Duke Energy

DUKE ENERGY CORPORATION
139 East Fourth St.
PO Box 960
Cincinnati, OH 45201-0960

21

FILE

November 19, 2008

Ms. Reneé Jenkins, Secretary
Public Utilities Commission of Ohio
180 East Broad Street
Docketing Division 13th Floor
Columbus, Ohio 43215-3973

Re: Letter of Notification:
Line F5680 138 kV Electric Transmission Line Loop through Nickel Substation
PUCO Case No. 08- 1253 -EL-BLN

Dear Ms. Jenkins:

Enclosed for filing are one original and ten copies of a Letter of Notification regarding a Duke Energy project.

If you have any questions regarding this submittal, please contact me at (513) 287-2379.

Sincerely,
Duke Energy

Stephen R. Lane
Environmental Scientist

Enclosures

Cc Mr. Jim O'Dell (OPSB) (1/1)

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LETTER OF NOTIFICATION FOR

LINE F5680 138 KV ELECTRIC TRANSMISSION

LINE LOOP THROUGH NICKEL SUBSTATION

PUCO Case Number 08-1253-EL- BLN

Submitted pursuant to OAC 4906-11-01

Duke Energy Ohio

November 19, 2008

(A) Need Statement

(1) Project Name, Description, and Need

(a) Name: This proposed project is the Line F5680 138,000 (138 kV) Electric Transmission Line Loop through Nickel Substation.

This project qualifies as a Letter of Notification (LON) because it fits the criteria of OAC 4906-1-01, Appendix A (1)(c), "Line(s) one hundred twenty-five kV and above but less than three hundred kV, and not greater than two miles in length." The proposed new 138 kV transmission line loop is approximately 0.5 mile in length and will extend from Duke Energy Ohio's 138 kV Line F5680 south to the Nickel Substation. There is approximately 1,440 feet of new line south from F5680 to the new distribution substation, then back again about 1,150 feet along Union Road from the substation.

(b) Description: This project will provide 138 kV service to Nickel Substation which will in-turn provide electric service to a new warehouse facility being constructed in the area by Vandercar Holdings Inc. (Vandercar). The easement for this transmission line loop is located on property owned by Vandercar.

A project vicinity map and engineering line drawings for the project are included.

(c) Need: This project is required to provide 138 kV electric service to a new substation which will serve the Vandercar Corridor 75 Park. The Vandercar project includes a new 400-plus acre park, which is planned to eventually hold up to 7.5 million square feet of warehouse distribution facilities for Home Depot stores.

(2) Reference per Long-Term Forecast Report (LTFR)

This proposed project is not included in the 2008, or earlier, LTFRs.

(3) Alternatives Considered

No other alternatives were considered for the routing of the transmission line. This project is being constructed in response to a site provided by Vandercar and agreed upon by Duke Energy for Nickel Substation.

That said, numerous alternatives were discussed for the location of Nickel Substation. Vandercar initially suggested locations at the western edge of their property adjacent to Millers Creek. These locations were identified as being less than ideal for the substation as they would have required riparian tree clearing, in addition to a portion of the sites being located within the floodplain of Millers Creek. Duke Energy was interested in sites at the north end of the Vandercar property, these were eliminated by Vandercar as the substation would be visible from their main site entrance. The existing substation site minimizes; transmission line length, impact on existing site plans, and substation visibility while still being located central to the overall Vandercar site designs.

(4) Construction Schedule

Work on the transmission line loop is planned to begin March 2009. The overall project has an in-service date of June 2009.

(5) Area Maps and Directions to Project Area

A street line map of the project vicinity is attached to this LON; a smaller scale engineering line drawing of the project route is also attached. One way to reach the project location from Columbus is to take I-71 south for about 73 miles then take exit #32

west on State Route 123 (SR-123) for 3.4 miles to Lebanon. Continue to travel west on SR-123/48 through Lebanon and on SR-63 for approximately 6.5 miles until just east of I-75. At Union Road turn left (south) and continue on Union Road for approximately 1 mile, the substation and transmission line loop route will be on the right (west).

(B) Technical Features

(1) Operating Characteristics

The proposed transmission line loop will operate at 138 kV and require approximately 0.5 mile of new 954ACSR45x7 conductor, 10 new wood poles, and the associated appurtances. The locations of the new poles are identified on the included engineering line drawings, the poles will be 75 or 80 feet in height. The specifications for these structures are included in Appendix A. At the northern ends of the project route the loop will connect to the existing F5680 H-frame 138kV transmission line. Modifications of the 2 interconnect H-frame structures on the existing line are also part of this project.

(2) Electric and Magnetic Fields

Duke Energy ran estimates of the electric and magnetic fields using the "Enviro" program for the proposed 138 kV transmission line loop at the lowest point of conductor sag along the length of the loop. This study shows that the maximum magnetic field directly under the middle conductor at one meter above ground would be 41.6 milligauss (mG), tapering off to 1.6 mG at 300 feet if the line were loaded to its maximum winter rating. The modeling also shows that at normal maximum loading directly under the middle conductor at one meter above ground would be 20.1 milligauss (mG), tapering off to 0.9 mG at 300 feet. At the front porch of the nearest residence to the transmission line loop, located approximately 75 feet east of pole #152 along Union Road, this translates into a magnetic field strength of approximately 6.8 mG under the normal maximum loading condition. Note that pole #152 is to be located directly across from this house, resulting

in a higher conductor position compared to the maximum sag model. This is expected to result in lower maximum magnetic field levels than those predicted by the models.

It is reasonable that the electric field strengths, measured in kilovolts per meter (kV/m), are the same regardless of line loadings because the electric fields are dependent on voltage, which is held constant at 138,000, while magnetic field strengths depend on amperage, which varies by demand for electricity.

Duke Energy designs its facilities according to the National Electric Safety Code (NESC), at a minimum. The structure height and configuration was chosen based on the NESC, engineering parameters, and cost.

(3) Estimated Cost

The project is expected to cost approximately $500,000.

(C) Socioeconomic Data

(1) Land Use

The proposed project is entirely on property owned by Vandercar, from which Duke Energy Ohio has secured an easement. Land use under the proposed line includes road right-of-way (Union Road) and land developed for commercial warehouse use. Land use in the vicinity of the project route is undeveloped agricultural and light industrial/commercial. The nearest residence to the transmission line loop is located on the east side of Union Road directly across from the proposed location of pole #152. According to the City of Monroe Official Zoning Map dated March 2008, the locations of Nickel Substation and transmission line loop have been zoned as heavy industrial.

