

FILE



22

76 South Main Street  
Akron, Ohio 44308

1-800-646-0400

August 28, 2014

Ms. Barcy F. McNeal  
Docketing Division  
The Public Utilities Commission of Ohio  
180 East Broad Street  
Columbus, OH 43215-3793

**Letter of Notification**  
**Chamberlin-West Akron 138 kV Transmission Line**  
**Tap to Sourek Substation Project**  
**Case No. 14-1346-EL-BLN**

Dear Ms. McNeal:

In accordance with Administrative Code Rule 4906-01-11, American Transmission Systems, Inc. ("ATSI"), a FirstEnergy company, transmits one (1) original and eleven (11) copies of the enclosed Letter of Notification for the above captioned Project. ATSI is requesting expedited review of this Letter of Notification.

In this project, ATSI is proposing to extend the existing Chamberlin-West Akron 138 kV Transmission Line as a tap approximately 0.06 mile (350 feet) to the site of the new Sourek Substation. As part of the project, two (2) new switch structures and one (1) new tap structure will be installed in-line in the existing Chamberlin-West Akron 138 kV Transmission Line. One (1) new angle structure will be installed as part of the tap. Also, one (1) new tangent structure will be installed in-line in the adjacent Babb-West Akron 138 kV Transmission Line to maintain proper clearances. The Project is located in the City of Akron, Summit County, Ohio.

Please be advised of the following:

a) Name and address of the applicant:

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

b) Name of proposed facilities:

Chamberlin-West Akron 138 kV Transmission Line Tap to Sourek Substation Project.

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c) Location of proposed facilities:

The Project is located in the City of Akron, Summit County, Ohio.

d) Description of proposed facilities:

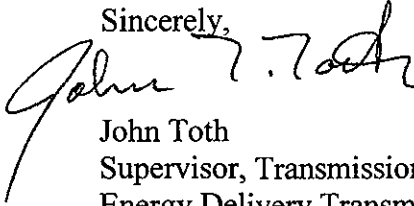
The project involves extending the existing Chamberlin-West Akron 138 kV Transmission Line as a tap approximately 0.06 mile (350 feet) to the site of the new Sourek Substation. As part of the project, two (2) new switch structures and one (1) new tap structure will be installed in-line in the existing Chamberlin-West Akron 138 kV Transmission Line. One (1) new angle structure will be installed as part of the tap. Also, one (1) new tangent structure will be installed in-line of the Babb-West Akron 138 kV Transmission Line to maintain proper clearances. The Project area is located in the City of Akron, Summit County, Ohio.

e) Applicant's representative:

John Toth  
Supervisor, Transmission Siting  
Energy Delivery Transmission and Substation Design  
FirstEnergy Service Company  
76 South Main Street  
Akron, OH 44308-1890

After docketing this filing, please return one time-stamped copy of the Letter of Notification for our records to us in the enclosed envelope. We have provided a copy of this Letter of Notification by certified mail, with return receipt requested, to officials of the political subdivisions immediately affected by the proposed project as listed in the attached Exhibit 1. Copies of the transmittal letters addressed to the local government representatives of the City of Akron and Summit County are enclosed for your file.

Should the Ohio Power Siting Board desire further information or discussion of this submittal, please contact me at (330) 384-4564.

Sincerely,  
  
John Toth  
Supervisor, Transmission Siting  
Energy Delivery Transmission &  
Substation Design  
FirstEnergy Service Company

Attachments

**LETTER OF NOTIFICATION  
CHAMBERLIN-WEST AKRON 138 kV TRANSMISSION  
LINE TAP TO SOUREK SUBSTATION PROJECT**

The following information is being provided in accordance with Ohio Administrative Code Rule 4906-11-01: Letter of Notification Requirements of the Rules of the Ohio Power Siting Board ("Board").

**4906-11-01 (B): LETTER OF NOTIFICATION REQUIREMENTS**

**4906-11-01 (B) (1) a: Name and Reference Number**

Name of Project: Chamberlin-West Akron 138 kV Transmission Line Tap to Sourek Substation Project ("Project").

2014 LTFR Reference: This Project is not included in FirstEnergy Corp. 2014 Long-Term Forecast Report submitted to the Public Utility Commission of Ohio in Case Number 14-0625-EL-FOR.

**4906-11-01 (B) (1) b: Brief Description of Project**

In this Project, American Transmission Systems, Incorporated ("ATSI"), a FirstEnergy company, is proposing to extend the existing Chamberlin-West Akron 138 kV Transmission Line as a tap approximately 0.06 mile (350 feet) to the site of the new Sourek Substation.

As part of the project, two (2) new switch structures and one (1) new tap structure will be installed in-line in the existing Chamberlin-West Akron 138 kV Transmission Line. One (1) new angle structure will be installed as part of the tap. Also, one (1) new tangent structure will be installed within the adjacent Babb-West Akron 138 kV Transmission Line to maintain proper clearances. The General Location of the Project is shown in Exhibit 1. The general layout of the Project is shown in Exhibit 2. The proposed structures are shown in Exhibits 3 through 6. The Project is located in the City of Akron, Summit County, OH.

