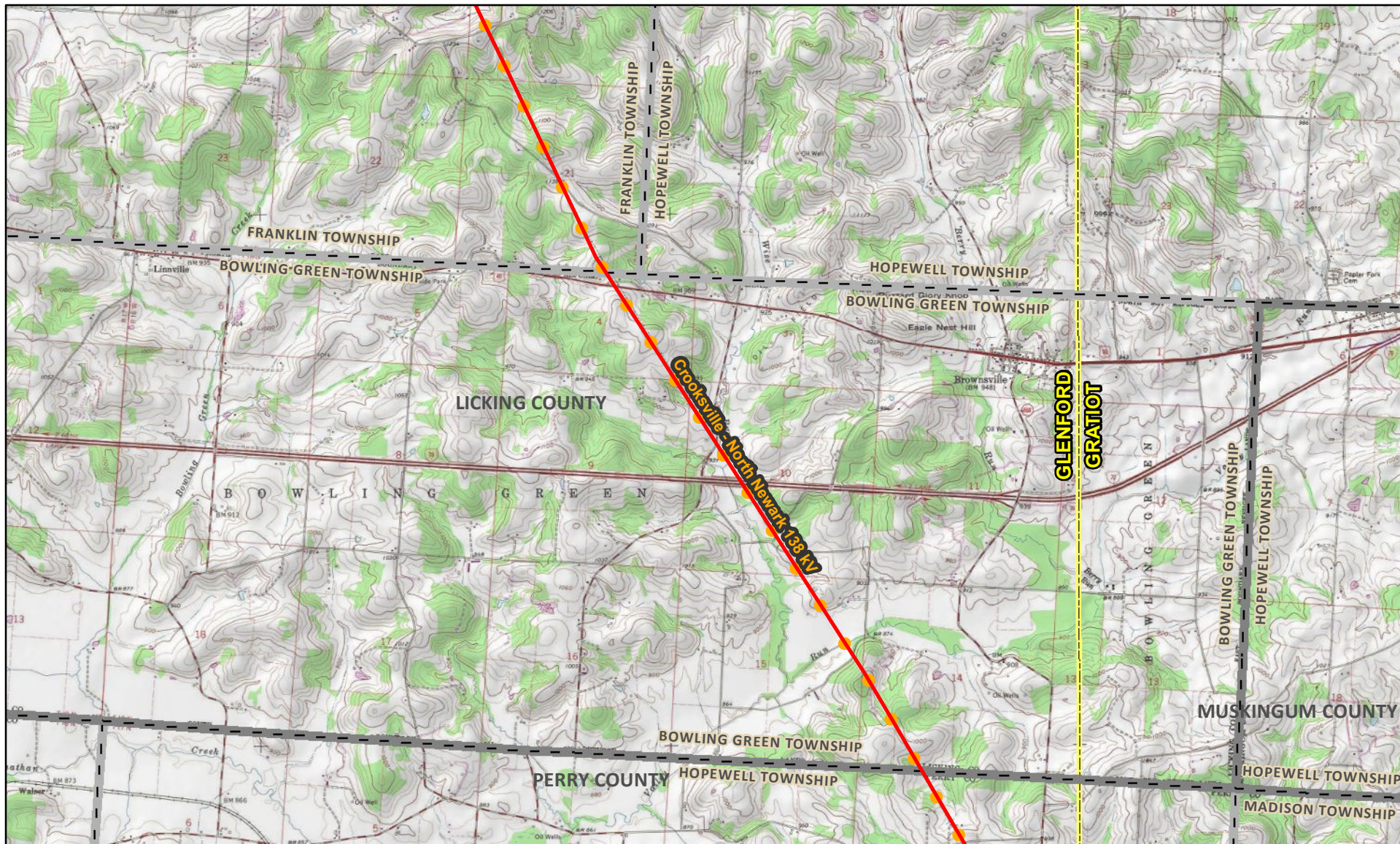
Appendix B PJM Solution and 2021 Long Term Forecast Report

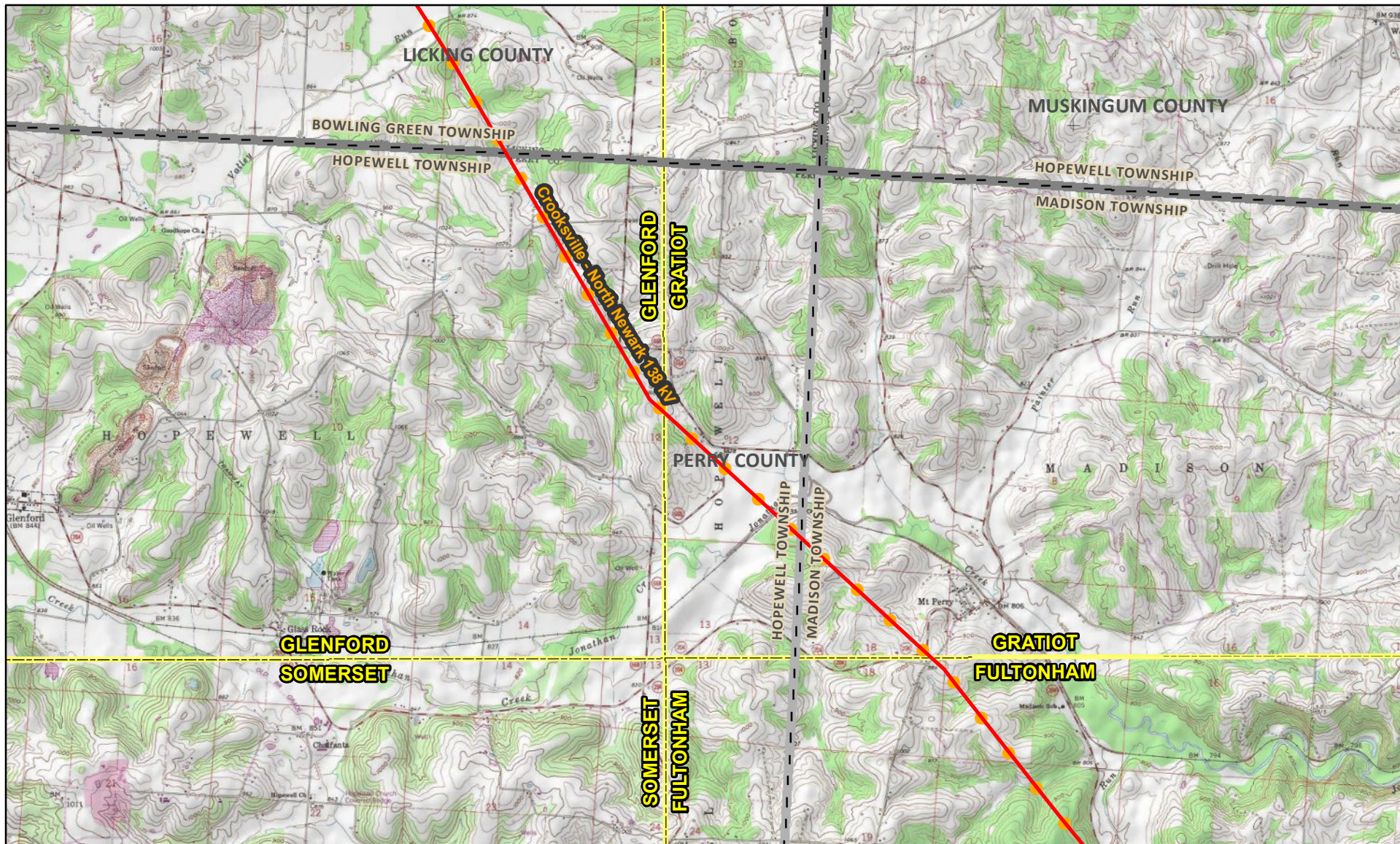
Appendix C Property Agreements

Appendix D Agency Correspondence

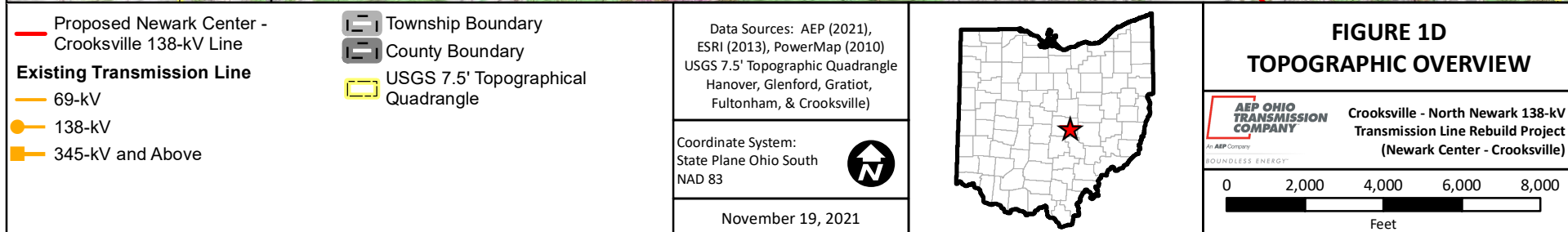
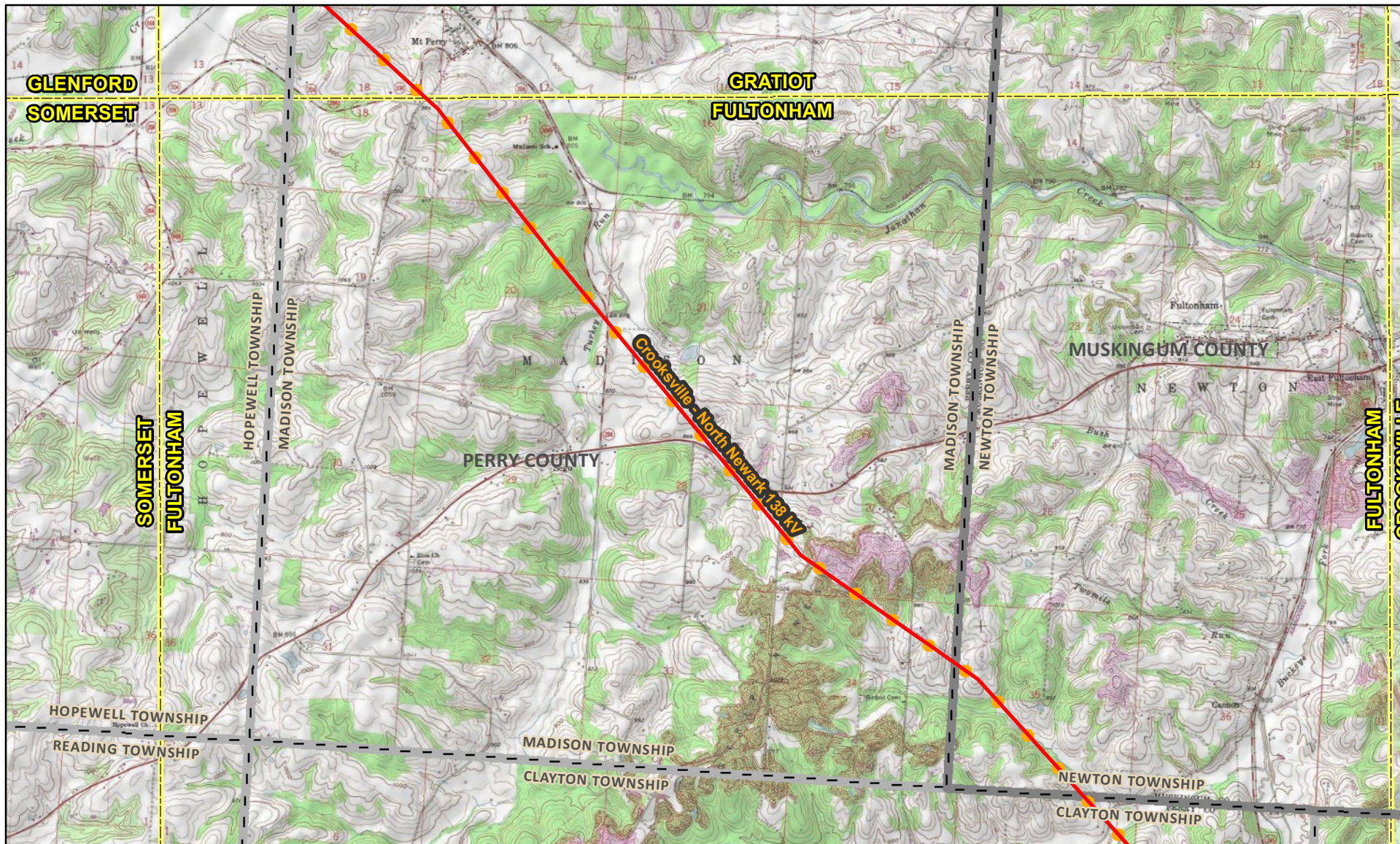
Appendix E Ecological Resource Inventory Report

