

February 4, 2014

Ms. Barcy F. McNeal, Secretary  
Docketing Division  
Public Utilities Commission of Ohio  
180 E. Broad Street  
Columbus, OH 43215

**Construction Notice**

**Boardman – Sammis 138 kV Transmission Line Loop to the Nevada Substation Project  
Ohio Power Siting Board Case No. 14-0132-EL-BNR**

Dear Ms. McNeal:

In accordance with Rule 4906-11-01 of the Ohio Administrative Code, American Transmission Systems, Incorporated (“ATSI”), a FirstEnergy company, is electronically filing the enclosed Construction Notice.

In this project, the Boardman – Sammis 138 kV Loop Transmission Line Project (“Project”), ATSI is proposing to remove the existing 138 kV tap line and extend the Boardman – Sammis 138 kV Transmission Line as a loop into the Nevada Substation. The Project is located in Boardman Township in Mahoning 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:

Boardman – Sammis 138 kV Transmission Line Loop

c) Location of proposed facilities:

The Nevada Substation is located along Southern Boulevard behind commercial buildings in Boardman Township in Mahoning County, Ohio. The new 138 kV tap lines will be constructed within the Nevada Substation parcel, which is owned by Ohio Edison Company (“Ohio Edison”), a FirstEnergy company, and on an ATSI easement on adjacent property owned by the Boardman Township Park District.

d) Description of proposed facilities:

In this project, ATSI proposes to remove the existing 138 kV tap line and extend approximately 520 feet of the Boardman – Sammis 138 kV Transmission Line as a loop to the Nevada Substation. Specifically, the Project will involve: (1) removing the existing 290-foot-long Boardman – Toronto 138 kV Tap Line and two associated steel monopole structures; and (2) extending approximately 520 feet of the Boardman – Sammis 138 kV Transmission Line as a loop into the Nevada Substation.

The proposed tap lines will be constructed south of the Nevada Substation within the substation parcel, owned by Ohio Edison, and within an existing ATSI easement located on the adjacent Boardman Township Park Property. No new property purchases, new easements or right-of-way (“ROW”) is needed.

e) Applicant’s representative:

Ted Krauss, Manager Siting, Survey and Right-of-way  
FirstEnergy Service Company  
76 South Main Street  
Akron, Ohio 44308

After docketing this filing, please return one time-stamped copy of the Construction Notice for our records to us in the enclosed envelope. We have provided a copy of this Construction Notice by certified mail, with return receipt requested, to officials of the political subdivisions immediately affected by the proposed project. Copies of the transmittal letters addressed to the local government representatives are enclosed for your file. Should the Ohio Power Siting Board desire further information or discussion of this submittal, please contact me at (330) 761-4268.

Sincerely,



Ted Krauss  
Manager Siting, Survey and Right-of-way  
FirstEnergy Service Company

Attachments

**AMERICAN TRANSMISSION SYSTEMS, INCORPORATED**

**CONSTRUCTION NOTICE  
BOARDMAN – SAMMIS 138 KV TRANSMISSION LINE  
LOOP TO THE NEVADA SUBSTATION PROJECT**

**OPSB CASE NO. 14-0132-EL-BNR**

**FEBRUARY 4, 2014**

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

**CONSTRUCTION NOTICE**  
**BOARDMAN – SAMMIS 138 KV TRANSMISSION LINE LOOP**  
**TO NEVADA SUBSTATION PROJECT**  
**DOCKET NUMBER 14-0132-EL-BNR**

The following information is being provided in accordance with the procedures delineated in Ohio Administrative Code Section 4906-11-02: Construction Notice Requirements of the Rules and Regulations of the Ohio Power Siting Board.

