

*dm*  
*[Signature]*  
American Electric Power  
1 Riverside Plaza  
Columbus, OH 43215 2373  
614 223 1000

97-918-ELBUN

24



August 22, 1997

Mr. Craig A. Glazer, Chair  
State of Ohio  
Public Utilities Commission  
180 East Broad Street  
Columbus, OH 43266-0573

0001

PUCO

5/10/25 11:26

**Letter of Notification  
Wilson - Roberts 138 kV Line  
Install Second Circuit**

Dear Mr. Glazer:

In accordance with Chapter 4906-15-12 of the Power Siting Board Rules and Regulations, Columbus Southern Power Company hereby submits a Letter of Notification for the proposed Wilson - Roberts 138 kV Line, Install Second Circuit. Enclosed are one original and 11 copies of the Letter of Notification.

As requested by Rule 4906-15-12(C)(9), we have submitted a copy of this Letter of Notification to the political subdivisions immediately affected by the proposed project. Copies of the Letter of Notification have been sent by Certified Mail to the Franklin County Commissioners, Franklin Township Trustees, Norwich Township Trustees and to the Mayor of the City of Columbus. The cover letter accompanying these mailings is attached for your file.

Cordially,

*J. E. Schrader*  
J. E. Schrader  
Transmission Line Engineering

This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.  
Technician SW Date Processed 8-26-97

Letter of Notification

for the

Wilson - Roberts 138kV Line

Install Second Circuit

Submitted by

Columbus Southern Power Company

to

The State of Ohio Power Siting Board

1997

RECEIVED - REGISTERING DIV  
57 AUG 25 PM 12:26  
PUCO

**Section 15-12**

**LETTER OF NOTIFICATION**

Pursuant to Rule 4906-15-12(C) of the State of Ohio Power Siting Board Rules and Regulations, Columbus Southern Power Company hereby submits the following information:

**4906-15-12(C)**

**(1) Project Name and Reference Number**

The name of this project is the Wilson - Roberts 138 kV Line, Install Second Circuit. This project is identified in Ohio Power and Columbus Southern Power Company's 1996 Long-Term Forecast Report as CS-P8.

**(2) (a) Description of this Project**

This project consists of installing conductor on the vacant side of an existing double circuit 138 kV tower line between Roberts station and an existing tower located 1.4 miles west of Wilson station. It also involves the relocation of a 0.5 mile portion of the existing line to bypass two existing residences located along Trabue Road. This new circuit will utilize three 636,000 cm ACSR (26/7) conductors and one 7#8 alumoweld overhead groundwire.

**(2) (b) Maps Depicting Project Location**

COLUMBUS SOUTHERN POWER COMPANY  
Letter of Notification  
Wilson - Roberts 138 kV Line  
Install Second Circuit

Three Maps have been prepared showing the project location. Map 1, the General Location Map, indicates the area surrounding the project. Maps 2 and 2A, the Detail Site Maps, shows the specific location of the project, the surrounding electrical facilities and the location of the 0.5 mile long line relocation.

**(2) (c) Need for the Project**

The installation of this new circuit is needed to meet the growing load requirements and to ensure service reliability in the southwest Columbus area. Additionally, this project provides system reinforcement for the entire south Columbus area.

**d) Reason the Project Meets Letter of Notification Requirements**

This project meets the requirements for a Letter of Notification because the extent of this project is defined by Items 1(d), and 2(a) of Rule 4906-1-01(U), the Transmission Line Matrix. This project consists of constructing a line which is greater than 125 kV but less than 300 kV and not greater than 2 miles in length and adding an additional circuit on existing structure designed for multiple circuit use where no new permanent access roads or structure replacement and no greater than two miles of widened right of way is required.

**(3) Project Location Relative to Existing or Proposed Lines**

COLUMBUS SOUTHERN POWER COMPANY  
Letter of Notification  
Wilson - Roberts 138 kV Line  
Install Second Circuit

The location of the Wilson - Roberts 138 kV Line, Install Second Circuit in relation to existing and proposed Transmission Lines is shown on Maps 1 and 3. Map 3 is a reduced copy of Columbus Southern Power Company's Transmission System as of December 31, 2006, as submitted to the Public Utility Commission of Ohio in our 1996 Long-Term Forecast Report. The proposed 138 kV project has been circled for easy identification.

**(4) Reference in the Long-Term Forecast**

This project is referenced in Columbus Southern Power Company's 1996 Long-Term Forecast Report as project CS-P8.

**(5) Anticipated Construction Schedule**

The installation of this second circuit and the construction of relocation is expected to begin in late November, 1997. This project is scheduled to be completed and placed in service by April, 1998.

**(6) Description of Technical Features**

The proposed Wilson - Roberts 138 kV Line, Install Second Circuit will be designed for and operated at 138 kV. This project will require the stringing of conductor on 16 existing 138 kV lattice towers, the addition of a 15' extension to two towers and the installation of five double circuit 138 kV steel pole structures. Typical structure configurations are shown in Figures 2 and 3.

The phase conductors will be 636,0000 cm ACSR (26/7) and the shield wire will be 7#8 Alumoweld.

**(6) (a) Calculated Electric and Magnetic Field Levels**

The electrical and magnetic field levels for the proposed project were calculated for the two conductor configurations used on this project, as depicted by Figures 2a and 3a. The results of the calculations are shown in the following tables

**LINE LOADING & RATING**

LINE CIRCUIT	NORMAL MAXIMUM LOADING	EMERGENCY LOADING	WINTER NORMAL CONDUCTOR RATING
Roberts - Wilson (East)	43.6 MVA	90.1 MVA	287 MVA
Trabue - Wilson (West)	12.1 MVA	22.9 MVA	287 MVA
Roberts - Trabue (West)	31.7 MVA	93.5 MVA	287 MVA

Calculated Electric & Magnetic Fields for Lattice Tower Section (Refer to Figures 2 and 2a)