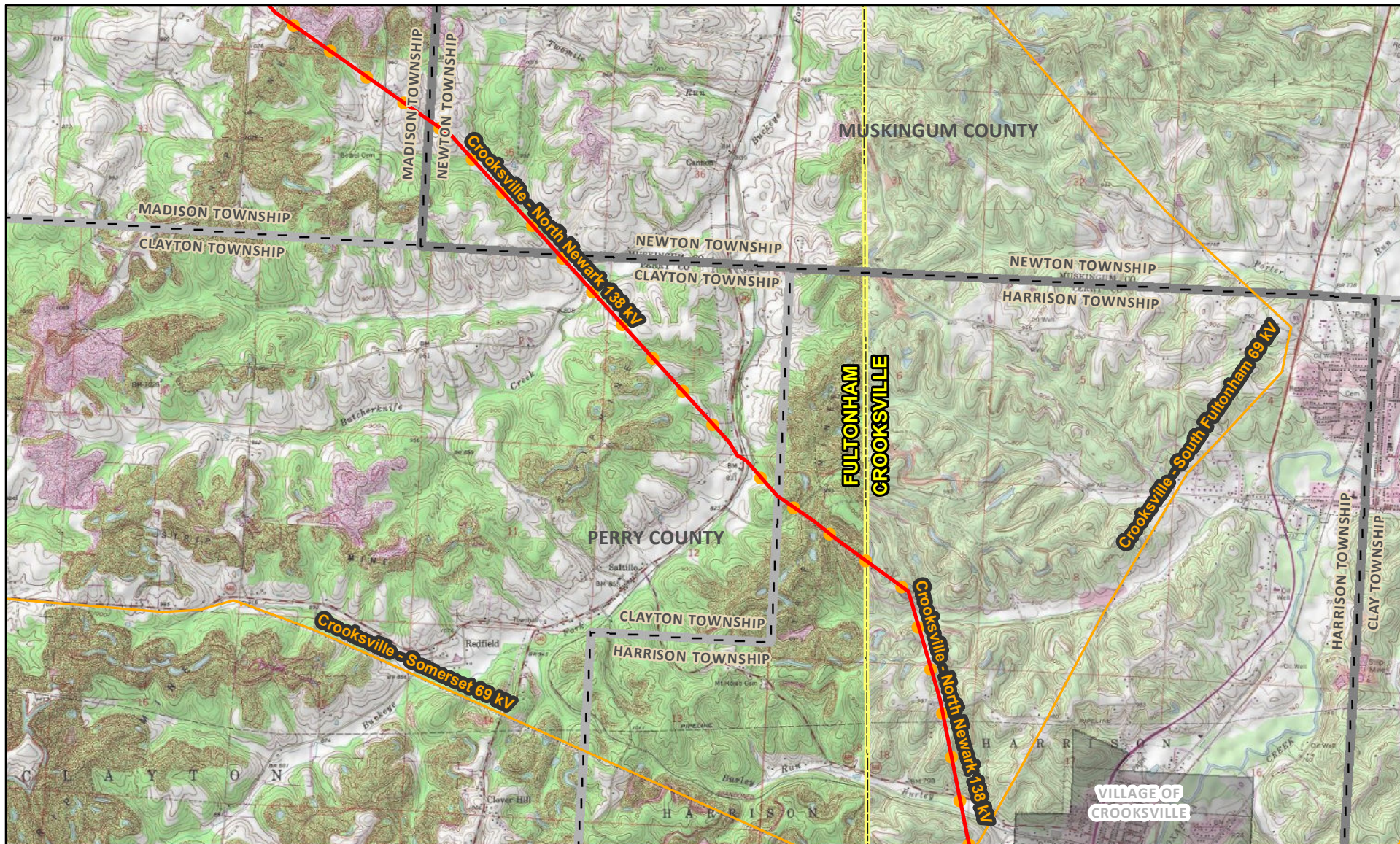


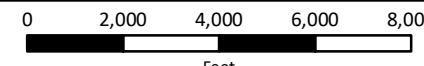


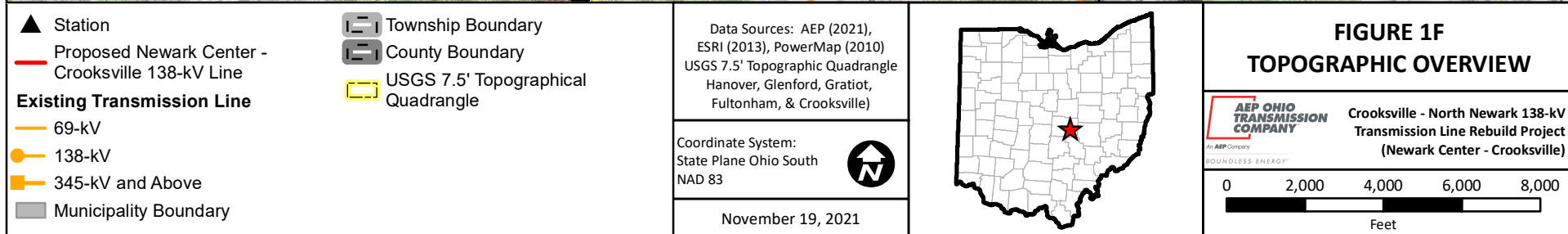
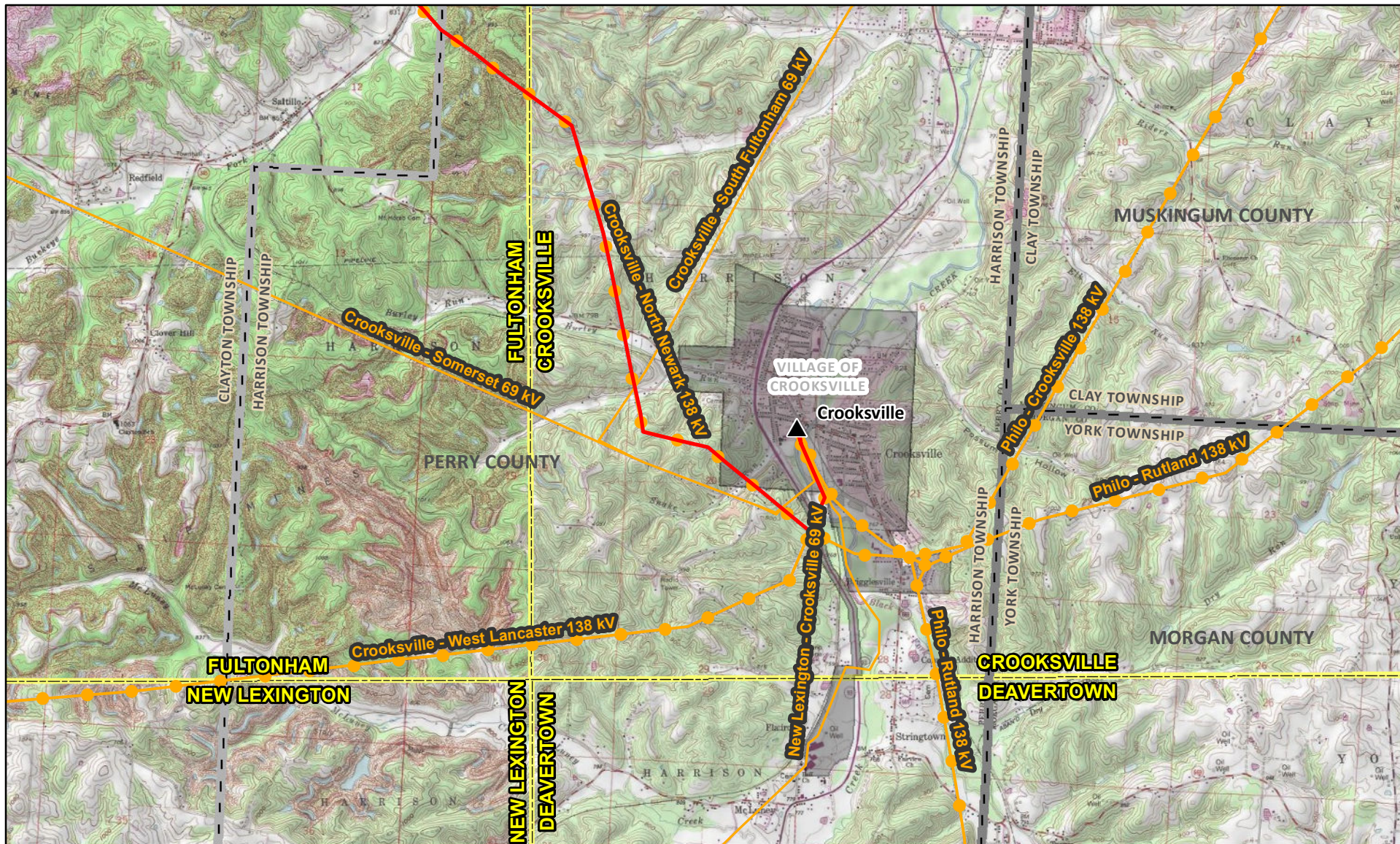