(2) Agricultural District Land

According to data received from the Warren County Auditors' Office, the property along the project route is not included in the ORC 929 agricultural district program.

(3) Cultural Resources

The project route is located on land previously excavated and graded by Vandercar to form berms and stormwater retention ponds. In addition, the eastern leg of the project route along Union Road is directly adjacent to previously disturbed road right-of-way. Considering the level of disturbance under the project route, Duke Energy proposes no buried cultural resource investigations for the project.

(4) Notification of Officials

Copies of the letters transmitting this Letter of Notification to officials of the City of Monroe, Warren County, and Turtle Creek Township are included in Appendix B. No public information program, materials, or meetings were conducted for the siting of this proposed facility.

(5) Current and Pending Litigation

There is no current or pending litigation involving the proposed facility.

(6) Other Agency Permits and Requirements

No other agency permits or requirements exist for this transmission line loop project.

(D) Environmental Data

A Duke Energy biologist/environmental scientist conducted a field survey of the project route on September 27, 2008. This survey included an evaluation of potential habitat for species of concern likely to be found on the project route, a wetland determination, and an assessment of surface drainages in the project vicinity.

(1) Species and Habitat of Concern

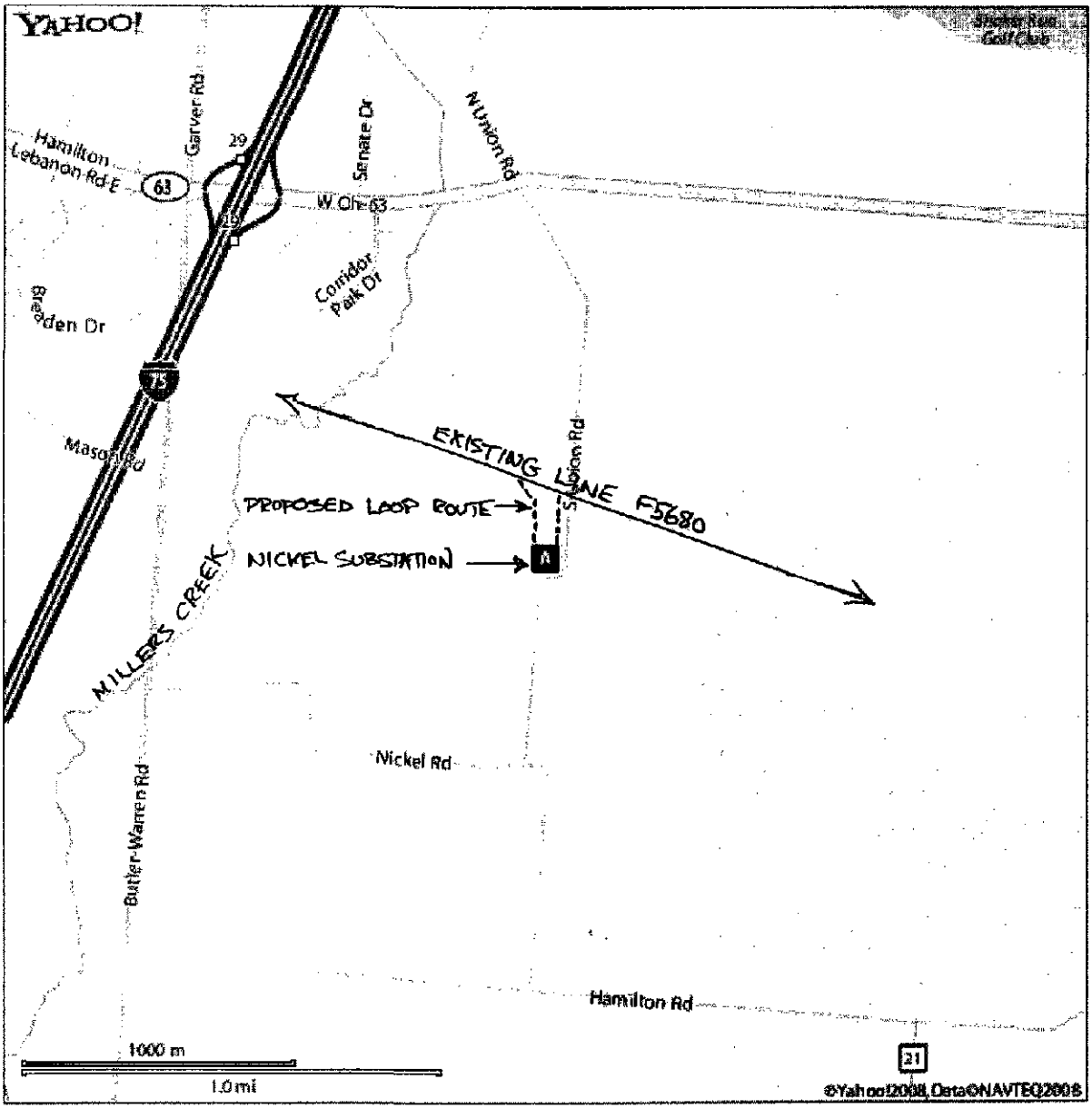
No species of concern or habitat suitable for species of concern was observed during the field survey. No wetlands or other areas of ecological concern were identified along the project route. The habitat along the project route is primarily; herbaceous roadside and roadside ditch habitat, oldfield, and former agricultural land that has been formed into maintained upland areas and stormwater retention ponds.