**4906-11-01 (B) (1) c: Why the Project Meets the Requirements for a Letter of Notification**

The Project meets the requirements for a Letter of Notification because the Project is within the types of projects defined by Items (1)(c) and (4)(a) of the Interim Application Requirement Matrix for Electric Power Transmission Lines in the Finding and Order issued on September 4, 2012, as subsequently modified on December 17, 2012, in Case No. 12-1981-GE-BRO, which modified Appendix A of Admin. Code Rule 4906-1-01. These items state:

- (1) Rerouting or extension or new construction of single or multiple circuit electric power transmission(s) as follows:*
  - (c) Line(s) one hundred twenty-five kV and above, and less than three hundred kV, and not greater than 0.2 miles in length.*
  - (4) Replacing electric power transmission line structure(s) with a different type of structure(s) or adding structure(s) within an existing electric power transmission line and:*
    - (u) Two miles or less of new right-of-way is required.*

The proposed Project extends the existing Chamberlin-West Akron 138 kV Transmission Line as a tap approximately 0.06 mile (350 feet) to the Sourek Substation and includes the installation of new structures.

**4906-11-01 (B) (2): Need for the Project**

The Project is being installed to connect the new Sourek Substation to the transmission grid. Sourek Substation is a distribution substation that is being installed to support removing an existing distribution substation, Ira Substation, from service. Ira Substation is being retired. The Project is one of two separate, but related, Letter of Notification applications for transmission line projects needed to replace the Ira Substation. The other Project, West Akron-Pleasant Valley East 138 kV Transmission Line Tap to Bath Substation (Case No. 14-1309-EL-BNL), was filed on August 1, 2014.

**4906-11-01 (B) (3): Location Relative to Existing or Proposed Lines**

The location of the Project relative to existing or proposed transmission lines is shown in the FirstEnergy System Facilities map, "TL-MAP-2," included as part of the confidential portion of the FirstEnergy Corp. 2014 Long-Term Forecast Report. This map was submitted to the PUCO in Case No. 14-0625-EL-FOR under Rule 4901:5-5:04 (C) of the Ohio Administrative Code. The map is incorporated by reference only. This map shows ATSI's 345 kV and 138 kV transmission lines and transmission substations, including the location of the Chamberlin-West Akron 138 kV Transmission Line. The project area is located approximately 3½ inches (11 by 17 inch printed version) from the left edge of the map and 5 inches (11 by 17 inch printed version) from the top of the map. The general location and layout of the Project is shown on Exhibit 1.

**4906-11-01 (B) (4): Alternatives Considered**

Several solutions were considered for modifying and/or retiring the Ira Substation. The Ira Substation is a distribution substation that has been subject to flooding. Installation of additional distribution facilities, including the installation of a new distribution substation, i.e. the Sourek Substation, were selected as the optimal solution. No other alternatives to the Project were identified that had fewer expected impacts.

**4906-11-01 (B) (5): Construction Schedule**

Construction of the Project is expected to begin as early as October 27, 2014 and be completed by December 31, 2014.

**4906-11-01 (B) (6): Area Map**

Exhibit 1 depicts the general location of the Project. This exhibit provides a partial copy of the United States Geologic Survey, Peninsula Ohio Quad, Map ID 41081-B5. To locate and view the project site from the Columbus, Ohio area travel north on I-71 for approximately 108 miles. Take exit 218 for OH-18 toward Medina/Akron. Turn right onto OH-18 E/Medina Road, and travel for approximately 8.7 miles. Turn left onto Smith Road and travel for approximately

2.8 miles. Turn left onto Sourek Trail and travel approximately 0.2 mile. The site of the new Sourek Substation will be located on the right.

**4906-11-01 (B) (7): Property Owner List**

The Project is located wholly in existing right-of-way on a FirstEnergy owned property. The property information is below:

Parcel Number(s)	Property Owner	Easement(s) Obtained
NH00032B0002000	Ohio Edison Company, a FirstEnergy Company	Owned in Fee

**4906-11-01 (C): TECHNICAL FEATURES OF THE PROJECT**

**4906-11-01 (C) (1): Operating Characteristics**

The transmission line construction will have the following characteristics:

- Voltage: 138 kV
- Conductors: 477 kcmil 26/7 ACSR
- Static wire: 134.6 kcmil 26/7 ACSR
- Insulators: Polymer
- Structure Types: Exhibit 3: Typical Switch Structure  
Exhibit 4: Tap Structure  
Exhibit 5: Single Circuit Tangent Structure  
Exhibit 6: Single Circuit Light Angle

**4906-11-01 (C) (2) a: Calculated Electric and Magnetic Fields**

The following table itemizes the line loading of Chamberlin-West Akron 138 kV Transmission Line Tap to Sourek Substation Project. The normal line loading represents FirstEnergy's peak system load for the transmission lines. The emergency line loading represents the maximum line loading under contingency operation. The winter rating is based on the continuous maximum conductor ratings (MCR) of the circuits for the single conductors per phase 477 kcmil 26/7 ACSR conductors and an ambient temperature of zero degrees centigrade (32 deg.

F), wind speed of 1.3 miles per hour, and a circuit design operating temperature of 100 degrees centigrade (212 deg. F).

Transmission Corridor Line Names	Normal Loading Amps	Emergency Loading Amps	Winter Rating Amps
Aetna-West Akron 138 kV Transmission Line	205	282	946
Babb-West Akron 138 kV Transmission Line	150	410	946
Chamberlin-West Akron 138 kV Transmission Line	245	225	946
Chamberlin-West Akron 138 kV Transmission Line Tap to Sourek Substation	48	73	754
Darrow-West Akron 69 kV Transmission Line	79	530	754

The following calculations provide an approximation of the magnetic and electric fields strengths of the Chamberlin-West Akron 138 kV Transmission Line Tap to Sourek Substation Project in the right-of-way. The calculations provide an approximation of the electric and magnetic field levels based on specific assumptions utilizing the EPRI EMF Workstation 2009 program software. This program software assumes the input transmission line configuration is located on flat terrain. Also, a balanced, three-phase circuit loading is assumed for the transmission circuit. The model utilizes the normal, emergency, and winter rating of the transmission lines.

