

PROJECT SPECIFIC TECHNICAL SPECIFICATIONS
FOR THE PURCHASE OF
STEEL TRANSMISSION POLES FOR THE CIRCUIT 830
STRUCTURES #30 - #32 AND #42 - #44 REPLACEMENT

JEA PROJECT NO: 8006170
TR NO: TR 1354
REQUESTED BY: Jonathan Maywood
UPDATED: 12-5-2019

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1. SCOPE

- 1.1 This specification outlines the required information needed for the purchase, fabrication, and delivery of steel transmission poles for the Circuit 830 Structures #30 - #32 and #42 - #44 Replacement project. This specification complements the "General Technical Specifications for the Purchase of Steel Transmission Poles", Rev 1.3.
- 1.2 This specification includes the following attachments:
 - a) Pole Drawings, containing the configuration and hole drilling details of the pole(s)
 - b) Pole Attachment Details
 - c) PLS-POLE backup file(s) for the pole(s), containing loading data and geometry
- 1.3 The Project Engineer (JEA) for this purchase is:

Jonathan Maywood
21 West Church Street, T-09
Jacksonville, FL, 32202
Office: (904) 665-8512
Cell: (310) 892-0870
Email: maywjw2@jea.com

2. DESIGN

Structures shall be designed for the configuration, drilling details, loadings and limitations contained in these and the "General Technical Specifications for the Purchase of Steel Transmission Poles", Rev 1.3.

- 2.1 Pole Configuration: The configuration of each pole to be provided is shown in the "Pole Drawings" attachment of these specifications. The Drawings specify the dimensions of the poles, the orientation, drilling details, and attachment locations for insulators, brackets, vangs, etc.
- 2.2 Pole Attachment Details: Details of all attachments are shown in the "Attachment Details" attachment of these specifications. These details illustrate and identify required dimensions on all the insulator attachments, brackets, and vangs that are to be provided with each pole. Attachments that support any equipment if any (transformers, streetlights, etc. modeled in PLS-POLE) need to be analyzed to determine if they can withstand the dead loads of that equipment. It is the responsibility of the fabricator to ensure that the attachments are fabricated and can withstand the loads placed on them as specified in these specifications and attachments.
- 2.3 Pole Load Data: All of the loading data for which the poles are to be designed to are included as a separate electronic attachment in the form of a PLS-POLE backup file. At the least, all the poles are all being subjected to a NESC Light 60 mph wind loading, NESC Extreme 120 mph wind loading, NESC Blow Out 6PSF loading, and 60 Degree loading criteria plus applicable load factors. Load criteria is being applied from multiple directions. Additional load cases are shown in the files as needed for some dead-end poles. These loads are described in more detail in section 2.6 below.

- 2.3.1 There are four (4) PLS-POLE models with four (4) .lca files provided as described below. There are a total of six (6) poles being purchased:
- a) One (1) PLS-POLE backup files provided for structure #30
 - b) One (1) PLS-POLE backup file for structures #31
 - c) One (1) PLS-POLE backup file for structure #32
 - d) One (1) PLS-POLE backup file for structures #42, 43, and 44 (poles are identical)
- 2.3.2 Each PLS-POLE backup file references a Vector Loads File (.lca) which contains all the loading data on the pole and the pole attachments.
- 2.3.3 The PLS-POLE backup file also contains all the geometrical data necessary to analyze the pole with the specific loads.
- 2.3.4 The loads shown in the Vector Loads files (.lca) include the wind loads acting on the conductors/wires, attachments, and the theoretical pole that was modeled. A wind pressure is identified for each load case within the Vector Loads file (.lca). It is the manufacturer's responsibility to apply these wind pressures onto the poles and components that it will be providing.

2.4 Pre-cambering: Pole pre-cambering is not allowed on this project.

2.5 Joints: Steel pole sections shall be designed by the slip-joint method and/or bolted flange method. It is up to the manufacturer to decide the most appropriate joining method based on the loads provided.

2.6 Deflection: All Poles shall be designed to meet the deflection limits as identified in the load (.lca) files found within the PLS-POLE models. In general, poles shall meet the deflection limits for the "NESC LIGHT 250 B", "NESC EXTREME 250 C", "NESC BLOW OUT 6 PSF", and "60 DEG F" loading conditions. When applicable (as identified in the .lca files), poles shall also meet the deflection limits of the loading conditions as described in the sections below. These load conditions are identified under the "Load Case Description" column of each pole's .lca file. On all poles, loads are provided from multiple directions including loads that result with positive offset (NA+), negative offset (NA-), and maximum structure usage (MAX). The loading condition name will be followed by a comma and a wind load direction. For example, a load case description by the name of "NESC LIGHT 250B, U NA+" identifies that this is a NESC Light 250 B loading criteria with wind normal to all spans/ structure in direction of positive offset. The deflection limits are as described below:

2.6.1 **The "60 DEG F" loading condition:** The "60 DEG F" loading condition is at final wire tension, at 60 degrees Fahrenheit, with no wind, and no Over Load Factors (OLF). The pole shaft shall have a calculated deflection at the pole tip that does not exceed **one (1) %** of the pole height above ground under this loading condition.

2.6.2 **The "60 DEG F (BROKEN DISTRIBUTION)" loading condition:** Structure #31 has several "broken distribution" loading conditions. These conditions represent the lack of tension on one side (or multiple sides) of the dead-end distribution attachments on the pole. The "60 DEG F (BROKEN DISTRIBUTION)" loading condition is at final wire tension, at 60 degrees Fahrenheit, with no wind, no OLF, and with the absence of tension on a pre-determined side of the pole. The pole shaft shall have a calculated

deflection at the pole tip that does not exceed **one (1) %** of the pole height above ground under this loading condition.

- 2.6.3 **The “NESC BLOW OUT 6 PSF” loading condition:** The “NESC BLOW OUT 6 PSF” loading condition is at final wire tension, at 60 degrees Fahrenheit, with a 6psf wind, and no OLF. The pole shaft shall have a calculated deflection at the pole tip that does not exceed **two (2) %** of the pole height above ground under this loading condition.
- 2.6.4 **The “NESC BLOW OUT 6PSF (BROKEN DISTRIBUTION)” loading condition:** Structure #31 has several “broken distribution” loading conditions. These conditions represent the lack of tension on one side (or multiple sides) of the dead-end distribution attachments on the pole. The “NESC BLOW OUT 6PSF (BROKEN CONDUCTORS)” loading condition is at final wire tension, at 60 degrees Fahrenheit, with a 6psf wind, no OLF, and with the absence of tension on a pre-determined side of the pole. The pole shaft shall have a calculated deflection at the pole tip that does not exceed **two (2) %** of the pole height above ground under this loading condition.
- 2.6.5 **The “NESC LIGHT 250 B” loading condition:** The “NESC LIGHT 250 B” loading condition is at final wire tension, at 30 degrees Fahrenheit, with a 9psf wind, and appropriate OLF. The pole shaft for all poles, with the exception of structure #31, shall have a calculated deflection at the pole tip that does not exceed **eight (8) %** of the pole height above ground under this loading condition. The pole shaft for structure #31 shall have a calculated deflection at the pole tip that does not exceed **six (6) %** of the pole height above ground under this loading condition.
- 2.6.6 **The “NESC EXTREME 250 C” loading condition:** The NESC EXTREME 250 C” loading condition is at final wire tension, at 60 degrees Fahrenheit, with a 120 mph wind, with appropriate OLF. The pole shaft for all poles, with the exception of structure #31, shall have a calculated deflection at the pole tip that does not exceed **eight (8) %** of the pole height above ground under this loading condition. The pole shaft for structure #31 shall have a calculated deflection at the pole tip that does not exceed **six (6) %** of the pole height above ground under this loading condition.

3. DIMENSION RESTRICTIONS

- 3.1 Poles for this project shall be installed either alongside Public Road and CSX Railroad Right-Of-Ways (ROW). Poles shall also be installed in locations with very limited room/access. Poles dimensions shall adhere to very strict restrictions as described in the sections below:
- 3.2 All poles shall be direct embedded steel poles. The pole manufacturer is responsible for designing, manufacturing, and delivering the steel poles to the construction sites.
- 3.3 Top Diameter: The top/tip diameter of all poles must be large enough to allow for the climbing provisions to be installed on four faces of the pole simultaneously without the bail steps touching each other. Please see the “Pole Attachment Details” to locate the “Step Lugs / Clips / Bail Steps attachment details”. **The Bail Steps are 14 inches in width. The poles have to be more than 14 inches in diameter at the locations of the bail steps.** In addition the following minimum and maximum top/tip diameters shall be used for each pole:
- 3.3.1 **STR #31:** The top/tip diameter shall be between fifteen (15) inches and twenty (20) inches.

- 3.3.2 **STR #30, 32, 42, 43, and 44:** The top/tip diameter shall be between fourteen (14) inches and seventeen (17) inches.
- 3.4 **Bottom Diameter:** The minimum base diameters for each pole shall be as follows:
 - 3.4.1 **STR #30, 32, 42, 43, and 44:** The base diameter shall be at least thirty-four (34) inches.
 - 3.4.2 **STR #31:** The base diameter shall be at least thirty-six (36) inches.
- 3.5 **Pole Taper:** The taper for all poles shall be between 0.16 inches/foot and 0.20 inches/foot.
- 3.6 **Steel Pole Shaft Thickness:** The minimum allowed steel thickness for use on any steel pole shafts shall be 0.1875 inches.
- 3.7 **Other restrictions:** To ensure proper alignment of the steel poles, the pole shafts must have some sort of marking that will allow the contractor to align the pole shafts with the poles in the ahead and/or back spans. The marking must be easily identifiable and visible to the contractor. If a weld mark is used, the weld mark must be clearly visible so that it is not confused with a seam weld.

4. POLE ATTACHMENT HARDWARE

- 4.1 The pole manufacturer shall provide all brackets, vangs, step bolts, step clips, step lugs, grounding attachments, and holes on each pole as shown in the "POLE DRAWINGS" and "POLE ATTACHMENT DETAILS" of these specifications.
 - 4.1.1 Bail Steps and their clips (the clips are to be welded to the poles) are required as part of this bid. **A total of three-hundred and thirty (330) bail steps, clips, and cotter pins** are required for this project. The "Pole Drawings" detail the locations of the bail steps/clips. Bail steps shall be provided with cotter pins so that the bail steps can remain secured to the bail clips when installed by the contractor.
- 4.2 Bolts, nuts, washers and other hardware required for attaching insulators, cross-arms, davit arms, transformers, and miscellaneous cables to pole brackets / vangs / holes, will be supplied by JEA and are not to be provided by the manufacturer.
- 4.3 Bolts, nuts, washers and other hardware required for assembling the pole sections together at the splice locations are to be provided by the pole manufacturer.

