

**PROJECT SPECIFIC TECHNICAL SPECIFICATIONS  
FOR THE PURCHASE OF  
SPUN CONCRETE TRANSMISSION POLES  
FOR THE 691-693 69kV STRUCTURE REPLACEMENTS**

JEA PROJECT NO: 8010196  
TR NO: TR 1404  
BID DUE DATE: September 30th, 2025  
REQUESTED BY: Mohsen Shojaeion

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## 1. SCOPE

- 1.1 This specification outlines the required information needed for the purchase, fabrication, and delivery of Spun Concrete Transmission poles for the “691-693 69kV STRUCTURE REPLACEMENTS”. This specification complements the “General Technical Specifications for the Purchase of Spun Concrete Transmission Poles”, Rev 1.3”.
- 1.2 This specification includes the following attachments:
  - a) Bid Form
  - b) Pole Moment Capacity Tables
  - c) Pole Drawings, containing the configuration and hole drilling details of the pole(s)
  - d) Pole Attachment Details
  - e) PLS-POLE backup files for the pole(s), containing loading data and geometry
  - f) Pole Delivery Map
- 1.3 The Project Engineer (JEA) for this purchase is:

Mohsen Shojaeion  
225 North Pearl Street  
Jacksonville, FL, 32202  
Office: (904) 678-7227  
Email: [Talem@jea.com](mailto:Talem@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 Spun Concrete 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, step bolts, 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, step bolts, etc. 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 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. These loads are described in more detail in section 2.4 below.

2.3.1 There are eight (8) PLS-POLE models with eight (8) .lca files provided as described below. There are eight (8) poles to be purchased in total.

- a) One (1) PLS-POLE backup file provided for structure #8
- b) One (1) PLS-POLE backup file provided for structure #9
- c) One (1) PLS-POLE backup file provided for structure #10
- d) One (1) PLS-POLE backup file provided for structure #11
- e) One (1) PLS-POLE backup file provided for structure #12
- f) One (1) PLS-POLE backup file provided for structure #14
- g) One (1) PLS-POLE backup file provided for structure #15
- h) One (1) PLS-POLE backup file provided for structure #16

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 files also contain all the geometrical data necessary to analyze the poles 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.

2.3.5 In addition to the PLS-Pole backup files and loading data (.lca) files, the required pole strengths shall at the very least meet or exceed the moment capacity diagrams for each pole as shown in the pls-pole back up files.

2.3.6 See the Moment-Capacity Tables contained in Section 8 for clarity. The moment capacity tables match the same values as shown on the moment capacity diagrams in the pls-pole back up files for each pole.

2.4 Deflection: Instead of the eight (8) % deflection limit described in the General Technical Specifications (section 4.1), the poles shall be designed to meet the deflection limits as identified in the load (.lca) files found within the PLS-POLE models. In general, and where applicable, 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 INITIAL" loading conditions. 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.

### 3. DIMENSION RESTRICTIONS

3.1 Wall Thickness: All structures shall have a **minimum of a three and one-half (3-1/2) inch** wall thickness at the pole tip, and an outside total taper of not less than 0.216 inches per foot.

- 3.2 Top Diameter: The **minimum tip diameter** for all poles shall be fifteen (15) inches and the **maximum tip diameter** shall not exceed twenty-five (25) inches. The Manufacturer shall notify the Owner if the strength requirements of a controlling load case dictate a greater tip diameter.
- 3.3 Bottom Diameter: The **minimum bottom diameter** for all poles shall be 35 inches and the **maximum bottom diameter** shall not exceed 45 inches. No poles with straight taper or reverse taper segments are required for this project.

#### 4. POLE ATTACHMENT HARDWARE

- 4.1 The pole manufacturer shall provide all step bolts, ground inserts, thru holes, threaded inserts, and a pole cap on each pole as shown in the "POLE DRAWINGS" and "POLE ATTACHMENT DETAILS" of these specifications.
- 4.1.1 Threaded inserts shall be provided at all transmission locations shown on the pole drawings. Inserts shall be provided and sized as indicated in the pole drawings
- 4.1.2 Design of the threaded inserts shall be at the discretion of the pole manufacturer. Inserts shall allow standard Imperial-thread machine bolts to be attached on opposite faces of the pole. The threaded portion shall be of sufficient length, and the inserts shall be secured within the pole, such that the final installation provides at least the equivalent strength of a comparable through-bolt installation.
- 4.1.3 Pole caps shall be provided and secured on the top of each pole. Caps shall be in the shape of a cone, fabricated from steel and hot-dip galvanized. Two 1/2"-13 nuts shall be welded to the cap on opposite sides to allow attachment of ground lugs.
- 4.2 Step bolts not required for this project.
- 4.3 Bolts, nuts, washers and other hardware required for attaching insulators, cross-arms, transformers, guy wires, and miscellaneous cables to poles will be supplied by JEA and are not to be provided by the manufacturer.