(2) Additional Information

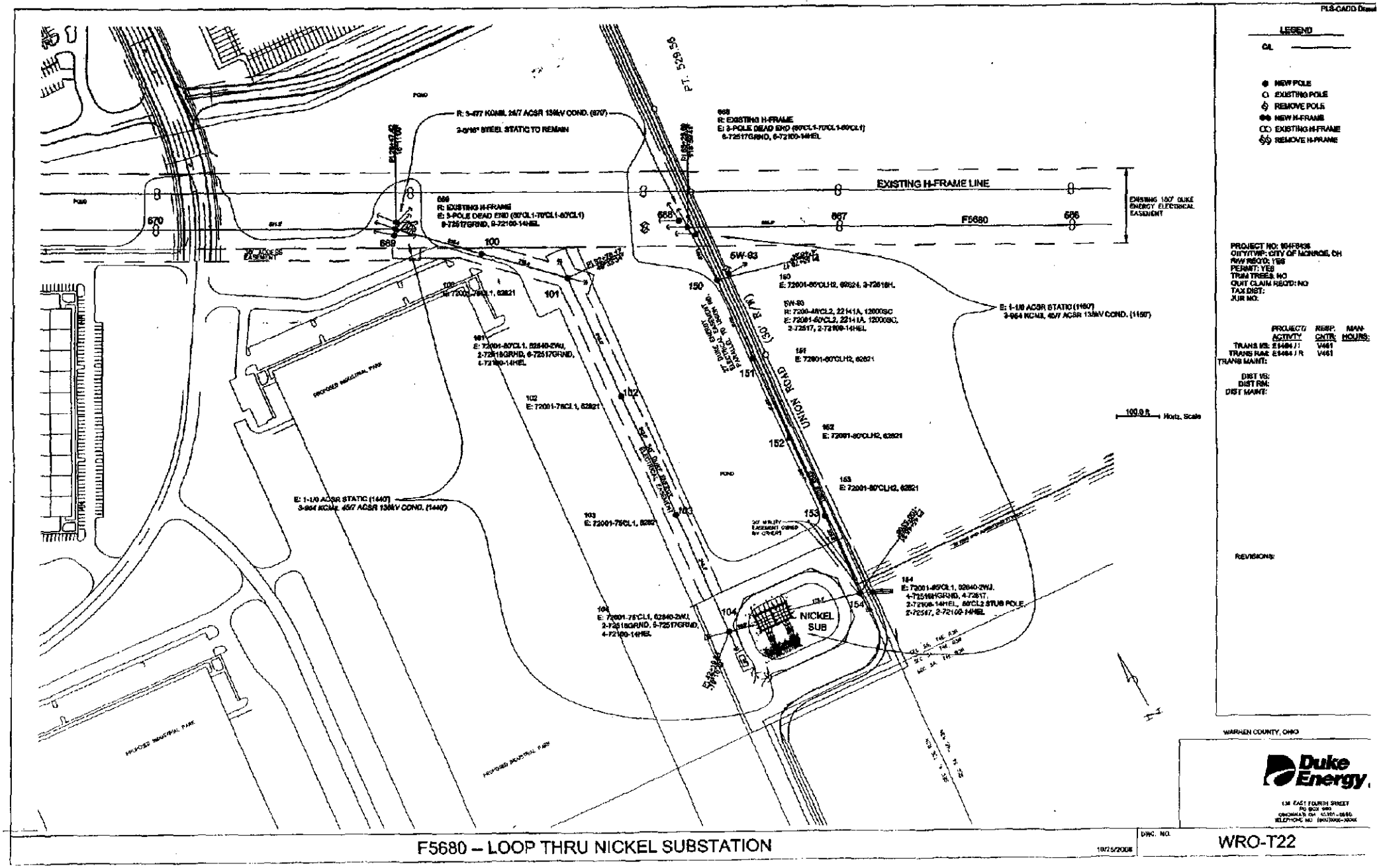
There is no known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

Map of 39.426919,-84.32155

YAHOO! LOCAL Maps



When using any driving directions or map, it's a good idea to do a reality check and make sure the road still exists, watch out for construction, and follow all traffic safety precautions. This is only to be used as an aid in planning.



F5680 – LOOP THRU NICKEL SUBSTATION

10/25/2008

DWG. NO.