5. MINIMUM QUALIFICATIONS

- 5.1 See section 2.1 of RFQ 98623: STEEL TRANSMISSION POLES FOR THE CIRCUIT 830 STRUCTURES #30 - #32 AND #42 - #44 REPLACEMENT

6. DELIVERY LOCATION AND DATE

- 6.1 Delivery of all poles and hardware will be to storage areas near the job sites within the JEA service area. The delivery location for structures #30 – #32 will be near 2599 Faye Rd, Jacksonville, FL (the actual poles will be installed alongside Faye Road). The delivery location for structures #42 - #44 will be near 1185 Kraft Rd, Jacksonville, FL 32218 (the actual poles will be installed alongside the CSX Railroad Tracks). Final discretion will be left to the contractor (TBD), who may chose a central delivery location for all structures.

- 6.2 Specific directions for delivery will be provided by the construction contractor. The unloading will be done by the owner's forces and equipment or by a contractor representing the owner. The owner also reserves the right to allow a contractor representing the owner to coordinate delivery with the supplier. The supplier shall allow four (4) hours "turn around" time for unloading each pole. Untimely delivery, either ahead of or behind agreed upon delivery schedules, shall not be a cause for claim to the owner for any costs incurred by the Manufacturer. Freight is to be included in the bid price. **All communications regarding the delivery date/time are to be verified and approved by email with the JEA Project Engineer even if verified and coordinated verbally with the contractor representing JEA. JEA will not be responsible for any extra costs incurred by the manufacturer for delivery that was not approved by the JEA Project Engineer.**

The poles and all associated hardware/attachments for the structures shall be delivered on the following tentative dates:

- Between April 20th and April 22nd, 2020.

Due to unforeseeable delays, the contractor representing owner will update and coordinate new delivery dates with the pole supplier should they change.

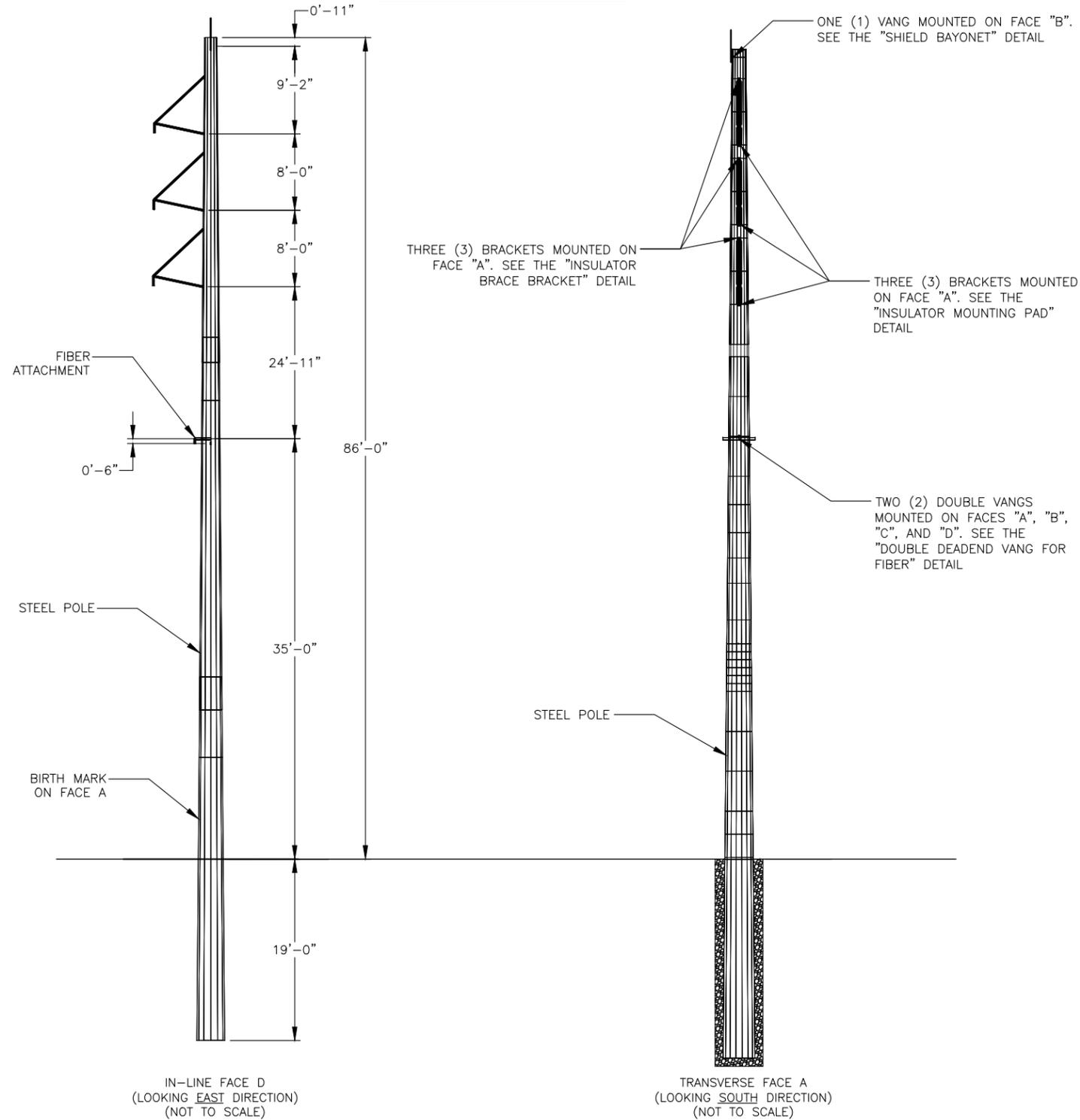
7. POLE DRAWINGS

- 1) Pole Drawings:
Structure Type B1331 – Single Braced Line Post, Un-Guyed, 3-Phase, without Under-Built Distribution
Structure(s) #30
- 2) Pole Drawings:
Structure Type B1331 – Single Braced Line Post, Un-Guyed, 3-Phase, with Under-Built Distribution
Structure(s) #31
- 3) Pole Drawings:
Structure Type B1331 – Single Braced Line Post, Un-Guyed, 3-Phase, without Under-built Distribution
Structure(s) #32
- 4) Pole Drawings:
Structure Type B1331 – Single Braced Line Post, Un-Guyed, 3-Phase, without Under-Built Distribution
Structure(s) #42, 43, and 44

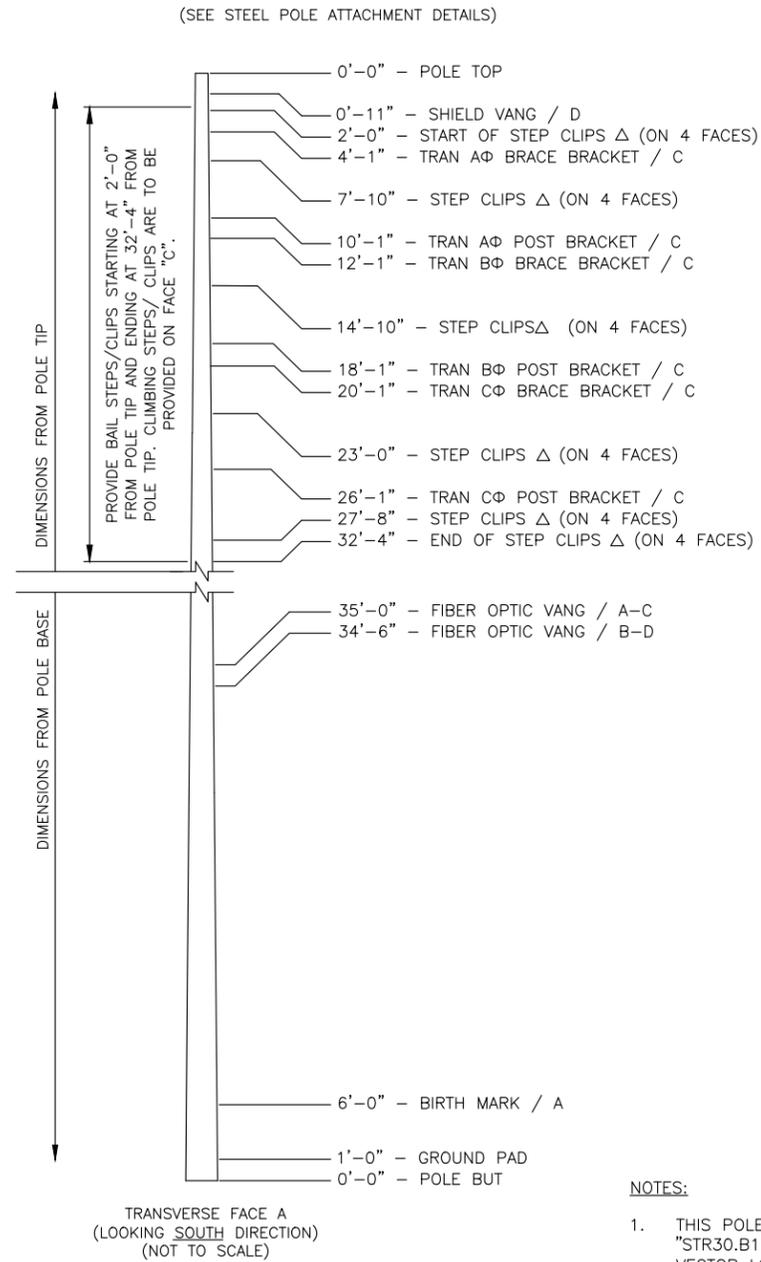
STRUCTURE TYPE

B1331 SINGLE BRACED LINE POST, UN-GUYED, 3-PHASE, WITHOUT UNDER-BUILT DISTRIBUTION STRUCTURES #30

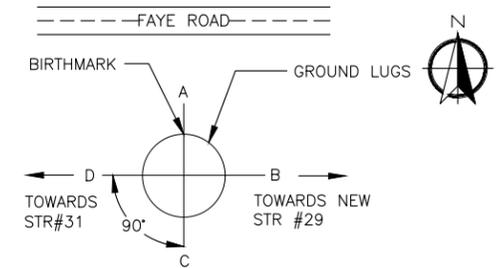
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW



GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	2'-7"	-
TRANS Aφ	11'-1"	-
TRANS Bφ	19'-1"	-
TRANS Cφ	27'-1"	-
FIBER OPTIC	-	34'-0"

NOTES:

- THIS POLE DRAWING IS ACCOMPANIED BY A PLS-POLE BACKUP FILES NAMED "STR30.B1331.BAK", CONTAINING ALL THE LOADS SPECIFIED IN REFERENCED VECTOR LOAD (.LCA) FILES FOR STRUCTURE #30.
- ALL LOADS ARE ULTIMATE LOADS AND INCLUDE APPROPRIATE LOAD FACTORS.
- ALL REFERENCED DETAILS ARE PROVIDED IN THE "PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF STEEL TRANSMISSION POLES FOR "THE CIRCUIT 830 STRUCTURE #30-#32 AND #42-#44 REPLACEMENT". POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TOP BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF STEEL TRANSMISSION POLES, REVISION 1.3, UPDATED ON 12/31/2016.