<u>CONDUCTOR CONITION</u>	<u>ELECTRIC FIELD (kV/m)</u>		<u>MAGNETIC FIELD (mG)</u>	
	Max under Line	Edge of R/W (50' R/W)	Max under Line	Edge of R/W (50' R/W)
Normal Maximum Loading	1.20	0.90	21.50	17.70
Emergency Line Loading	1.20	0.90	44.60	32.40
Winter Normal Cond Rating	1.30	1.00	183.20	106.70

Calculated Electric & Magnetic Fields for Single Steel Pole Section (Refer to Figures 3 and 3a)

<u>CONDUCTOR CONDITION</u>	<u>ELECTRIC FIELD (kV/m)</u>		<u>MAGNETIC FIELD (mG)</u>	
	Max under Line	Edge of R/W (100' R/W)	Max under Line	Edge of R/W (100' R/W)
Normal Maximum Loading	0.20	0.10	3.30	2.30
Emergency Line loading	0.20	0.10	6.20	3.40
Winter Normal Cond Rating	0.20	0.10	25.30	12.20

COLUMBUS SOUTHERN POWER COMPANY  
Letter of Notification  
Wilson - Roberts 138 kV Line  
Install Second Circuit

**(6) (b) Discussion of Design Alternatives**

The majority of this project involves the installation of a second circuit on an existing steel tower line that was initially designed and constructed to accommodate two circuits. Accordingly, the only significant design alternative to consider was the arrangement of the conductors or phases. A low reactance phasing configuration was selected. The calculated magnetic field levels resulting from this low reactance, double circuit configuration are generally lower than the calculated fields associated with the existing single circuit line for the normal maximum emergency loading conditions.

Near Trabue Road, two homes are built under the existing transmission line. To meet present clearance requirements, the height of the existing towers could be raised by adding tower extensions or by relocating the line to the west of the homes. The landowners in the area were agreeable to relocating the line, thus this option was chosen as it met present siting criteria and the desires of the landowners. The relocation coupled with the low reactance phasing configuration will significantly reduce the EMF levels for the two homes.

**7) Estimated Capital Costs**



The following estimated 1997 capital costs for the proposed project have been tabulated by the Federal Energy Regulatory Commission (FERC) Electric Plant Transmission Accounts:

<u>FERC Accounts</u>	<u>Estimated Capital Costs</u>
354 Towers and Fixtures	\$ 329,000
356 Overhead Conductors and Devices	<u>\$ 436,000</u>
Total	\$ 765,000

**(8) Land Use**

This project is located in established and developing residential, commercial and light industrial areas of Franklin County although some of the developing areas are presently devoted to agriculture. According to the 1990 census, this project is located in three census tracts with population densities of 1533, 812 and 641 persons/square mile.

**(9) Local Officials to be Notified**

Copies of this Letter of Notification have been sent by certified mail to the Franklin County Commissioners, Norwich Township Trustees, Franklin Township Trustees and to the Mayor of the City of Columbus. Copies of the cover letters to these officials are attached.

**(10) Additional Information**

COLUMBUS SOUTHERN POWER COMPANY  
Letter of Notification  
Wilson - Roberts 138 kV Line  
Install Second Circuit

There are no unusual conditions which will result in significant environmental or social impacts from the installation and operation of this proposed 138 kV circuit.

**(11) Location and Description of Existing Agricultural Districts**

The line is not within the limits of an Agricultural District as defined by Chapter 929 of the Ohio Revised Code.

**(12) Area Map and Project Location**

Three maps have been prepared showing the project location. Map 1, the General Location Map, indicates the area surrounding the project. Maps 2 and 2A, the Detail Site Maps, shows the existing electrical facilities and the specific location of the proposed 0.5 mile long line relocation. This project is located on the west side of Columbus. This line runs parallel to I-270. To view this project, exit I-270 at Roberts Road and turn east. From that point, use Map 2 to follow the line route.

**(13) Archaeological and Cultural Resources**

The Ohio Historical Society was contacted regarding the possible presence of archaeological or historical resources which could be affected by this project. They found no known archaeological or historic resource which could be affected by this project. A copy of the response from the Ohio Historical Society is attached for your reference.

**(14) Endangered or Threatened Species**

The United States Department of the Interior's Fish and Wildlife Service, and the Ohio Department of Natural Resources' Division of Natural Areas and Preserves were contacted regarding the presence of any endangered, threatened, or rare species which may be affected by this project. None of these organizations could find any evidence or records of endangered or threatened species located within or affected by the proposed project. A copy of the responses from the U.S. Fish and Wildlife Service, and the ODNR Division of Natural Areas and Preserves are attached for your reference.

**(15) Areas of Ecological Concern**

The Huntington District of the United States Army Corps of Engineers and the Ohio Department of Natural Resources were contacted regarding the presence of areas of ecological concern. Neither agency indicated any areas of ecological concern. A copy of the response from the Army Corps of Engineers and the Ohio Department of Natural Resources are attached for your reference.

**(16) Local, State and Federal Requirements**

This line will be designed, constructed, and operated to meet or exceed the requirements of the National Electrical Safety Code, American Electric Power design standards, and all applicable OSHA standards. Highway