**4906-11-02(B): Information Requirements**

**4906-11-02(B)(1): Name of the Project**

Name of Project: Boardman – Sammis 138 kV Transmission Line Loop to Nevada Substation Project

**4906-11-02(B)(2)(a): Brief Description of Project**

American Transmission Systems, Incorporated (“ATSI”), a FirstEnergy Company, proposes to construct the Boardman – Sammis 138 kV Transmission Loop to Nevada Substation Project (“Project”). This Project, the associated expansion of the Nevada Substation, which is an existing distribution substation, and reconfiguring the adjacent existing transmission line, are needed as part of the process of reinforcing the transmission system to address transmission reliability issues as generation plants are retired in the region. As part of the associated work, the Nevada Substation will be expanded for the installation of two 138 to 12.5 kV transformers and associated breakers and bus work; and the adjacent existing transmission line that consists of the Boardman – Sammis 138 kV Transmission Line and a Boardman – Nevada 138 kV Tap at and north of Nevada Substation, and a 6-wire configuration of the Boardman – Sammis 138 kV Transmission Line south of Nevada Substation will be reconfigured to form two circuits: the western set of three conductors will become the Boardman – Sammis 138 kV Transmission Line, and the eastern set of three conductors will become the Boardman – Toronto 138 kV Transmission Line. The overall proposed

Project consists of removing the southern end of the existing 138 kV transmission line tap to Nevada Substation from Boardman Substation and constructing a short transmission line loop to the Nevada Substation from the Boardman – Sammis 138 kV Transmission Line. Specifically, the Project will involve: (1) removing the approximately 290-foot-long section of existing 138 kV transmission line Boardman to Nevada Substation tap that extends from the eastern set of three conductors of the adjacent transmission line that will become the Boardman – Toronto 138 kV Transmission Line, including the removal of two steel monopole structures; and (2) constructing approximately 520 feet of new transmission line to extend the Boardman – Sammis 138 kV Transmission Line as a loop to the Nevada Substation. The transmission line loop will consist of two separate radial taps that extend from the western side of the existing transmission line to the two 138 to 12.5 kV transformers at the Nevada Substation.

The proposed transmission line loop will be constructed generally south of the Nevada Substation partially within the substation parcel, owned by Ohio Edison Company (“Ohio Edison”), a FirstEnergy Company, and partially within an existing Ohio Edison easement located on the adjacent Boardman Township Park Property. No new property purchases, new easements or right-of-way (“ROW”) is needed to install the Project. The general location of the Project is shown in Exhibit 1. The Project is located in Boardman Township in Mahoning County, Ohio.

**4906-11-02(B)(2)(b)**

The Project meets the requirements for a Construction Notice because the Project is within the types of project defined by Item (1)(c) of Attachment A of the Board’s interim process defined in the Board’s September 4, 2012 Finding and Order in Docket 12-1981-GE-BRO. This item states:

- (1) Rerouting or extension or new construction of single or multiple circuit electric power transmission line(s) as follows:*

*(c) Line(s) one hundred twenty-five kV and above, but less than three hundred kV, and not greater than 0.2 miles in length.*

The proposed Project involves constructing approximately 520 feet of new transmission line to extend the Boardman – Sammis 138 kV Transmission Line to the Nevada Substation.

**4906-11-02 (B) (3): Statement of Need**

The Project and the associated expansion of the Nevada Substation and reconfiguring the adjacent existing Boardman – Sammis 138 kV Transmission Line and Boardman – Nevada 138 kV Transmission Line Tap to form two circuits are needed due to the major system upgrades taking place as part of the Sammis – Wylie Ridge 345 kV, East Akron – Sammis 138 kV and Sammis – Lowellville 138 kV Transmission Line Extensions to, and Installation of, the Toronto Substation Project (“Toronto Substation Project”) previously approved by the OPSB in Docket Number 12-1637-EL-BLN. The Toronto Substation Project is needed to address thermal overloads on the ATSI transmission system due to generation retirements, and to provide improved voltage support to the region.