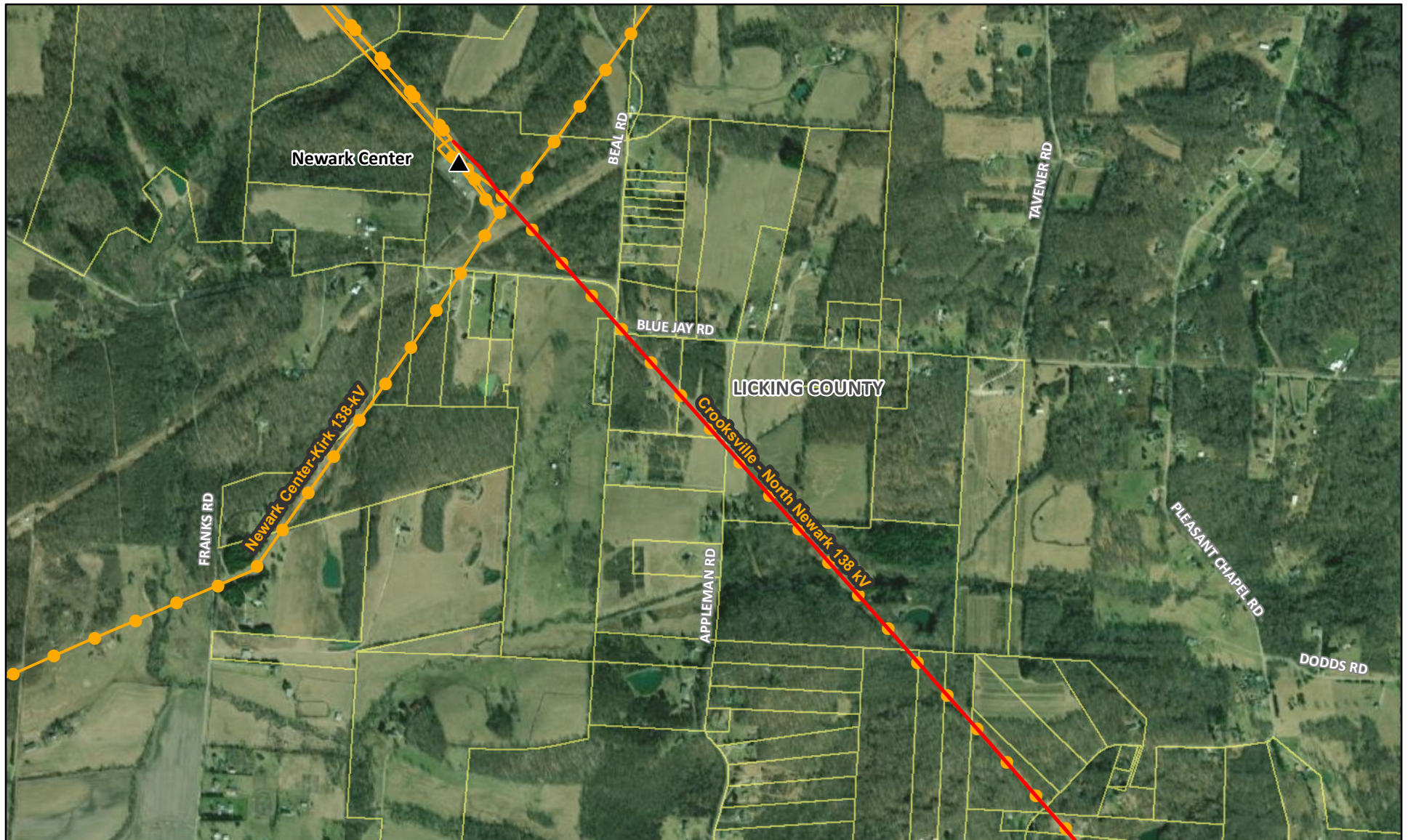
Proposed Newark Center - Crooksville 138-kV Line Existing Transmission Line 69-kV 138-kV 345-kV and Above	Township Boundary County Boundary USGS 7.5' Topographical Quadrangle	Data Sources: AEP (2021), ESRI (2013), PowerMap (2010) USGS 7.5' Topographic Quadrangle Hanover, Glenford, Gratiot, Fultonham, & Crooksville) Coordinate System: State Plane Ohio South NAD 83 November 19, 2021		FIGURE 1C TOPOGRAPHIC OVERVIEW Crooksville - North Newark 138-kV Transmission Line Rebuild Project (Newark Center - Crooksville) 0 2,000 4,000 6,000 8,000 Feet
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 Proposed Newark Center - Crooksville 138-kV Line Existing Transmission Line  69-kV  138-kV  345-kV and Above	 Township Boundary  County Boundary  USGS 7.5' Topographical Quadrangle	Data Sources: AEP (2021), ESRI (2013), PowerMap (2010) USGS 7.5' Topographic Quadrangle Hanover, Glenford, Gratiot, Fultonham, & Crooksville) Coordinate System: State Plane Ohio South NAD 83 November 19, 2021		FIGURE 1E TOPOGRAPHIC OVERVIEW  Crooksville - North Newark 138-kV Transmission Line Rebuild Project (Newark Center - Crooksville) 
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Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- ▤ Township Boundary
- ▤ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



November 19, 2021

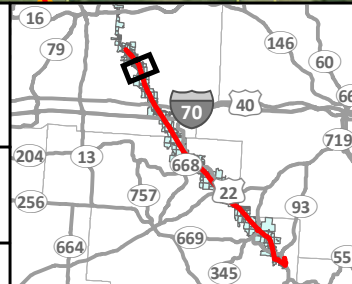
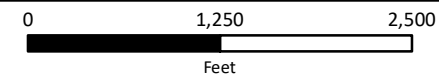


FIGURE 2B AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- ▤ Township Boundary
- ▤ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



November 19, 2021

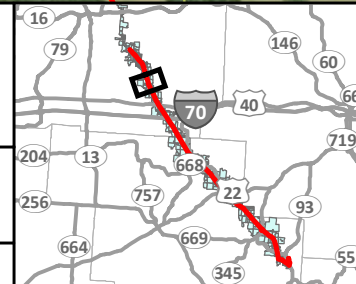
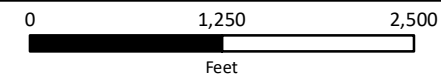
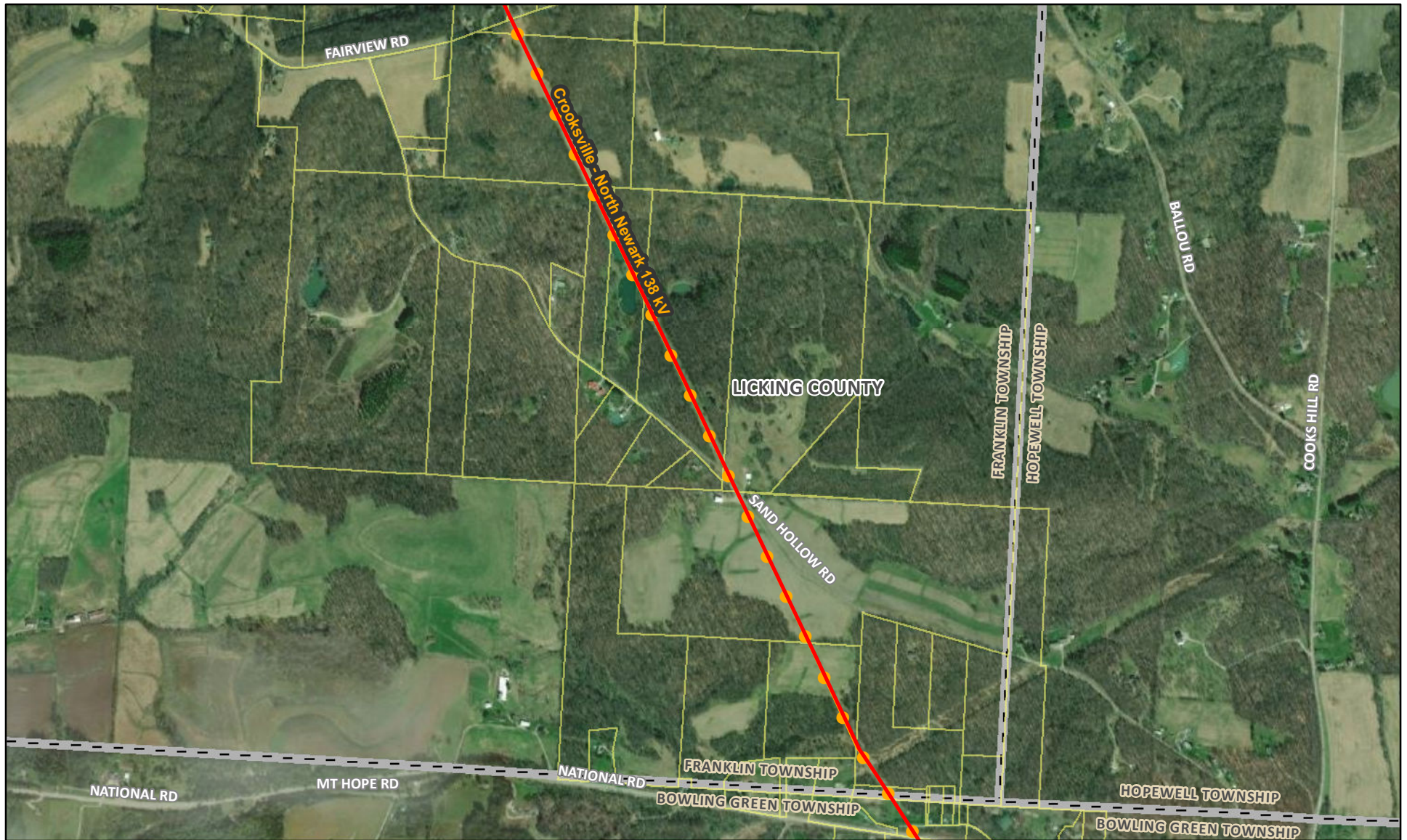