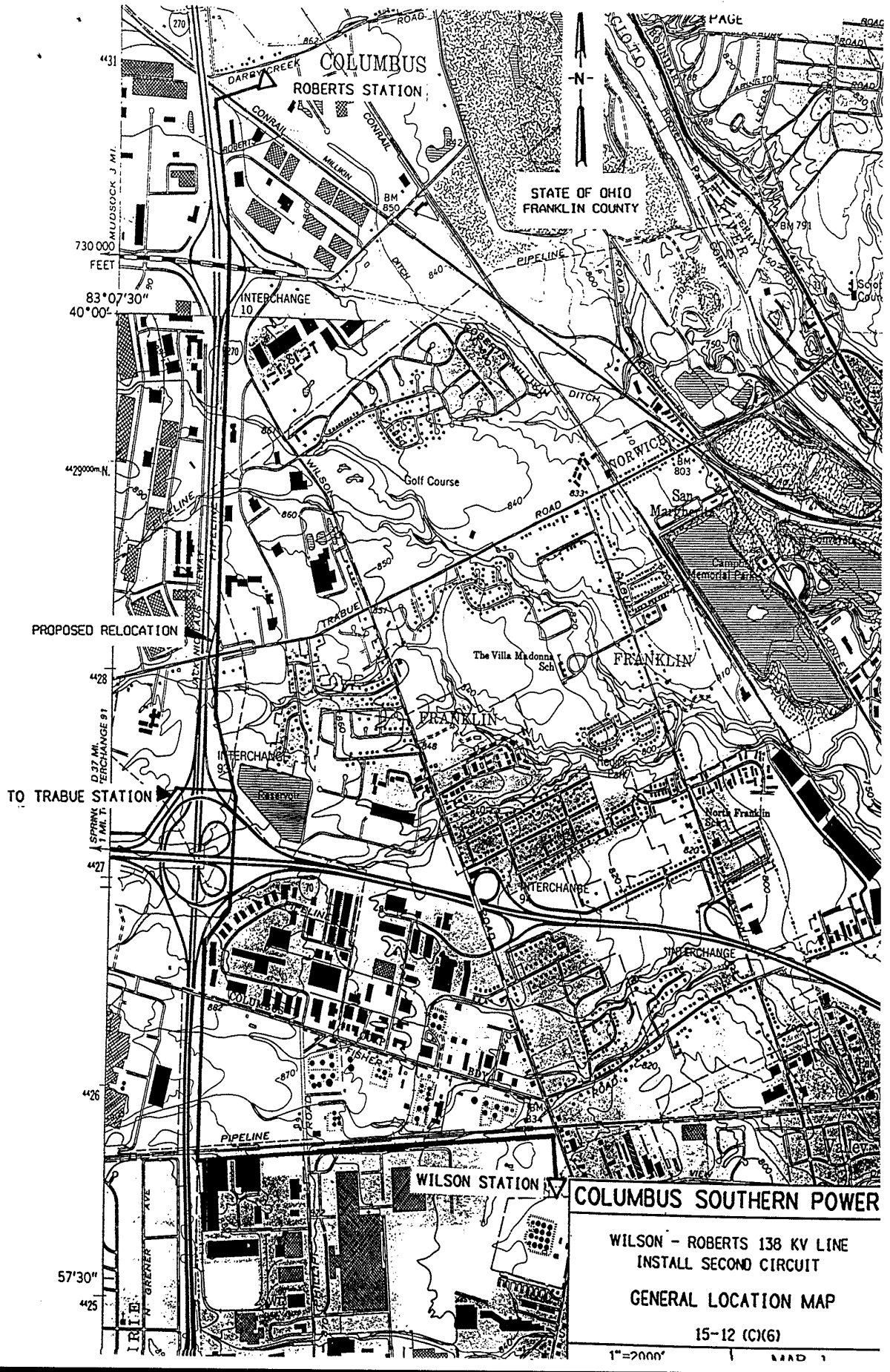
crossing permits will be obtained from the City of Columbus and the Ohio Department of Transportation.