Currently the Nevada Substation is supplied via a 138 kV tap from the Boardman Substation that is located on the east side of the transmission line which is adjacent to the east side of the Nevada Substation. A breaker and disconnect switches are located at the Boardman Substation that provides isolation to this transmission line tap and energy is transmitted to the Nevada Substation radially from the Boardman Substation. Currently, the adjacent transmission line south of the Nevada Substation is the 6-wired Boardman – Sammis 138 kV Transmission Line and north of Nevada Substation only the western set of conductors are used for the Boardman – Sammis 138 kV Transmission Line. A 138 kV transmission line tap without switches that allow the transmission line to be sectionalized does not meet FirstEnergy’s current connection standards on the 138 kV system; therefore, installing line-sectionalizing switches and two paths for energy flows improves operating flexibility and system reliability.

Currently, a sustained outage on the existing Boardman – Nevada 138 kV Transmission Line Tap will result in loss of power to the 5,800 Ohio Edison customers served from Nevada Substation. The proposed installation of the transmission line loop and two new line-sectionalizing switches will result in separate Boardman to Nevada and Sammis to Nevada 138 kV transmission line sources to the Nevada Substation that allow the Nevada Substation to be served from either the Boardman or Sammis substations. In addition to providing flexibility to respond to unplanned outages, this also provides operational flexibility when doing needed maintenance on the 138 kV transmission line between Boardman, Nevada, and Sammis substations. After the 6-wired Boardman – Sammis 138 kV Transmission Line is reconfigured to form two circuits, connecting the proposed transmission line loop to the Boardman – Sammis 138 kV Transmission Line located on the west side of the common tower is the more feasible solution from a construction standpoint, since the Nevada Substation is located approximately 100 feet west of the 138 kV common tower line.

**4906-11-02(B)(4): Construction Schedule**

Construction of the proposed Project is expected to begin as early as March 1, 2014 and be completed and placed in-service by January 31, 2015. The initial construction activity will be vegetation removal, which must be completed prior to March 31 to minimize potential impacts to the Indiana bat. The construction activities of the associated expansion of the Nevada Substation are also expected to begin in March 2014. Transmission line construction activities will likely commence in the July/August 2014 time frame.

**4906-11-02(B)(5): Estimated Costs**

The estimated capital costs for the proposed Project are approximately \$508,000.

**4906-11-02(B)(6): Operating Characteristics**

The proposed transmission line construction will have the following characteristics:

Voltage:	138 kV
Conductors:	795 kcmil 26/7 ACSS
Static wire:	7 Number 8 Alumoweld
Insulators:	Horizontal Post and/or Suspension/Deadend Insulators
Structure Types:	Exhibit 2: Laminated Wood Switch Structure Exhibit 3: Wood Pole Tap Structure Exhibit 4: Wood Pole Guyed Deadend Structure

**4906-11-02(B)(7): Area Map**

The general location of the Project is shown in Exhibit 1. To locate and view the Project site starting from the Columbus, Ohio area, travel east on I-70 toward Pittsburgh, Pennsylvania for approximately 3 miles. Continue north on I-71 (signs for Airport/Interstate 71 N/Cleveland) for approximately 101 miles. Take exit 209A-209B to merge onto I-76 E toward Akron, Ohio. After traveling on I-76 E for approximately 61 miles, continue east onto I-80 for approximately 5 miles. Keep right to continue on I-680 S toward Youngstown for approximately 12 miles before merging onto US-224 W/Boardman Poland Road toward Canfield. Continue onto US-224 W/Boardman Poland Road for approximately 0.3 mile. Turn left onto South Avenue and travel approximately 1.1 miles. Turn right onto Maple Avenue and travel 1 mile. Turn right onto Southern Boulevard and travel approximately 0.2 mile. The Nevada Distribution Substation site is located behind commercial buildings on the right.

**4906-11-02(B)(8): List of Properties**

The Project will be located on property owned by FirstEnergy (Ohio Edison, a FirstEnergy company) and within an Ohio Edison easement located on property owned by the Boardman Township Park District. No new property purchases, new easements, or ROW will need to be acquired. A list of property owners crossed by the existing ROW is provided in Table 1.