WRO-T22

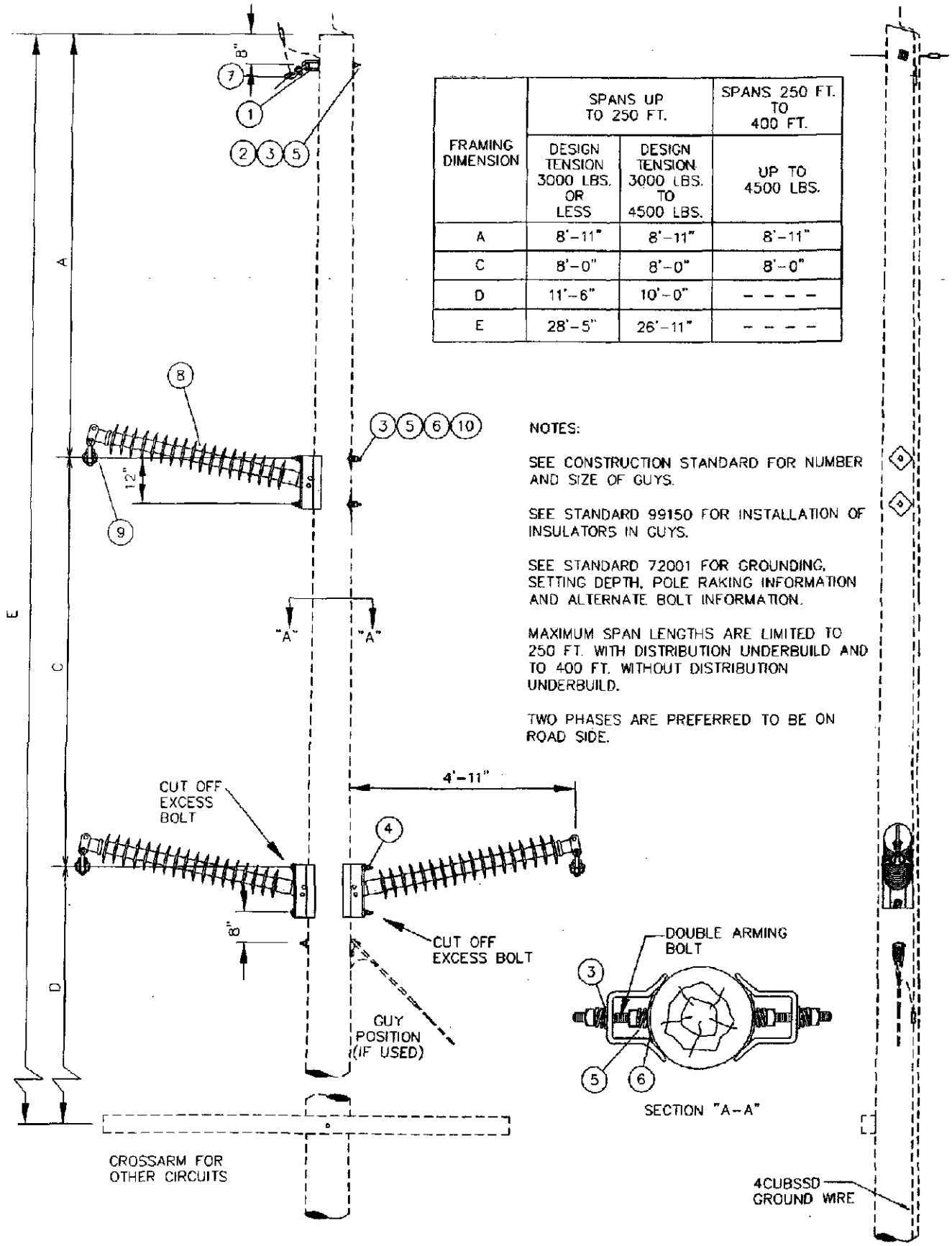
APPENDIX A

ENGINEERING SPECIFICATIONS

62821

138kV Overhead Construction Horizontal Post Type Insulators Straight Line And Angles to 5 Degrees

FRAMING DIMENSION	SPANS UP TO 250 FT.		SPANS 250 FT. TO 400 FT.
	DESIGN TENSION 3000 LBS. OR LESS	DESIGN TENSION 3000 LBS. TO 4500 LBS.	UP TO 4500 LBS.
A	8'-11"	8'-11"	8'-11"
C	8'-0"	8'-0"	8'-0"
D	11'-6"	10'-0"	- - - -
E	28'-5"	26'-11"	- - - -



NOTES:

SEE CONSTRUCTION STANDARD FOR NUMBER AND SIZE OF GUYS.

SEE STANDARD 99150 FOR INSTALLATION OF INSULATORS IN GUYS.

SEE STANDARD 72001 FOR GROUNDING, SETTING DEPTH, POLE RAKING INFORMATION AND ALTERNATE BOLT INFORMATION.

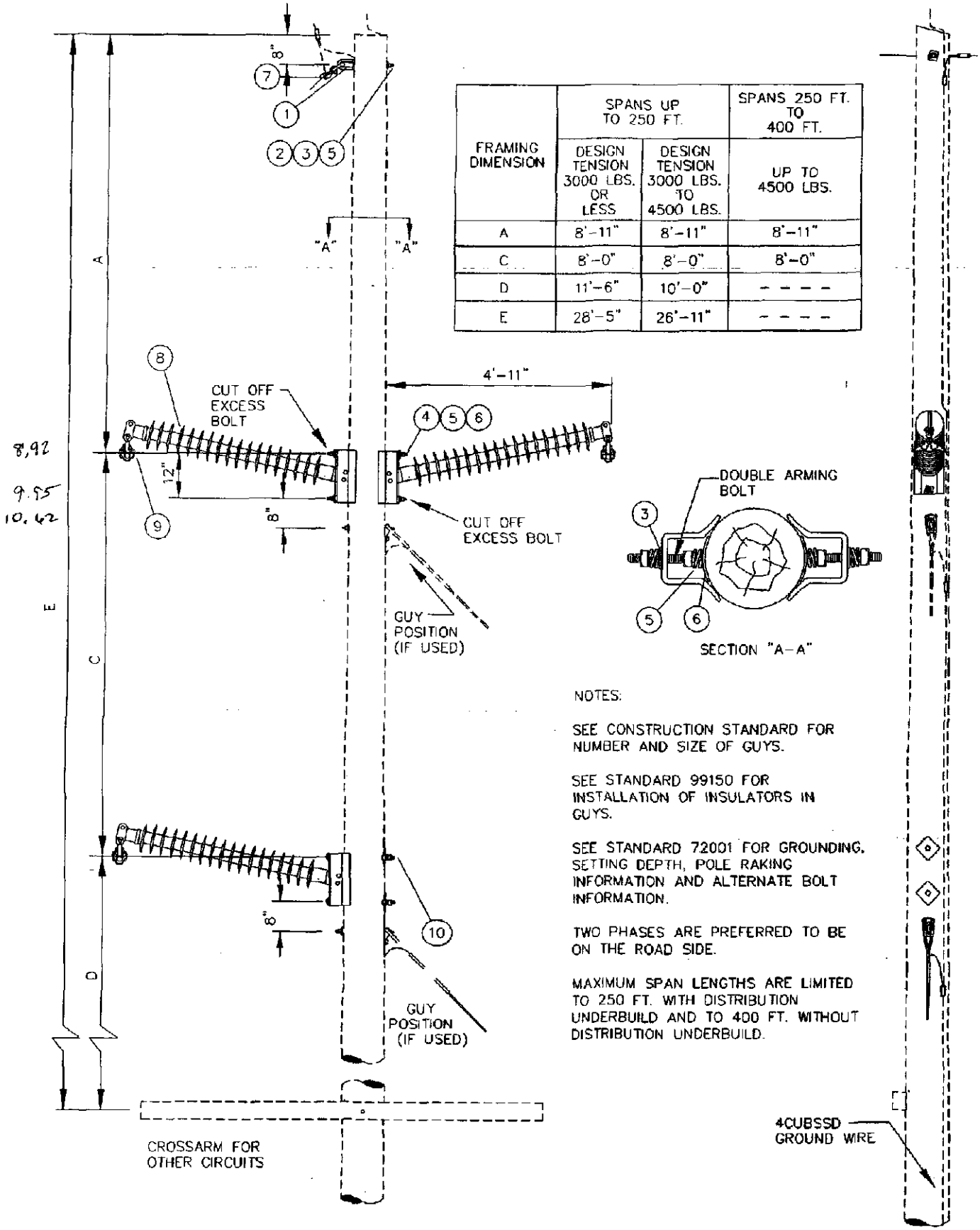
MAXIMUM SPAN LENGTHS ARE LIMITED TO 250 FT. WITH DISTRIBUTION UNDERBUILD AND TO 400 FT. WITHOUT DISTRIBUTION UNDERBUILD.

TWO PHASES ARE PREFERRED TO BE ON ROAD SIDE.