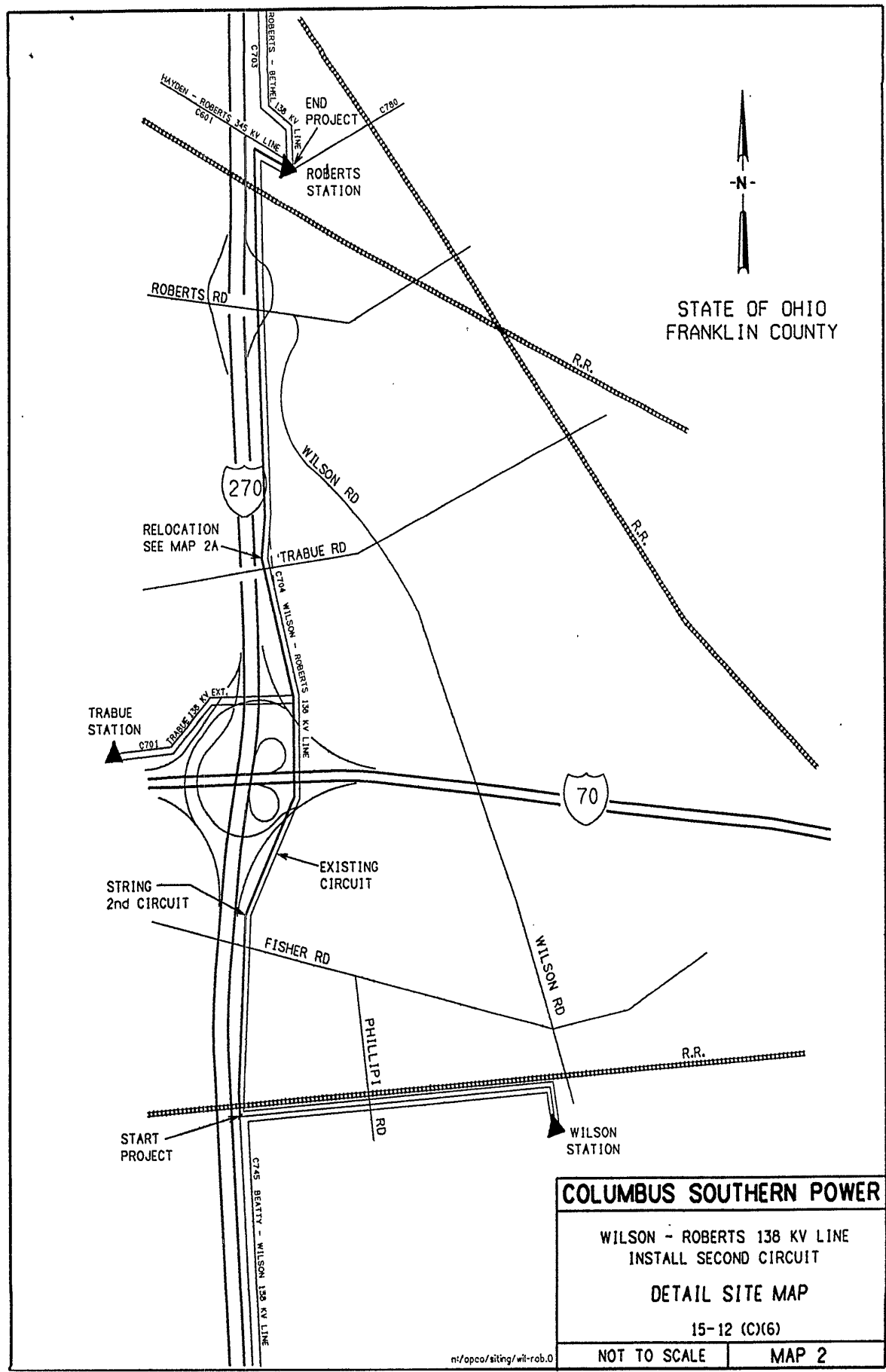
**(17) Current or Pending Litigation**

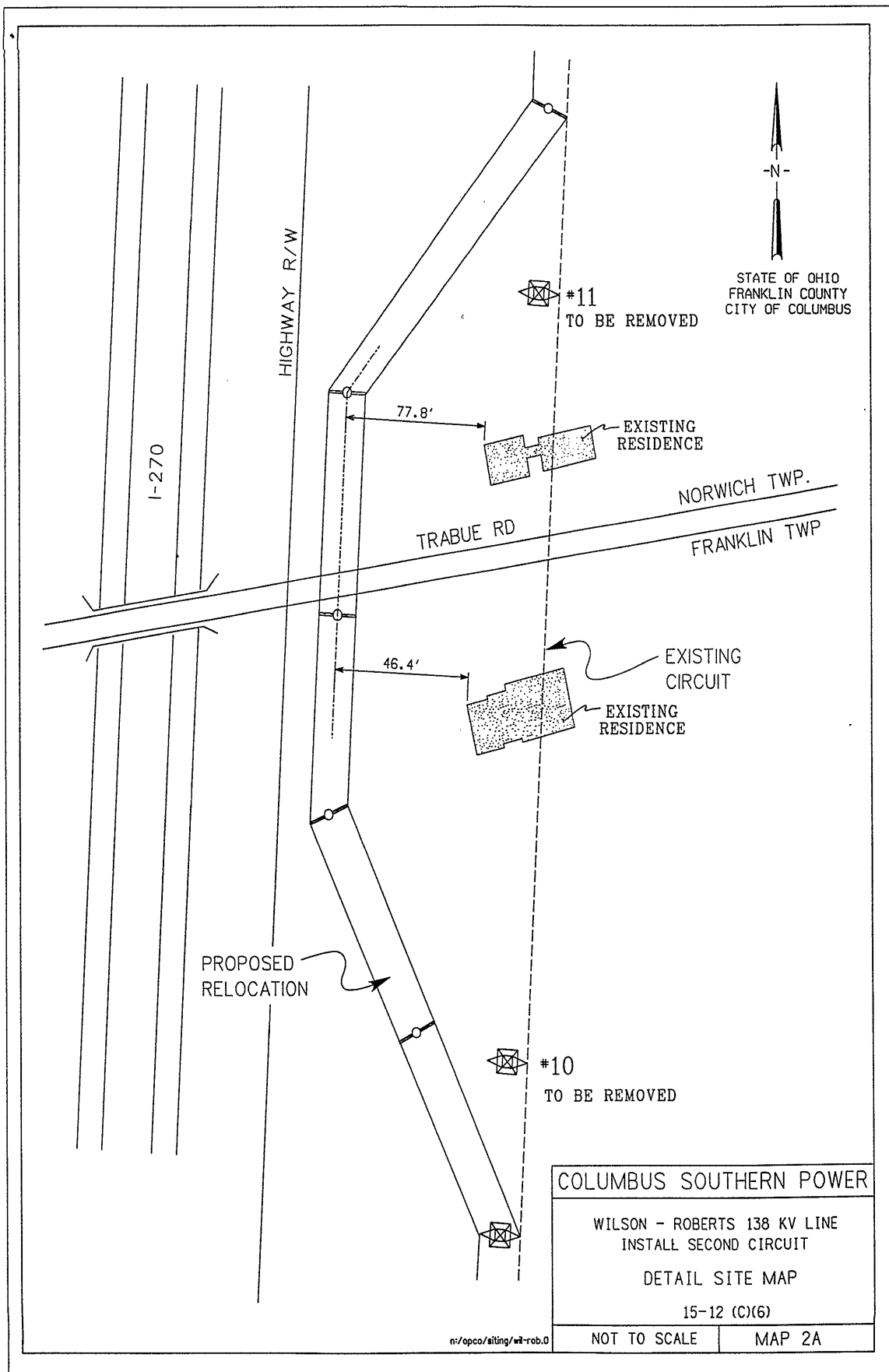
AEP is in the process of obtaining all necessary right of way for this project.

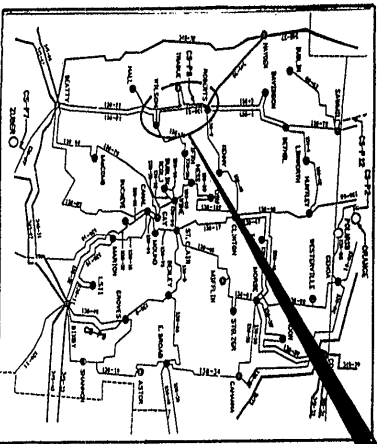
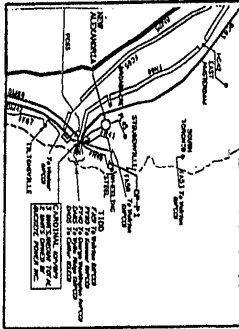
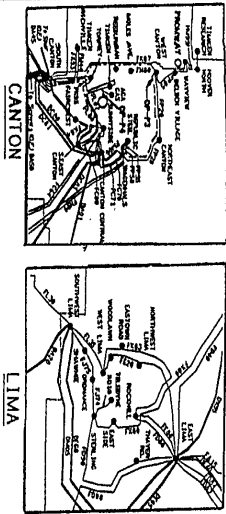
Affected landowners have given verbal agreement to the relocation.

