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2009 APR -6 AM 11:07

American Electric Power  
1 Riverside Plaza  
Columbus, OH 43215-2373  
AEP.com

PUCO

April 6, 2009

Klaus Lambeck, Chief  
Facilities, Siting & Environmental  
Analysis Division  
180 East Broad Street  
Columbus, Ohio 43215

Re: **Case No. 08-170-EL-BTX**  
**OSU-Roberts 138kV Transmission Line Project**  
**Staff Questions/Clarifications Set#3**

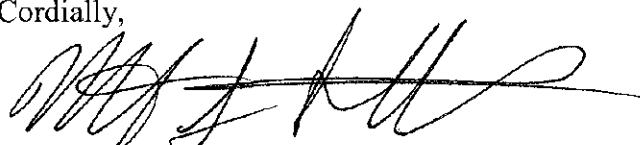
Matthew J. Satterwhite  
Legal Counsel –  
Regulatory Services  
(614) 716-1915 (P)  
(614) 716-2950 (F)  
mjsatterwhite@aep.com

Dear Mr. Lambeck:

On behalf of Columbus Southern Power Company (CSP or AEP), enclosed please find responses to the Staff's questions/clarifications (Set #3) docketed on March 20, 2009.

Please let me know if you have any questions or concerns regarding CSP's responses.

Cordially,



Matthew J. Satterwhite  
Legal Counsel  
American Electric Power Service  
Corporation  
1 Riverside Plaza, 29<sup>th</sup> Floor  
Columbus, Ohio 43215  
Telephone: (614) 716-1915  
Facsimile: (614) 717-2950  
E-mail: mjsatterwhite@aep.com

cc: William Adams  
Counsel for City of Upper Arlington

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Technician Amr Date Processed 4/6/09

**Roberts-OSU 138kV Transmission Project  
OPSB Case No. 08-0170-EL-BTX**

**Route**

1. *Figures 07-1 through 07-4 are what Staff is investigating for both the Preferred and Alternate routes. Please confirm that these maps accurately reflect the applicant's routes under consideration. In Figure 07-1, is the "Preferred Route Overhead Build" shown accurately (heading southeast on the quarry property along the river), or is this portion of route underground as depicted on Figure 07-2B?*

**Yes. Figures 07-1 through 07-4 are maps for OPSB staff investigation of the Preferred and Alternate routes. The underground route in Figure 07-2B is depicted correctly. Figure 07-1 has been updated accordingly and included as Attachment #1.**

2. *Please confirm what portion of the Preferred Route will be located under Lane Avenue pavement vs. tree-lawn/right-of-way. If under lane Avenue (pavement) where is the centerline of the Preferred Route proposed? (center of roadway or curb)?*

**The Preferred Route will be located under Lane Avenue pavement down the center of the roadway to approximately the OSU property line. As shown in the Application (Figure 07-2E), the centerline will then move to the southern side of Lane Avenue within the 60' OSU building set-back.**

3. *What is, or will, be done to mitigate traffic concerns such as continuous flow, access/egress, driveways and intersections along Lane Avenue (Preferred Route) and Cambridge Blvd and Waltham Road (Alternate Route)?*

**A traffic plan is being developed with input from state and local government traffic officials. The final plan will be submitted to the appropriate government agencies for approval prior to construction. This plan will meet ODOT standards and be available to the OPSB staff during the preconstruction meeting.**

**River Crossing**

4. *Page 07-6 refers to "boring" being used to cross the Scioto and Olentangy rivers. Please confirm that the bore under the Scioto River will be set up (rigging equipment) on the east side, with pipe strung on the west side of the river (quarry property).*

**The horizontal directional bore under the Scioto River is currently designed with rigging equipment on the east side and pipe on the west side of the river.**

*Please provide a map outlining both crossings, and provide a tentative list of equipment that would be used (including pieces of equipment, outline of impacted area, hours of operation, decibel levels of equipment, and noise mitigation measures or techniques, if any).*

**Preliminary maps outlining both crossings for the preferred route are attached (Attachment #2 and Attachment #3).**

**A typical large horizontal drilling spread can be moved onto a site in approximately seven tractor-trailer loads. The principal components of the spread include rig ramp, drill pipe and control trailer. Other equipment used on the rigging side of the bore include mud pump, fluid system/tank, power unit, crane or backhoe, and bentonite storage. A workspace of approximately 110' wide by 250' long is typically adequate for drilling operations, however, orientation of equipment can be adapted to minimize impacted area.**

**Pull section fabrication is accomplished for a boring operation with the same construction methods used to lay pipeline. Equipment on the pipe stringing side of the river will include typical pipe handling equipment, prefabricated pull sections supported on roller stands, fluid system/tank, and mud pump. Workspace required for pull section fabrication is approximately 60' wide X 200' long aligned with pipe exit point.**

**Construction noise will be equivalent to heavy traffic. Daytime noise is not a typical concern, especially since drilling operations are located near already heavily traveled highways. AEP will work with the state and local government officials and contractors to establish protocols for equipment usage. Until the project is bid out, AEP will not be able to provide details of the equipment used, but this information will be available at the preconstruction meeting.**

**It is not anticipated that construction noise will be a factor causing significant disruption to any of the land uses around the drilling locations. Based on the minimal and temporary noise footprint of the project, no specific mitigation is proposed other than to ensure that equipment used is fitted with standard mufflers and that construction crews wear proper noise protection.**

5. *Has the applicant developed a frac-out contingency plan for the two river crossings?*

**Drilling parameters for each river crossing are being engineered to maximize drilling fluid circulation and minimize risk of inadvertent return. However, the possibility of lost circulation cannot be completely eliminated. Therefore a frac-out contingency plan is being developed for the two river crossings. A**

preliminary plan is included as Attachment #4. A fully developed, project specific, frac-out contingency plan will be prepared after the Pipeline contractor and Directional Drilling contractor have been selected. This final frac-out contingency plan will be available to OPSB staff during pre-construction meeting.

6. *Is the proposed project expected to impact existing caves, fissures, sinkholes or abandoned mines along the Scioto River banks? Why or why not?*

The project is not expected to impact existing caves along the route. The cavern identified by the ODNr Database is close to the overhead portion of the route, but is separated by a tributary stream valley. There are no sinkholes evident along the route. The adjacent quarry face does not indicate that underground caverns or sinkholes are prevalent in this area. The limestone in the area is not of the "massive" type that typically hosts sinkholes, caves, caverns, blind valleys and other classic karst features. AEP does not anticipate impacts to karst features from this project. AEP is not aware of abandoned mines in the area other than the currently inactive open pit quarry operated by Shelly Materials.

7. *Please provide a map/aerial showing the expected limits of clearing to construct this project. Please include acres of expected clearing and description of forested areas and habitat to be cleared, including photos if helpful.*

Please refer to the Attachment #5. A description of the forest habitat to be cleared is included in the response to question 8.