<b>Table 1. Existing Transmission ROW Easements or Property Owned by FirstEnergy Companies</b>		
<b>No.</b>	<b>Property Address<sup>1</sup></b>	<b>Parcel Number(s)</b>
1.	Nevada Substation Property Located at: 7801 Southern Boulevard, Youngstown, Ohio Mailing address: Ohio Edison Company, 76 S. Main Street Akron, Ohio 44308	29-040-0-003.00-P
2.	Boardman Township Park District 375 Boardman Poland Road Youngstown, Ohio 44512	29-040-0-002.02-0

<sup>1</sup> Only the mailing addresses are shown where physical property location addresses are not available.

**4906-11-02(C): Documentation of Construction Notice Transmittal**

This Construction Notice is being provided concurrently to the following officials of Boardman Township and Mahoning County, Ohio. Copies of the transmittal letters to these officials have been included with the transmittal letter submitting this Construction Notice to the Ohio Power Siting Board. Officials receiving this Construction Notice are as follows:

**Mahoning County**

Michael O'Shaughnessy, Executive Director  
Mahoning County Planning Commission  
Board of Health Building  
50 Westchester Drive  
Austintown, OH 44515

Anthony Traficanti, Commissioner  
Mahoning County Administration Building  
21 W. Boardman Street, 2nd Floor  
Youngstown, OH 44503

Carol Rimedio Righetti, Commissioner  
Mahoning County Administration Building  
21 W. Boardman Street, 2nd Floor  
Youngstown, OH 44503

John McNally III, Commissioner  
Mahoning County Administration Building  
21 W. Boardman Street, 2nd Floor  
Youngstown, OH 44503

Robert J. Lidle, Planning Commission Chair  
Mahoning County Administration Building  
21 W. Boardman Street, 2nd Floor  
Youngstown, OH 44503

Richard A. Marsico, County Engineer  
Mahoning County Engineer's Office  
940 Bears Den Road  
Youngstown, OH 44512