Easements will be secured prior to construction. There is no current litigation involving this project and none is expected.

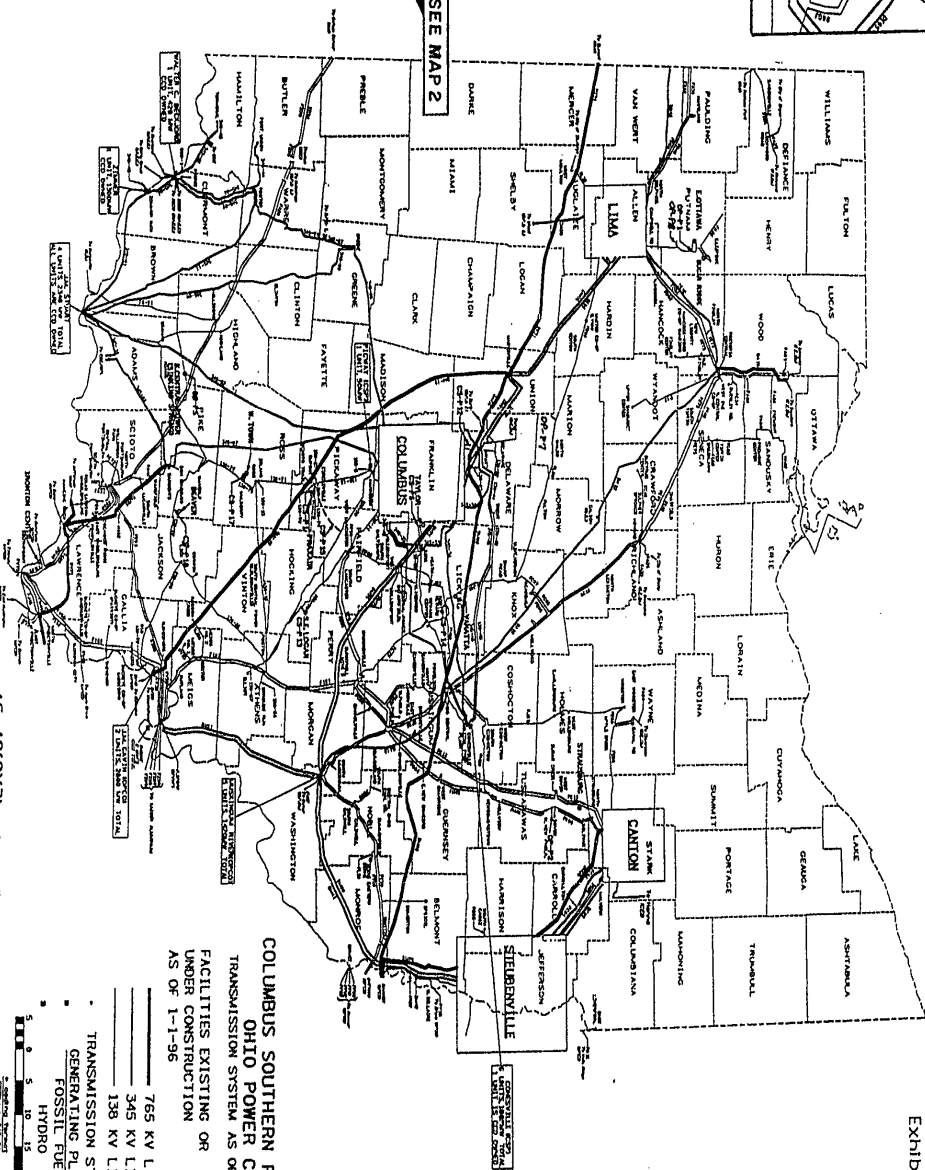




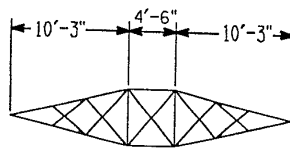




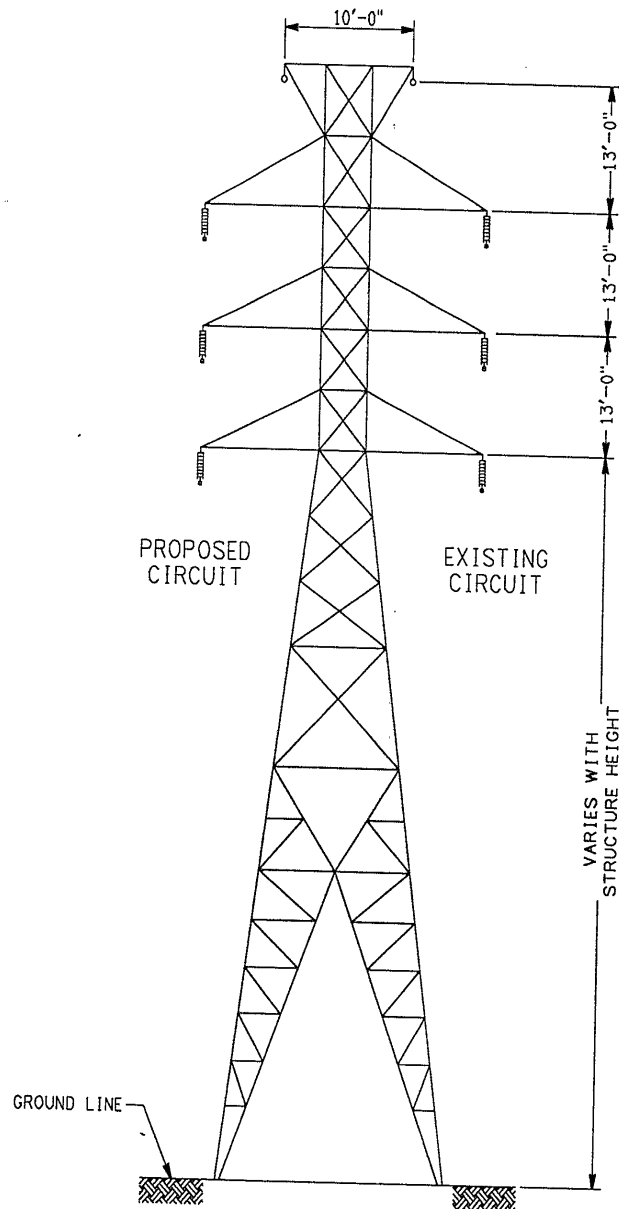
SEE MAP 2







TOP VIEW



**COLUMBUS SOUTHERN POWER**

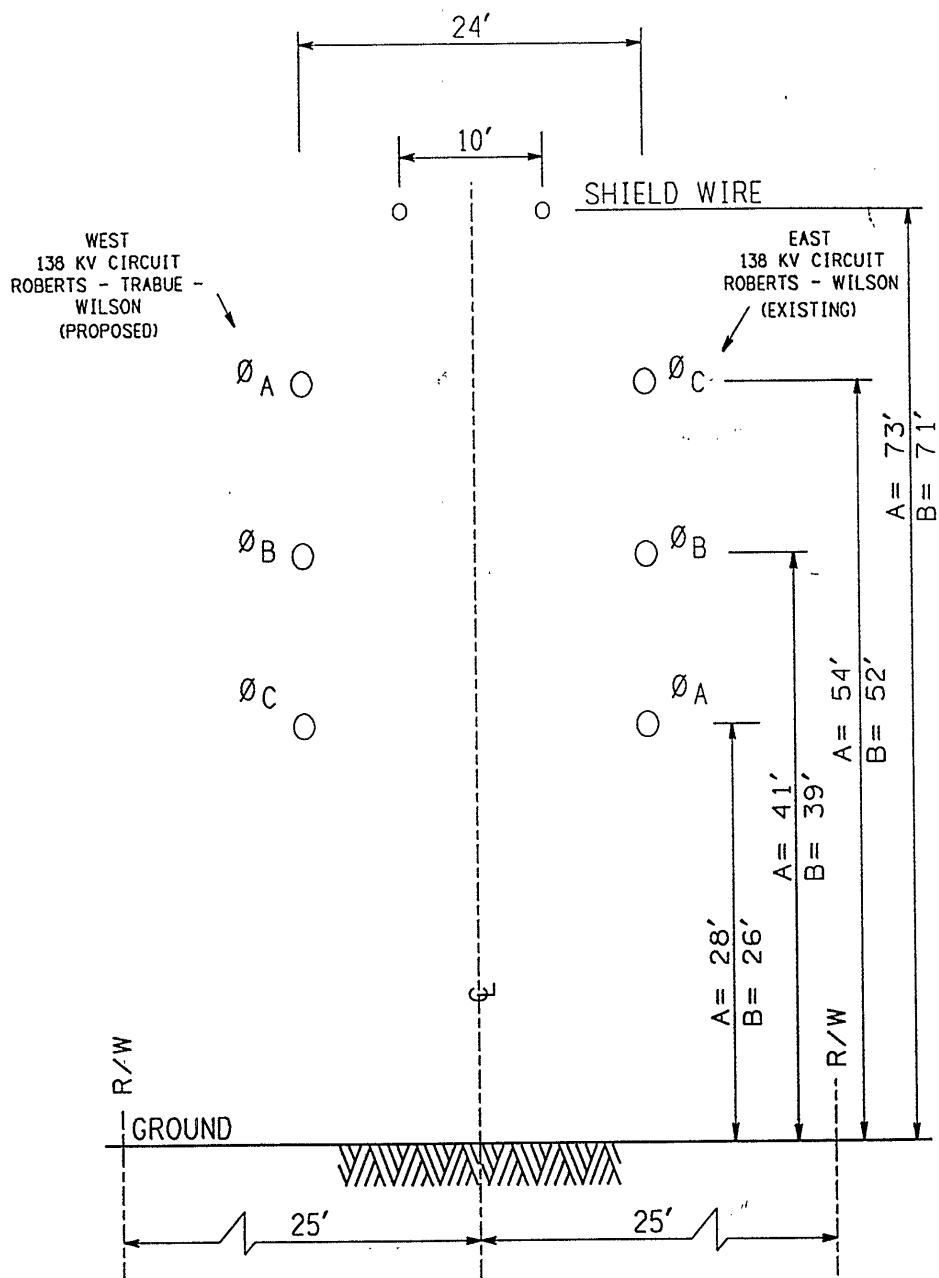
WILSON - ROBERTS 138 KV LINE

LATTICE TOWER (STEEL)  
TANGENT STRUCTURE

15-12 (C)(6)

n:/opco/siting/wil-rob.0

NOT TO SCALE | FIGURE 2



DIMENSION 'A' - DOUBLE CIRCUIT - VERT. CONFIGURATION (TOWER)  
(UNDER EMERGENCY & NORMAL MAX. LINE  
LOADING)

DIMENSION 'B' - DOUBLE CIRCUIT - VERT. CONFIGURATION (TOWER)  
(UNDER WINTER NORMAL  
CONDUCTOR RATING)