8. *Are suitable roosts for Indiana bat habitat trees likely to be cleared? If yes, please identify the area(s) and describe what is proposed to be cleared, including photos if helpful.*

Based on the studies conducted to date on the project, there is a low potential for Indiana bat to occur along the project route. Density of wood lot is low, clearing is limited and the quality of the wooded area is poor. The only area where woodlots occur is along the Project is from the Roberts substation east to the Scioto River, the remainder of the Project follows road right of way in a highly urban setting.

The area between the Roberts substation and Scioto River is the Marble Cliff Limestone Quarry. The Preferred Route parallels woodlots that occupy the fringe of the quarry property and are long and narrow, fragmented, and contain young less desirable Indiana bat tree species such as black locust (*Robinia pseudoacacia*), red maple (*Acer rubrum*), eastern cottonwood (*Populus deltoides*), and various other tree species that preferentially inhabit disturbed areas. One approximately six acre woodlot on the northeast corner of the quarry property is comprised of sugar maple (*Acer saccharum*), red maple, and eastern cottonwood that range in diameter from 5 to 12 inches at

breast height. The understory is comprised of Japanese honeysuckle (*Lonicera japonica*) and young saplings. Other woodlots south of the quarry that are passed through by the Alternate Route are fragmented by old roads and other utilities. Trees within these woodlots are composed of eastern cottonwood, sugar maple, black locust ranging in diameter from 4 to 12 inches at breast height. Tree species commonly used by Indiana bats include various ash (*Fraxinus*), elm (*Ulmus*), hickory (*Carya*), maple (*Acer*), poplar (*Populus*), and oak (*Quercus*) (USFWS, 2007). Although some trees found within the quarry woodlots are of species sometimes used by Indiana bats, the dbh of the trees within the woodlots are smaller than typical roost trees, which are 16 inch dbh or greater (USFWS, 2007).

The first mile of the Preferred Route will be a pole for pole replacement of the existing Kenny – Roberts 138 kV line. Replacement of original poles with new poles at the same locations, little to no clearing will be required since this stretch is existing right-of-way (ROW). The last tenth of a mile will pass through the small six acre woodlot which will require an 50 foot wide corridor to be cleared. Once the Preferred Route turns southeast, the underground portion of the line will begin and will require a 100 foot wide corridor to be cleared through the small woodlot. After leaving that small woodlot, the underground portion generally follows a quarry road that contains some small, poor quality trees (<6" dbh). In this area, a 60 foot wide corridor will be cleared. The Preferred Route will then be horizontally directionally drilled (HDD) under the Scioto River, avoiding impacts to the riparian corridor. It is anticipated that no trees will be removed for the HDD pad on the west side of the river, and no trees will need to be removed for the HDD pad east of the river. Once across the Scioto River, both routes remain within existing roads or along the edge of the road ROW requiring little to no trees to be cleared from residential properties, as discussed in the OPSB application. A maximum of approximately 6.6 acres will need to be cleared for this project.

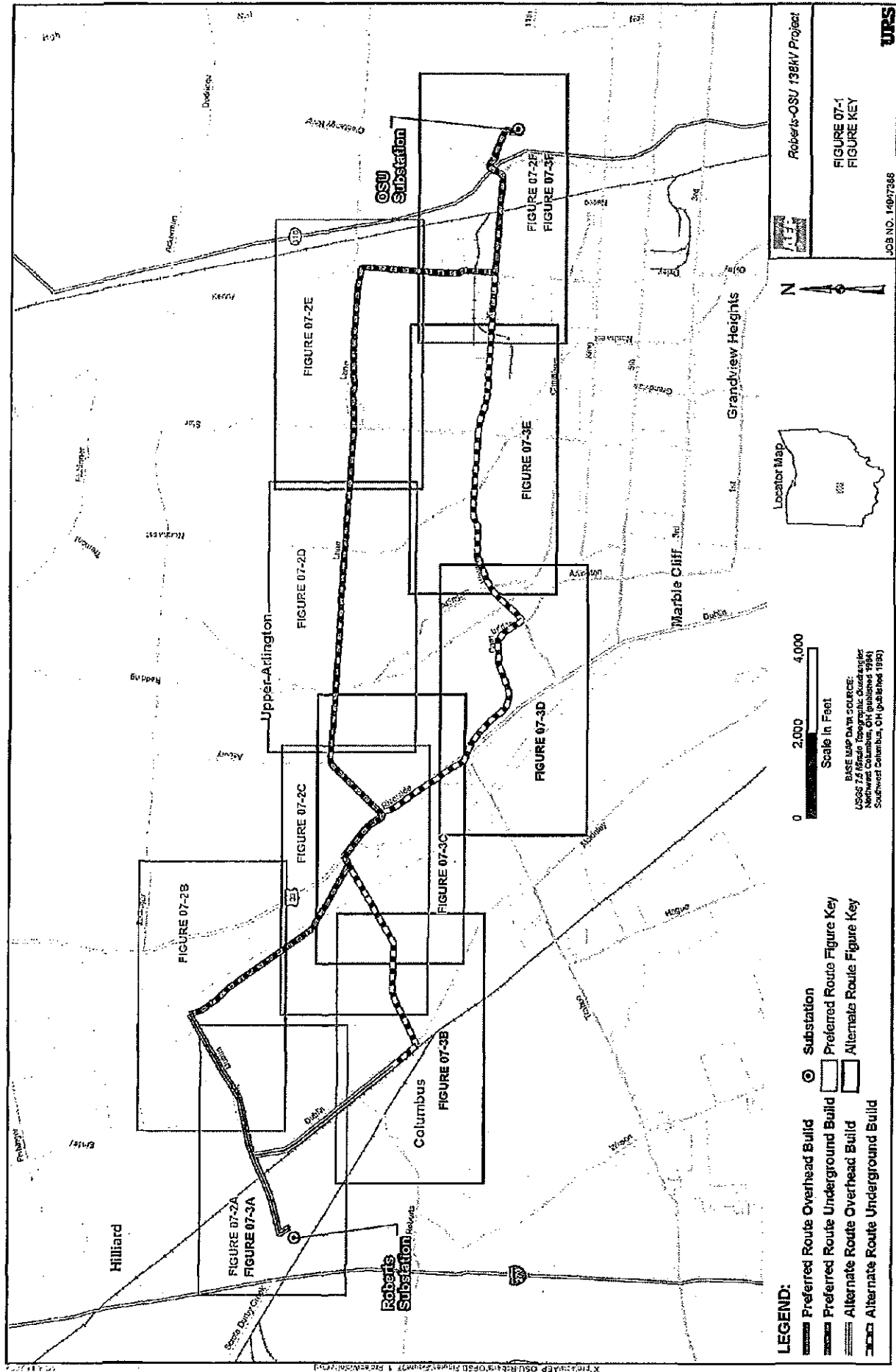
A literature search for previous nearby mist net surveys resulted in one survey that occurred in early August 2004 for the expansion of Britton Parkway in Hilliard, Ohio, approximately four miles north of the Roberts – OSU 138 kV Transmission Line Project. The mist net surveys resulted in only four captures of three different species; however no Indiana bats were captured. Habitat surveyed for the Britton Parkway contained more mature trees and seemed to provide higher quality habitat because of the surrounding land use and its close proximity to riparian and bottomland corridors. Since the completed mist net survey was so close in proximity to the OSU – Roberts Project, it is unlikely that the poorer quality habitat found along the fringes of the quarry will support Indiana bats. A review of the 2007 Indiana bat draft recovery plan indicated that there are no summer or winter records of Indiana bats in Franklin County, Ohio. Also, Franklin County, Ohio does not have any hibernacula records.