NO.	REVISION	DATE	BY	CH'D	APP'D	REVISION	DATE	BY	CH'D	APP'D	ENGINEERING RECORD		
											STATUS	BY	DATE
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											DESIGNED	SMC	10/22/19
											DRAWN	JWM	12/4/19
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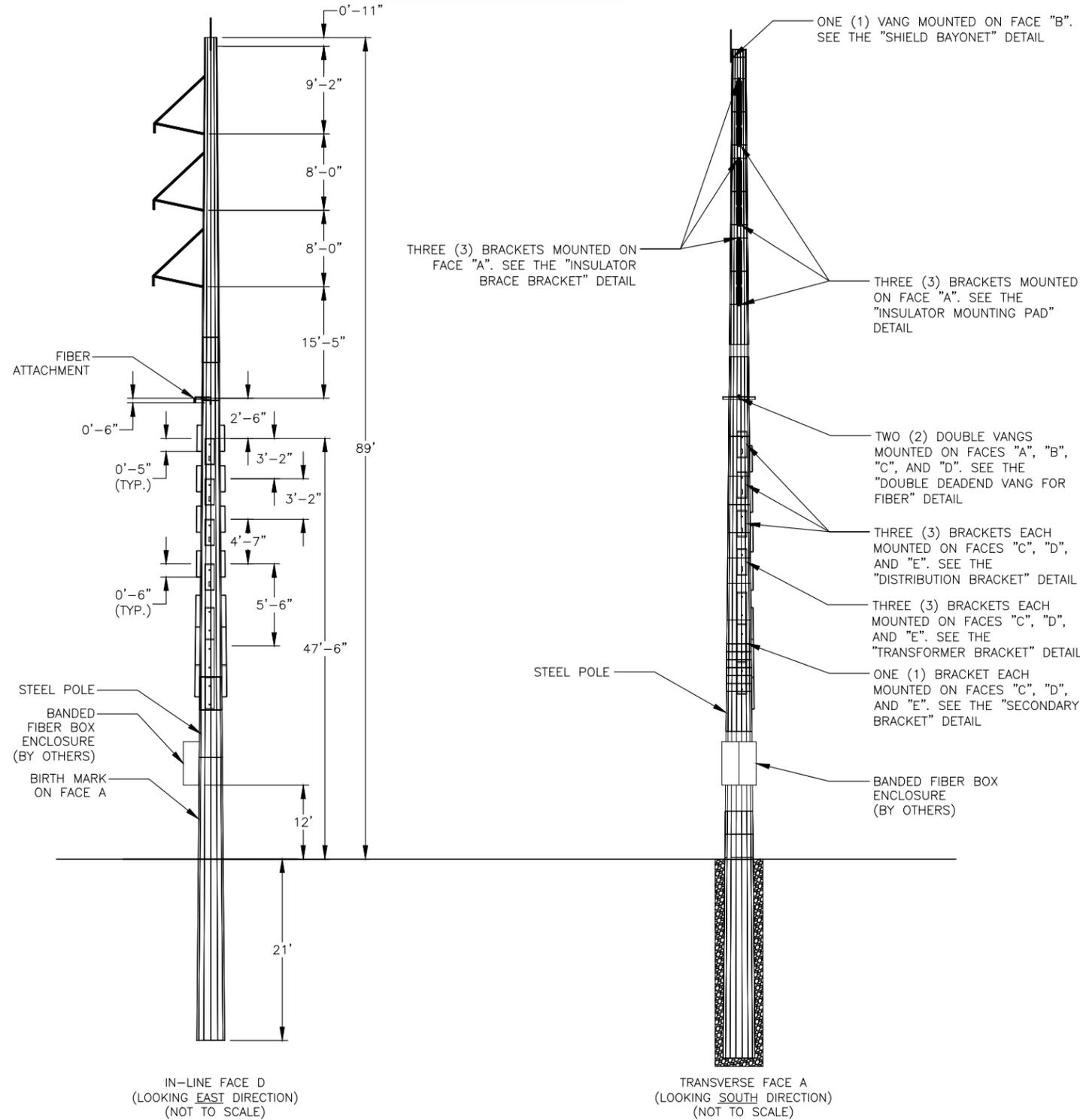


STR #30 DRAWING FOR THE STEEL POLES FOR CIRCUIT 830 STRUCTURES #30-#32 AND #42-#44 REPLACEMENT		PROJECT NO. 8006170
		DRAWING NO. TR 1354 SP
		SHEET NO. 1 OF 4
SCALE: N/A	PROJECT DESIGN SEGMENT 20410	

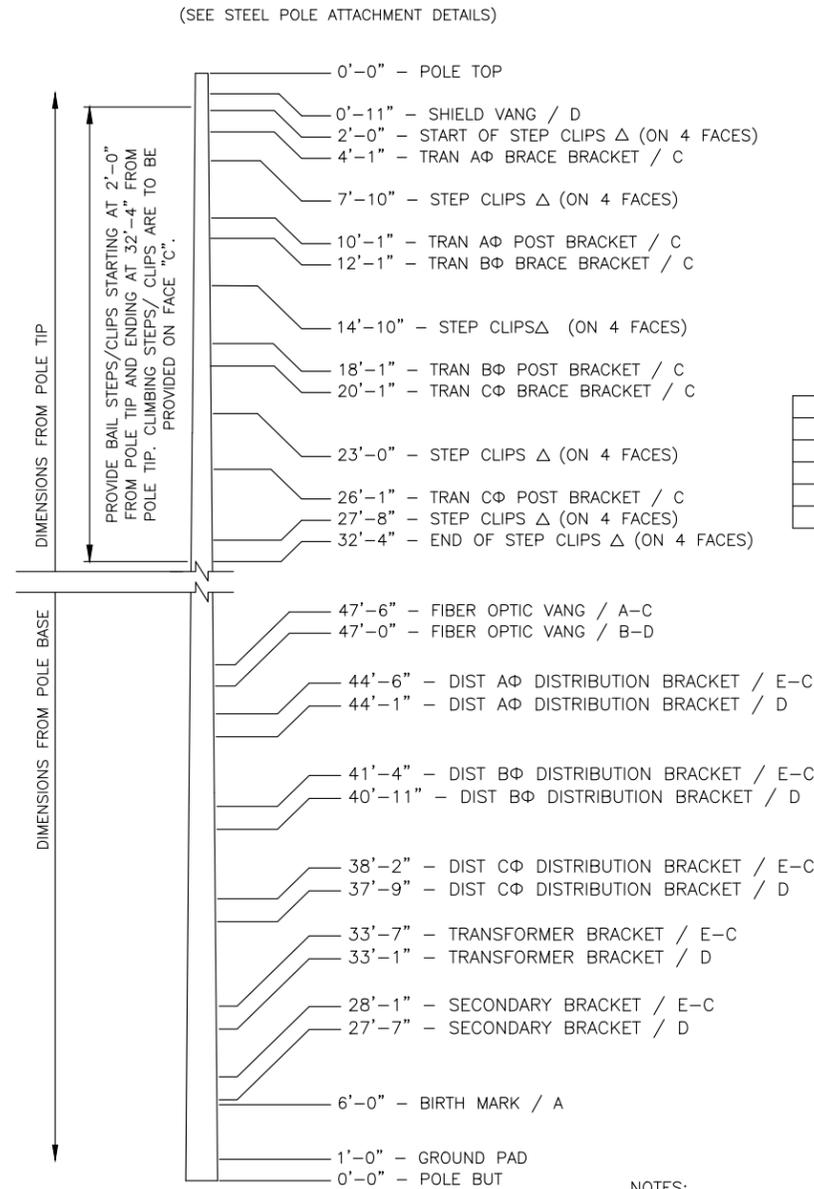
STRUCTURE TYPE

B1331 SINGLE BRACED LINE POST, UN-GUYED, 3-PHASE, WITH UNDER-BUILT DISTRIBUTION STRUCTURES #31

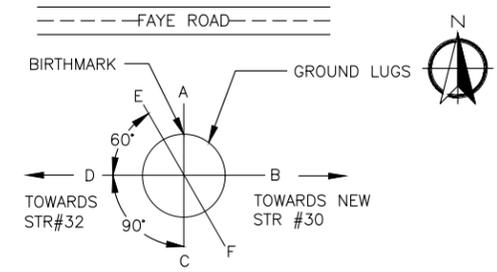
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW



GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	2'-7"	-
TRANS AΦ	11'-1"	-
TRANS BΦ	19'-1"	-
TRANS CΦ	27'-1"	-
FIBER OPTIC	-	46'-6"

NOTES:

- THIS POLE DRAWING IS ACCOMPANIED BY A PLS-POLE BACKUP FILES NAMED "STR31.B1331.BAK", CONTAINING ALL THE LOADS SPECIFIED IN REFERENCED VECTOR LOAD (.LCA) FILES FOR STRUCTURE #31.
- ALL LOADS ARE ULTIMATE LOADS AND INCLUDE APPROPRIATE LOAD FACTORS.
- ALL REFERENCED DETAILS ARE PROVIDED IN THE "PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF STEEL TRANSMISSION POLES FOR "THE CIRCUIT 830 STRUCTURE #30-#32 AND #42-#44 REPLACEMENT". POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TOP BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF STEEL TRANSMISSION POLES, REVISION 1.3, UPDATED ON 12/31/2016.