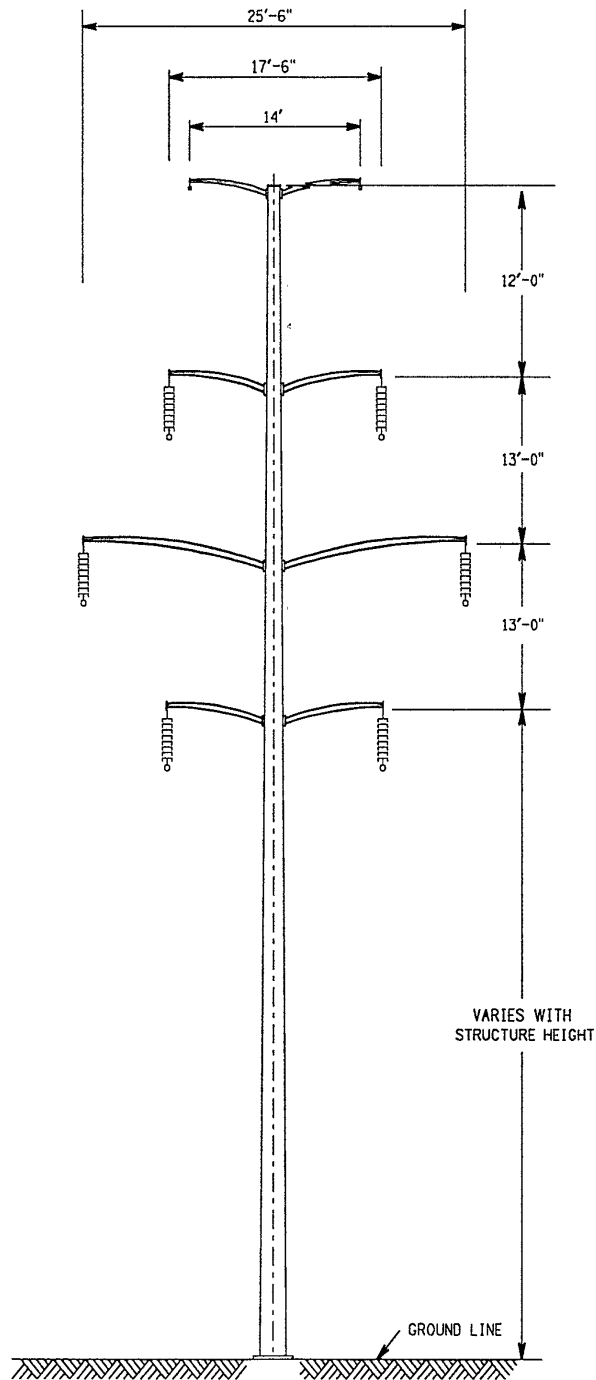
**COLUMBUS SOUTHERN POWER**

WILSON - ROBERTS 138 KV LINE  
LATTICE TOWER (STEEL)  
TANGENT STRUCTURE  
15-12(c)(2)(a)

NOT TO SCALE | **FIGURE 2a**

n:\opco\siting\wil-rob.0

COMPUTER GENERATED DWG., DO NOT MANUALLY REVI



**COLUMBUS SOUTHERN POWER**

WILSON - ROBERTS 138 KV LINE

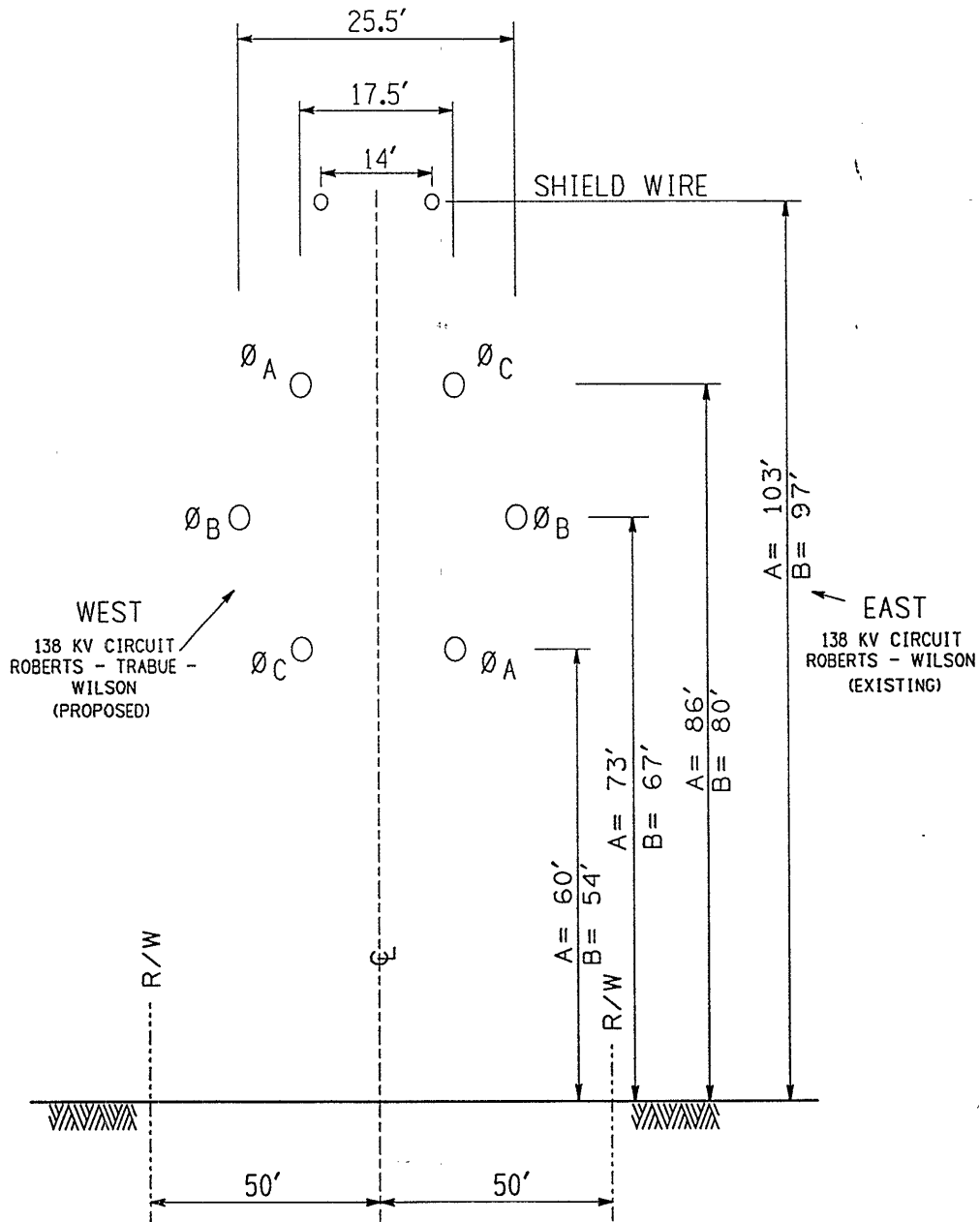
SINGLE POLE (STEEL)  
SUSPENSION STRUCTURE