FIGURE 2C AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- ▬ Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



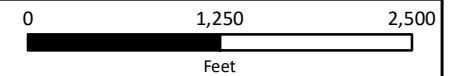
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FIGURE 2D AERIAL MAP

**AEP OHIO
TRANSMISSION
COMPANY**
An AEP Company
BOUNDLESS ENERGY™

Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



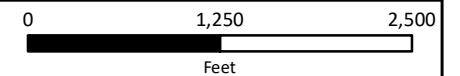
November 19, 2021



FIGURE 2E AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- ▬ Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



November 19, 2021

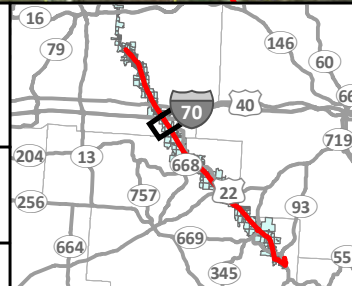
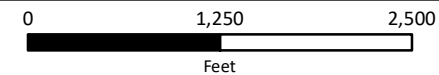
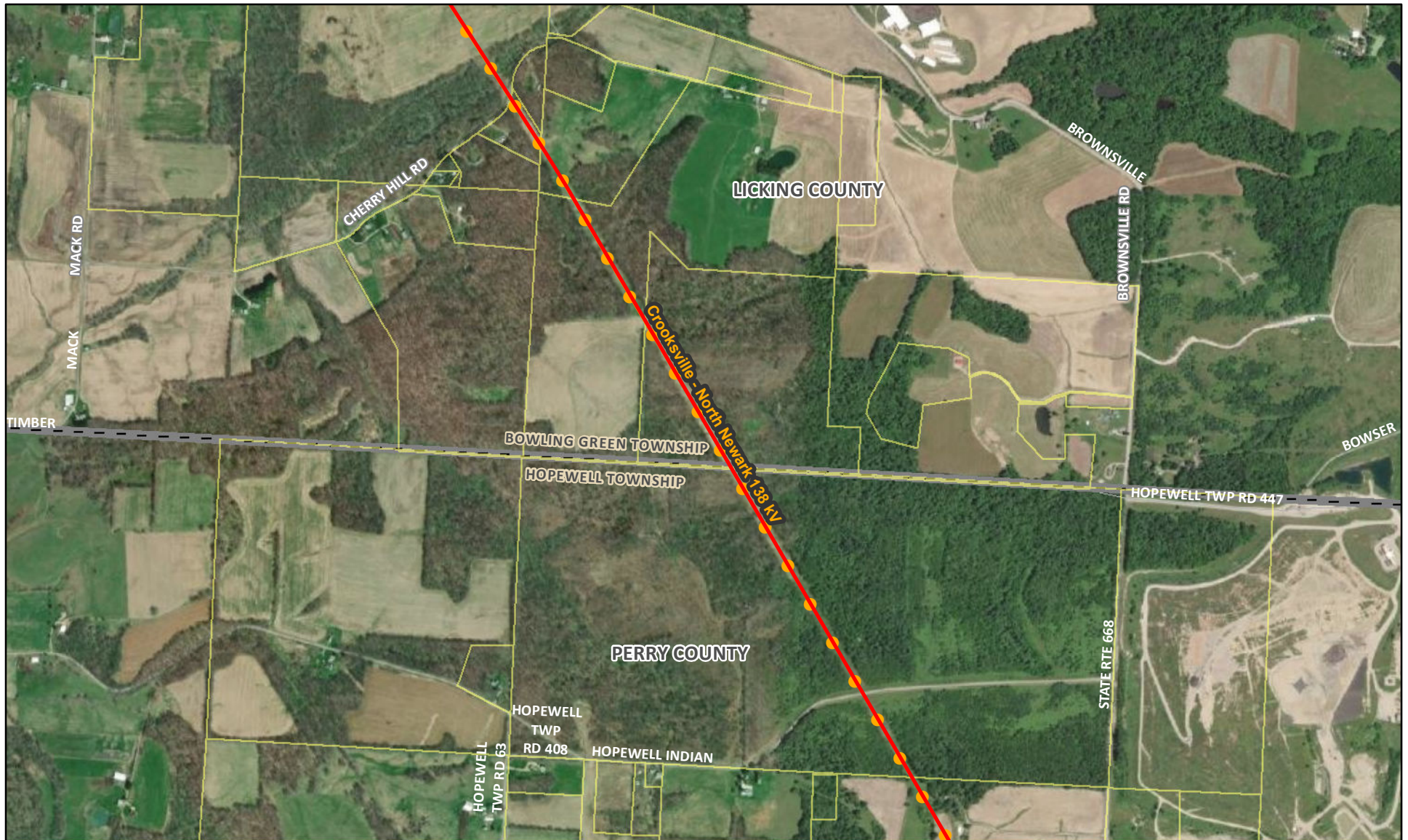


FIGURE 2F AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



November 19, 2021

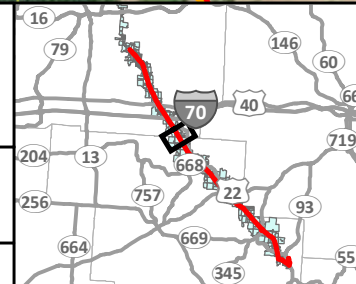
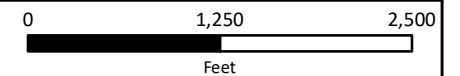


FIGURE 2G AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



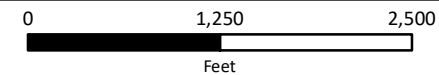
November 19, 2021



FIGURE 2H AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- ▬ Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



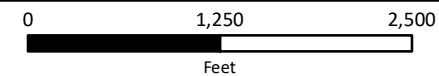
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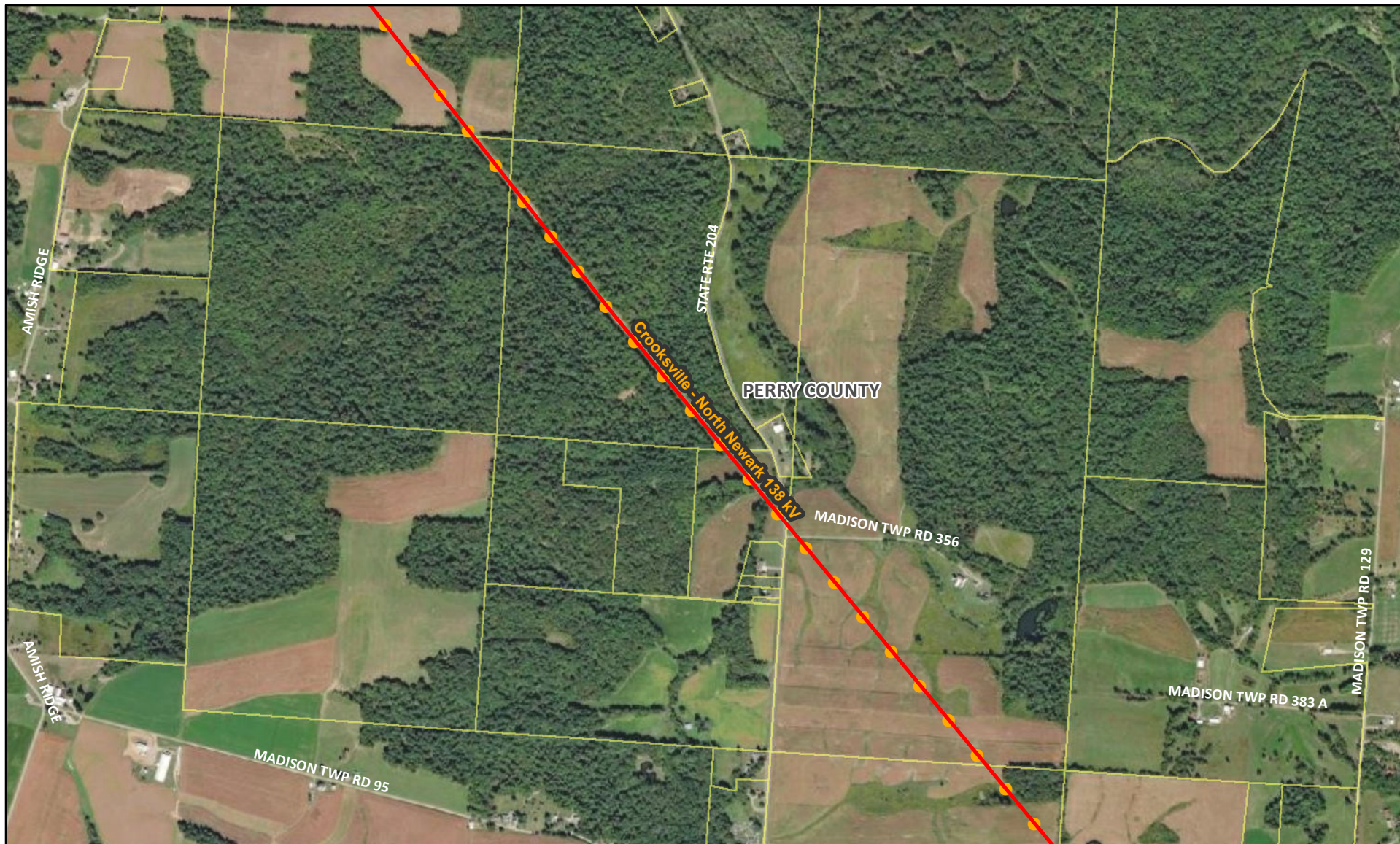


FIGURE 21 AERIAL MAP

**AEP OHIO
TRANSMISSION
COMPANY**
An AEP Company
FOUNDLESS ENERGY

**Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)**





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- Township Boundary
- County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