EMF CALCULATIONS		Electric Field kV/meter	Magnet Field mGauss
Normal Loading	Under Lowest Conductors	1.64	17.76
	At Right-of-Way Edges	0.17/0.22	4.05/6.1
Emergency Loading	Under Lowest Conductors	1.64	43.76
	At Right-of-Way Edges	0.17/0.22	13.91/18.1

EMF CALCULATIONS		Electric Field kV/meter	Magnet Field mGauss
Winter Rating	Under Lowest Conductors	1.64	75.29
	At Right-of-Way Edges	0.17/0.22	32.08/39.2

#### **4906-11-01 (C) (2) b: EMF Discussion**

##### **Background Information**

Electric and magnetic fields (EMFs) are naturally occurring in the environment and can be found in the Earth's interior and in the human body. EMFs are generated essentially anywhere where there is a flow of electricity, including electrical appliances and power equipment. Electric fields are associated with the voltage of the source; magnetic fields are associated with the flow of current in a wire. The strength of these fields decreases rapidly with distance from the source. EMFs associated with electricity use are not disruptive to cells like x-rays or ultraviolet rays from the sun. EMF fields are thought to be too weak to break molecules or chemical bonds in cells. Scientists have conducted extensive research over the past two decades to determine whether EMFs are associated with adverse health effects, and although the research and debate of this issue continues, at this time there is no firm basis to conclude that EMFs cause adverse health effects. A number of independent scientific panels have reviewed the research and have stated that there is no basis to conclude that EMFs cause adverse health effects nor has it been shown that levels in everyday life are harmful.

##### **Recent Developments**

As a part of the National Energy Policy Act of 1992, the Electric and Magnetic Fields Research and Public Information Dissemination (EMF RAPID) program was initiated within the five-year effort under the National EMF Research Program. The culmination of this five-year effort resulted in a final RAPID Working Group report, which was released for public review in August 1998. The Director of the National Institute of Environmental Health Sciences (NIEHS) then prepared a final report to Congress after receiving public comments. The NIEHS' Director's final report, released to Congress on May 4, 1999, concluded that extremely low frequency



electric and magnetic fields (ELF-EMF) exposure cannot be recognized at this time as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard. The Director further stated that the conclusion of this report was insufficient to warrant aggressive regulatory concern.

#### Sources for Additional Information

The following websites sponsored by federal agencies or other organizations provide additional information on EMF:

- Centers for Disease Control/National Institute for Occupational Safety and Health: <http://www.cdc.gov/niosh/topics/emf/>
- National Institute of Environmental Health Sciences (NIEHS) EMF Rapid Program: <http://www.niehs.nih.gov/health/topics/agents/emf/>

#### 4906-11-01 (C) (3): Estimated Costs

The following are the estimated capital costs by FERC Accounts for the proposed project:

<u>Account</u>	<u>Cost</u>
350 Land Rights, Engineering, etc.	\$ 132,700
355 Poles and Fixtures	\$ 132,670
356 Overhead Conductors & Devices	\$ 132,668
<hr/>	
Total	\$ 398,038

#### 4906-11-01 D: SOCIOECONOMIC DATA

##### 4906-11-01 (D) (1): Land Use

The Project is located in Bath Township, in Summit County, Ohio. The land use along the route of the transmission line is open field. Based on the U.S. Bureau of Census estimates, the 2010 population of the City of Akron was 199,110. The 2010 population of Summit County was 541,781. As the proposed Project involves extending the existing transmission line as a tap, no significant changes or impacts to current land use is anticipated.

##### 4906-11-01 (D) (2): Agricultural Land

Agricultural land use does not exist through the Project right-of-way.

**4906-11-01 (D) (3): Archaeological or Cultural Resources**

As part of ATSI's investigation of the project site, a search of Ohio Historic Preservation Office (OHPO) National Register of Historic Places on-line database was conducted and no historic sites are located within one mile of the Project area. The OHPO database includes all Ohio listings on the National Register of Historic Places, including districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

**4906-11-01 (D) (4) a: Documentation of Letter of Notification Transmittal**

This Letter of Notification is being provided concurrently to the following officials of the City of Akron, Summit County, Ohio.

**Summit County**

Ilene Shapiro, President  
Summit County Commissioner  
175 South Main Street  
Room 700  
Akron, OH 44308

Jennifer Novakovic  
Summit County Clerk of Council  
175 South Main Street  
Room 700  
Akron, OH 44308

Russell Pry  
Summit County Executive  
175 South Main Street  
8<sup>th</sup> Floor  
Akron, OH 44308

Alan Brubaker, P.E., P.S.  
Summit County Engineer  
538 E. South Street  
Akron, OH 44311

Frank Comunale  
Summit County Commissioner  
175 South Main Street  
Room 700  
Akron, OH 44308

Kristen Scalise, CPA, CFE  
Summit County Fiscal Officer  
Ohio Building  
175 South Main Street  
Akron, OH 44308

**City of Akron**

The Honorable Donald Plusquellic  
Mayor of the City of Akron  
166 S High Street  
Suite 200  
Akron, OH 44308

Garry Moneypenny, President  
Akron City Council  
166 S High Street  
3<sup>rd</sup> Floor  
Akron, OH 44308

Bob Keith  
Akron City Clerk of Council  
166 S High Street  
3<sup>rd</sup> Floor  
Akron, OH 44308

James Hewitt, Manager  
City of Akron Engineering Bureau  
166 South High Street  
Room 701  
Akron, OH 44308

Marco Sommerville, Director  
City of Akron Planning and Urban  
Development  
166 South High Street  
Akron, OH 44308

Copies of the transmittal letters to these officials have been included with the transmittal letter submitting this Letter of Notification to the Board.