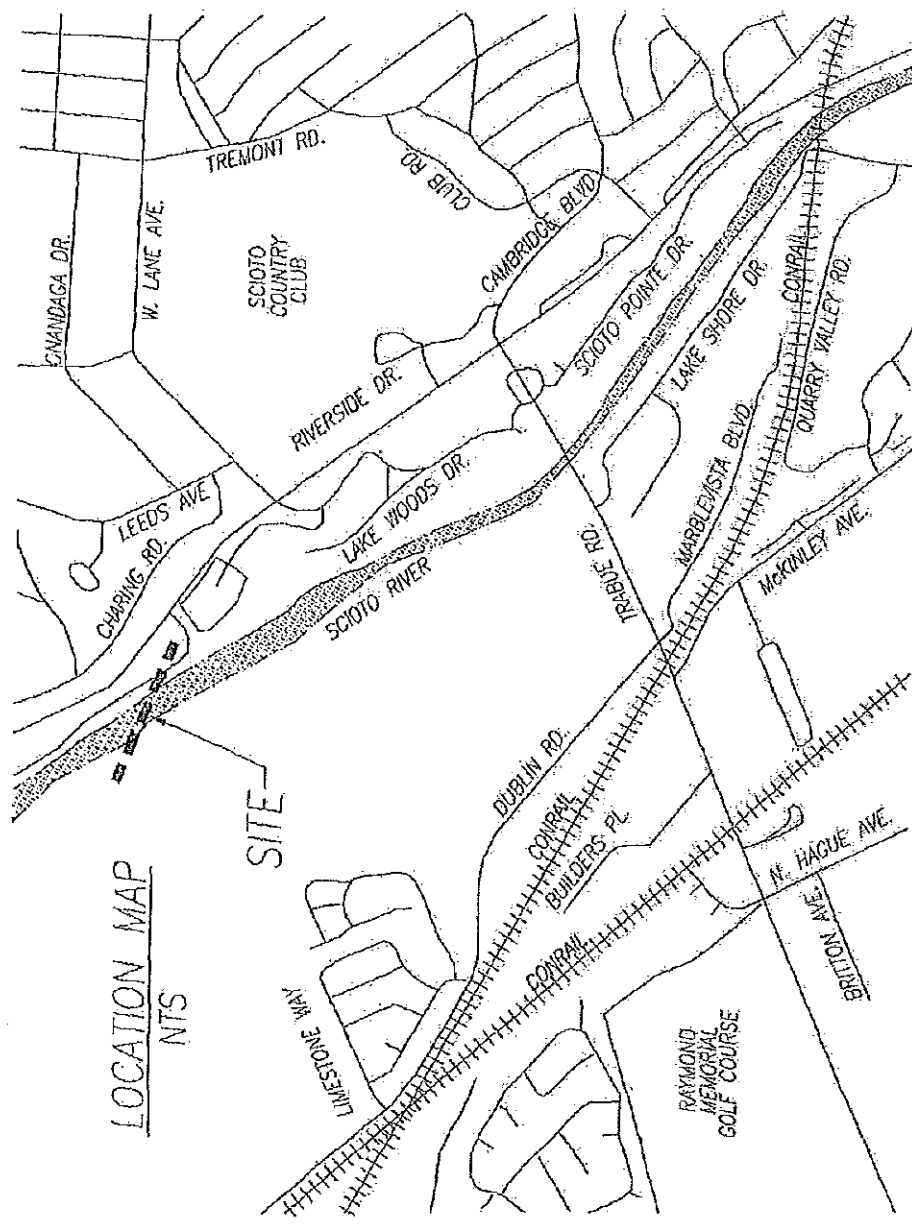
After reviewing field data from the wetland delineations along both routes and reviewing the project via aerial photography, it appears unlikely that construction of the Roberts - OSU 138 kV Transmission Line Project will have a negative impact on Indiana bats. This determination was reached based on the lack of forested areas in the area, the tree species present are typically less desirable for roosting habitat, forested areas are highly fragmented, and finally because there will be minimal tree removal and habitat disruption resulting from this project. Furthermore, given that there are no Indiana bat records in Franklin County, Ohio and nearby surveys have not recorded captures, it appears unlikely Indiana bats present in the project vicinity.

#### **Structures**

9. *How much taller would the overhead structures (poles) be along the south side of Scioto & Darby Creek and Dublin roads than are currently being used? To confirm the Applicant is proposing to replace existing poles in this location on a "one-for-one" basis?*

The height of existing wood poles on the south side of Scioto & Darby Creek Rd. and Dublin Rd. varies from 75' – 90' out of ground. The new steel structures will be approximately 10'—20' taller than the existing poles. AEP plans to install structures along the road in a "one-for-one" replacement of the existing poles.





LOCATION MAP  
NTS

SITE

TWO WORKING  
DAYS BEFORE  
YOU DIG  
CALL TOLL FREE  
800-382-2787  
PLAN PREPARED BY  
FISHER COMPANY  
1366 DUBLIN ROAD  
COLUMBUS, OHIO 43215  
FOR AEP