**Boardman Township**

William D. Leicht, Fiscal Officer  
8299 Market Street  
Boardman, Ohio 44512

Brad Calhoun, Trustee  
8299 Market Street  
Boardman, Ohio 44512

Tom Costello, Trustee  
8299 Market Street  
Boardman, Ohio 44512

Larry Moliterno, Trustee  
8299 Market Street  
Boardman, Ohio 44512

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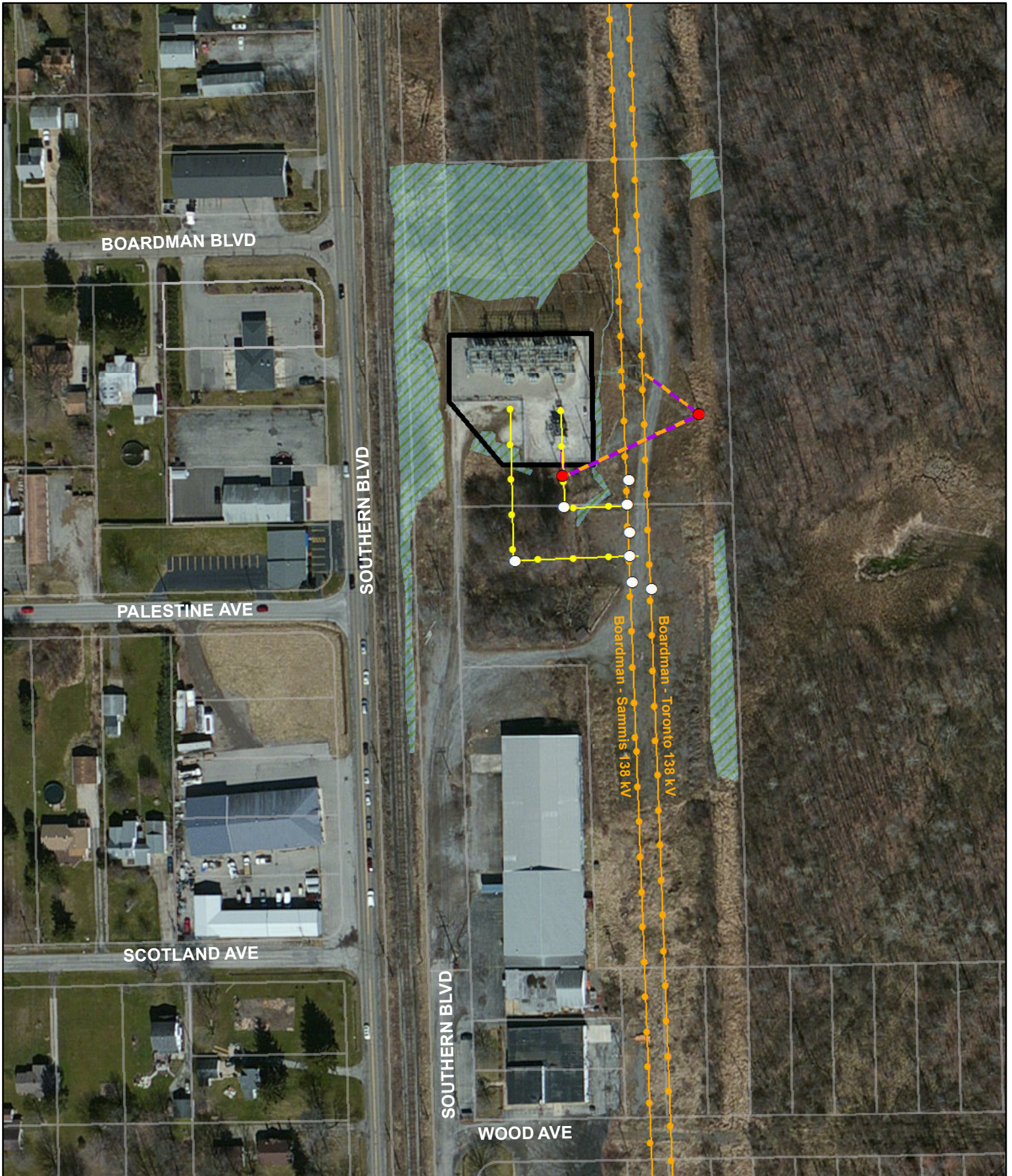
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**Exhibit 1**  
**Project Location Map**

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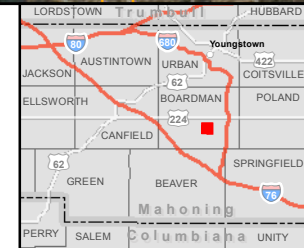


**Legend**

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; border-radius: 50%; margin-right: 5px;"></span> New Structures</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: red; border-radius: 50%; margin-right: 5px;"></span> Removed Structures</li> <li><span style="display: inline-block; width: 10px; height: 10px; border-bottom: 2px solid yellow; margin-right: 5px;"></span> New Tap Lines</li> <li><span style="display: inline-block; width: 10px; height: 10px; border-bottom: 2px dashed purple; margin-right: 5px;"></span> Line Removal</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 20px; border-bottom: 2px solid orange; margin-right: 5px;"></span> Existing 138 kV Line</li> <li><span style="display: inline-block; width: 20px; height: 10px; border: 2px solid black; margin-right: 5px;"></span> Proposed Substation Fenceline</li> <li><span style="display: inline-block; width: 20px; height: 10px; border: 1px solid gray; margin-right: 5px;"></span> Parcel</li> <li><span style="display: inline-block; width: 20px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, green 2px, green 4px); border: 1px solid gray; margin-right: 5px;"></span> Delineated Wetland</li> </ul>
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0 100 200 Feet

County: Mahoning  
Township: Boardman



**Exhibit 1  
Project Location Map**

Sources: Environmental Systems Research Institute (ESRI), United States Geological Survey (USGS), United States Fish and Wildlife Service (USFWS)