**4906-11-01 (D) (4) b: Public Information Program**

ATSI's manager of External Affairs will advise local officials of features and the status of the proposed Project as necessary.

**4906-11-01 (D) 5: Current or Pending Litigation**

There is no known current or pending litigation involving this Project.

**4906-11-01 (D) 6: Local, State, and Federal Requirements**

There are no known local, state, or federal requirements that must be met prior to commencement of construction of the proposed Project.

**4906-11-01 (E): ENVIRONMENTAL DATA**

**4906-11-01 (E) (1): Endangered, Threatened, and Rare Species Investigation**

As part of the investigation, a request was submitted to the Ohio Department of Natural Resources-Division of Wildlife (ODNR) on April 28, 2014, to research the presence of any endangered, threatened, or rare species within the project area. The ODNR's May 1, 2014 response, attached as Exhibit No. 7, indicated that the agency has records of rare or endangered species within one mile of the identified Project

area; however, none of these records indicate that there are any rare or endangered species within the Project area.

**4906-11-01 (E) (2): Areas of Ecological Concern**

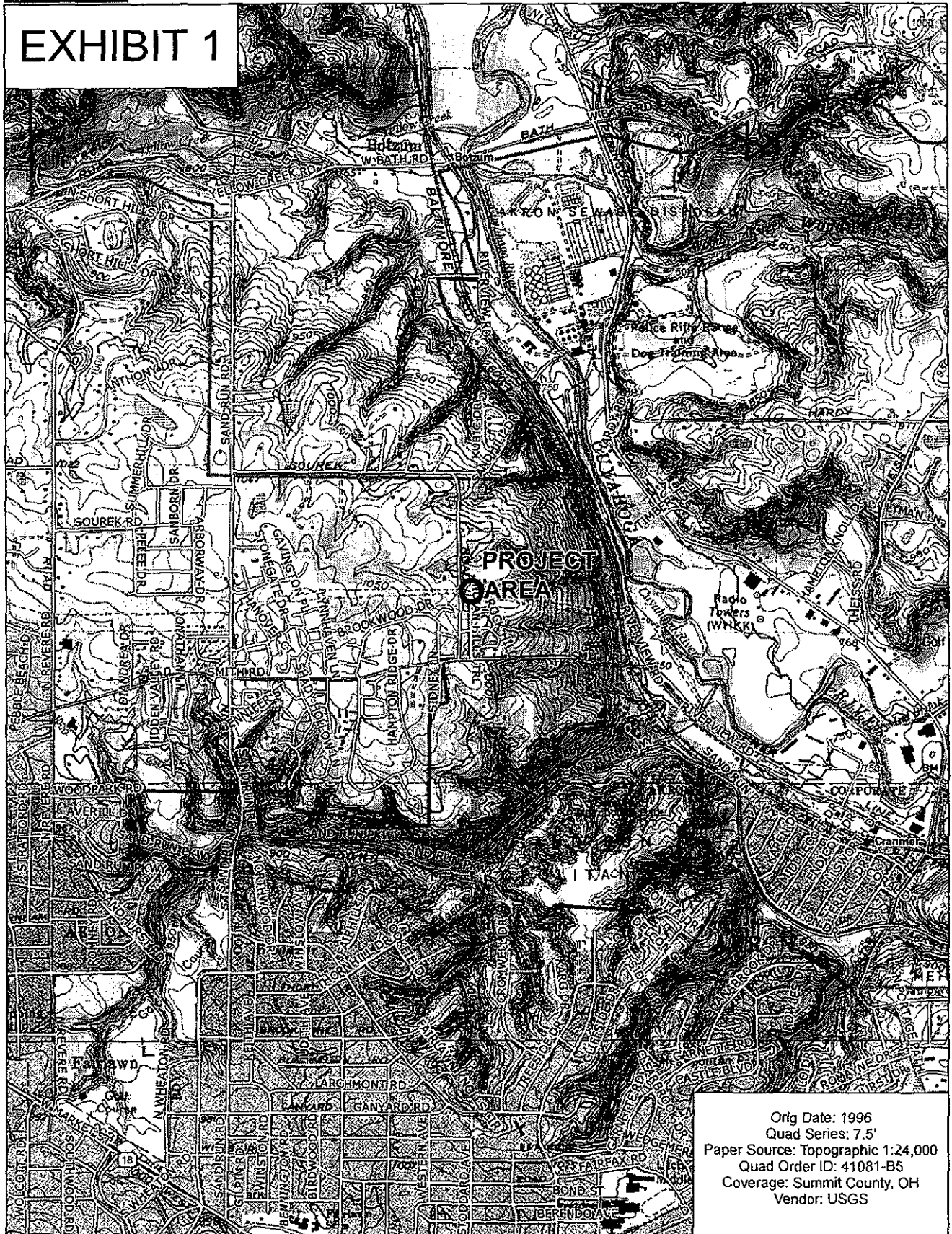
As part of the investigation, a request was submitted to the Ohio Department of Natural Resources-Division of Wildlife (ODNR) on April 28, 2014, to research the presence of any unique ecological sites, geological features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges, parks or forests or other protected natural areas within the project area. The ODNR's May 1, 2014 response, attached as Exhibit No. 7, indicated that the agency has records of parks within one mile of the identified Project area; however, the Project area is not located in either of the parks identified by the agency.