November 19, 2021

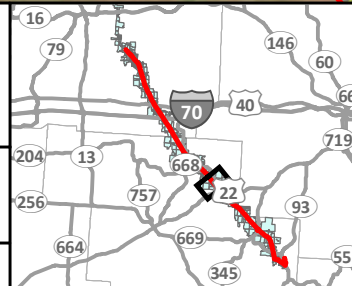
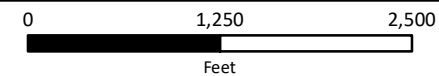


FIGURE 2K AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- Township Boundary
- County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



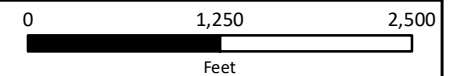
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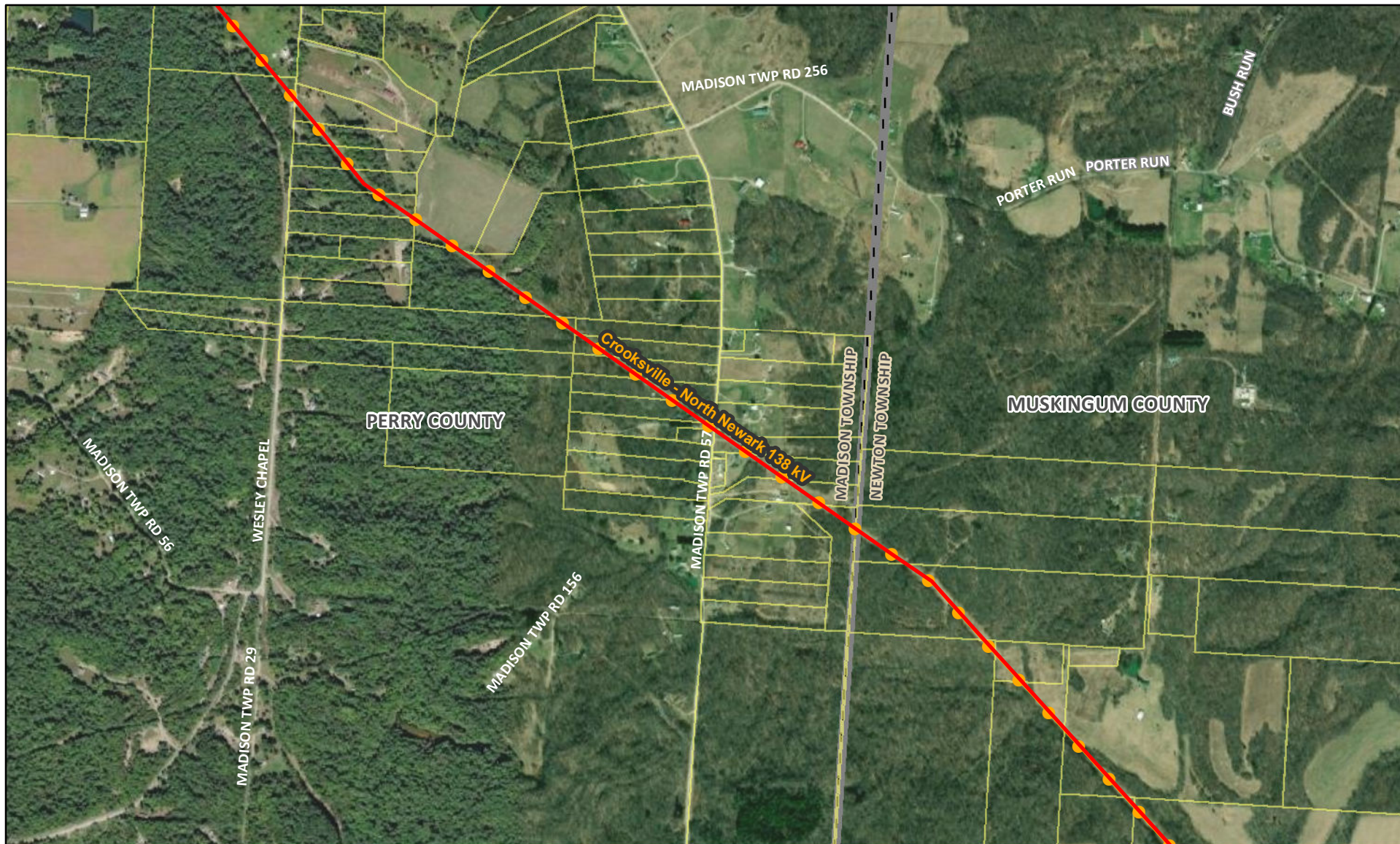


FIGURE 2L AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- ▬ Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



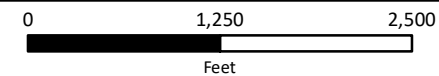
November 19, 2021



FIGURE 2M AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- ▬ Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



November 19, 2021

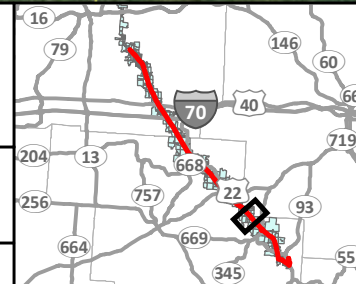
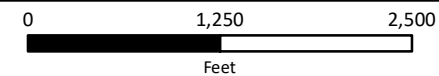
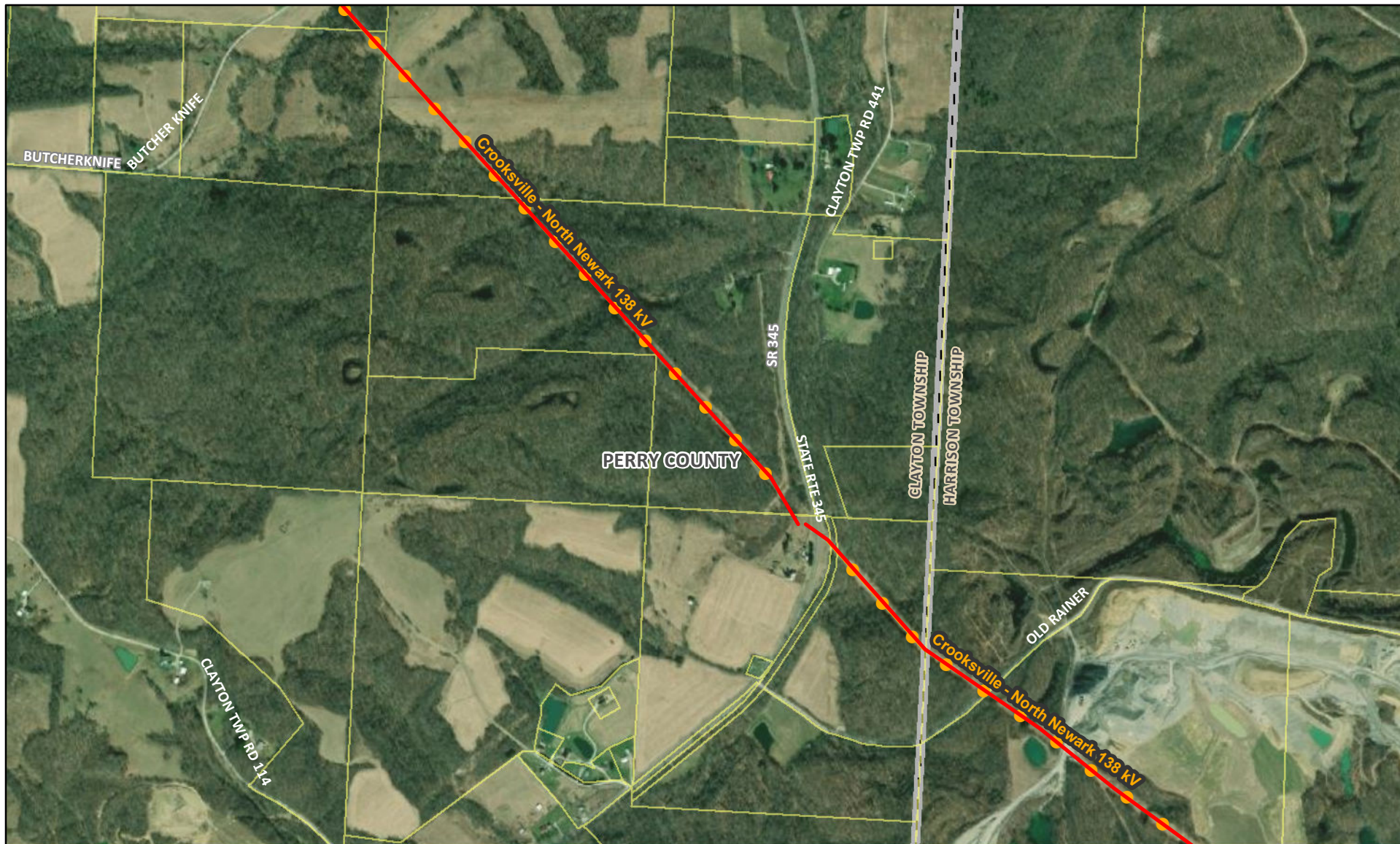