COLUMBUS SOUTHERN POWER



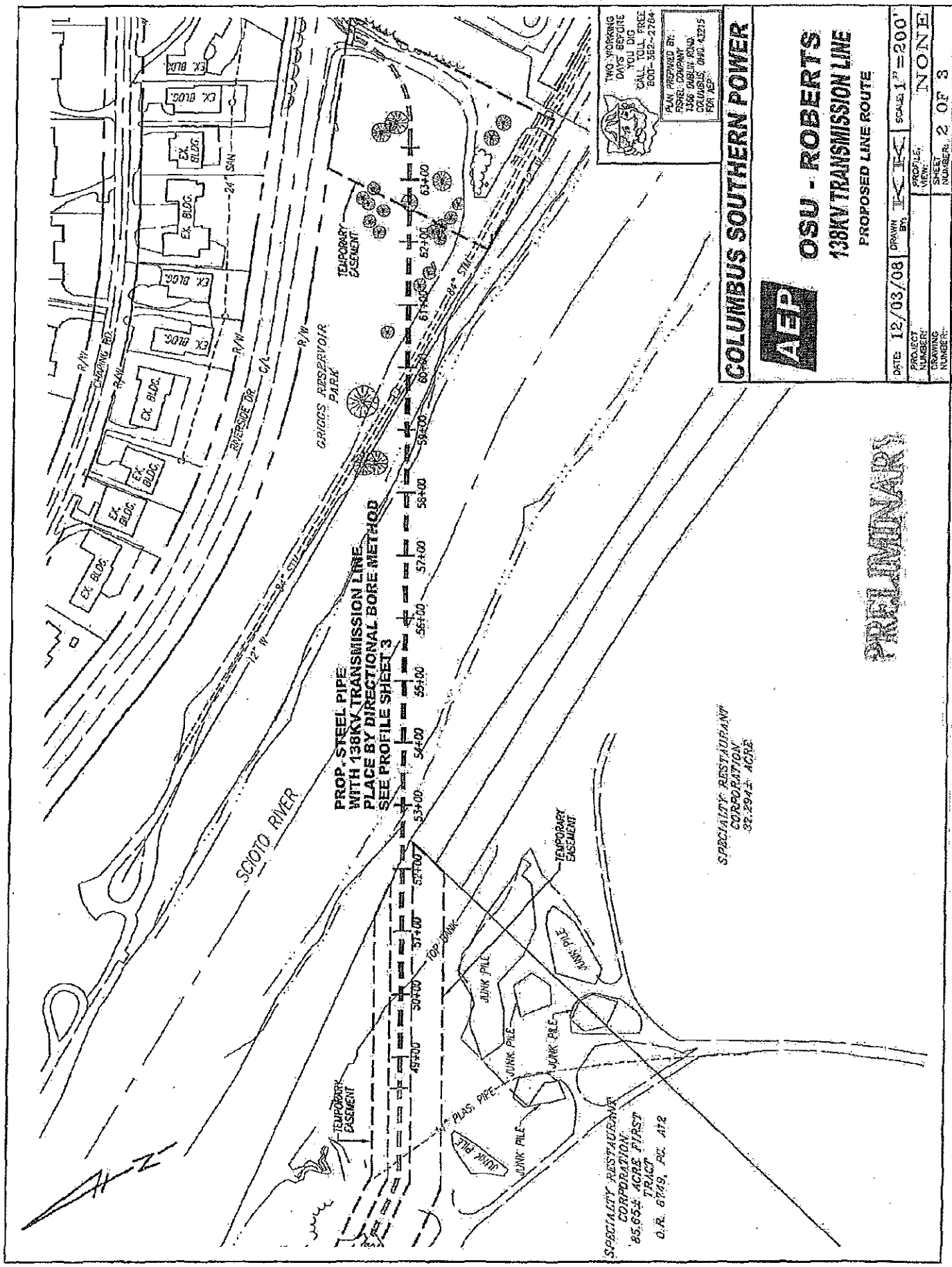
OSU - ROBERTS  
138KV TRANSMISSION LINE  
PROPOSED LINE ROUTE

DATE: 12/03/08	DRAWN BY: KIC	SCALE: NOT TO SCALE
PROJECT NUMBER:	FILE NUMBER:	SHEET NUMBER: 1 OF 3
DRAWING NUMBER:		

PRELIMINARY

ATTACHMENT #2





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DAYS BEFORE  
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CALL TOLL FREE  
800-362-2764

PLAN PREPARED BY:  
FISHER COMPANY  
1386 DARBY RD.  
COLUMBUS, OHIO 43215  
FOR ASP

**COLUMBUS SOUTHERN POWER**

**AEP**

**OSU - ROBERTS**

**138KV TRANSMISSION LINE**

**PROPOSED LINE ROUTE**

DATE: 12/03/08	DRAWN BY: KIK	SCALE: 1"=200'
PROJECT NUMBER: 138KV	PROFILE: NONE	
DRAWING NUMBER: 2 OF 3	SHEET NUMBER: 2 OF 3	

PRELIMINARY

SPECIALTY RESTAURANT  
CORPORATION  
37.294 ± ACRES

SPECIALTY RESTAURANT  
CORPORATION  
85.65 ± ACRES FIRST  
O.R. 6749, P.O. #12

PROFILE SHEET 2 FOR PLAN VIEW

STATION=47+48  
EX. GRADE ELEV. = 799.833

EX. GRADE

PROF. TRENCH

STATION=48+50.45  
ELEV = 728.68  
HSS POINT  
PULL SIDE. EXIT AT  
7.2 DEGREE

LENGTH = 206'

21.26%

23'

P/C  
STATION=51+48.39  
ELEV = 715.74

RADIUS OF CURVATURE=1000'  
LENGTH=209'

P/C  
STATION=53+54.29  
ELEV = 693.90

PROF. STEEL PIPE  
WITH 1339Y TRANSMISSION LINE  
PLACE BY DIRECTIONAL BORE METHOD

STATION=59+33.47  
ELEV = 681.90

RADIUS OF CURVATURE=1000'  
LENGTH=123'

P/C  
STATION=60+55.80  
ELEV = 701.40

EX. GRADE

84" STORM

12" WATER

BOTTOM OF RIVER

SWAG BEND LENGTH=579' 22.5"

LENGTH=295'

12.32%

PROF. TRENCH

STATION=64+50.45  
ELEV = 717.79  
HSS POINT  
PULL SIDE. ENTER AT  
7.2 DEGREE

STATION=64+01.39  
EX. GRADE ELEV. = 742.005

6'

5/1 SCOTIO RIVER

45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00

820 810 800 790 780 770 760 750 740 730 720 710 700 690 680 670 660 650 640 630 620 610 600 590 580