Also, as part of the investigation, URS Corporation conducted a wetland and waterbody delineation for the Sourek Substation Project, which included the tap portion of the Project, attached as Exhibit No. 8. This delineation did not identify any streams or wetlands within the Project's right-of-way; therefore no ecological impacts are expected for this Project.

**4906-11-01 (E) (3): Additional Information**

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

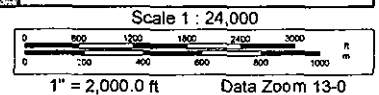
# EXHIBIT 1



Data use subject to license.

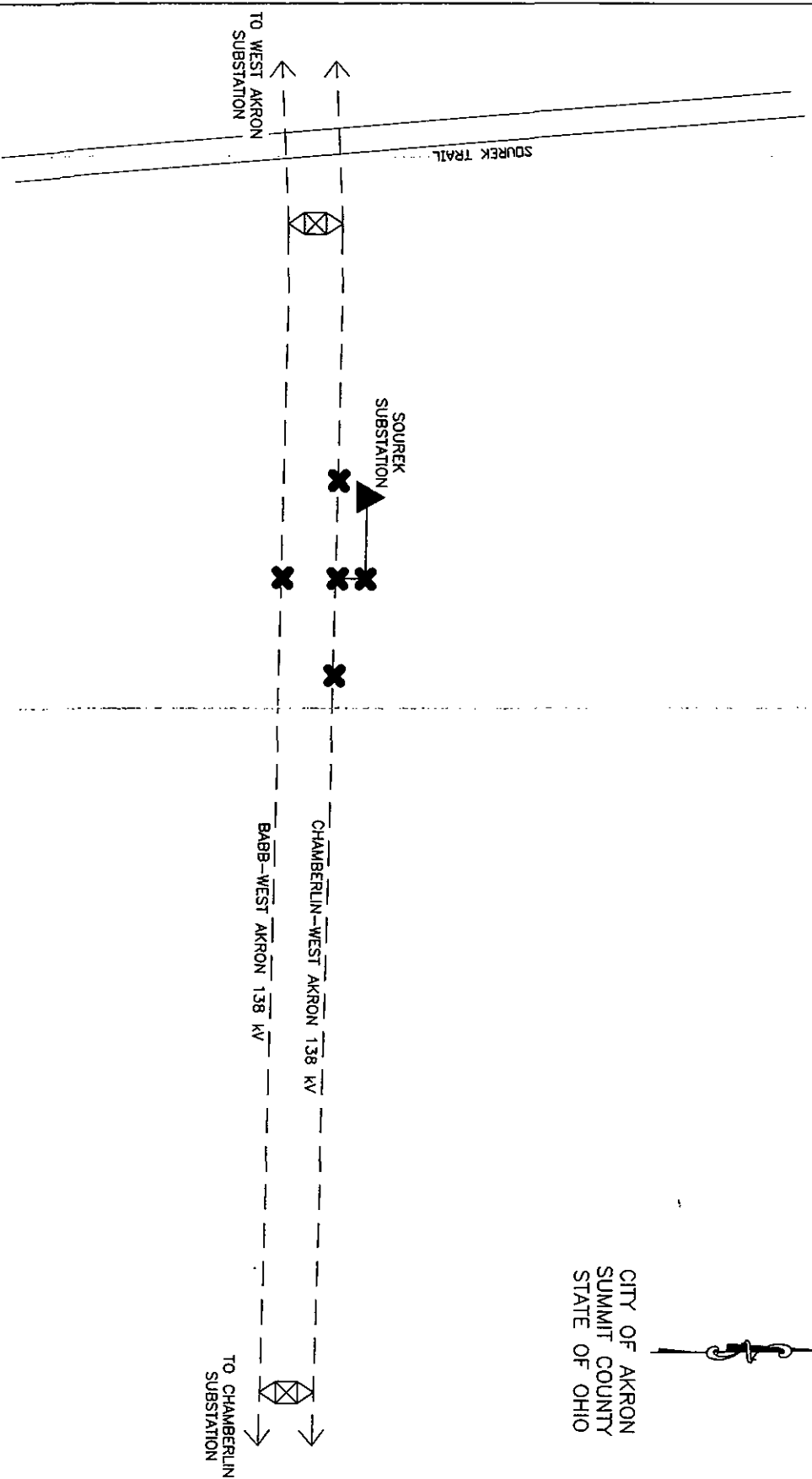
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CITY OF AKRON  
SUMMIT COUNTY  
STATE OF OHIO