FIGURE 2N AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



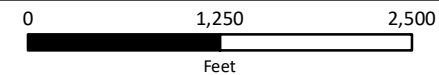
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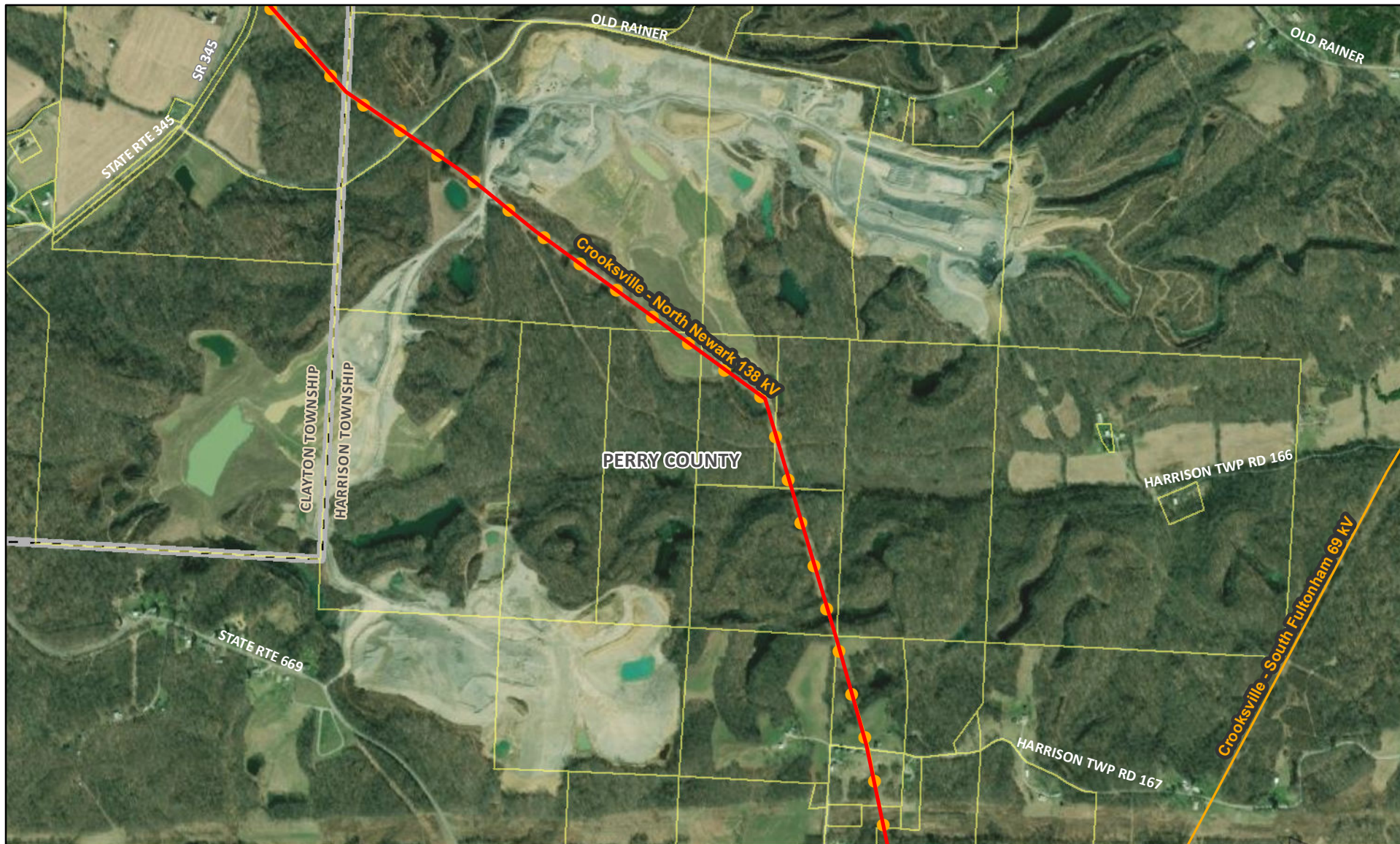


FIGURE 20 AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



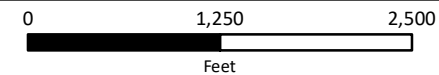
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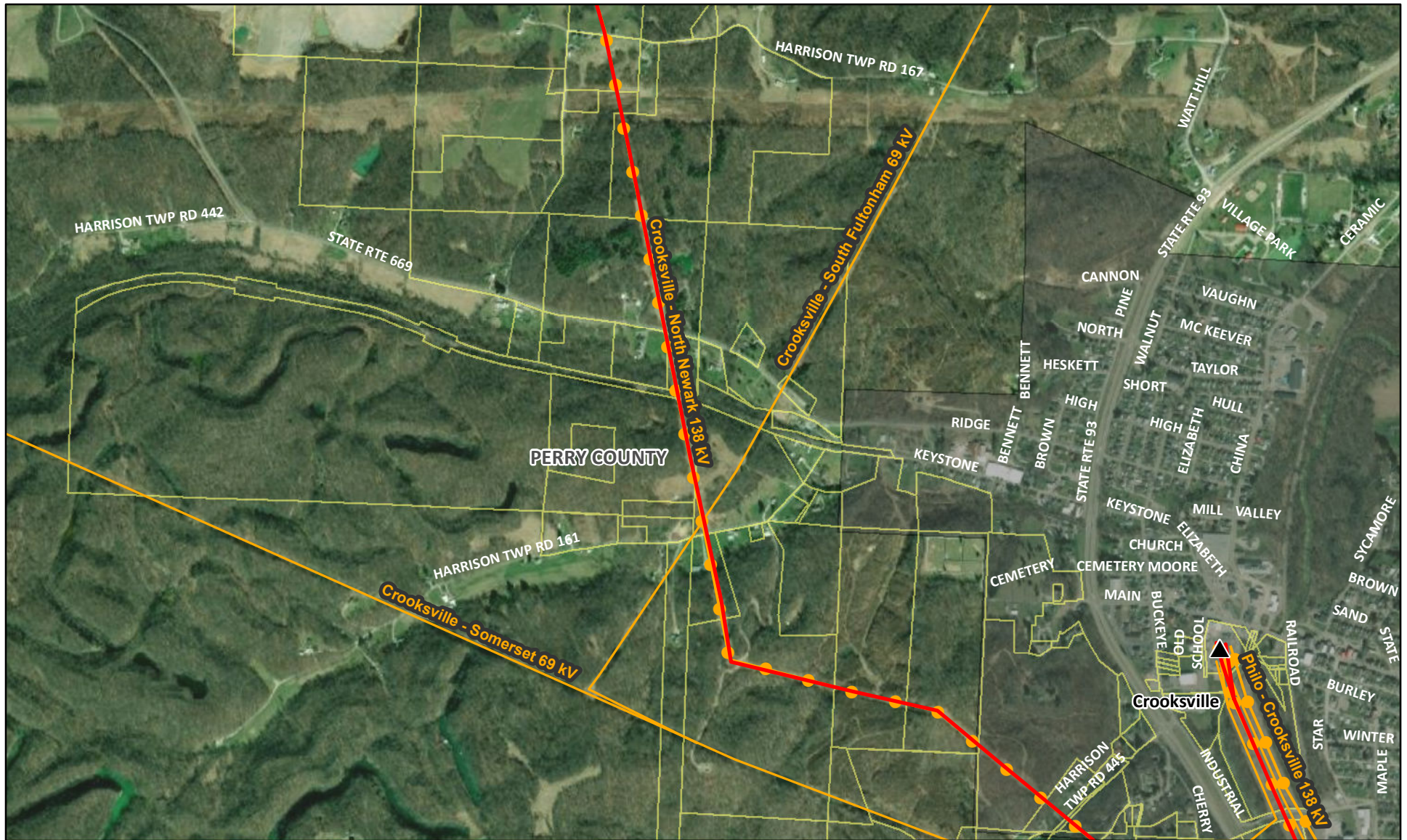


FIGURE 2P AERIAL MAP



Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





Existing Transmission Line

- 69-kV
- 138-kV
- 345-kV and Above
- Proposed Newark Center - Crooksville 138-kV Line

- Parcel Boundary
- Municipality Boundary
- ▬ Township Boundary
- ▬ County Boundary

Data Sources: AEP (2021),
OSIP Roads (2014),
ESRI World Imagery (2020)

Coordinate System:
State Plane Ohio South
NAD 83



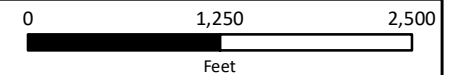
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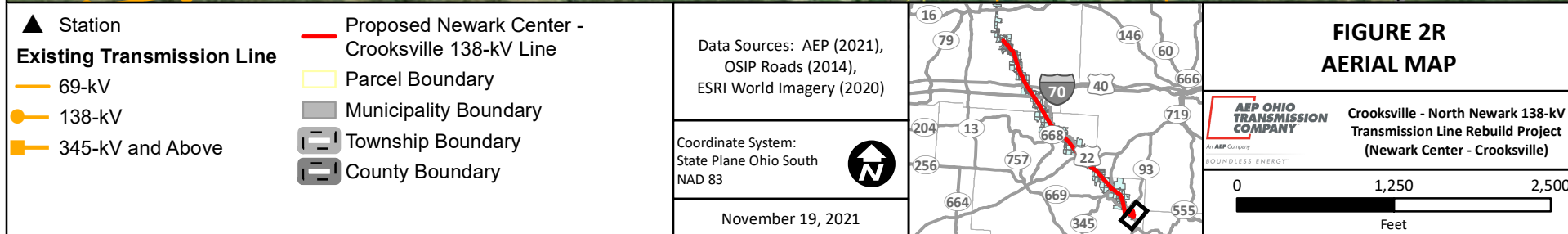
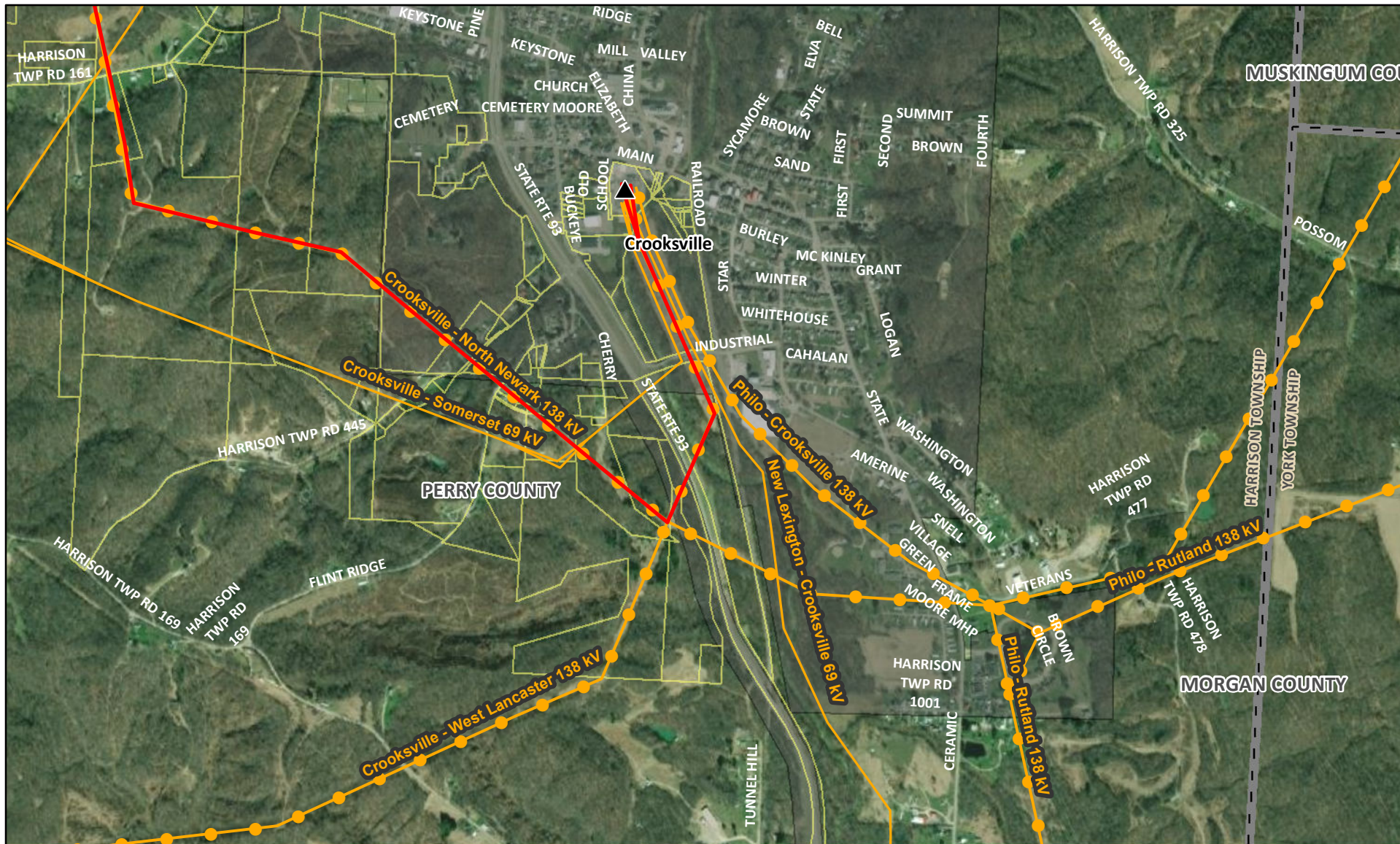