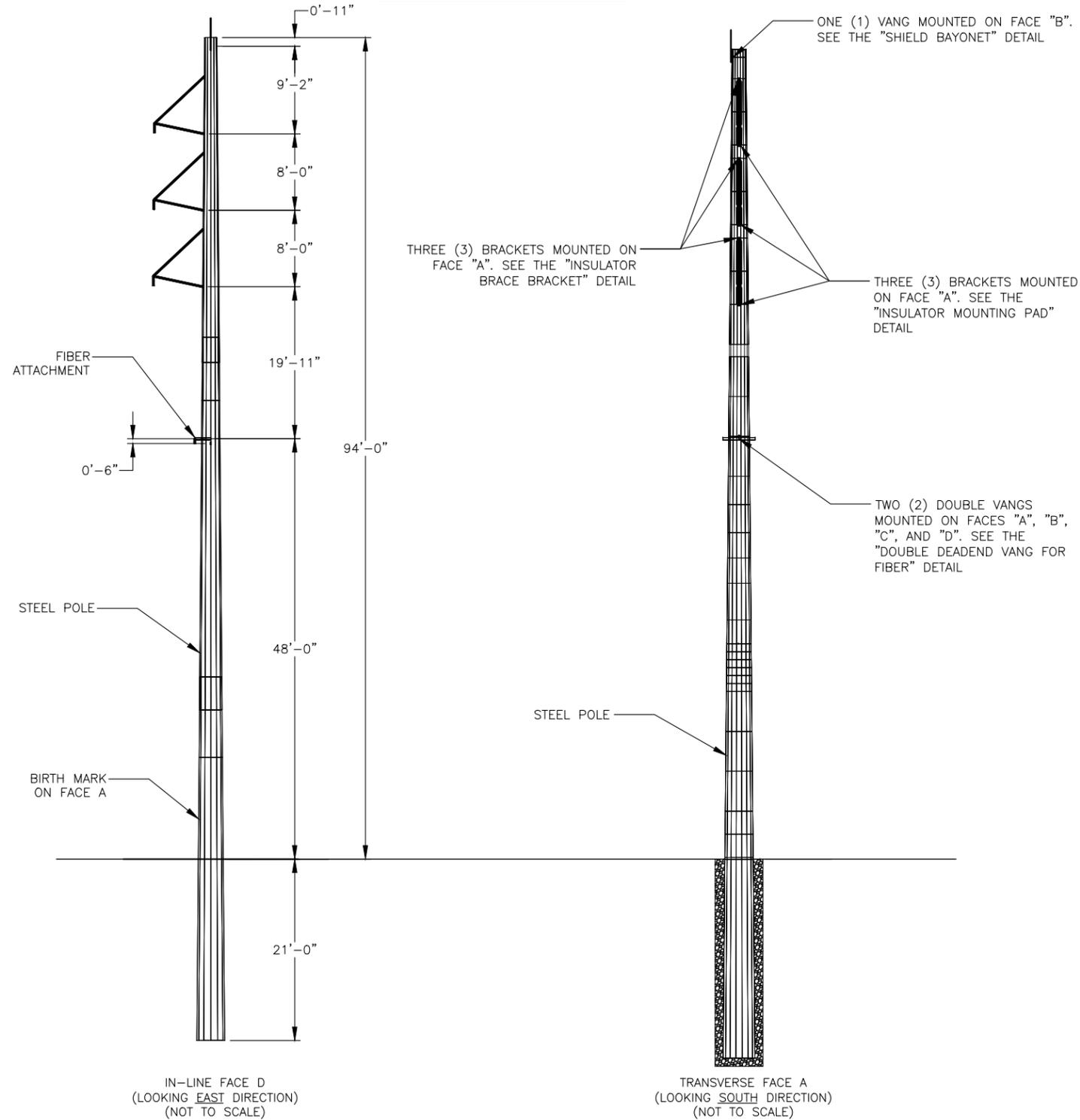
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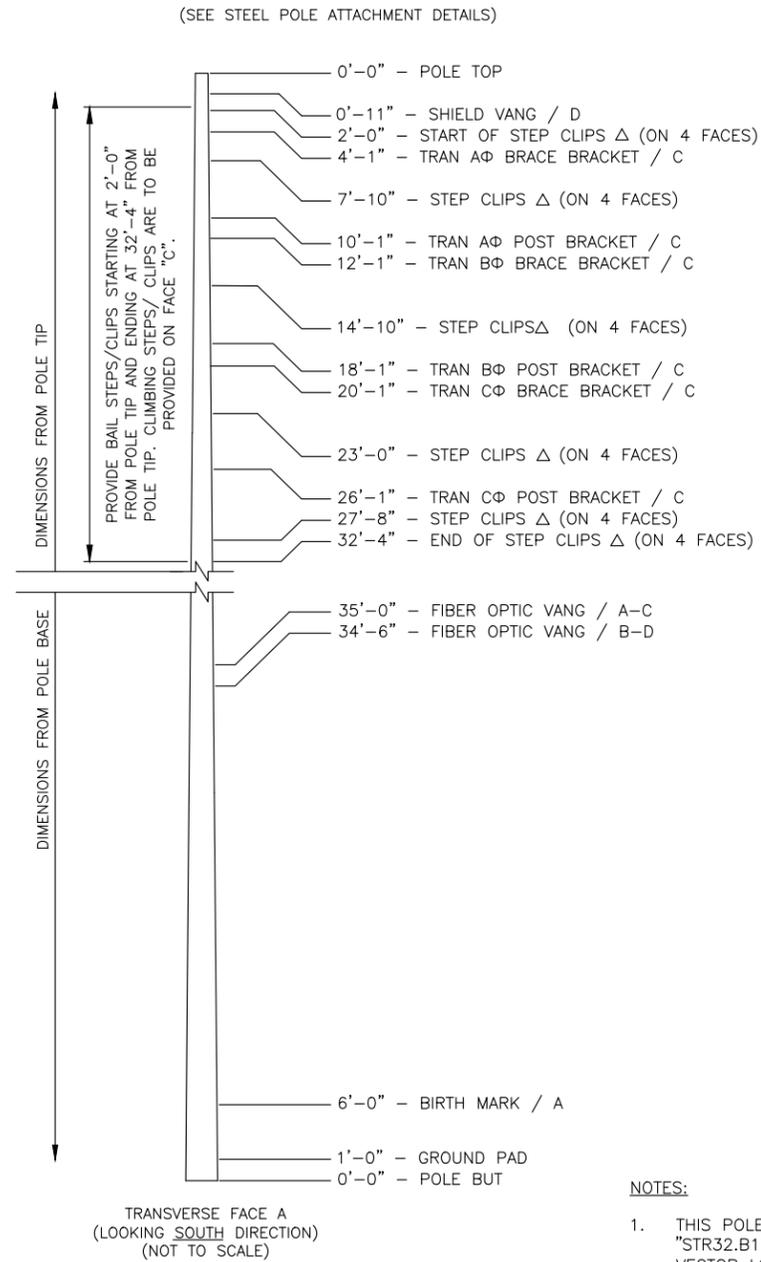
STRUCTURE TYPE

B1331 SINGLE BRACED LINE POST, UN-GUYED, 3-PHASE, WITHOUT UNDER-BUILT DISTRIBUTION STRUCTURES #32

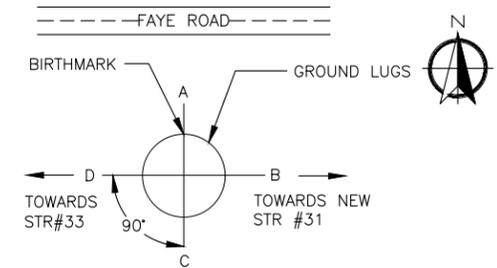
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW



GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	2'-7"	-
TRANS AΦ	11'-1"	-
TRANS BΦ	19'-1"	-
TRANS CΦ	27'-1"	-
FIBER OPTIC	-	34'-0"

NOTES:

- THIS POLE DRAWING IS ACCOMPANIED BY A PLS-POLE BACKUP FILES NAMED "STR32.B1331.BAK", CONTAINING ALL THE LOADS SPECIFIED IN REFERENCED VECTOR LOAD (.LCA) FILES FOR STRUCTURE #32.
- ALL LOADS ARE ULTIMATE LOADS AND INCLUDE APPROPRIATE LOAD FACTORS.
- ALL REFERENCED DETAILS ARE PROVIDED IN THE "PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF STEEL TRANSMISSION POLES FOR "THE CIRCUIT 830 STRUCTURE #30-#32 AND #42-#44 REPLACEMENT". POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TOP BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF STEEL TRANSMISSION POLES, REVISION 1.3, UPDATED ON 12/31/2016.

NO.	REVISION	DATE	BY	CH'D	APP'D	REVISION	DATE	BY	CH'D	APP'D	ENGINEERING RECORD		
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											ASSIGNED	PLAN	10/1/19
											DESIGNED	SMC	10/22/19
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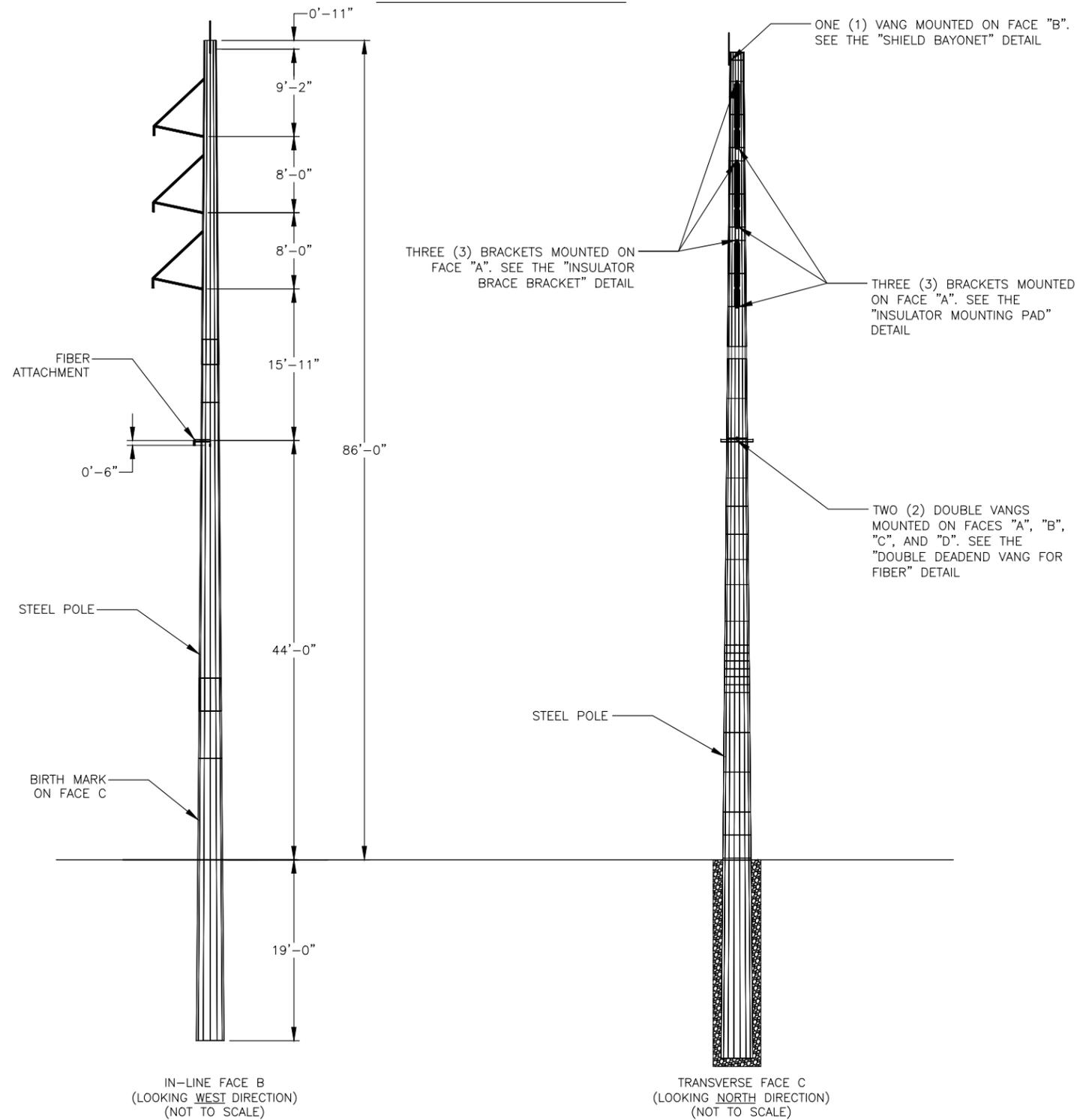


STR #32 DRAWING FOR THE STEEL POLES FOR CIRCUIT 830 STRUCTURES #30-#32 AND #42-#44 REPLACEMENT		PROJECT NO. 8006170
		DRAWING NO. TR 1354 SP
		SHEET NO. 3 OF 4
SCALE: N/A	PROJECT DESIGN SEGMENT 20410	