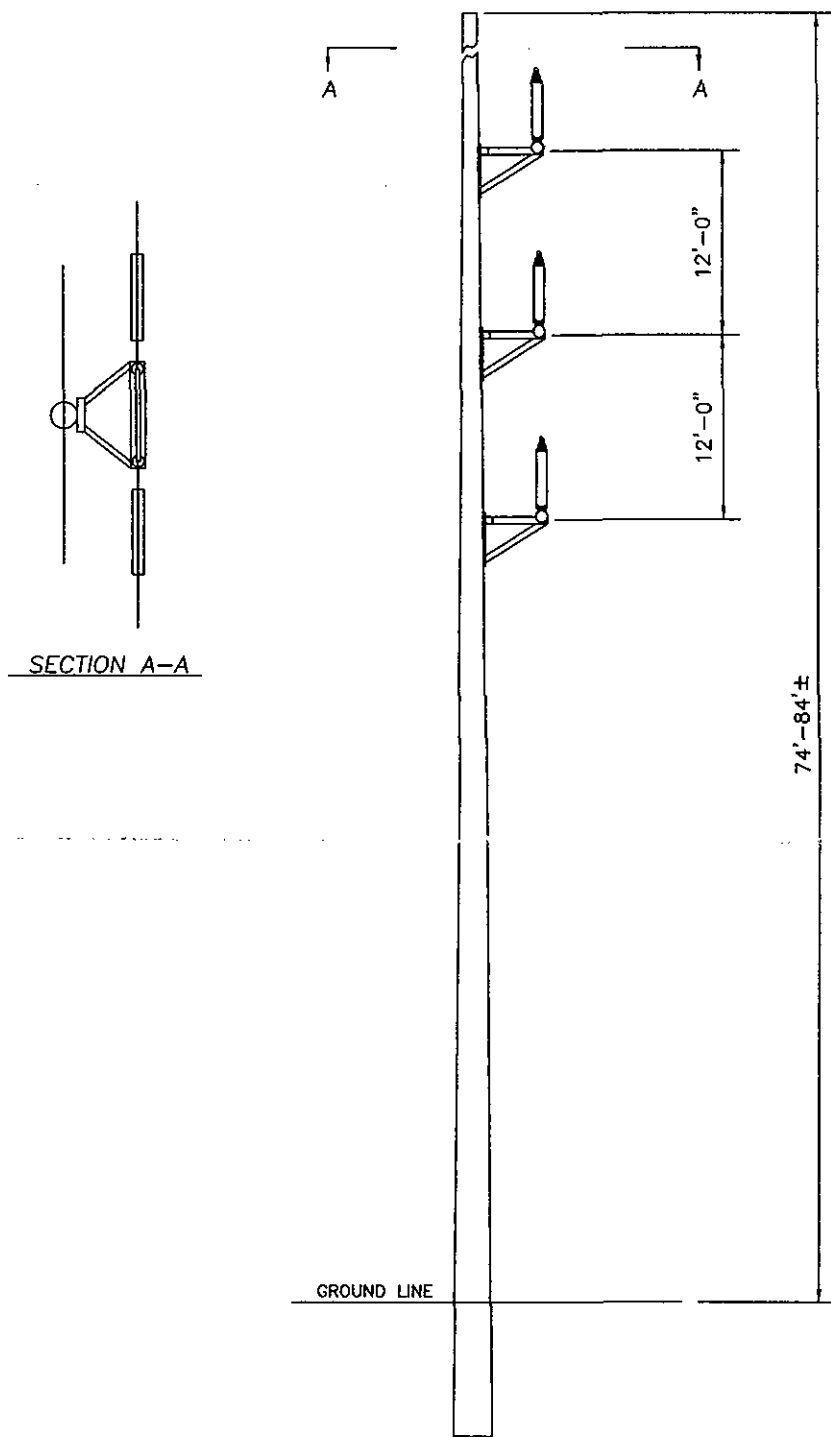
LEGEND	
	PROPOSED STRUCTURE
	EXISTING STRUCTURE
	SUBSTATION
	EXISTING TRANSMISSION LINE
	PROPOSED TRANSMISSION LINE
	EXISTING ROADS