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

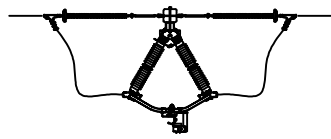
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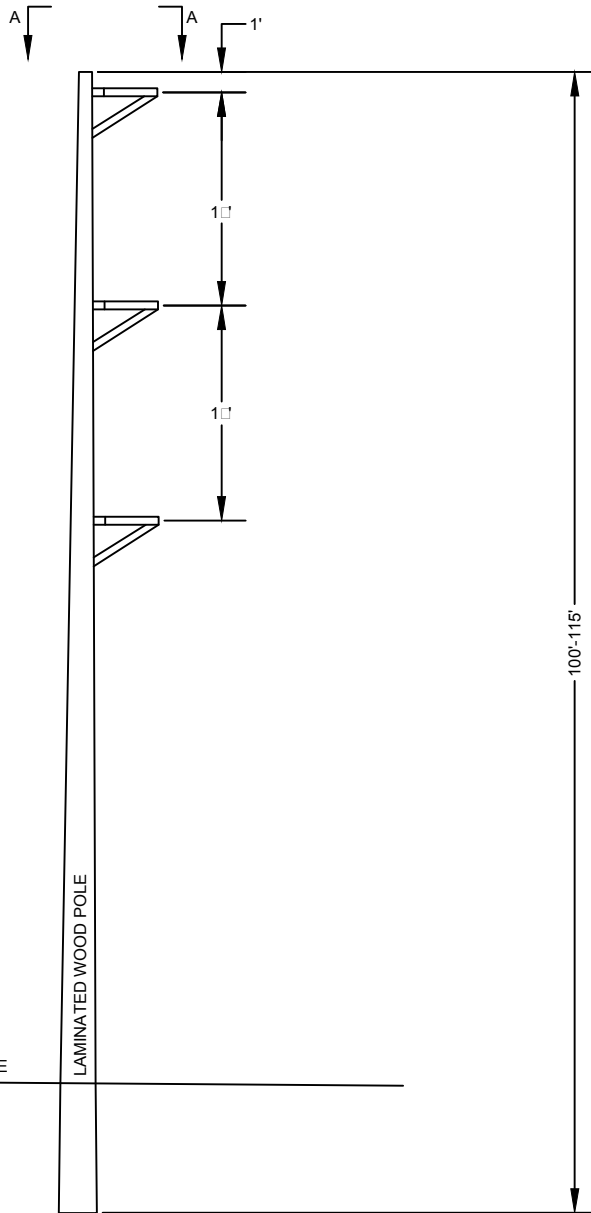
**Exhibit 2**  
**Laminated Wood Switch Structure**

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SECTION A-A



<p><b>ATSI</b><sup>®</sup>          American Transmission Systems, Inc  <small>a subsidiary of FirstEnergy Corp.</small></p>	<p>BOARDMAN-SAMMIS 138kV          TRANSMISSION LINE LOOP</p>
<p>TYPICAL SINGLE CIRCUIT 138kV          SWITCH STRUCTURE</p>	
<p>EXHIBIT 2</p>	