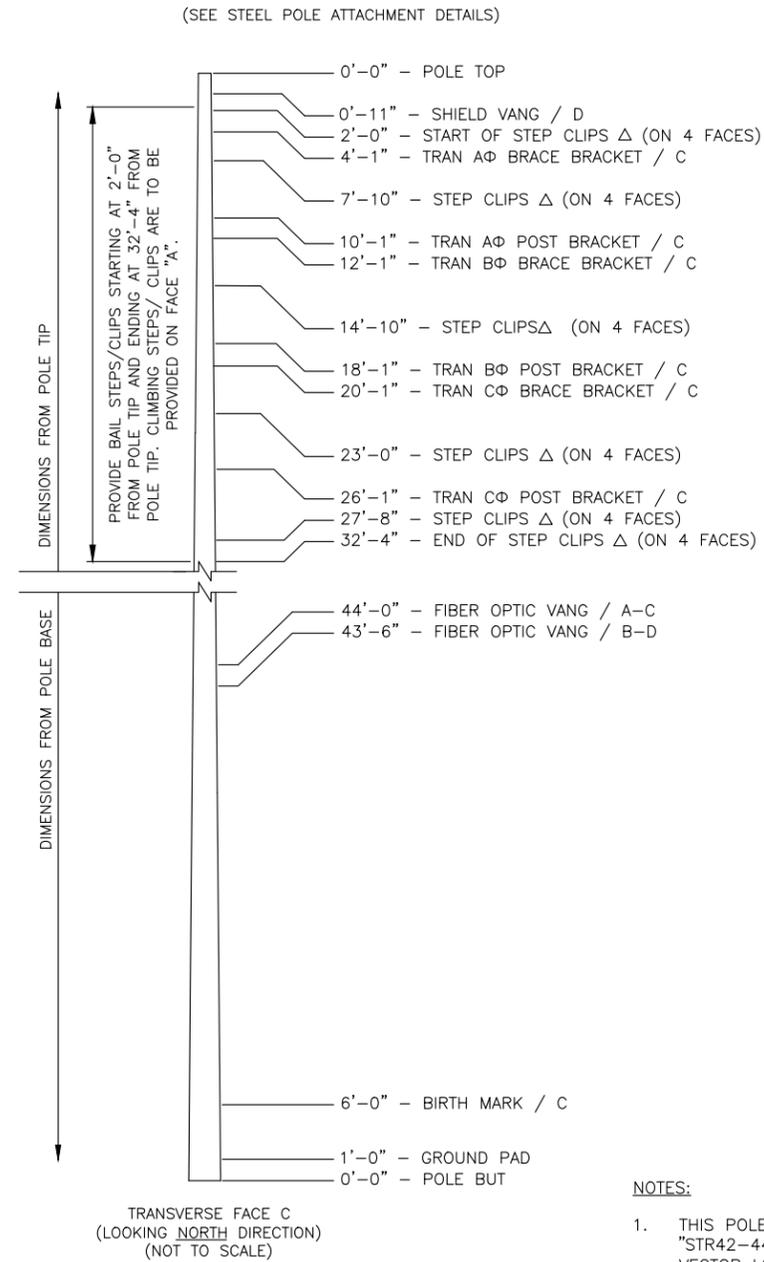
STRUCTURE TYPE

B1331 SINGLE BRACED LINE POST, UN-GUYED, 3-PHASE, WITHOUT UNDER-BUILT DISTRIBUTION STRUCTURES #42 - #44

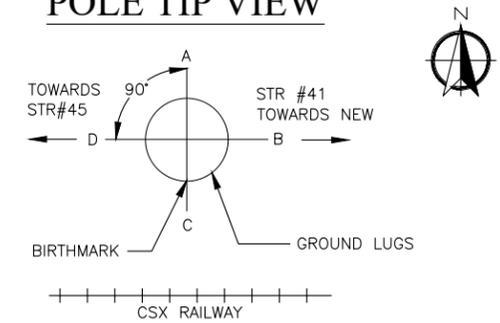
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW



GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	2'-7"	-
TRANS AΦ	11'-1"	-
TRANS BΦ	19'-1"	-
TRANS CΦ	27'-1"	-
FIBER OPTIC	-	43'-0"

NOTES:

- THIS POLE DRAWING IS ACCOMPANIED BY A PLS-POLE BACKUP FILES NAMED "STR42-44.B1331.BAK", CONTAINING ALL THE LOADS SPECIFIED IN REFERENCED VECTOR LOAD (.LCA) FILES FOR STRUCTURE #42, #43, AND #44
- ALL LOADS ARE ULTIMATE LOADS AND INCLUDE APPROPRIATE LOAD FACTORS.
- ALL REFERENCED DETAILS ARE PROVIDED IN THE "PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF STEEL TRANSMISSION POLES FOR "THE CIRCUIT 830 STRUCTURE #30-#32 AND #42-#44 REPLACEMENT". POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TOP BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF STEEL TRANSMISSION POLES, REVISION 1.3, UPDATED ON 12/31/2016.

NO.	REVISION	DATE	BY	CH'D	APP'D	REVISION	DATE	BY	CH'D	APP'D	ENGINEERING RECORD		
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											ASSIGNED	PLAN	10/1/19
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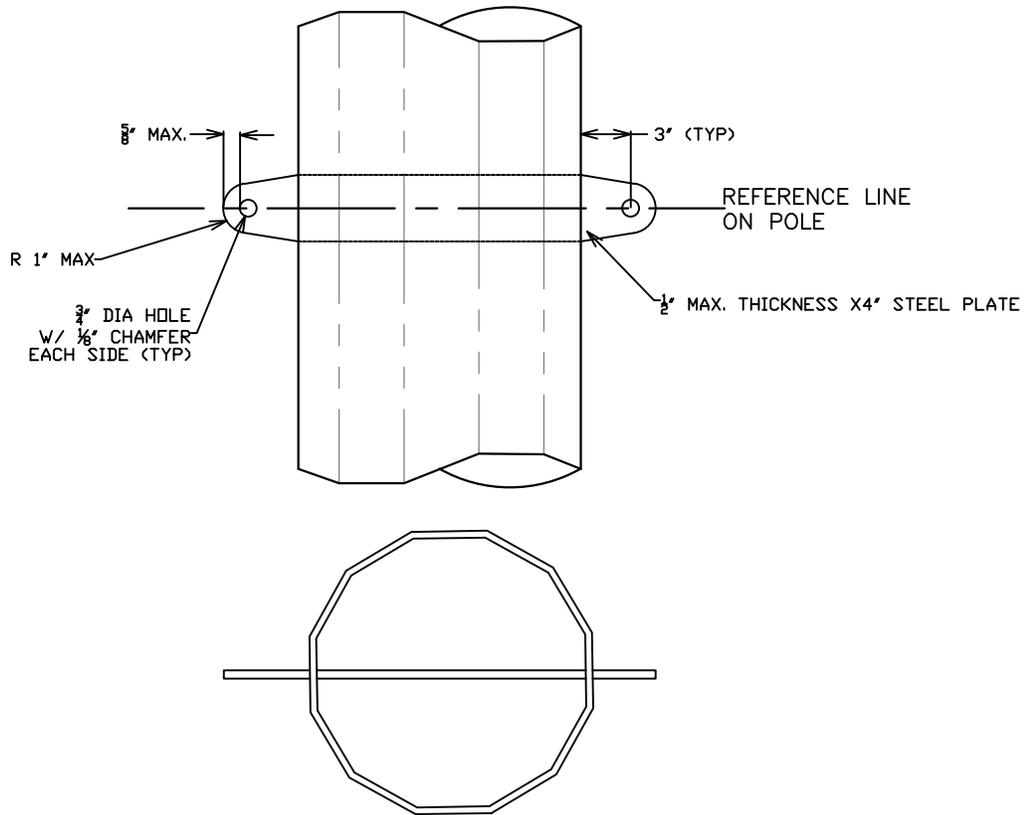
STR #42 - #44 DRAWINGS FOR THE STEEL POLES FOR CIRCUIT 830 STRUCTURES #30-#32 AND #42-#44 REPLACEMENT		PROJECT NO. 8006170
		DRAWING NO. TR 1354 SP
		SHEET NO. 4 OF 4
SCALE: N/A	PROJECT DESIGN SEGMENT 20410	

8. POLE ATTACHMENT DETAILS

- 1) Double Dead-end Vang for Fiber Attachment Details
- 2) Shield Bayonet Attachment Details
- 3) Insulator Brace Bracket Attachment Details
- 4) Insulator Mounting Pad Attachment Details
- 5) Distribution Bracket Attachment Details
- 6) Transformer/Xarm Bracket Attachment Details
- 7) Secondary Bracket Attachment Details
- 8) Step Lugs/Clips/ Bail Steps Attachment Details
- 9) Grounding Pad Attachment Details

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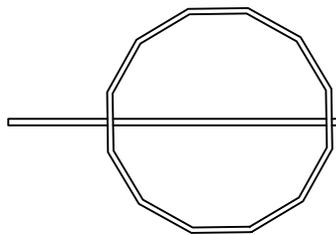
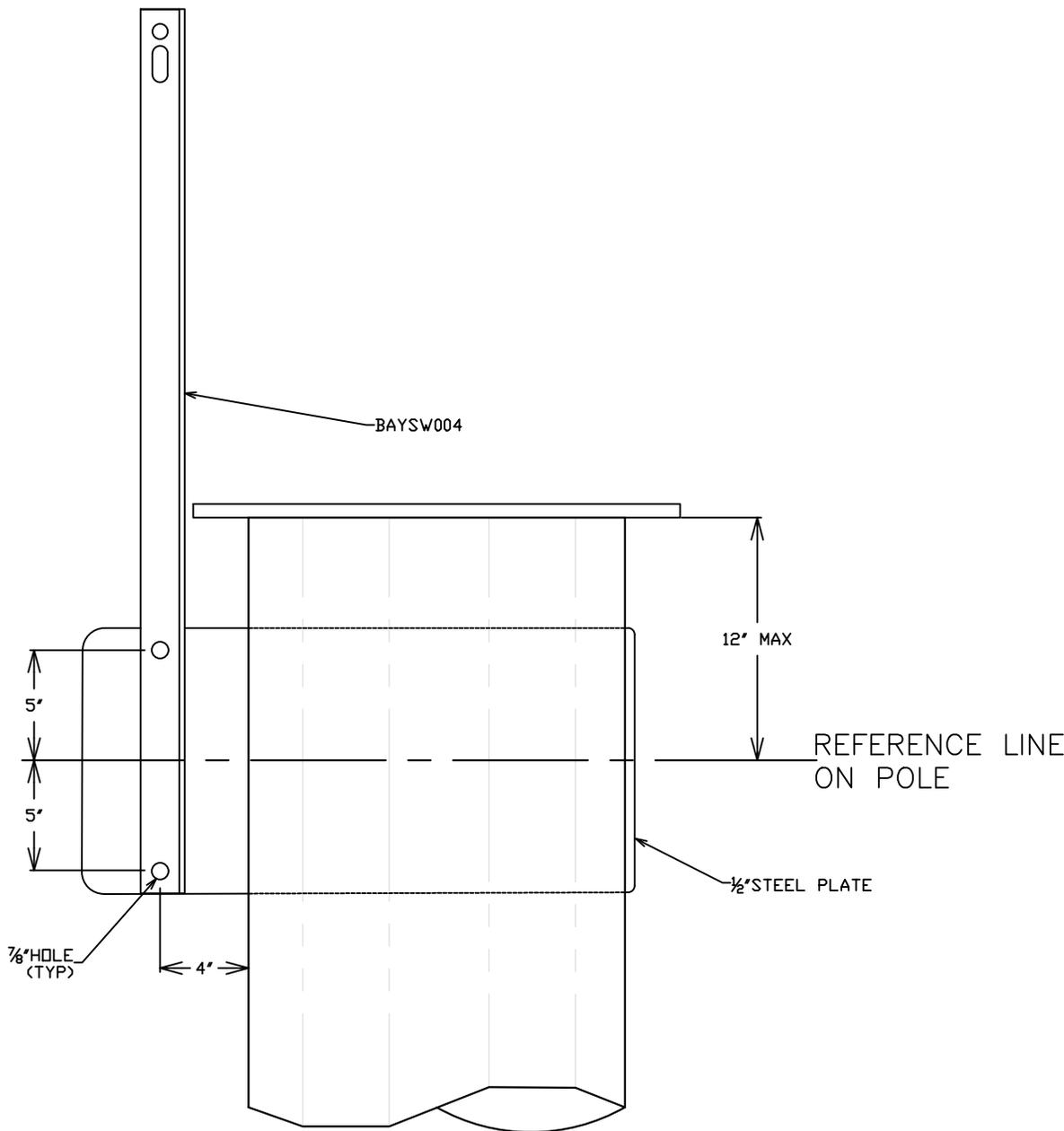
DOUBLE DEADEND VANG FOR FIBER



NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED	TRANSMISSION STANDARDS
					DEADEND VANG STEEL POLE

SCALE:
NOT TO SCALE

BUILDING COMMUNITY



NO.	REVISIONS TO DRAWING
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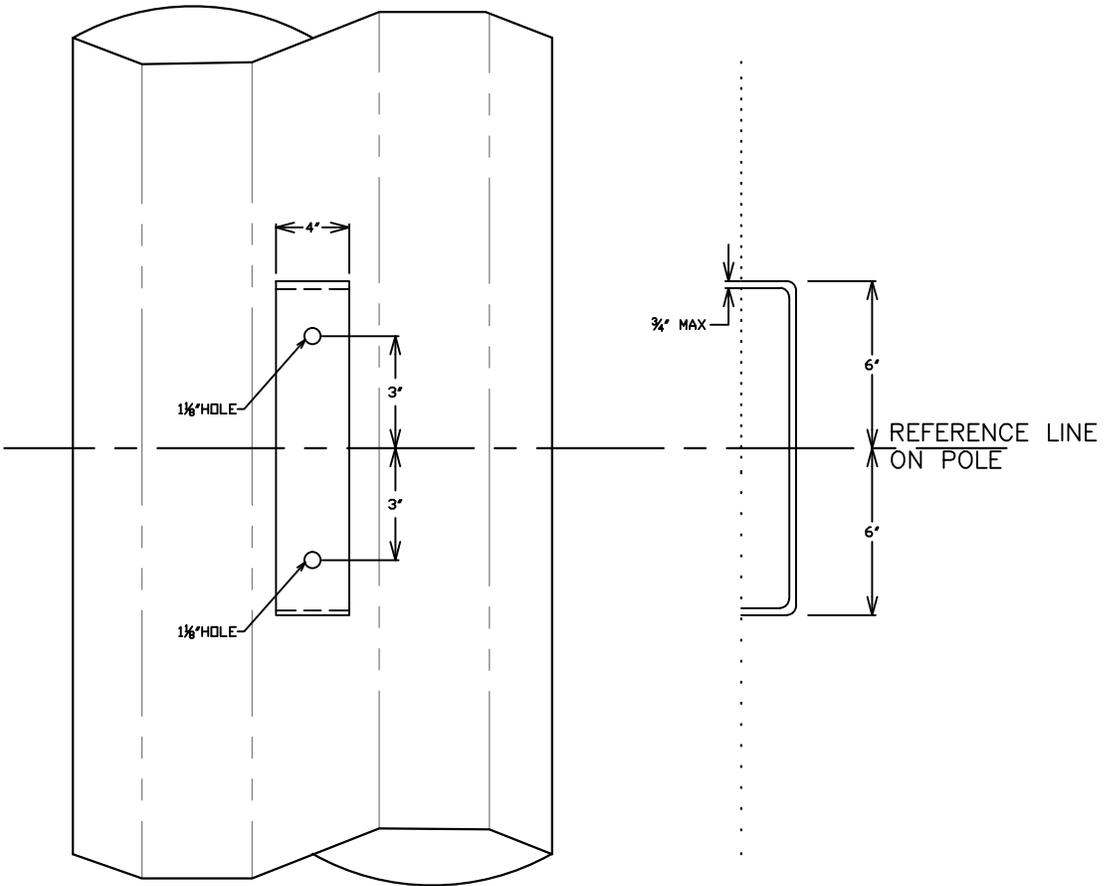
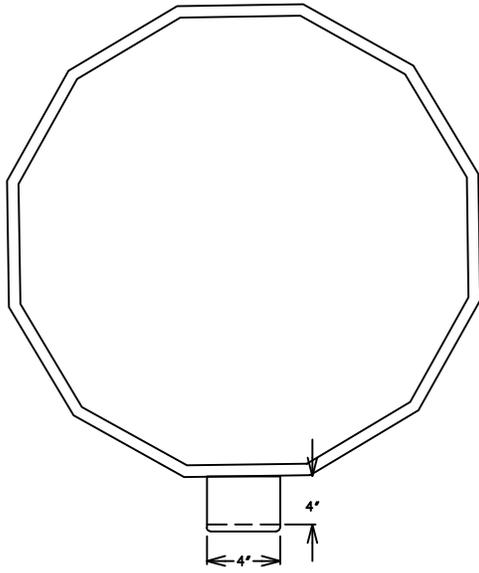
BY	DATE	APPROVED

TRANSMISSION STANDARDS

SHIELD VANG
STEEL POLE

SCALE:
NOT TO SCALE



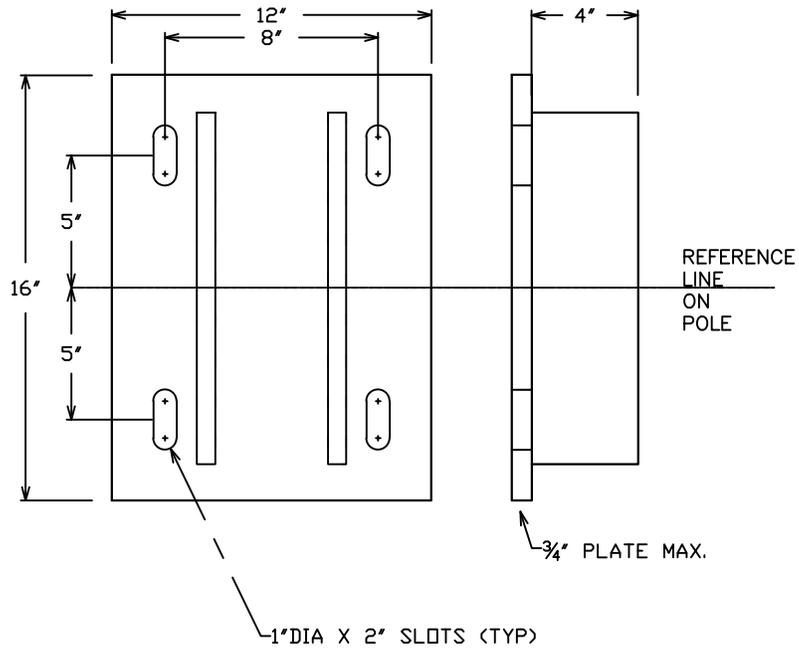


NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED

TRANSMISSION STANDARDS
INSULATOR BRACE BKT
 SCALE: NOT TO SCALE
 STEEL POLE



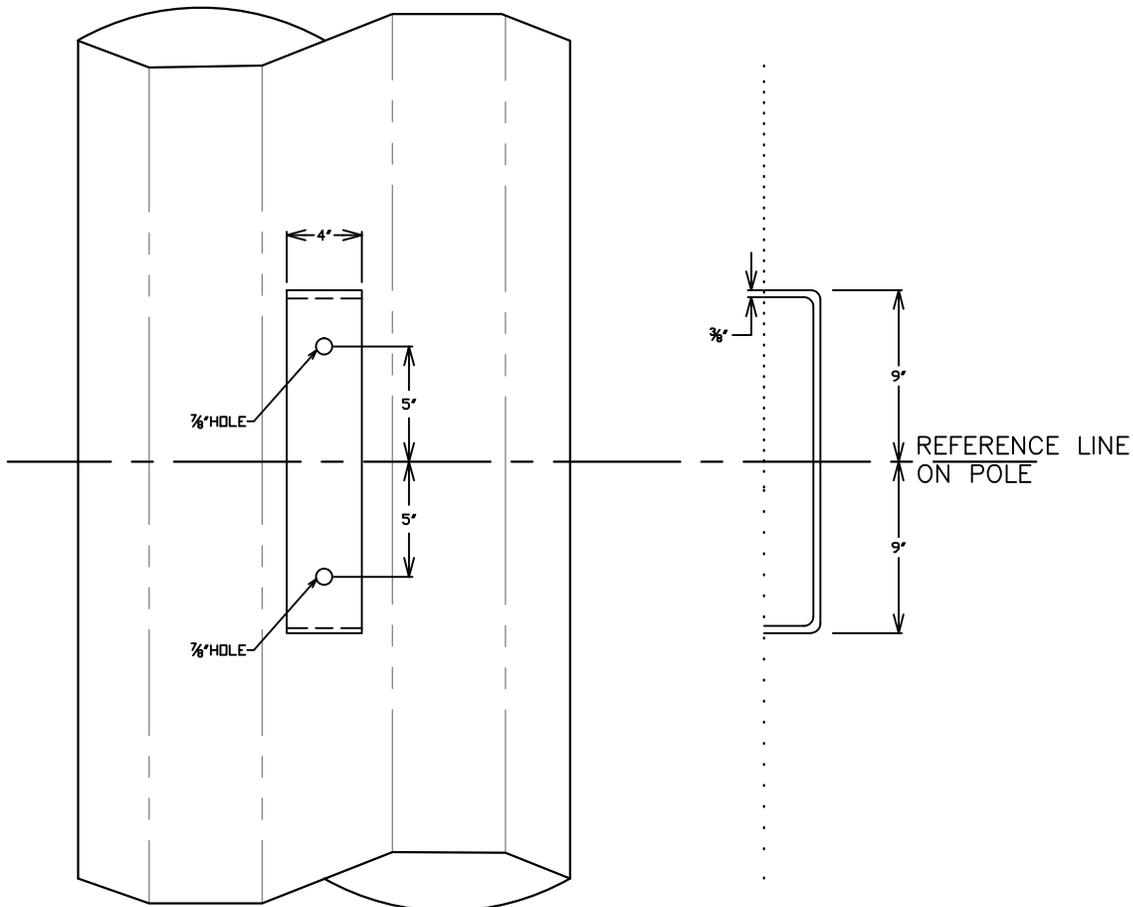
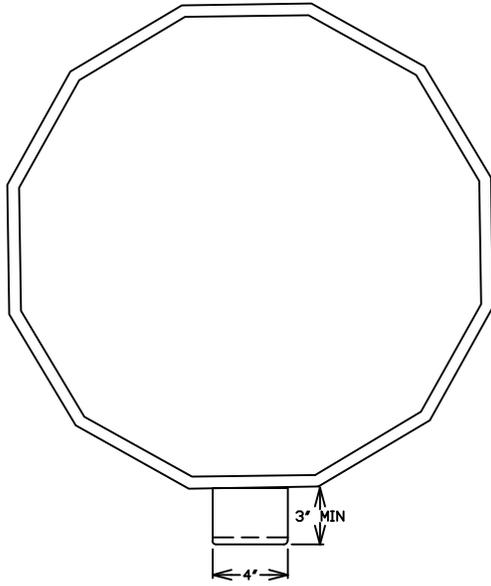
INSULATOR MOUNTING PAD



NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED	TRANSMISSION STANDARDS
					INSULATOR PAD STEEL POLE

SCALE:
NOT TO SCALE

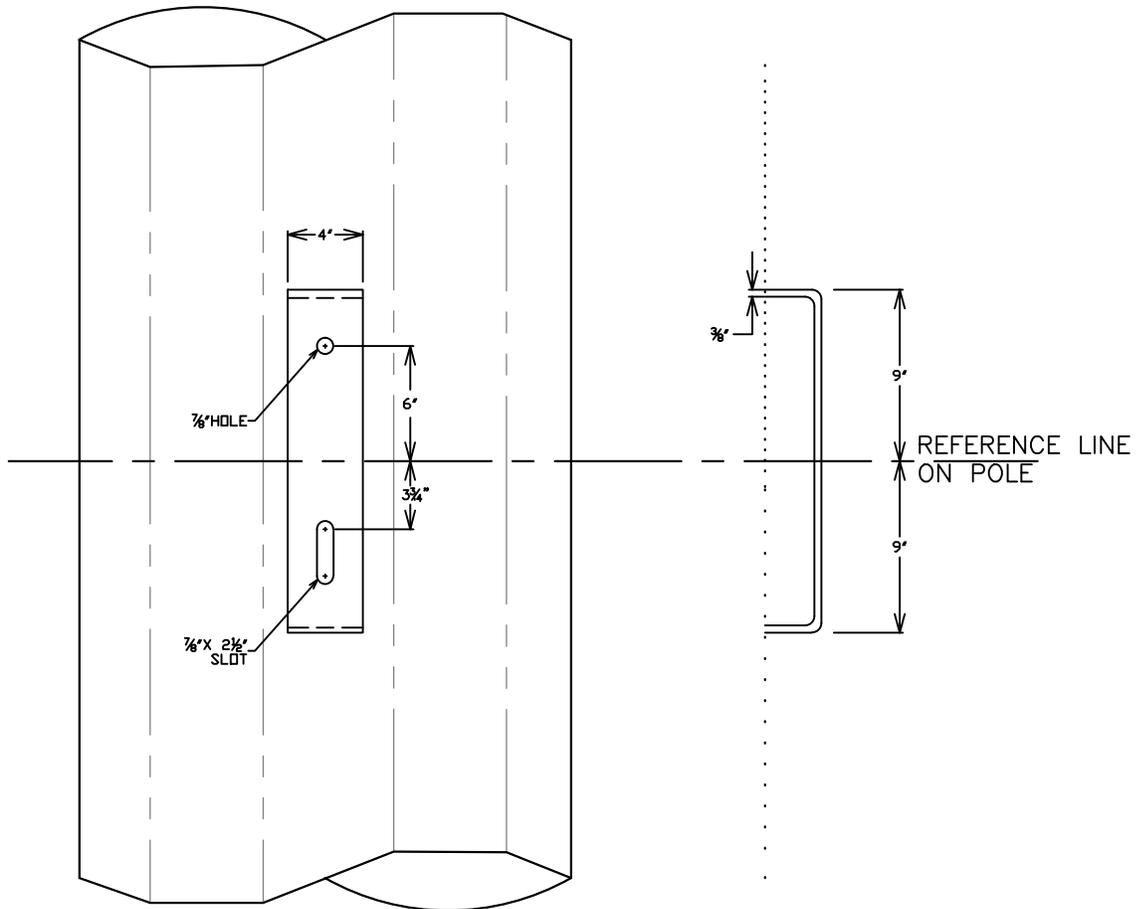
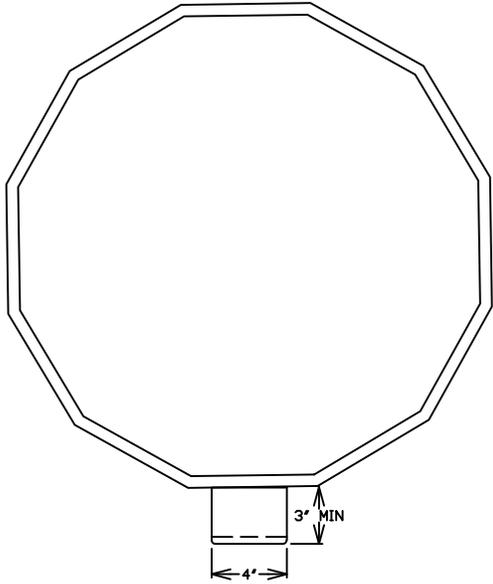
JEA
INDIANA COMMUNITY



NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED

TRANSMISSION STANDARDS
 DISTRIBUTION BKT
 STEEL POLE
 SCALE:
 NOT TO SCALE

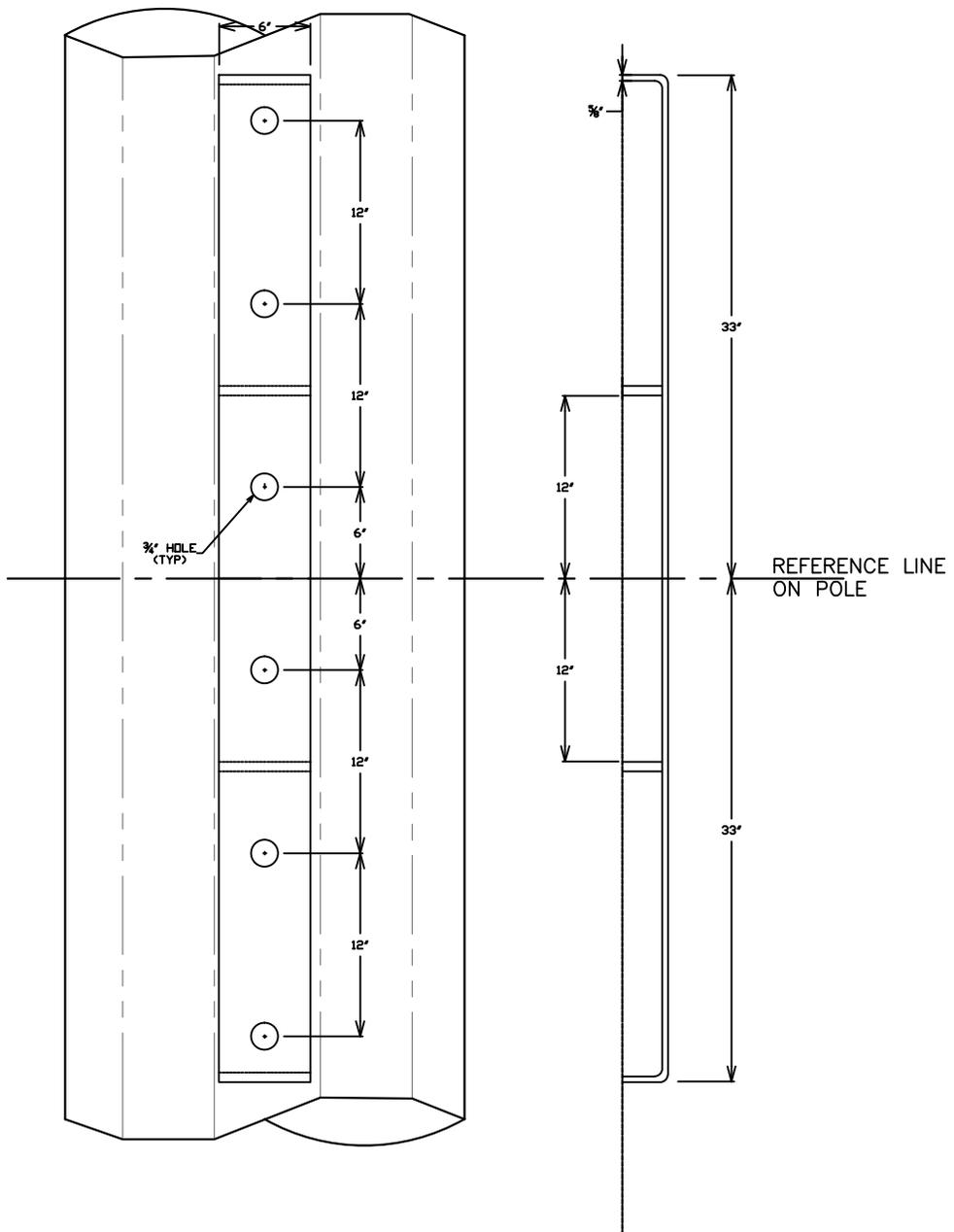
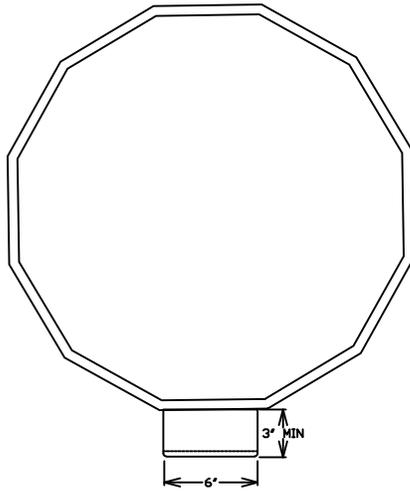




NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED

TRANSMISSION STANDARDS
TRANSFORMER/XARM BKT
 SCALE: NOT TO SCALE
 STEEL POLE



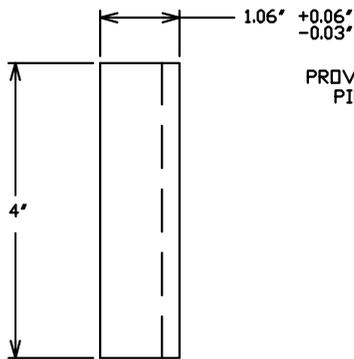
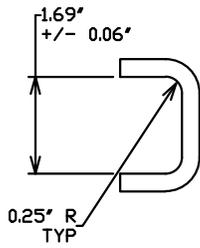


NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED	TRANSMISSION STANDARDS

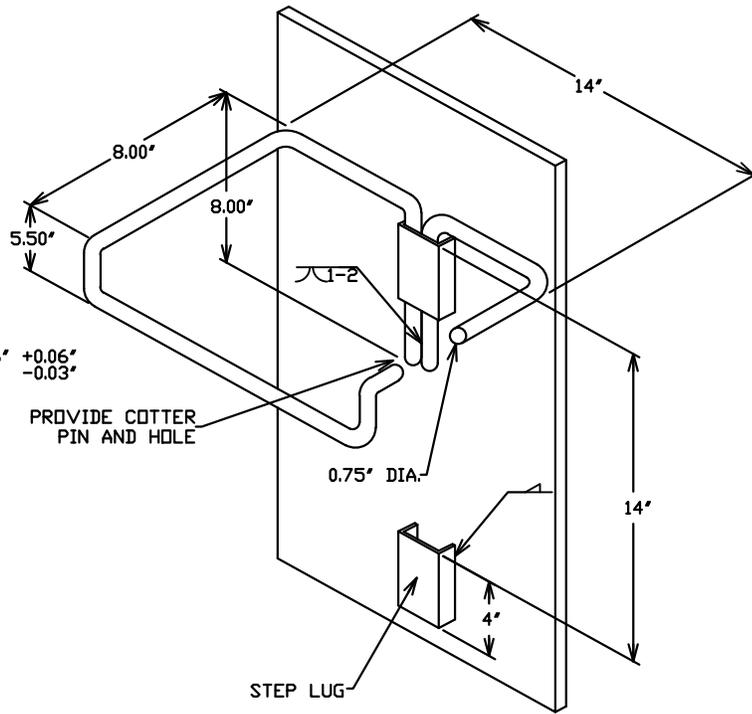
SECONDARY BRACKET
STEEL POLE



SCALE
NOT TO SCALE

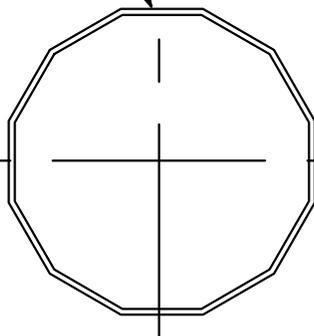


LUG DETAIL



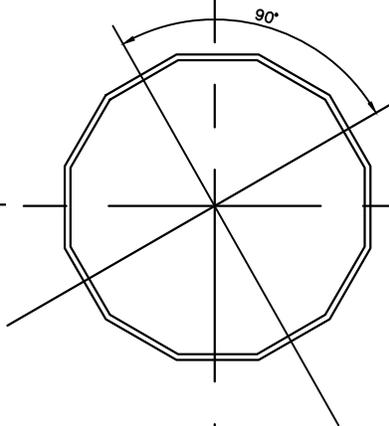
STEP DETAIL

PROVIDE CLIMBING STEP LUGS ON FACE OF POLE DEPICTED IN THE POLE DRAWINGS



CLIMBING STEPS

PROVIDE WORKING STEP LUGS 90° APART, ON 4 FACES OF THE POLE AS DEPICTED BY '△' ON THE POLE DRAWINGS



WORKING STEPS

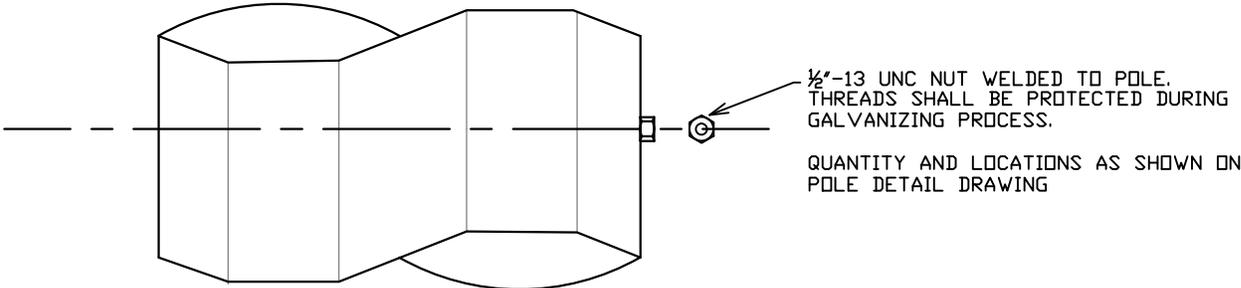
NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED

TRANSMISSION STANDARDS
STEP DETAILS
STEEL POLE

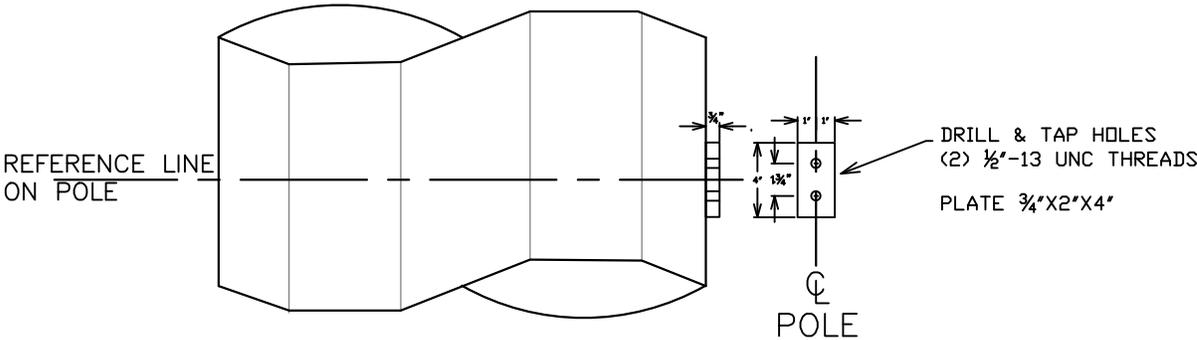
SCALE:
NOT TO SCALE



GROUNDING NUT DETAIL



GROUNDING PAD DETAIL



NO.	REVISIONS TO DRAWING	BY	DATE	APPROVED

TRANSMISSION STANDARDS
GROUNDING
STEEL POLE
SCALE: NOT TO SCALE



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9. PLS-POLE BACKUP FILES

- 1) Pole Drawings:
Structure Type B1331 – Single Braced Line Post, Un-Guyed, 3-Phase, Without Under-Built Distribution
Structure(s) #30
 - a. See electronically attached PLS-POLE back up file “str30.b1331.bak”

- 2) Pole Drawings:
Structure Type B1331 – Single Braced Line Post, Un-Guyed, 3-Phase, With Under-Built Distribution
Structure(s) #31
 - a. See electronically attached PLS-POLE back up file “str31.b1331.bak”

- 3) Pole Drawings:
Structure Type B1331 – Single Braced Line Post, Un-Guyed, 3-Phase, Without Under-Built Distribution
Structure(s) #32
 - a. See electronically attached PLS-POLE back up file “str32.b1331.bak”

- 4) Pole Drawings:
Structure Type B1331 – Single Braced Line Post, Un-Guyed, 3-Phase, Without Under-Built Distribution
Structure(s) #42, 43, and 44
 - a. See electronically attached PLS-POLE back up file “str42-44.b1331.bak”

APPENDIX B - BID FORM - Page 1 of 2

98623 - STEEL TRANSMISSION POLES FOR THE CIRCUIT 830 STRUCTURES #30 - #32 AND #42 - #44 REPLACEMENT

Submit a scanned copy via e-mail to: Elizabeth Ann Ellis-Moore, moorea@jea.com along with other required forms.

Company Name: _____

Company's Address _____

License Number _____

Phone Number: _____ FAX No: _____ Email Address: _____

BID SECURITY REQUIREMENTS

- None required
- Certified Check or Bond Five Percent (5%)

TERM OF CONTRACT

- One Time Purchase
- Annual Requirements
- Other, Specify - Project Completion

SAMPLE REQUIREMENTS

- None required
- Samples required prior to Response Opening
- Samples may be required subsequent to Bid Opening

SECTION 255.05, FLORIDA STATUTES CONTRACT BOND

- None required
- Bond required 100% of Bid Award

QUANTITIES

- Quantities indicated are exacting
- Quantities indicated reflect the approximate quantities to be purchased Throughout the Contract period and are subject to fluctuation in accordance with actual requirements.

INSURANCE REQUIREMENTS

Insurance required

PAYMENT DISCOUNTS

- 1% 20, net 30
- 2% 10, net 30
- Other _____
- None Offered

Item No.	ENTER YOUR BID FOR THE FOLLOWING DESCRIBED ARTICLES OR SERVICES	TOTAL BID PRICE
1	Total Bid Price	\$

I have read and understood the Sunshine Law/Public Records clauses contained within this solicitation. I understand that in the absence of a redacted copy my proposal will be disclosed to the public "as-is".

BIDDER CERTIFICATION

By submitting this Bid, the Bidder certifies that it has read and reviewed all of the documents pertaining to this Solicitation, that the person signing below is an authorized representative of the Bidding Company, that the Company is legally authorized to do business in the State of Florida, and that the Company maintains in active status an appropriate contractor's license for the work (if applicable). The Bidder also certifies that it complies with all sections (including but not limited to Conflict Of Interest and Ethics) of this Solicitation.

We have received addenda

_____ through _____

Handwritten Signature of Authorized Officer of Company or Agent Date

Printed Name and Title

APPENDIX B - BID FORM - Page 2 of 2
98623 - STEEL TRANSMISSION POLES FOR THE CIRCUIT 830 STRUCTURES #30 - #32 AND #42 - #44
REPLACEMENT

Bidder Please Write Company Name Here: _____

Bid Item No.	Standard Design No.	Structure No.	Total Length	Required Quantity	Unit Price	Extended Bid Price
1	B1331	#30	105'	1	\$ _____	\$ _____
2	B1331	#31	110'	1	\$ _____	\$ _____
3	B1331	#32	115'	1	\$ _____	\$ _____
4	B1331	#42, 43, 44	105'	3	\$ _____	\$ _____
5	N/A	Step bolts	N/A	330	\$ _____	\$ _____
6	N/A	CorroCote	N/A	2 Gallons	\$ _____	\$ _____
7	Freight for all materials (FOB: Destination)					\$ _____
Total =						\$ _____

Transfer Bid Total Price to Appendix B – Bid Form – Page 1 of 2

I (we) agree to provide approval drawings within _____ calendar days after receipt of the "notice to proceed" / purchase order.

And I (we) agree to complete deliveries of all items within _____ calendar days after the approval of the design calculations and approval drawings.

SIGNED FOR BIDDER: _____
 TITLE: _____