**ATSI**  
American Transmission Systems, Inc. TAP TO SOUREK SUBSTATION  
a subsidiary of Dresser Corp.

CHAMBERLIN - WEST AKRON  
138 kV TRANSMISSION LINE

GENERAL LAYOUT

EXHIBIT 2



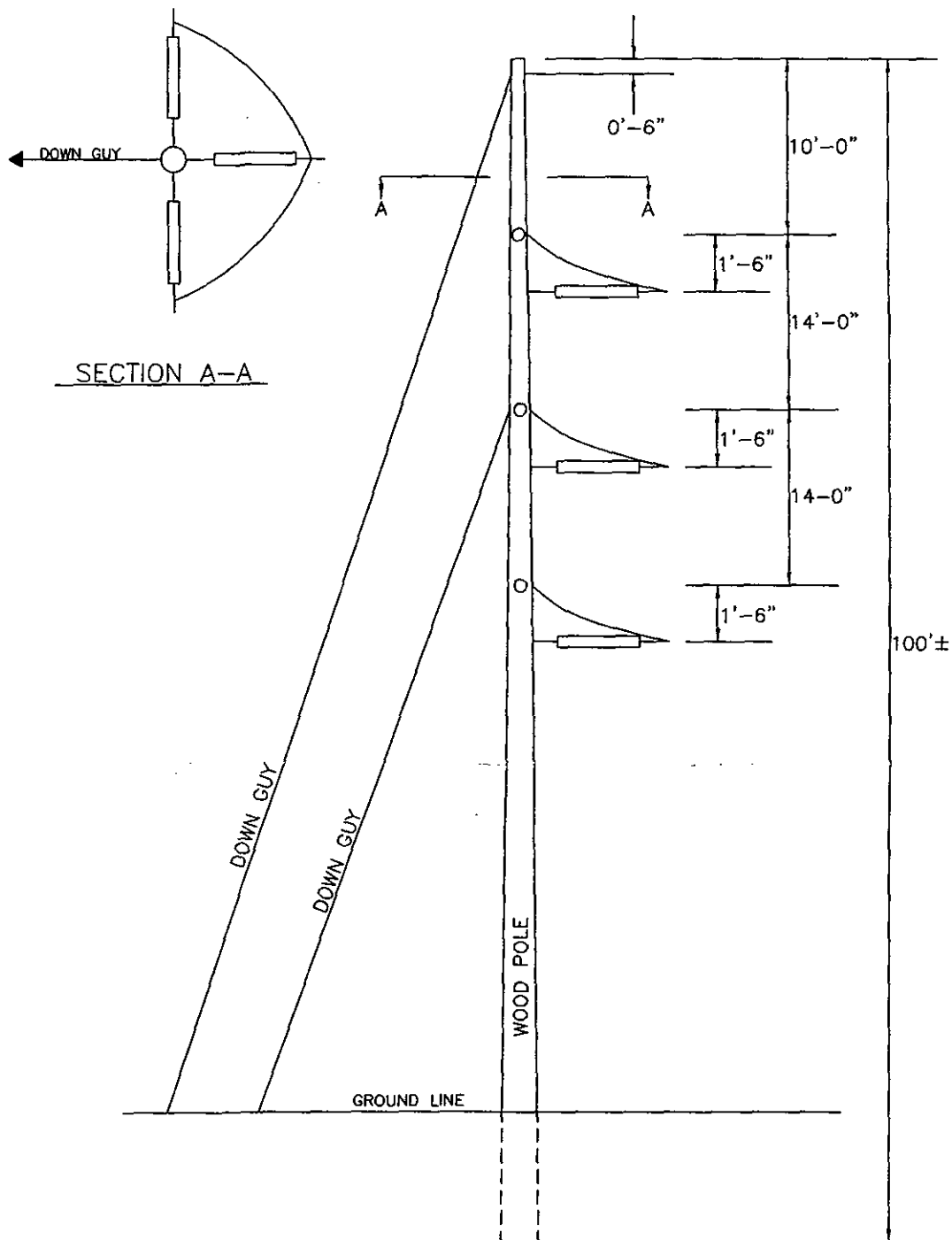
**ATSI**®

American Transmission Systems, Inc.  
A subsidiary of FirstEnergy Corp.

CHAMBERLIN-WEST AKRON 138 kV  
TRANSMISSION LINE TAP TO  
SOUREK SUBSTATION

TYPICAL SWITCH STRUCTURE

EXHIBIT 3



**ATSI**®

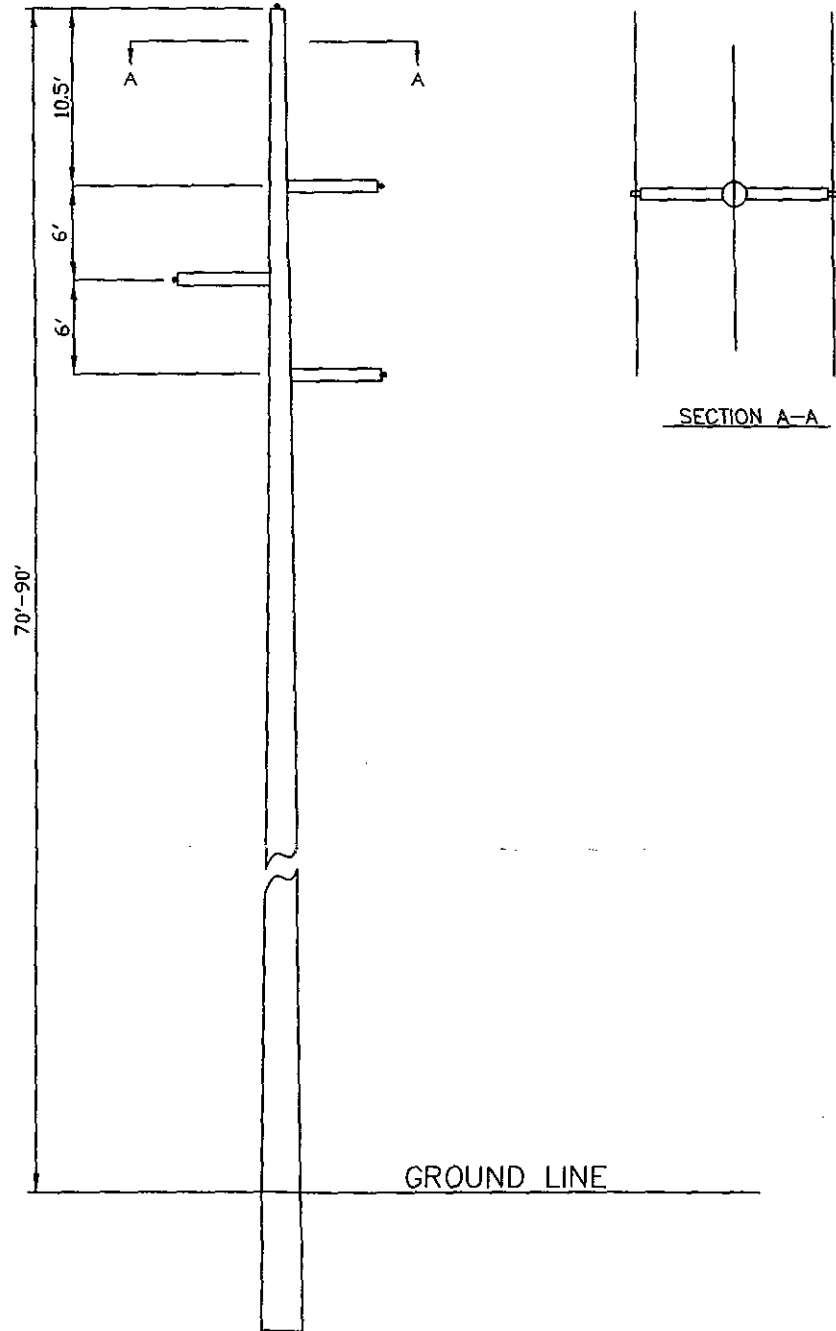
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a subsidiary of EFC Energy Corp.