PLAN PREPARED BY:  
FISHEL COMPANY  
1366 DUELLIN ROAD  
COLUMBUS, OHIO 43215  
FOR ASP

**COLUMBUS SOUTHERN POWER**

**AEP**

OSU - ROBERTS  
138KV TRANSMISSION LINE  
PROPOSED LINE ROUTE

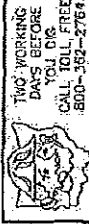
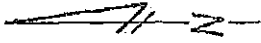
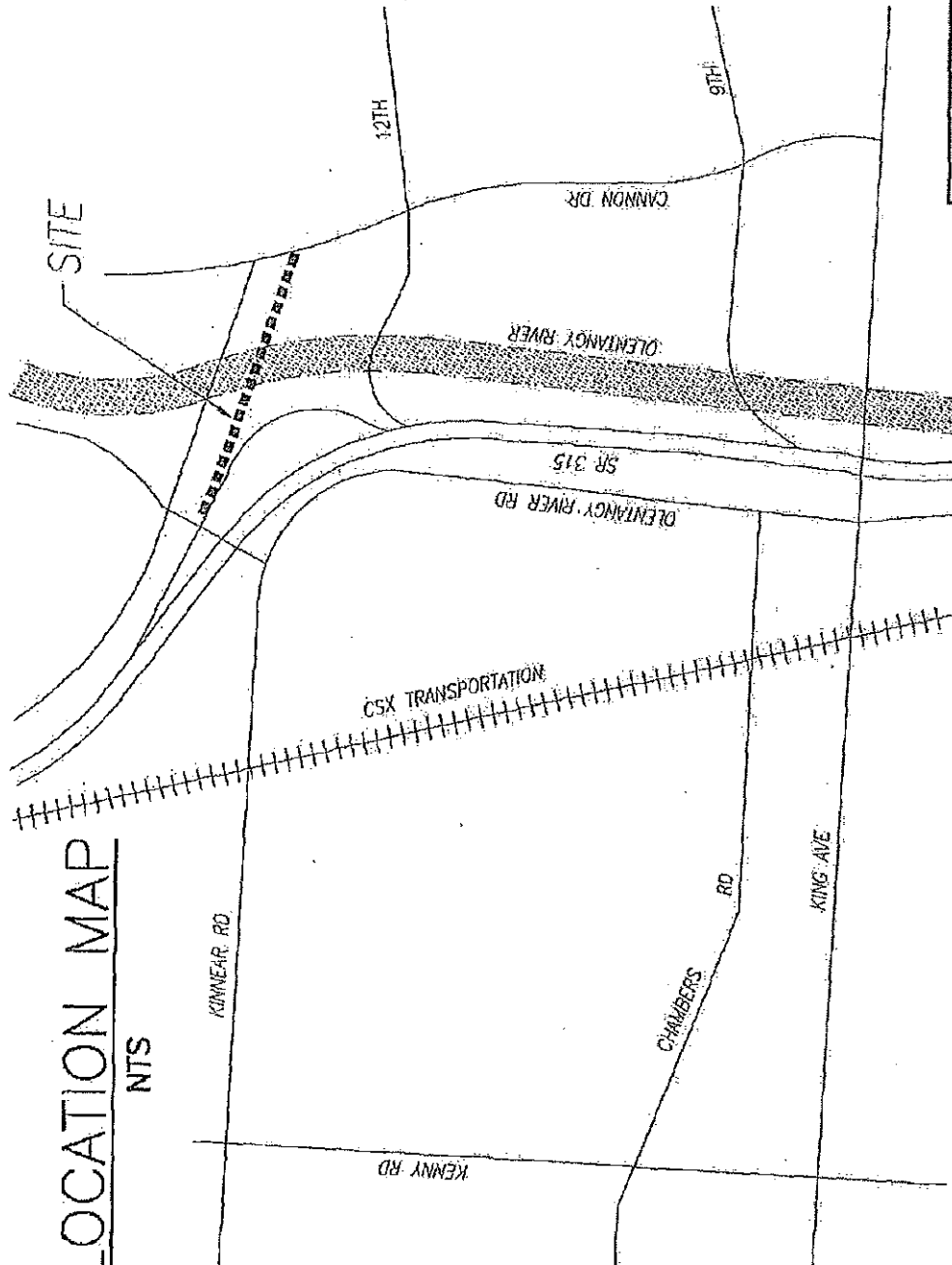
THE UNIVERSITY OF CHICAGO

DATE 12/03/08	DRAWN BY: ICS	SCALE: 1" = 200'
PROJECT NUMBER	PROFILE VIEW	1" = 60'
DRAWING NUMBER		3 OF 3

# TECHNENT 2

# LOCATION MAP

NTS



TWO WORKING  
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800-362-2764

**COLUMBUS SOUTHERN POWER**

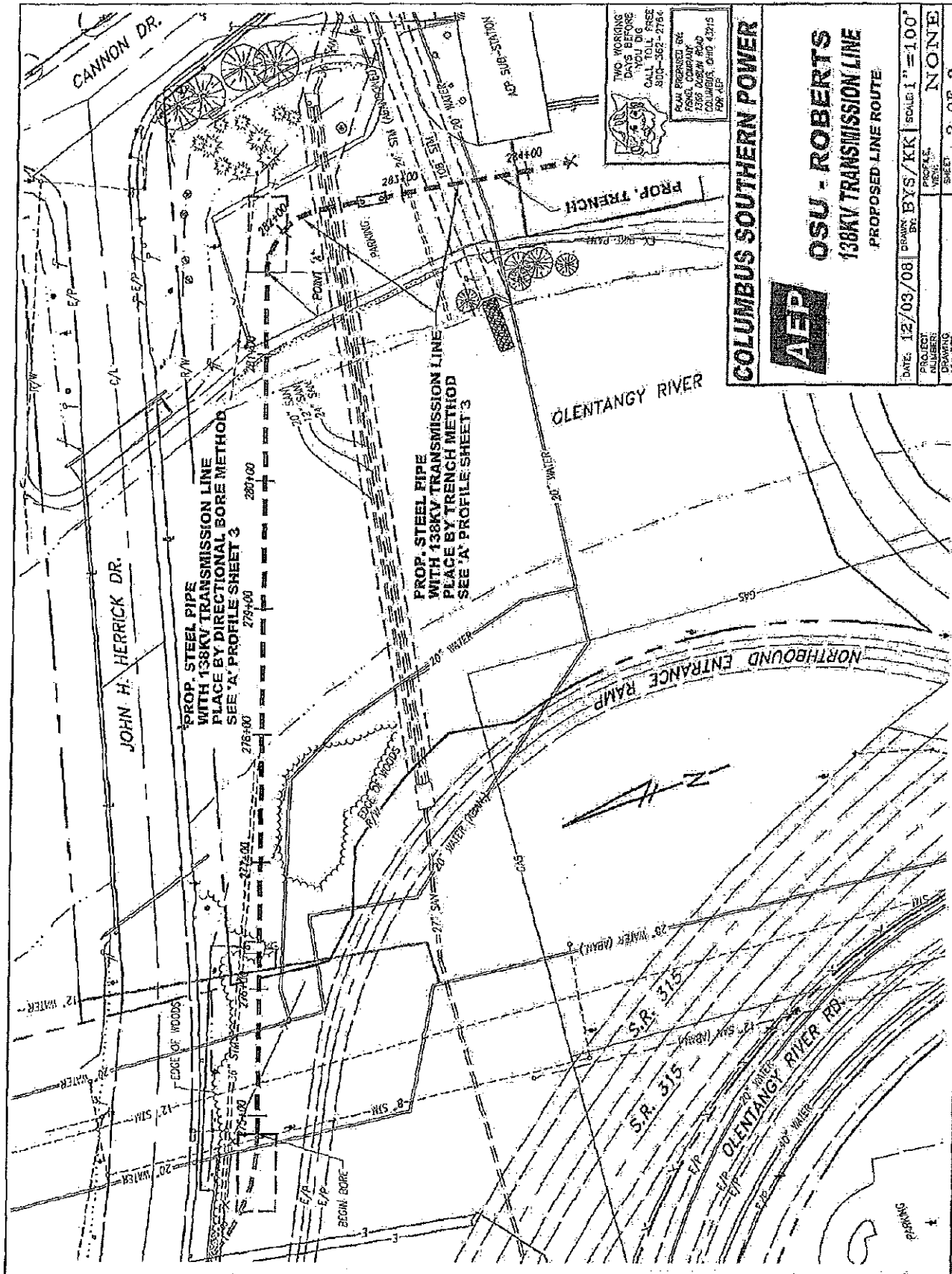


**OSU - ROBERTS**  
**138KV TRANSMISSION LINE**  
PROPOSED LINE ROUTE

DATE: 12/03/08	DRAWN BY: KK	SCALE: NONE
PROJECT NUMBER:	PROFILE VIEW:	NONE
DRAWING NUMBER:	SHEET NUMBER:	1 OF 3

**PRELIMINARY**

**ATTACHMENT # 3**



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YOU DIG  
CALL TOLL FREE  
800-582-2766