FIGURE 2Q AERIAL MAP

**AEP OHIO
TRANSMISSION
COMPANY**
An AEP Company
FOUNDLESS ENERGY™

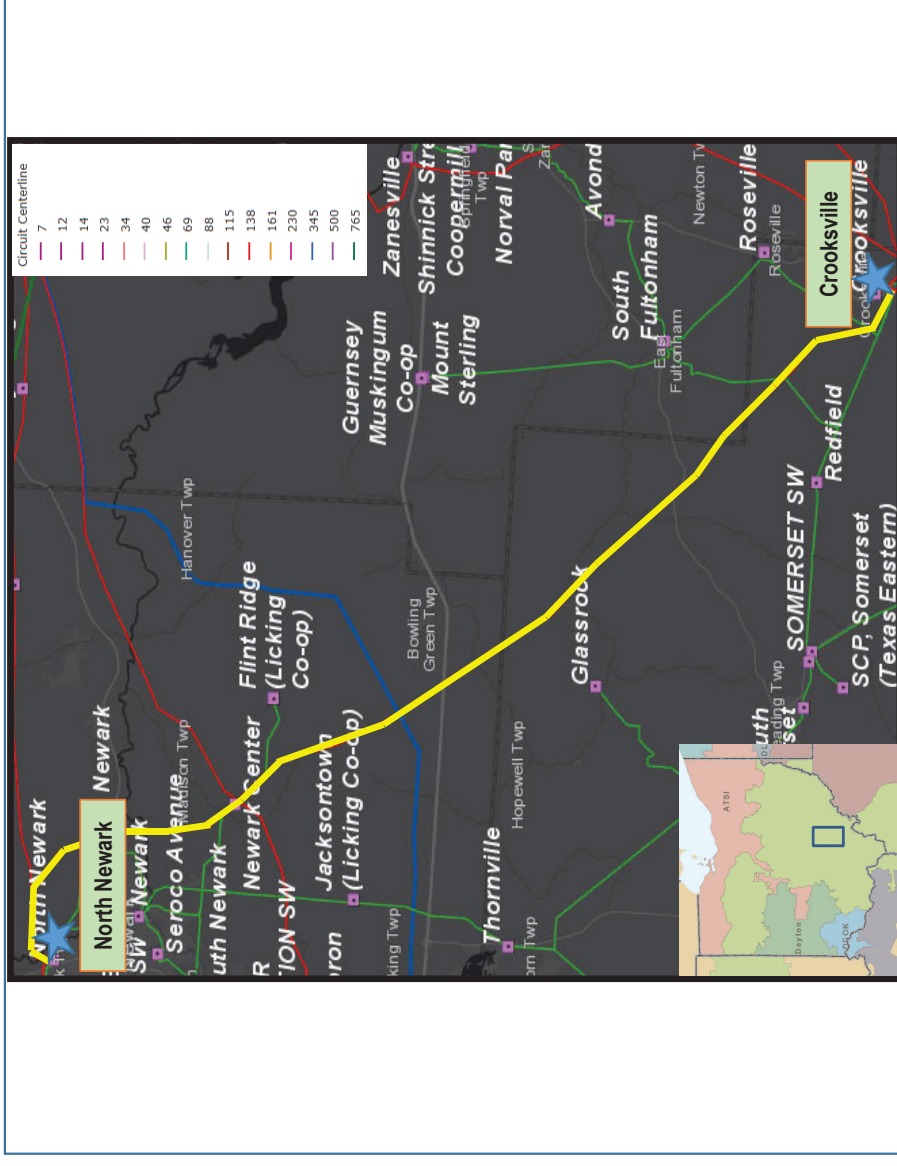
Crooksville - North Newark 138-kV
Transmission Line Rebuild Project
(Newark Center - Crooksville)





AEP Transmission Zone M-3 Process Crooksville – North Newark Rebuild

- Need Number:** AEP-2019-OH030
- Process Stage:** Submission of Supplemental Project for inclusion in the Local Plan 02/06/2020
- Previously Presented:**
Needs Meeting 6/17/2019
Solutions Meeting 12/18/2019
- Project Driver:**
Equipment Material/Condition/Performance/Risk
- Specific Assumption Reference:**
AEP Guidelines for Transmission Owner Identified Needs
- Problem Statement:**
- Line:**
Crooksville – North Newark (Vintage - 1952)
- Length: 30.63 Miles
 - Original Construction Type: Wood
 - Original Conductor Type: 266,800 CM ACSR 26/7 (Partridge)
 - Momentary/Permanent Outages: 5 outages last 5 years
 - Number of open conditions: 338
 - Open conditions include: Pole Rot, Insect/Bird Damage, Damaged Conductors, Ground Wires, & Guy Wires.



AEP Transmission Zone M-3 Process Crooksville – North Newark Rebuild

Need Number: AEP-2019-OH030

Process Stage: Submission of Supplemental Project for inclusion in the Local Plan 02/20/2020

Selected Solution:

Rebuild the existing 31.6-mile Crooksville - North Newark line using 795 ACSR.

Estimated Cost: \$55.6 M

Projected In-Service: 12/1/2023

Supplemental Project ID: S2160

Project Status: Engineering

Model: N/A

Existing:



Proposed:



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

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

LINE NAME AND NUMBER:	Crooksville - North Newark (s2160), TP2019150
POINTS OF ORIGIN AND TERMINATION	Crooksville, North Newark INTERMEDIATE STATION - Isabella
RIGHTS-OF-WAY: LENGTH / WIDTH / CIRCUITS	31.6 mi / 100 ft / 1 circuit
VOLTAGE: DESIGN / OPERATE	138 kV/ 138 kV
APPLICATION FOR CERTIFICATE:	2021
CONSTRUCTION:	2022-2023
CAPITAL INVESTMENT:	\$50M
PLANNED SUBSTATION:	N/A
SUPPORTING STRUCTURES:	Steel
PARTICIPATION WITH OTHER UTILITIES	N/A
PURPOSE OF THE PLANNED TRANSMISSION LINE	Rebuild of existing 138 kV line
CONSEQUENCES OF LINE CONSTRUCTION DEFERMENT OR TERMINATION	Increased risk of equipment failure.
MISCELLANEOUS:	

Parcel ID	Agreement Type	Easement Obtained
1603723000000	Existing Rights	Yes
1603723001000	Supplemental Easement	Yes
1603792000000	Supplemental Easement	Yes
1603613801004	Supplemental Easement	Yes
1603613801002	Supplemental Easement	Yes
1603613801003	Supplemental Easement	Yes
1603613800000	Supplemental Easement	Yes
1603721200000	Existing Rights	Yes
1603762000000	Supplemental Easement	Yes
1603762000002	Supplemental Easement	Yes
1603762000001	Supplemental Easement	Yes
1603678000000	Supplemental Easement	Yes
1603816600000.00	Supplemental Easement	Yes
1603691200004	Supplemental Easement	Yes
1603691200003	Supplemental Easement	Yes
1603691200002	Supplemental Easement	Yes
1603691200001	Supplemental Easement	Yes
1603691200000	Supplemental Easement	Yes
1603692400000	Supplemental Easement	Yes
1603776400000	Supplemental Easement	Yes
1603801600000.00	Supplemental Easement	Yes
1603662400000	Supplemental Easement	Yes
1603662400001	Supplemental Easement	Yes
1603690600000	Supplemental Easement	Yes
1603686400000	Supplemental Easement	Yes
1603685800001	Existing Rights	Yes
1603685800000	Supplemental Easement	No
1603718800000	Supplemental Easement	Yes
1603791400000	Supplemental Easement	Yes
1603700800000	Supplemental Easement	Yes
1603700801000	Supplemental Easement	Yes
1603654600000	Supplemental Easement	Yes
1603703800000	Supplemental Easement	Yes
1603775200000	Supplemental Easement	Yes
1603641400002	Supplemental Easement	Yes
1603640200000	Supplemental Easement	Yes
1603641400004	Supplemental Easement	Yes
500727200008	Supplemental Easement	Yes
500727200007	Supplemental Easement	Yes
300396600000	Supplemental Easement	Yes
300372000008	Supplemental Easement	Yes
300372000006	Supplemental Easement	Yes
300417000001	Supplemental Easement	Yes
300417000000	Supplemental Easement	Yes
300400200002	Supplemental Easement	Yes