CHAMBERLIN—WEST AKRON 138 kV  
TRANSMISSION LINE TAP TO  
SOUREK SUBSTATION

TAP STRUCTURE

EXHIBIT 4





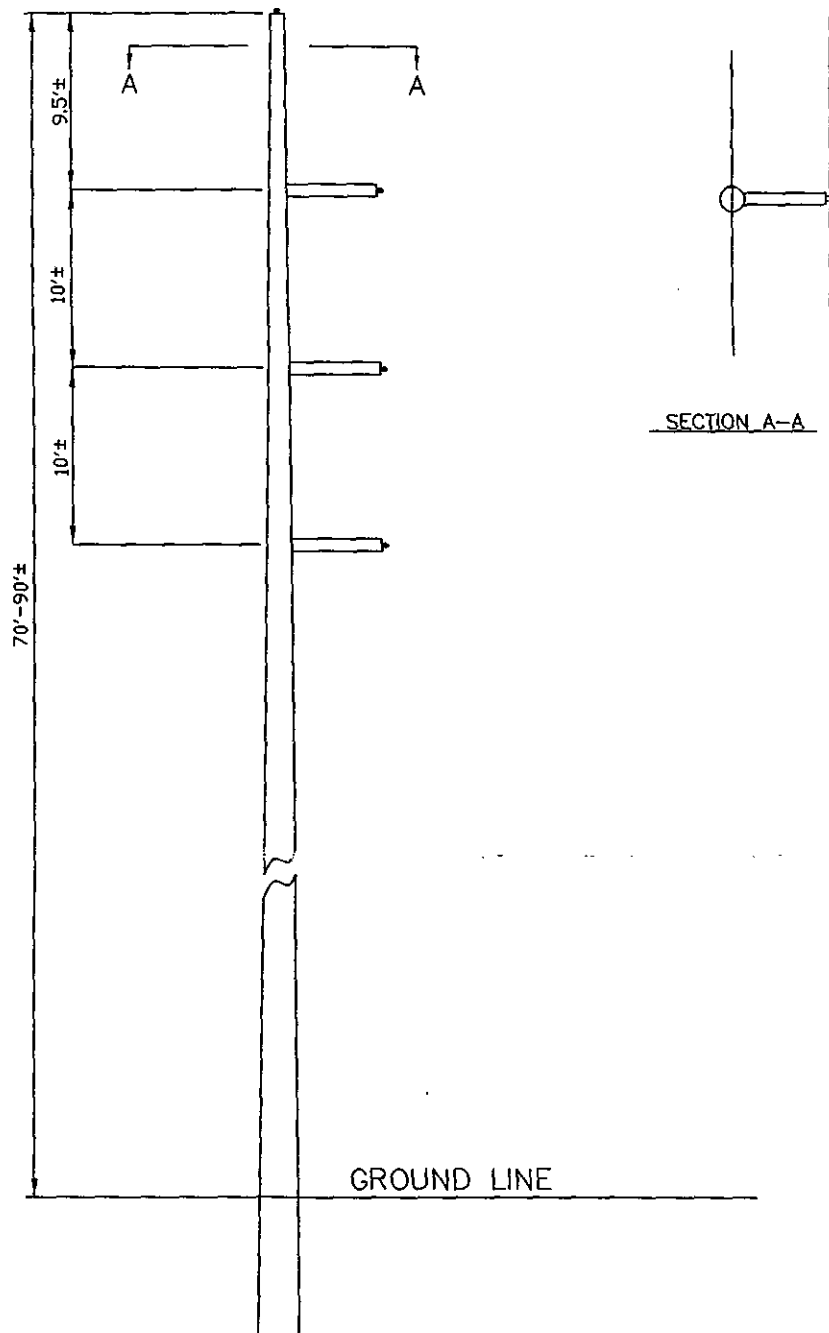
**ATSI®**

American Transmission Systems, Inc.  
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CHAMBERLIN-WEST AKRON 138 kV  
TRANSMISSION LINE TAP TO  
SOUREK SUBSTATION

SINGLE CIRCUIT TANGENT

EXHIBIT 5



**ATSI**®

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

CHAMBERLIN-WEST AKRON 138 kV  
TRANSMISSION LINE TAP TO  
SOUREK SUBSTATION PROJECT

SINGLE CIRCUIT LIGHT ANGLE

EXHIBIT 6



# Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

## Ohio Division of Wildlife

Scott Zody, Chief  
2045 Morse Rd., Bldg. G  
Columbus, OH 43229-6693  
Phone: (614) 265-6300

Columbus, OH 43229-6693

May 1, 2014

Janice Arch  
FirstEnergy Corporation  
76 South Main Street  
Akron, OH 44308

Dear Ms. Arch

I have reviewed the Natural Heritage Database for the Chamberlain-West Akron 138 kV Transmission Line Tap to Sourek Substation Project area, including a one mile buffer, in Northampton Township, Summit County, Ohio. We have records for rare species and managed areas in your search area. A map showing the location of these elements is provided with this letter.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Please note that although we inventory all types of plant communities, we only maintain records on the highest quality areas.

This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and does 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.

Please contact me at 614-265-6452 if I can be of further assistance.

Sincerely,

A handwritten signature in cursive script that reads "Greg Schneider".

Greg Schneider, Administrator  
Ohio Natural Heritage Program

# Chamberlain-West Akron 138 kV Transmission Line Tap to Sourek Substation