PLAN PREPARED BY  
FENCE COMPANY  
1380 ODESSA ROAD  
COLUMBUS, OHIO 43215  
FOR AEP

**COLUMBUS SOUTHERN POWER**

**AEP**

**OSU - ROBERTS**

**138KV TRANSMISSION LINE**

PROPOSED LINE ROUTE

DATE: 12/03/08 DRAWN BY: KK SCALE: 1"=100'

PROJECT NUMBER: NONE

DRAWING NUMBER: 2 OF 3

**ATTACHMENT # 3**

**PRELIMINARY**

[illegible]

740	730	720	710	700	690	680
<p>EX. CONC. ENC. SANITARY SIPHON</p> <p>EX. 20" WATER</p> <p>EX. 24" SEWER</p> <p>PROP. TRENCH</p> <p>PROP. MANHOLE</p> <p>EX. 100' SIM</p> <p>RADIUS OF CURVATURE = 2'</p> <p>RADIUS OF CURVATURE = 213.57'</p> <p>RADIUS OF CURVATURE = 213.57'</p> <p>POINT 'A'</p> <p>222+00</p> <p>223+00</p> <p>224+00</p>						
740	730	720	710	700	690	680

**TWO WORKING  
DAYS BEFORE  
YOU DIG  
CALL TOLL-FREE  
800-362-2764**

PLAN PREPARED BY  
FISHEL COMPANY  
13016 DUELM ROAD  
COLUMBUS, OHIO 43215  
FOR '50

**COLUMBUS SOUTHERN POWER**

**AEP**

**OSU - ROBERTS  
138KV TRANSMISSION LINE  
PROPOSED LINE ROUTE**

DATE: 12/03/08	DRAWN BY: BYS/KK	SCALE: 1"=100'
PROJECT NUMBER:	PROFILE VIEW:	1"=30'
DRAWING NUMBER:		SHEET NUMBER: 3 OF 3

ATTACHMENT # 3

THE UNIVERSITY OF CHICAGO

PRELIMINARY

## Frac-Out Contingency Plan

### INTRODUCTION

Installation of the pipeline will involve horizontal directional drilling of identified resource crossings (i.e. streams, wetlands, roads, etc.). Although directional drilling is a much less intrusive method of crossing than open-trench cutting, there is a possibility of a surface disturbance if a "frac-out", or inadvertent return of drilling fluid occurs during the drilling process. Releases are typically caused by the pressurization of the drill hole beyond the containment capability of the overburden soil. Therefore the type of material and the depth of overburden is a key factor in preventing a frac-out. The drilling fluid used in this procedure is a mixture of bentonite and water. Bentonite is a naturally occurring, non-toxic, inert substance and is frequently used for drilling water wells. The impact to water is a temporary increase in turbidity that can impact aquatic life.

The purpose of this Frac-out Contingency Plan is to establish procedures for addressing potential impacts associated with the inadvertent release of drilling fluid during the directional drilling of identified resource crossings. Every effort will be made to prevent a drilling fluid loss to become a seepage to the ground surface, stream or wetland. This will be done by maintaining proper drilling fluid parameters (viscosity, mud weight, solids content, etc.) and using controlled drilling practices (fluid pressure, drilling rate, flowrate, trip speed, etc.).

### DRILLING ENTRANCE AND EXIT POINTS

- A temporary sediment barrier will be installed prior to drilling operations to contain potential releases where determined necessary based on field conditions at the time of drilling.

### TERRESTRIAL AREAS

When a frac-out is suspected while drilling a terrestrial area:

- The contractor will temporarily suspend forward progress of the drilling operations if excessive loss of bentonite circulation is noted and the surface of the drill path will be examined for release. The drilling equipment should continue to operate, at reduced pressure, so that the drilling hole does not collapse.
- If a surface release has occurred, isolate the area with hay bales, sand bags, or silt fencing to contain the spread of bentonite.
- The contained bentonite area will be left in place to dry.

ATTACHMENT #4

## PRELIMINARY

- The dried bentonite will be removed to grade and used as backfill around the pipeline.
- Surface releases can also be removed by the use of a vacuum truck where appropriate.
- The affected areas will be restored as closely as possible to their previous condition.
- After containment has been achieved, the drilling contractor and the inspector will make every effort to determine why the frac-out occurred and develop corrective measures to minimize the chance of recurrence.

### WETLANDS

When a suspected frac-out is identified while drilling a wetland area:

- The contractor will temporarily suspend forward progress of the drilling operations if excessive loss of bentonite circulation is noted and the surface of the drill path will be examined for release. The drilling equipment should continue to operate, at reduced pressure, so that the drilling hole does not collapse.
- If a surface release has occurred, isolate the area with hay bales, sand bags, or silt fencing to contain the spread of bentonite.
- Contact the environmental inspector for the project to document the release and direct the clean-up operations. The Ohio Power Siting Board shall be notified of the frac-out.
- The contained bentonite area will be left in place to dry to avoid potential damage from vehicles entering the area.
- The dried bentonite will be removed to grade by the use of hand shovelling or the use of small mechanized equipment outside the wetland area.
- The bentonite will be used as backfill around the pipeline.
- The affected areas will be restored as closely as possible to their previous condition.
- After containment has been achieved, the drilling contractor and the inspector will make every effort to determine why the frac-out occurred and develop corrective measures to minimize the chance of recurrence.

### SMALL STREAMS

When a suspected frac-out is identified while drilling a small stream crossing:

- The contractor will temporarily suspend forward progress of the drilling operations if excessive loss of bentonite circulation is noted and the surface of the drill path will be

ATTACHMENT #4

## PRELIMINARY

- examined for release. The drilling equipment should continue to operate, at reduced pressure, so that the drilling hole does not collapse.
- If a surface release has occurred, check effectiveness of the sediment barrier, make necessary repairs.
- Contact the environmental inspector for the project to document the release and direct the clean-up operations. The Ohio Power Siting Board shall be notified of the frac-out.
- Remove the bentonite by shovel or vacuum truck. The bentonite can be used as pipeline backfill.
- The affected areas will be restored as closely as possible to their previous condition.
- After containment has been achieved, the drilling contractor and the inspector will make every effort to determine why the frac-out occurred and develop corrective measures to minimize the chance of recurrence.

### LARGE STREAM OR WATERBODY

Drilling fluid seepage in a large stream or water body may not always be apparent from the surface, due to the volume of water involved and determination may need to be based solely on the loss of drilling fluid pressure. The following procedures shall be followed in the event of a potential seepage:

- The contractor will temporarily suspend forward progress of the drilling operations if excessive loss of bentonite circulation is noted and the water will be examined to determine the presence and/or extent of a sediment plume. The drilling equipment should continue to operate, at reduced pressure, so that the drilling hole does not collapse.
- Contact the environmental inspector for the project to document the release and direct the clean-up operations. The Ohio Power Siting Board shall be notified of the frac-out.
- Small aquatic releases with no visible sediment plume be allowed to dissipate since clean-up efforts in these cases could potentially result in increased suspension of sediments in the water column.