62821.dwg

138kV Overhead Construction Horizontal Post Type Insulators Straight Line And Angles To 16 Degrees

FRAMING DIMENSION	SPANS UP TO 250 FT.		SPANS 250 FT. TO 400 FT.
	DESIGN TENSION 3000 LBS. OR LESS	DESIGN TENSION 3000 LBS. TO 4500 LBS.	UP TO 4500 LBS.
A	8'-11"	8'-11"	8'-11"
C	8'-0"	8'-0"	8'-0"
D	11'-6"	10'-0"	- - - -
E	28'-5"	26'-11"	- - - -



NOTES:

SEE CONSTRUCTION STANDARD FOR NUMBER AND SIZE OF GUYS.

SEE STANDARD 99150 FOR INSTALLATION OF INSULATORS IN GUYS.

SEE STANDARD 72001 FOR GROUNDING, SETTING DEPTH, POLE RAKING INFORMATION AND ALTERNATE BOLT INFORMATION.

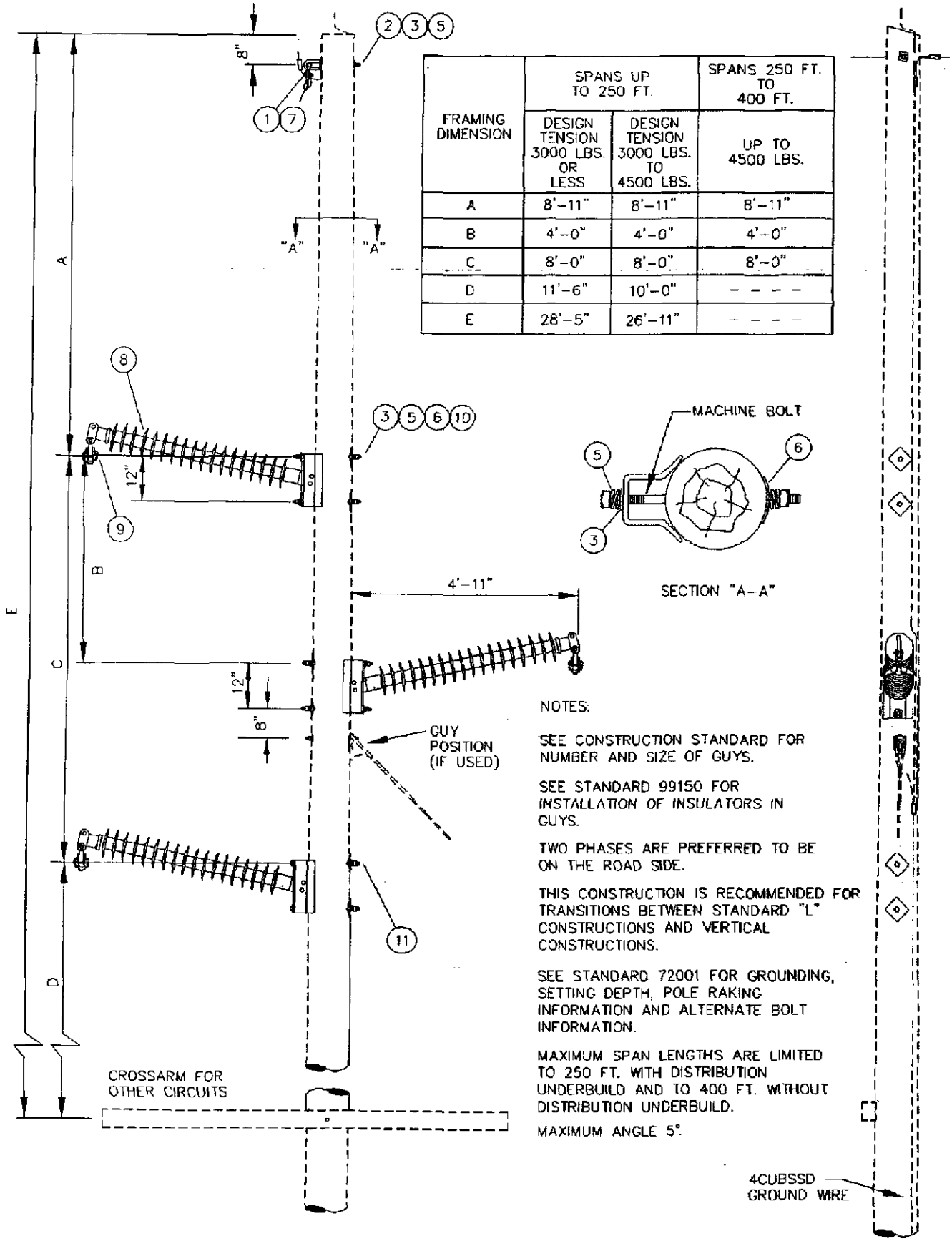
TWO PHASES ARE PREFERRED TO BE ON THE ROAD SIDE.

MAXIMUM SPAN LENGTHS ARE LIMITED TO 250 FT. WITH DISTRIBUTION UNDERBUILD AND TO 400 FT. WITHOUT DISTRIBUTION UNDERBUILD.

62822.dwg

138kV Overhead Construction Horizontal Post Type Insulators Transitions From Straight Line And Angles To Vertical Construction

FRAMING DIMENSION	SPANS UP TO 250 FT.		SPANS 250 FT. TO 400 FT.
	DESIGN TENSION 3000 LBS. OR LESS	DESIGN TENSION 3000 LBS. TO 4500 LBS.	UP TO 4500 LBS.
A	8'-11"	8'-11"	8'-11"
B	4'-0"	4'-0"	4'-0"
C	8'-0"	8'-0"	8'-0"
D	11'-6"	10'-0"	- - - -
E	28'-5"	26'-11"	- - - -



NOTES:

SEE CONSTRUCTION STANDARD FOR NUMBER AND SIZE OF GUYS.

SEE STANDARD 99150 FOR INSTALLATION OF INSULATORS IN GUYS.

TWO PHASES ARE PREFERRED TO BE ON THE ROAD SIDE.

THIS CONSTRUCTION IS RECOMMENDED FOR TRANSITIONS BETWEEN STANDARD "L" CONSTRUCTIONS AND VERTICAL CONSTRUCTIONS.

SEE STANDARD 72001 FOR GROUNDING, SETTING DEPTH, POLE RAKING INFORMATION AND ALTERNATE BOLT INFORMATION.