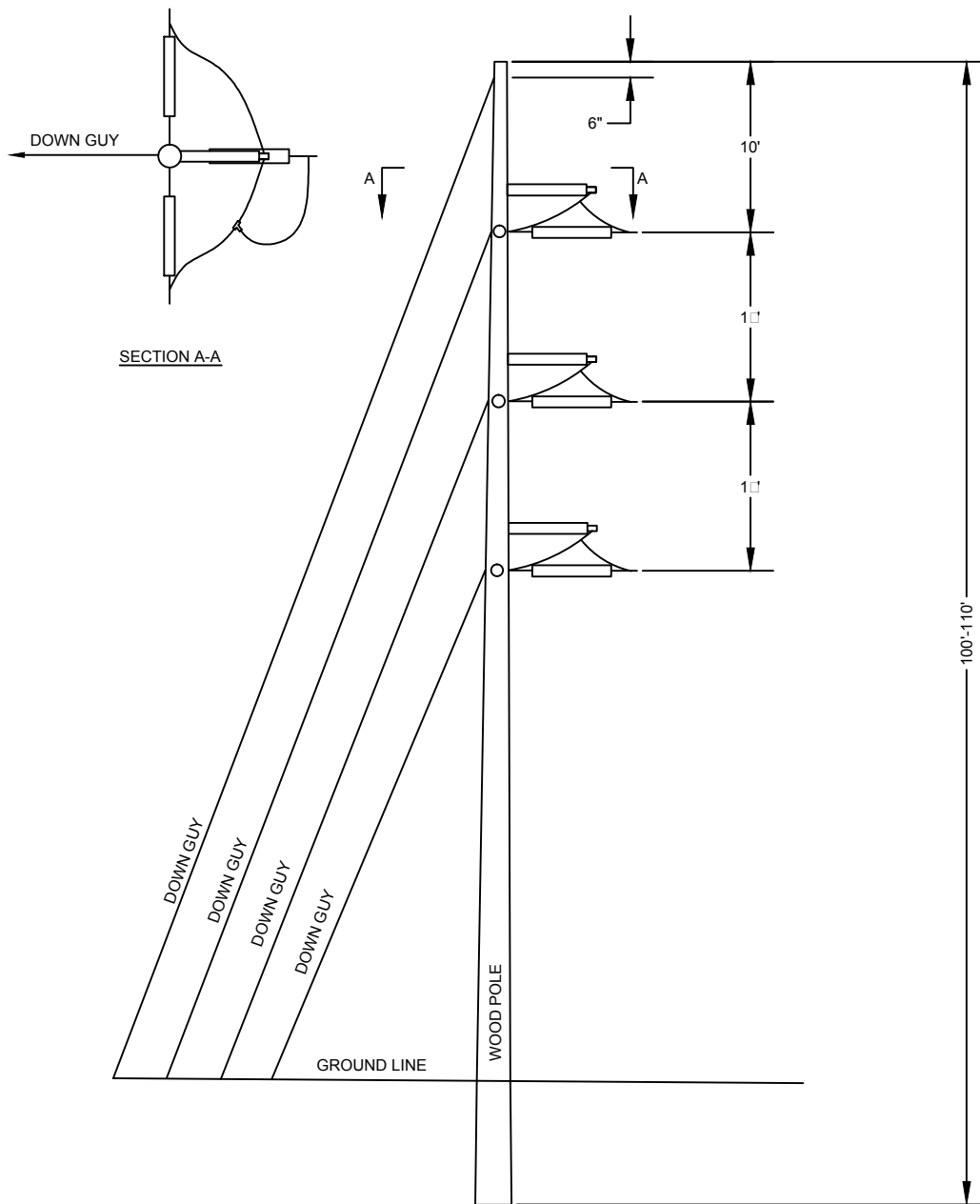
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**Exhibit 3**  
**Wood Pole Tap Structure**

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**ATSI**<sup>®</sup>  
 American Transmission Systems, Inc.  
 a subsidiary of FirstEnergy Corp.