ATTACHMENT #4



## PRELIMINARY

- In the case of a larger aquatic release with a visible plume extending more than 500 yards from the drilling site, a local environmental spill response company will be contacted to monitor the turbidity levels of the plume, erect sediment barriers and initiate clean up activities where appropriate. Contact information for the local emergency response team will be kept on-site.
- The Environmental Inspector will notify appropriate downstream water intake authorities of the existence of any plume which extends 500 yards downstream.
- The affected areas will be restored as closely as possible to their previous condition.
- After containment has been achieved, the drilling contractor and the inspector will make every effort to determine why the frac-out occurred and develop corrective measures to minimize the chance of recurrence.

### RESPONSE PERSONNEL

In the event of a frac-out, the person discovering the release will notify the following individuals and initiate the appropriate response steps. The UTI personnel will coordinate notifying the appropriate agencies and obtaining any clearances necessary for clean-up operations. The UTI personnel, pipeline contractor superintendent and directional drilling superintendent will coordinate all response activities.

Name:  
Cell Phone:  
Office Phone:

Inspector):  
Name:  
Cell Phone:  
Office Phone:

PIPELINE CONTRACTOR SUPERINTENDENT:  
Name:  
Cell Phone:  
Office Phone:

DIRECTIONAL DRILLING SUPERINTENDENT:  
Name:  
Cell Phone:  
Office Phone:

EMERGENCY RESPONSE CONTRACTOR:  
Name:  
Company:  
Cell Phone:

ATTACHMENT #4

PRELIMINARY

**RESPONSE EQUIPMENT**

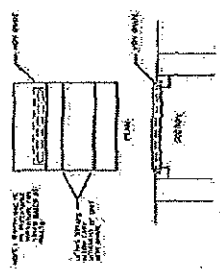
The following is a minimum list of response equipment that will be kept on site:

- Sand bags
- Hand Tools
- Portable pumps and hoses
- Hay bales
- Silt fence
- Spill kits
- Backhoe or excavator

ATTACHMENT #4

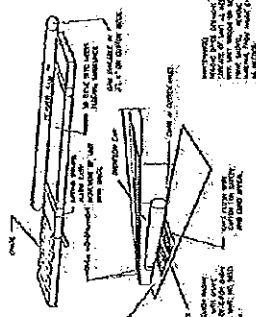
**EROSION CONTROL DETAIL**

RECEIVED AT THE OFFICE OF THE SECRETARY OF THE ARMY  
WASHINGTON, D. C. 20315  
JAN 10 1964  
FROM: THE SECRETARY OF THE ARMY  
SUBJECT: [Illegible]  
[Illegible text follows]

[illegible][illegible][illegible][illegible]

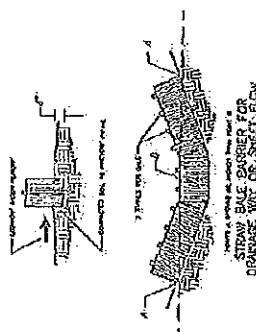
550-46147

REAR END VIEW - SHOWING DISCREPANCIES AND FACT SHEET

[illegible]

### CHANNEL FLOW APPLICATIONS:

1. The first of these is the fact that the Government has not been able to secure the necessary funds to carry out its policy. This is due to the fact that the Government has not been able to secure the necessary funds to carry out its policy.



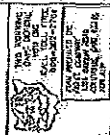
## LEGEND

STANLEY DAVIS: DAVIS, STANLEY

•

254132

1993-1994



**COLUMBUS SOUTHERN POWER**

**APP**

OSU • ROBERTS  
138KV TRANSMISSION LINE

STATION CONTROL PLAN

SECRET

000 TO 1000

Township: Perry:

City: Columbus


21

\_\_\_\_\_

1997

ATTACHMENT #4

[illegible]


 THE MORNING  
 NEWS  
 VOL 20  
 CALL 100-7100  
 100-7100

**COLUMBUS SOUTHERN POWER**

**पेप**

OSU - ROBERTS  
138KV TRANSMISSION LINE

### EXPOSURE CONTROL PLAN

[illegible]

SEE SHEET FOR SILT FENCING DETAILS AND NOTES

IN ADDITION TO THESE COMMENTS, THE STUDY HAS BEEN IMPROVED AGAIN IN THE FOLLOWING INFORMATION AND SOURCES. UTILITY LOCATIONS UNAVAILABLE WERE APPROPRIATELY MARKED AS SUCH. UTILITY LOCATIONS NOTED AS BEING CORRECTED ARE NOT BEING EXAMINED TO DETERMINE THE CORRECTION. 20% OF THE COMMENTS CONCERNING UTILITY LOCATIONS WERE BASED ON RECORDS, PERSONAL OBSERVATION AND PHYSICAL FEATURES AT THE TIME OF THE SURVEY.

City: Columbus	Section: 4	Town: 1	Range: 19
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County: Franklin

Township: Perry.