MAXIMUM SPAN LENGTHS ARE LIMITED TO 250 FT. WITH DISTRIBUTION UNDERBUILD AND TO 400 FT. WITHOUT DISTRIBUTION UNDERBUILD.

MAXIMUM ANGLE 5°.

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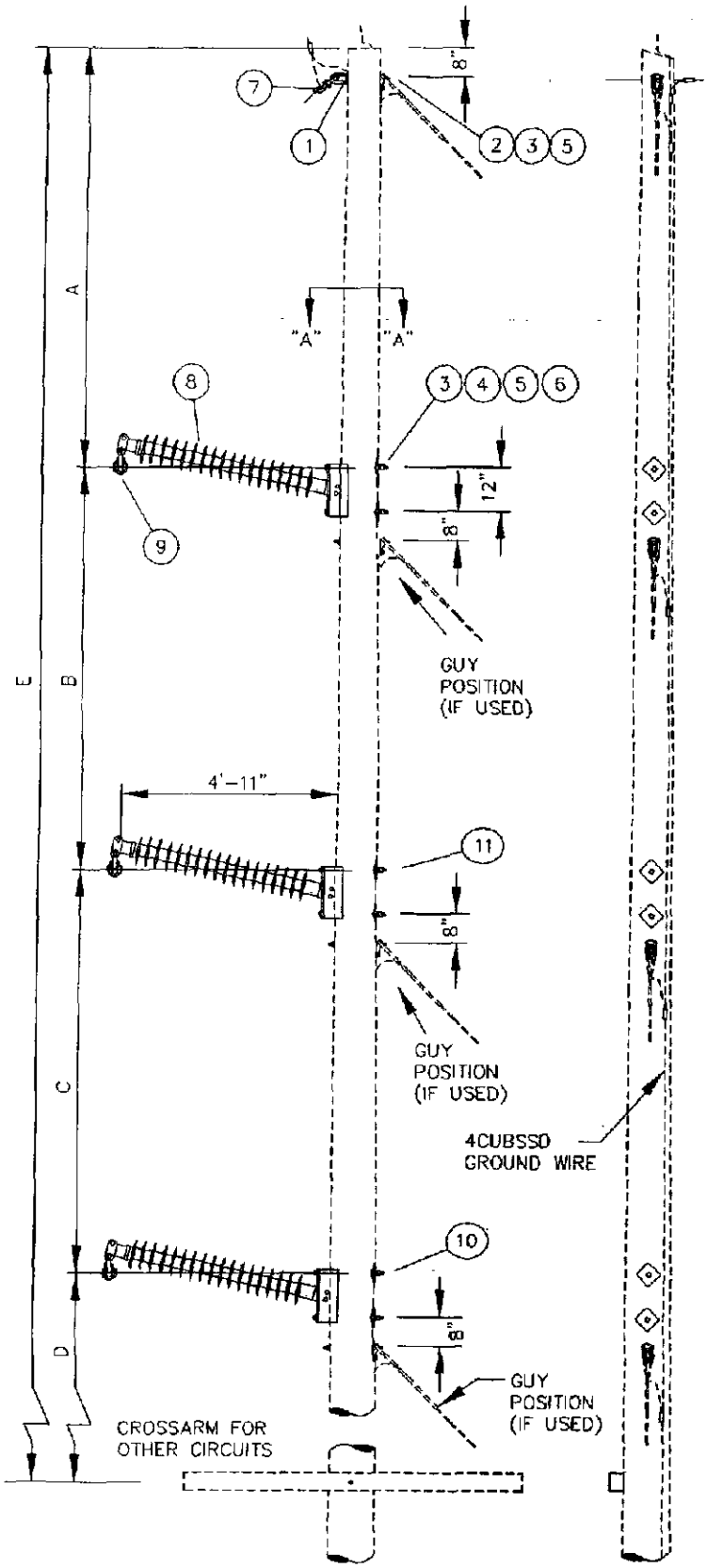
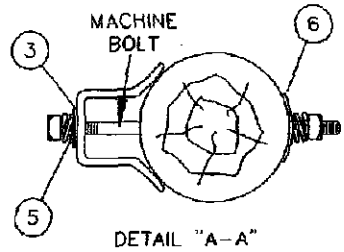
11/09/04

138kV Overhead Construction Horizontal Post Type Insulators Straight Line & Angles To 16 Degrees





DETAIL "A-A"

FRAMING DIMENSION	SPANS UP TO 250 FT.		SPANS 250 FT. TO 400 FT.
	DESIGN TENSION 3000 LBS. OR LESS	DESIGN TENSION 3000 LBS. TO 4500 LBS.	UP TO 4500 LBS.
A	8'-11"	8'-11"	8'-11"
B	8'-0"	8'-0"	8'-0"
C	8'-0"	8'-0"	8'-0"
D	11'-6"	10'-0"	- - - -
E	36'-5"	34'-11"	- - - -

NOTES:

SEE CONSTRUCTION STANDARD FOR NUMBER AND SIZE OF GUYS.

SEE STANDARD 99150 FOR INSTALLATION OF INSULATORS IN GUYS.

SEE STANDARD 72001 FOR GROUNDING, SETTING DEPTH, POLE RAKING INFORMATION AND ALTERNATE BOLT INFORMATION.

MAXIMUM SPAN LENGTHS ARE LIMITED TO 250 FT. WITH DISTRIBUTION UNDERBUILD AND TO 400 FT. WITHOUT DISTRIBUTION UNDERBUILD.

PHASES ARE PREFERRED TO BE ON THE ROAD SIDE OF THE POLE WHERE POSSIBLE. ANGLES SHOULD ALWAYS BREAK AWAY FROM THE POLE.