BOARDMAN-SAMMIS 138kV  
 TRANSMISSION LINE LOOP

TYPICAL 138kV TAP STRUCTURE  
 WITH DISCONNECTABLE TAPS

EXHIBIT 3



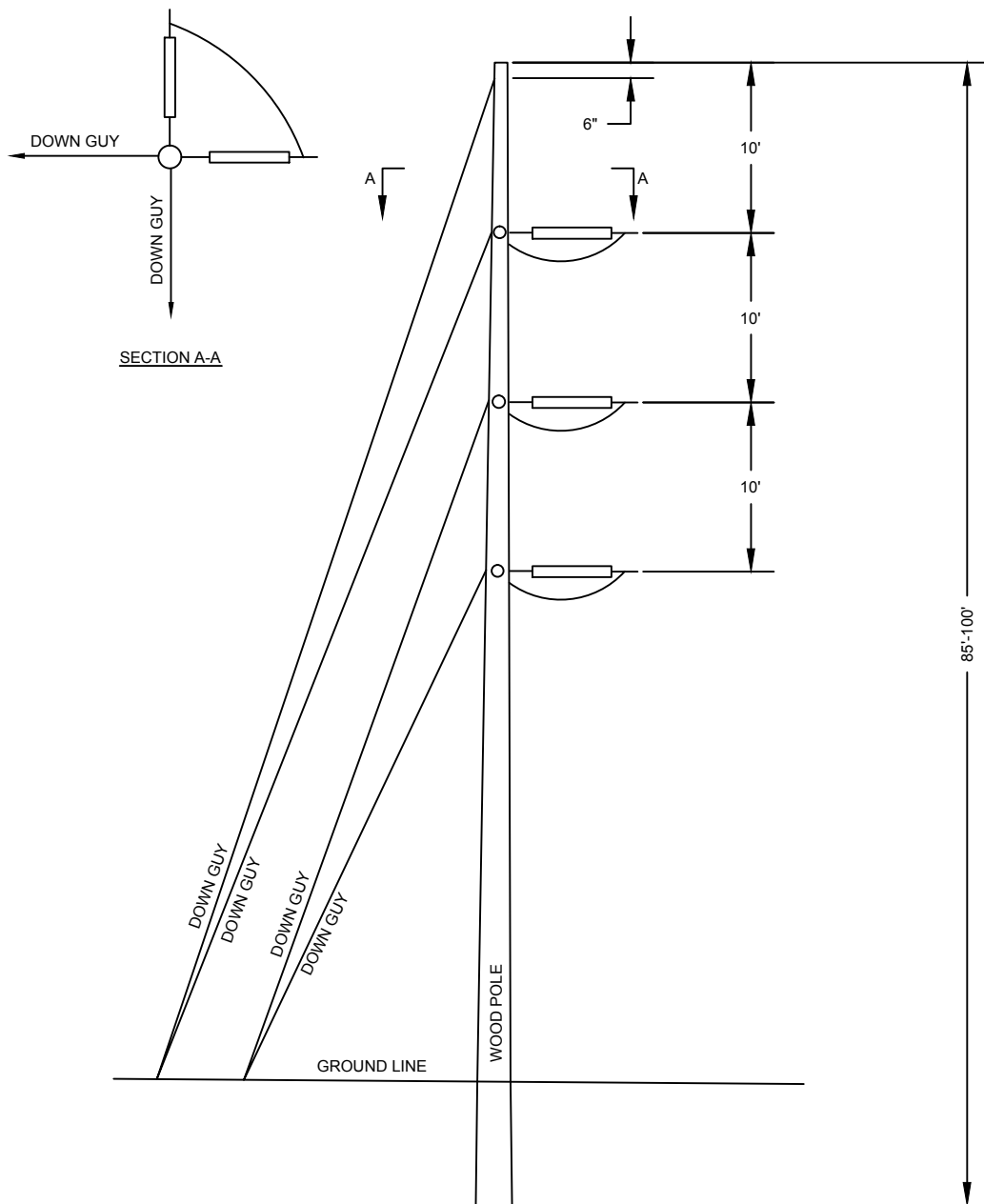
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**Exhibit 4**  
**Wood Pole Guyed Deadend Structure**

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**ATSI**<sup>®</sup>  
 American Transmission Systems, Inc.  
 a subsidiary of FirstEnergy Corp.

BOARDMAN-SAMMIS 138kV  
 TRANSMISSION LINE LOOP

TYPICAL 138kV CORNER  
 DEADEND STRUCTURE

EXHIBIT 4

**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**2/4/2014 11:37:13 AM**

**in**

**Case No(s). 14-0132-EL-BNR**

Summary: Notice of Construction of the Boardman – Sammis 138 kV Transmission Line Loop to Nevada Substation Project electronically filed by Mr. Robert J Schmidt on behalf of American Transmission Systems Inc.