Section 4

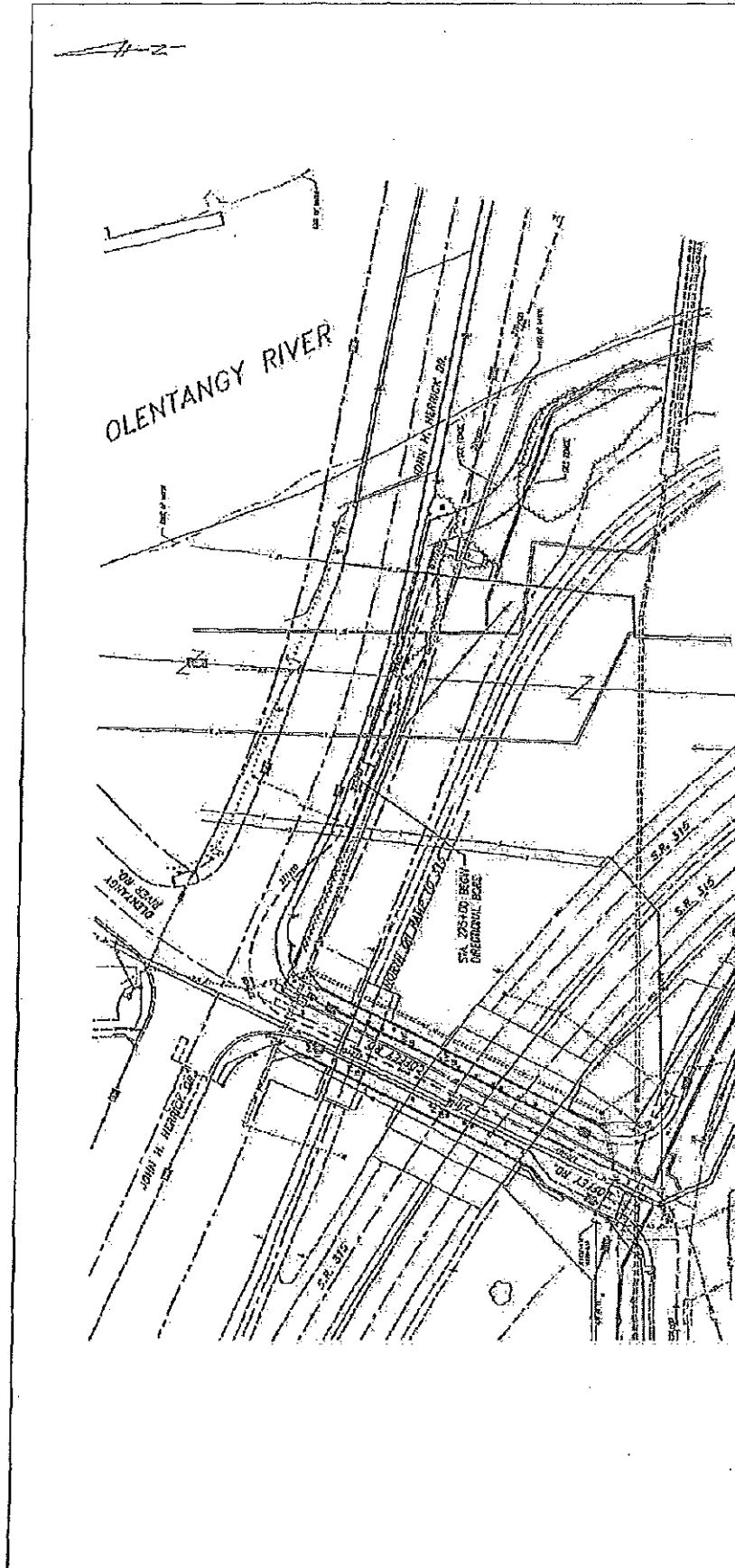
**Taxpayer**

100

ATTACHMENT #4

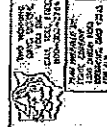
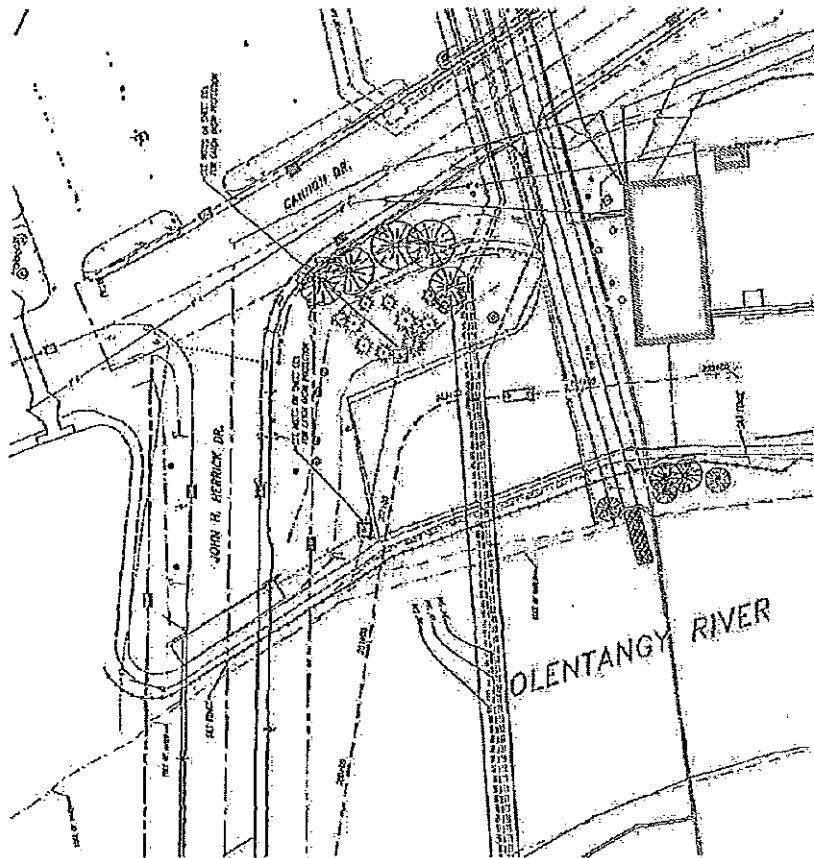


PRELIMINARY



<p>SEE SHEET 501 FOR SALT PENCING DETAILS AND NOTES</p> <p>NOTES: THE LOCATION OF THE TRANSMISSION LINE SHOWN HEREIN IS BASED ON THE BEST AVAILABLE SURVEY DATA. THE LOCATION OF THE TRANSMISSION LINE IS NOT GUARANTEED BY THE ENGINEER. THE ENGINEER HAS CONDUCTED VISUAL INSPECTIONS OF THE AREA AND HAS FOUND NO OBSTACLES TO THE PROPOSED TRANSMISSION LINE. THE ENGINEER HAS ALSO CONDUCTED VISUAL INSPECTIONS OF THE AREA AND HAS FOUND NO OBSTACLES TO THE PROPOSED TRANSMISSION LINE.</p>		<p>SEE SHEET 501 FOR SALT PENCING DETAILS AND NOTES</p>	
<p>COLUMBUS SOUTHERN POWER</p> <p>OSU - ROBERTS</p> <p>43KV TRANSMISSION LINE</p> <p>CROSSING CONTROL PLAN</p>	<p>DATE: 3/27/09</p> <p>BY: [Signature]</p> <p>SCALE: 1"=40'</p>	<p>Town: 1</p> <p>Range: 18</p>	<p>City: Columbus</p> <p>Township: Clinton</p>

PRELIMINARY



COLUMBUS SOUTHERN POWER	
OSU - ROBERTS 138KV TRANSMISSION LINE PROPOSED CONTROL PLAN	
DATE: 8/27/03	SCALE: 1"=40'
PROJECT: OSU - ROBERTS	SHEET: 1 OF 1
BOS OF 000	

\*SEE SHEET FOR SILENT REMOVAL DETAILS AND NOTES

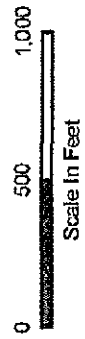
NOT TO BE USED FOR CONSTRUCTION WITHOUT THE APPROVAL OF THE ENGINEER. THE USER ASSUMES ALL RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION AND THE USER ASSUMES ALL LIABILITY FOR ANY DAMAGE OR INJURY RESULTING FROM THE USE OF THIS INFORMATION. THE USER ASSUMES ALL LIABILITY FOR ANY DAMAGE OR INJURY RESULTING FROM THE USE OF THIS INFORMATION.

City: Columbus	Section: 3	Town: 1	Range: 18
County: Franklin	Township: Clinton		



LEGEND:

- Substation
- Preferred Route
- Overhead
- Underground
- Parcel Boundaries
- Clearing Area (width)



BASE MAP DATA SOURCE:  
Franklin County Auditor, 2007



Roberts-OSU 138kV Project

CLEARING REQUIRED  
FOR CONSTRUCTION

JOB NO. 14947388



ATTACHMENT #5