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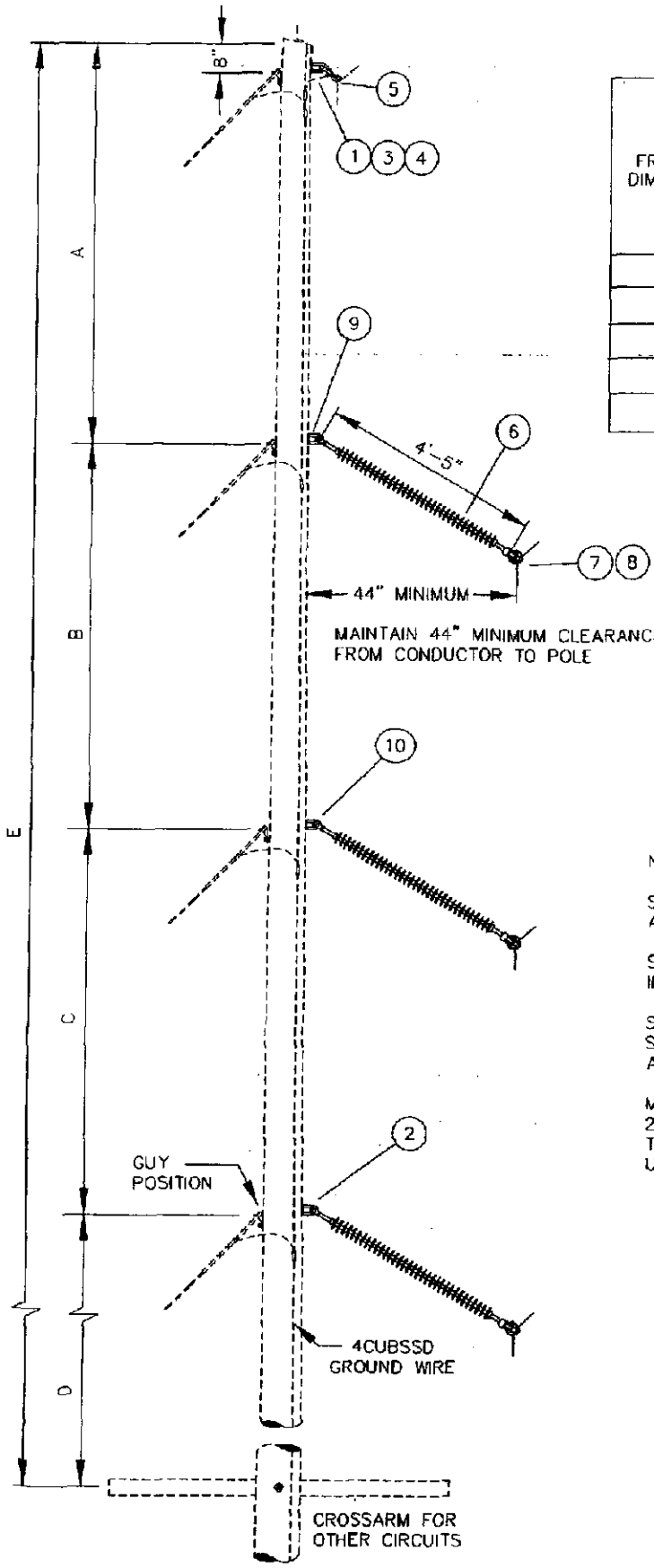
62830

138kV Overhead Construction For Line Angles 17 to 60 Degrees



FRAMING DIMENSION	SPANS UP TO 250 FT.		SPANS 250 FT. TO 400 FT.
	DESIGN TENSION 3000 LBS. OR LESS	DESIGN TENSION 3000 LBS. TO 4500 LBS.	UP TO 4500 LBS.
A	8'-11"	8'-11"	8'-11"
B	8'-0"	8'-0"	8'-0"
C	8'-0"	8'-0"	8'-0"
D	14'-0"	12'-6"	- - - -
E	38'-11"	37'-5"	- - - -

NOTES:

SEE CONSTRUCTION STANDARD FOR NUMBER AND SIZE OF GUYS.

SEE STANDARD 99150 FOR INSTALLATION OF INSULATORS IN GUYS.

SEE STANDARD 72001 FOR GROUNDING, SETTING DEPTH, POLE RAKING INFORMATION AND ALTERNATE BOLT INFORMATION.

MAXIMUM SPAN LENGTHS ARE LIMITED TO 250 FT. WITH DISTRIBUTION UNDERBUILD AND TO 400 FT. WITHOUT DISTRIBUTION UNDERBUILD.

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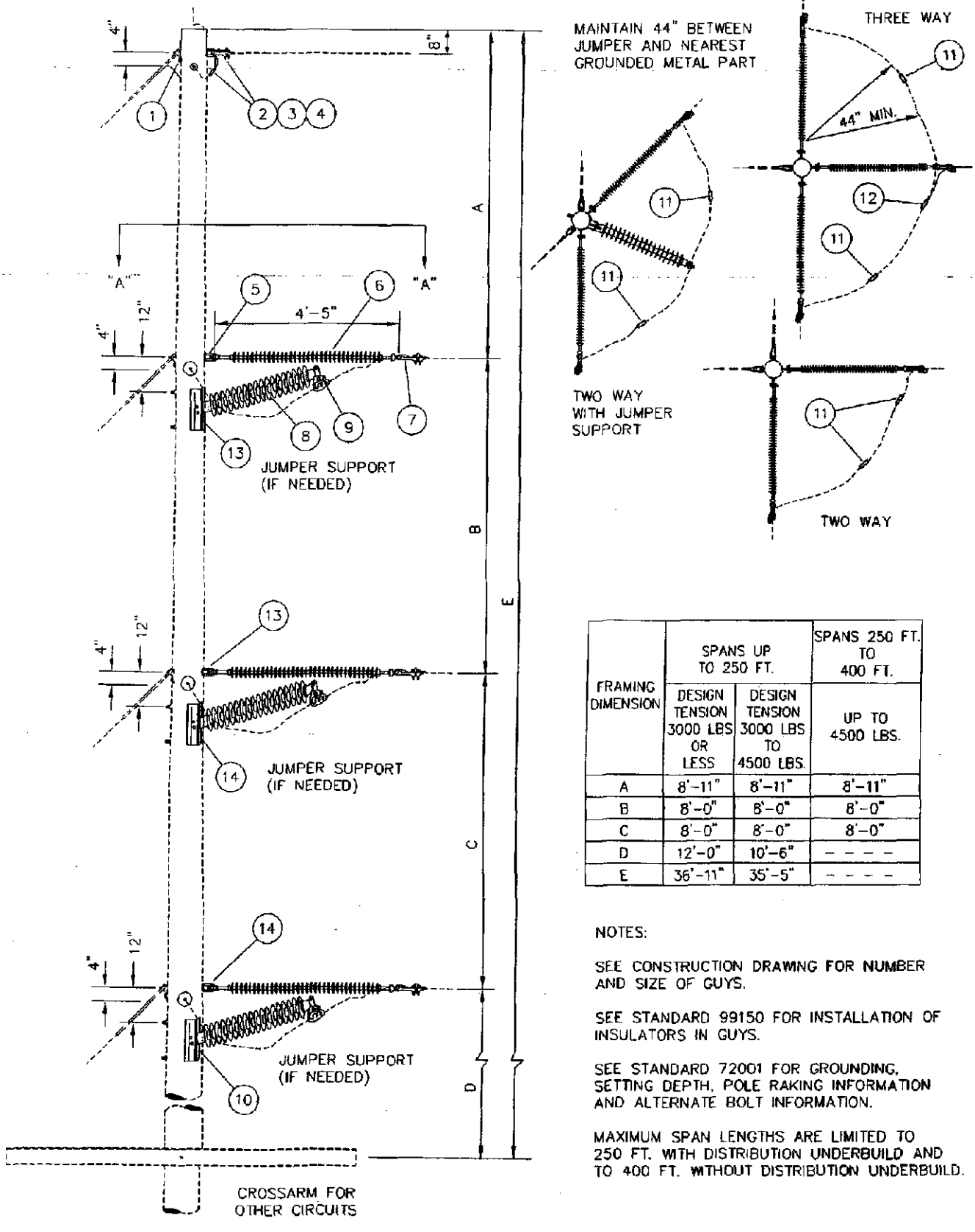
62840