Parcel ID	Agreement Type	Easement Obtained
300400200000	Supplemental Easement	Yes
300376800000	Supplemental Easement	Yes
300425400000	Supplemental Easement	Yes
300425400004	Supplemental Easement	Yes
300391201000	Supplemental Easement	Yes
300391201001	Supplemental Easement	Yes
300406200000	Supplemental Easement	Yes
120007770000	Supplemental Easement	Yes
120001310000	Supplemental Easement	Yes
120002950000	Supplemental Easement	Yes
120003240000	Supplemental Easement	Yes
120007430000	Supplemental Easement	Yes
120000370000	Supplemental Easement	Yes
120000860200.00	Supplemental Easement	Yes
120000860300	Supplemental Easement	Yes
120000860302	Supplemental Easement	Yes
120000860101	Supplemental Easement	Yes
120000860100	Supplemental Easement	No
120003970200	Supplemental Easement	Yes
120006750000	Supplemental Easement	Yes
120006750200	Supplemental Easement	Yes
120003930000	Supplemental Easement	Yes
120003960000	Supplemental Easement	Yes
120002320000	Supplemental Easement	Yes
120005280000	Supplemental Easement	Yes
170002910000	Supplemental Easement	Yes
170002910100	Supplemental Easement	Yes
170002920000	Supplemental Easement	Yes
170002920200	Supplemental Easement	Yes
170002170000	Supplemental Easement	Yes
170000720000	Supplemental Easement	Yes
170003720000	Supplemental Easement	Yes
170002600000	Supplemental Easement	Yes
170002600200	Existing Rights	Yes
170000250000	Supplemental Easement	Yes
170003170500	Supplemental Easement	Yes
170003170700	Existing Rights	Yes
170003170400	Supplemental Easement	Yes
170003170600	Supplemental Easement	Yes
170003170300	Supplemental Easement	Yes
170003170200	Supplemental Easement	Yes
170003170000	Supplemental Easement	Yes
170003970000	Existing Rights	Yes
170003990000	Supplemental Easement	Yes
170003530000	Supplemental Easement	Yes

Parcel ID	Agreement Type	Easement Obtained
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170003470000	Existing Rights	Yes
170002480400	Supplemental Easement	Yes
Unknown	Existing Rights	Yes
170002480500	Supplemental Easement	Yes
170002480000	Supplemental Easement	Yes
170001100000	Supplemental Easement	Yes
170001800000	Existing Rights	Yes
170001690000	Existing Rights	Yes
170001150900	Supplemental Easement	Yes
170001150800	Supplemental Easement	Yes
170001150700	Existing Rights	Yes
170001150600	Existing Rights	Yes
170001150500	Supplemental Easement	Yes
170001150400	Supplemental Easement	Yes
170001151200	Supplemental Easement	Yes
170003320000	Supplemental Easement	Yes
170001200300	Supplemental Easement	Yes
170004230300	Supplemental Easement	Yes
170000060000	Supplemental Easement	Yes
170004220000	Supplemental Easement	Yes
170002940000	Existing Rights	Yes
170002120400	Supplemental Easement	No
170002120300	Supplemental Easement	Yes
170002120301	Supplemental Easement	Yes
170003200900	Supplemental Easement	Yes
170003200800	Supplemental Easement	No
170003200700	Supplemental Easement	Yes
170003200600	Supplemental Easement	Yes
170003200000	Supplemental Easement	Yes
30004720000	Supplemental Easement	Yes
30000080100	Supplemental Easement	Yes
30000050000	Supplemental Easement	Yes
30001560000	Supplemental Easement	No
30002370000	Supplemental Easement	Yes
47-72-35-06-001	Supplemental Easement	Yes
47-72-35-06-002	Supplemental Easement	Yes
47-72-35-08-000	Supplemental Easement	No
47-72-35-09-001	Supplemental Easement	Yes
47-72-35-09-000	Supplemental Easement	Yes
47-72-35-11-000	Supplemental Easement	Yes
47-72-35-14-000	Supplemental Easement	Yes
47-72-35-13-000	Supplemental Easement	Yes
30004940000	Supplemental Easement	Yes

Parcel ID	Agreement Type	Easement Obtained
30001650200	Supplemental Easement	Yes
090002980000	Supplemental Easement	Yes
70001560000	Supplemental Easement	Yes
70000570100	Supplemental Easement	Yes
70000570000	Supplemental Easement	Yes
70007820000	Supplemental Easement	Yes
70006970000	Existing Rights	Yes
70000880000	Supplemental Easement	Yes
70004900400	Supplemental Easement	Yes
70004900100	Supplemental Easement	Yes
70004900000	Supplemental Easement	No
70000890000	Supplemental Easement	Yes
70000160000	Supplemental Easement	Yes
70000160100	Supplemental Easement	Yes
70000820000	Supplemental Easement	No
110091720000	Supplemental Easement	Yes
110012150000	Supplemental Easement	No
110012640000	Supplemental Easement	No
110012150100	Supplemental Easement	Yes
70000500000	Supplemental Easement	Yes
070002340000	Supplemental Easement	No
070002340100	Supplemental Easement	Yes
070006250000	Supplemental Easement	Yes
070002370100	Supplemental Easement	No
70002480000	Supplemental Easement	Yes
70000700100	Supplemental Easement	Yes
070007030000	Supplemental Easement	No
70007040000	Supplemental Easement	No
70007040100	Supplemental Easement	No
110004480100	Supplemental Easement	Yes
110006920000	Supplemental Easement	No
110006930000	Supplemental Easement	No
110004680000	Supplemental Easement	Yes
110091210000	Supplemental Easement	Yes
70002010000	Supplemental Easement	Yes
110092070000	Supplemental Easement	No



Ohio Department of Natural Resources

MIKE DeWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate

John Kessler, Chief

2045 Morse Road – Bldg. E-2

Columbus, OH 43229

Phone: (614) 265-6621

Fax: (614) 267-4764

November 20, 2019

Jason Tucker
AECOM
525 Vine Street
Cincinnati, Ohio 45202

Re: 19-862; Crooksville-North Newark 138 kV Transmission Line Rebuild Project

Project: The proposed project involves rebuilding approximately 31.6 miles of transmission line within an existing 100-foot right-of-way (ROW) from Crooksville, Ohio at the Crooksville Station heading northwest toward North Newark Station.

Location: The proposed project is located in Perry Township, Muskingum County, Ohio.

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

Natural Heritage Database: The Natural Heritage Database has no records at or within a one-mile radius of the project area.

A review of the Ohio Natural Heritage Database indicates there are no other records of state endangered or threatened plants or animals within the project area. There are also no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, we are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the project area. The review was performed on the project area you specified in your request as well as an additional one-mile radius. 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. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

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 project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the sheepsfoot (*Plethobasus cyphus*), a state endangered and federally endangered mussel, the fanshell (*Cyprogenia stegaria*), a state endangered and federally endangered mussel, the snuffbox (*Epioblasma triquetra*), a state endangered and federally endangered mussel, the rabbitsfoot (*Quadrula cylindrica cylindrica*), a state endangered and federally threatened mussel, the Ohio pigtoe (*Pleurobema cordatum*), a state endangered mussel, the long-solid (*Fusconaia maculata maculata*), a state endangered mussel, the sharp-ridged pocketbook (*Lampsilis ovata*), a state endangered mussel, the wartyback (*Quadrula nodulata*), a state endangered mussel, the black sandshell (*Ligumia recta*), a state threatened mussel, the fawnsfoot (*Truncilla donaciformis*), a state threatened mussel, and the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the northern madtom (*Noturus stigmosus*), a state endangered fish, the paddlefish (*Polyodon spathula*) a state threatened fish, the mountain madtom (*Noturus eleutherus*), a state threatened fish, and the channel darter (*Percina copelandi*), a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact this species.

The project is also within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding

depressions. Due to the location, and the type of habitat present at the project site, and within the vicinity of the project area, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus cyaneus*), 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 May 15 to August 1. 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 U.S. 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. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator (Acting)



In reply, refer to
2020-LIC-49910

June 28, 2021

Mr. Ryan J. Weller
Weller & Associates, Inc.
1395 West Fifth Avenue
Columbus, Ohio 43212

RE: North Newark- Newark Center 138Kv Rebuild Project, Knox and Licking Counties, Ohio – Access Roads

Dear Mr. Weller:

This letter is in response to the correspondence received on June 22, 2021 regarding the proposed access roads associated with the North Newark- Newark Center 138Kv Rebuild Project, Knox 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 4906-5). 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 letter report titled *Cultural Resource Management Addendum Investigations for Proposed Access Roads Associated with the North Newark-Newark Center 138kV Rebuild Project in Knox and Licking Counties, Ohio* by Ryan J. Weller (Weller & Associates, Inc., 2021).

A literature review, visual inspection, and subsurface excavation was completed as part of the investigations. One (1) previously identified archaeological site is located within the addendum project area. Ohio Archaeological Inventory (OAI)# 33LI0263 was not reidentified during fieldwork and the area has been disturbed since the site was originally identified in 1984. One (1) new archaeological sites were identified during survey; OAI# 33LI2721. The site is not recommended eligible for listing in the National Register of Historic Places (NRHP). Our office agrees with this recommendation and no further archaeological survey is necessary.

Based on the information provided, we continue to agree that the project as proposed will have no effect on historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted. If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorrocks@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks".

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1089057

From: Ohio, FW3 <ohio@fws.gov>
Sent: Friday, December 11, 2020 3:14 PM
To: Hanner, Audrey
Cc: nathan.reardon@dnr.state.oh.us; Parsons, Kate
Subject: [EXTERNAL] AEP Crooksville-North Newark 138 kV Transmission Line Rebuild, Perry/Muskingum/Licking Counties, Ohio



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



TAILS# 03E15000-2021-TA-0439

Dear Ms. Hanner,

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 and endangered 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 threatened **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.

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. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana 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.

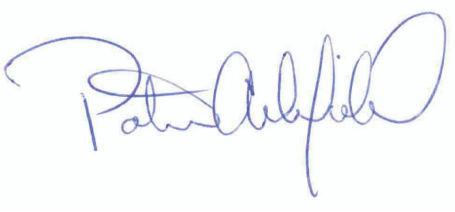
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing 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, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

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, appearing to read "Patrice Ashfield". The signature is fluid and cursive, with the first name "Patrice" and last name "Ashfield" clearly distinguishable.

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

12/2/2021 8:40:43 AM

in

Case No(s). 21-1206-EL-BLN

Summary: Notice Letter of Notification Part 1 electronically filed by Hector Garcia-Santana on behalf of AEP Ohio Transmission Company, Inc.