15-12 (C)(6)

n/opco/siting/wil-rob.0

NOT TO SCALE

FIGURE 3



DIMENSION 'A' - DOUBLE CIRCUIT - VERT. CONFIGURATION (STEEL POLE)  
(UNDER EMERGENCY & NORMAL MAX. LINE LOADING)

DIMENSION 'B' - DOUBLE CIRCUIT - VERT. CONFIGURATION (STEEL POLE)  
(UNDER WINTER NORMAL  
CONDUCTOR RATING)

COLUMBUS SOUTHERN POWER

WILSON - ROBERTS 138 KV LINE  
SINGLE POLE (STEEL)  
SUSPENSION STRUCTURE  
15-12(c)(2)(a)

NOT TO SCALE | FIGURE 3a

n/opco/siting/wl-rob.0

COMPUTER GENERATED DWG., DO NOT MANUALLY REV

Ohio Historic Preservation Office

567 East Hudson Street  
Columbus, Ohio 43211-1030  
614/297-2470  
Fax: 297-2496



OHIO  
HISTORICAL  
SOCIETY  
SINCE 1885

July 29, 1997

John Heppner - Transmission Line Engineering  
American Electric Power  
1 Riverside Plaza  
Columbus, OH 43215-2373

Dear Mr. Heppner:

RE: Installation of Second Circuit to Existing Wilson-Roberts 138 kV Transmission Line in Franklin and Norwich Townships, Relocation of .5 mile Portion of Line, Franklin County

This is in response to your correspondence received July 7, 1997 concerning the above referenced project. Our comments are submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act, as amended (36 CFR 800).

My staff has reviewed this information. It is our opinion that the project will have no effect on any historic properties listed on or eligible for the National Register of Historic Places. No further coordination is required for this project unless the scope of the work changes or archaeological remains are discovered during the course of the project. In such a situation, this office must be contacted as per 36 CFR 800.11.

If you have any questions concerning this project, please contact Todd Tucky at (614) 297-2470, between the hours of 8 am. to 5 pm. E-mail queries can be sent to [tmtucky@freenet.columbus.oh.us](mailto:tmtucky@freenet.columbus.oh.us) Thank you for your cooperation.

Sincerely,

Martha J. Raymond, Department Head  
Technical and Review Services

MJR/TMT:tt



George V. Voinovich • Governor  
Donald C. Anderson • Director

July 8, 1997

John Heppner  
Transmission Line Engineering  
American Electric Power  
1 Riverside Plaza  
Columbus, OH 43215-2373

Dear Mr. Heppner:

After reviewing our Natural Heritage maps and files, I find the Division of Natural Areas and Preserves has no records of rare or endangered species in the Wilson-Roberts 138 kV transmission line second circuit installation project area in Franklin and Norwich Townships of Franklin County (Northwest Columbus and Southwest Columbus Quads).

There are no existing or proposed state nature preserves or scenic rivers at the project site. We are also unaware of any unique ecological sites, geologic features, breeding or non-breeding animal concentrations, champion trees, or state parks, forests or wildlife areas in the project vicinity.

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. Also, we do not have data for all Ohio wetlands. For additional information on wetlands and National Wetlands Inventory maps, please contact Jim Given in the Division of Real Estate and Land Management at 614-265-6770.

Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,

Debbie Woischke, Ecological Analyst  
Division of Natural Areas & Preserves



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ecological Services  
6950 Americana Parkway, Suite H  
Reynoldsburg, Ohio 43068-4132  
(614) 469-6923/FAX (614) 469-6919  
July 10, 1997

Mr. John R. Heppner  
American Electric Power  
1 Riverside Plaza  
Columbus, Ohio 43215-2373

RE: Installation of Another Circuit to the Wilson-Roberts 138kV transmission line, and Relocate 0.5 Miles of This Line, Franklin and Norwich Townships, Franklin County, Ohio

Dear Mr. Heppner:

This responds to your July 3, 1997 letter requesting our comments on your proposal referenced above.

These comments are provided under the authority of the Endangered Species Act of 1973, as amended.

ENDANGERED SPECIES COMMENTS: The proposed project lies within the range of the Indiana bat, peregrine falcon, Scioto madtom, clubshell mussel and northern riffleshell mussel, Federally listed endangered or threatened species. Due to the type of habitat in the project area and the project location, the project as proposed, will have no impact on these species. This precludes the need for further action on this project as required by the 1973 Endangered Species Act, as amended. Should the project be modified or new information become available that indicates listed or proposed species may be affected, consultation should be initiated.

Sincerely,

*Kent E. Kroonemeyer*  
Kent E. Kroonemeyer  
for Supervisor

cc: DOW, Wildlife Environmental Section, Columbus, OH  
ODNR, Division of Real Estate and Land Management, Columbus, OH  
Ohio EPA, Water Quality Monitoring, Attn: C. Crook, Columbus, OH  
US EPA, Office of Environmental Review, Chicago, IL



DEPARTMENT OF THE ARMY  
HUNTINGTON DISTRICT, CORPS OF ENGINEERS  
502 EIGHTH STREET  
HUNTINGTON, WEST VIRGINIA 25701-2070

REPLY TO  
ATTENTION OF:

July 22, 1997

Planning Division  
FPM/Special Studies Branch

Mr. John R. Heppner  
American Electric Power  
1 Riverside Drive  
Columbus, Ohio 43215-2373

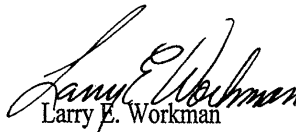
Dear Mr. Heppner:

I refer to your letter of July 3, 1997, and your request for a flood hazard evaluation and wetlands information for your proposed project site, located in Franklin and Norwich Townships, Franklin County, Ohio.

The enclosed portion of the "Flood Insurance Rate Map", published by the Federal Emergency Management Agency (FEMA) for Franklin County, Ohio, indicates that your site lies in Zone "X" and would, therefore, not be subject to flooding from a 100-year frequency of occurrence flood.

For requests of wetlands information, please contact Mr. James Richmond of our Regulatory Branch, (304)-529-5210.

Sincerely,

  
Larry E. Workman  
Chief, FPM/Special Studies Branch

Enclosure