138kV Overhead Construction Two And Three Way Deadend



FRAMING DIMENSION	SPANS UP TO 250 FT.		SPANS 250 FT. TO 400 FT.
	DESIGN TENSION 3000 LBS OR LESS	DESIGN TENSION 3000 LBS TO 4500 LBS.	UP TO 4500 LBS.
A	8'-11"	8'-11"	8'-11"
B	8'-0"	8'-0"	8'-0"
C	8'-0"	8'-0"	8'-0"
D	12'-0"	10'-6"	- - - -
E	36'-11"	35'-5"	- - - -

NOTES:

SEE CONSTRUCTION DRAWING FOR NUMBER AND SIZE OF GUYS.

SEE STANDARD 99150 FOR INSTALLATION OF INSULATORS IN GUYS.

SEE STANDARD 72001 FOR GROUNDING, SETTING DEPTH, POLE RAKING INFORMATION AND ALTERNATE BOLT INFORMATION.

MAXIMUM SPAN LENGTHS ARE LIMITED TO 250 FT. WITH DISTRIBUTION UNDERBUILD AND TO 400 FT. WITHOUT DISTRIBUTION UNDERBUILD.

std62840.dwg

APPENDIX B

LETTERS TO OFFICIALS

DUKE ENERGY CORPORATION
139 East Fourth St.
PO Box 960
Cincinnati, OH 45201-0960

November 19, 2008

Natural Resources Management
Room EX552
139 East Fourth Street
Cincinnati, Ohio 45202

Mr. C. Michael Kilburn, Commissioner
Warren County Commissioner Administration Building
406 Justice Dr.
Lebanon, Ohio 45036

Dear Mr. Kilburn:

RE: Line F5680 138 kV Electric Transmission Line Loop through Nickel Substation

Please find enclosed a copy of a letter of Notification that Duke Energy Ohio sent to the Ohio Power Siting Board regarding a planned new 138 kV transmission line loop to connect Duke Energy Ohio's existing F5680 138 kV transmission line to Nickel Substation, currently under construction and required for the Vandercar Holdings Inc. Corridor 75 Park.

In accordance with Ohio Administrative Code (OAC) 4906-1-01 Appendix A, we are required to prepare this Letter of Notification for the Ohio Power Siting Board and in compliance with OAC 4906-11-02(B), we are hereby providing you with a copy. Please feel free to call me at (513) 287-2379 if you have any questions about this project.

Sincerely,
Duke Energy

Stephen R. Lane
Environmental Scientist

Enclosure

Cc Mr. James VanDeGrift, Turtle Creek Township Trustees
Mayor Robert Routson, City of Monroe
Public Utilities Commission of Ohio

DUKE ENERGY CORPORATION
139 East Fourth St.
PO Box 960
Cincinnati, OH 45201-0960

November 19, 2008

Natural Resources Management
Room EX552
139 East Fourth Street
Cincinnati, Ohio 45202

Mr. James VanDeGrift, Trustee
Turtle Creek Township Trustees
670 N. State Route 123
Lebanon, OH 45036

Dear Mr. VanDeGrift:

RE: Line F5680 138 kV Electric Transmission Line Loop through Nickel Substation

Please find enclosed a copy of a letter of Notification that Duke Energy Ohio sent to the Ohio Power Siting Board regarding a planned new 138 kV transmission line loop to connect Duke Energy Ohio's existing F5680 138 kV transmission line to Nickel Substation, currently under construction and required for the Vandercar Holdings Inc. Corridor 75 Park.

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Sincerely,
Duke Energy

Stephen R. Lane
Environmental Scientist

Enclosure

Cc Mr. C. Michael Kilburn, Warren County Board of Commissioners
Mayor Robert Routson, City of Monroe
Public Utilities Commission of Ohio

DUKE ENERGY CORPORATION
139 East Fourth St.
PO Box 960
Cincinnati, OH 45201-0960

November 19, 2008

Natural Resources Management
Room EX552
139 East Fourth Street
Cincinnati, Ohio 45202

Mayor Robert Routson
City of Monroe
233 South Main Street,
Monroe, Ohio 45050

Dear Mayor Routson:

RE: Line F5680 138 kV Electric Transmission Line Loop through Nickel Substation

Please find enclosed a copy of a letter of Notification that Duke Energy Ohio sent to the Ohio Power Siting Board regarding a planned new 138 kV transmission line loop to connect Duke Energy Ohio's existing F5680 138 kV transmission line to Nickel Substation, currently under construction and required for the Vandercar Holdings Inc. Corridor 75 Park.

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Sincerely,
Duke Energy

Stephen R. Lane
Environmental Scientist

Enclosure

Cc Mr. C. Michael Kilburn, Warren County Board of Commissioners
Mr. James VanDeGrift, Turtle Creek Township Trustees
Public Utilities Commission of Ohio