#### 5. DELIVERY LOCATION AND DATE

- 5.1 Delivery of all poles and hardware will be to storage areas near the job site within the JEA service area. The delivery location for structures #8 - #16 will be on the Project site as specified in section 11, in Jacksonville, Florida.
- 5.2 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:

- Fall, 2026

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

## 6. BID FORM

### PROPOSAL FOR SPUN CONCRETE TRANSMISSION POLES

PROJECT: 691-693 69kV STRUCTURE REPLACEMENTS

Bidder Please Write Company Name Here: \_\_\_\_\_

Bid Item No.	Standard Design No.	Structure No.	Total Length / Embedment	Required Quantity	Unit Price	Extended Bid Price
1	A2251 - 100FT / 12 kip	#8	100'-0" / 20'-0"	1	\$ _____	\$ _____
2	A2251 - 100FT / 12 kip	#9	100'-0" / 20'-0"	1	\$ _____	\$ _____
3	A2251 - 100FT / 12 kip	#10	100'-0" / 20'-0"	1	\$ _____	\$ _____
4	A2251 - 100FT / 12 kip	#11	100'-0" / 20'-0"	1	\$ _____	\$ _____
5	A2251 - 100FT / 12 kip	#12	100'-0" / 25'-0"	1	\$ _____	\$ _____
6	A2251 - 100FT / 12 kip	#14	100'-0" / 25'-0"	1	\$ _____	\$ _____
7	A2251 - 100FT / 12 kip	#15	100'-0" / 25'-0"	1	\$ _____	\$ _____
8	A2251 - 95FT / 12 kip	#16	95'-0" / 20'-0"	1	\$ _____	\$ _____
9	Freight for all poles					\$ _____
					Total =	\$ _____

My (our) lump sum bid for the items described above and in the tabulated total quantities is: \$ \_\_\_\_\_.

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: \_\_\_\_\_

## 7. MOMENT-CAPACITY TABLES

100FT – 12 kip

Distance Below Top (ft)	Zero Tension Moment Cap. (ft-k)	First Crack Moment Cap. (ft-k)	Ultimate Moment Cap. (ft-k)
5	36.75	36.75	135
10	77.25	77.25	213.33
15	84.75	84.75	241.67
20	92.25	92.25	272.5
25	110.4	110.4	305
30	135.75	135.75	378.33
35	158.4	158.4	418.33
40	182.4	182.4	460.83
45	206.4	206.4	550
50	230.4	230.4	600.83
55	254.4	254.4	653.33
60	278.4	278.4	708.33
65	302.4	302.4	768.33
70	326.4	326.4	830.83
75	350.4	350.4	896.67
80	374.4	374.4	955.83
85	398.4	398.4	1019.17
90	422.4	422.4	1081.67
100	0	0	0

95FT – 12 kip

<b>Distance Below Top (ft)</b>	<b>Zero Tension Moment Cap. (ft-k)</b>	<b>First Crack Moment Cap. (ft-k)</b>	<b>Ultimate Moment Cap. (ft-k)</b>
5	36.75	36.75	135
10	77.25	77.25	213.33
15	84.75	84.75	241.67
20	92.25	92.25	272.5
25	110.4	110.4	305
30	135.75	135.75	378.33
35	158.4	158.4	418.33
40	182.4	182.4	460.83
45	206.4	206.4	550
50	230.4	230.4	600.83
55	254.4	254.4	653.33
60	278.4	278.4	708.33
65	302.4	302.4	768.33
70	326.4	326.4	830.83
75	350.4	350.4	896.67
80	374.4	374.4	955.83
85	398.4	398.4	1019.17
95	0	0	0

## **8. POLE DRAWINGS**

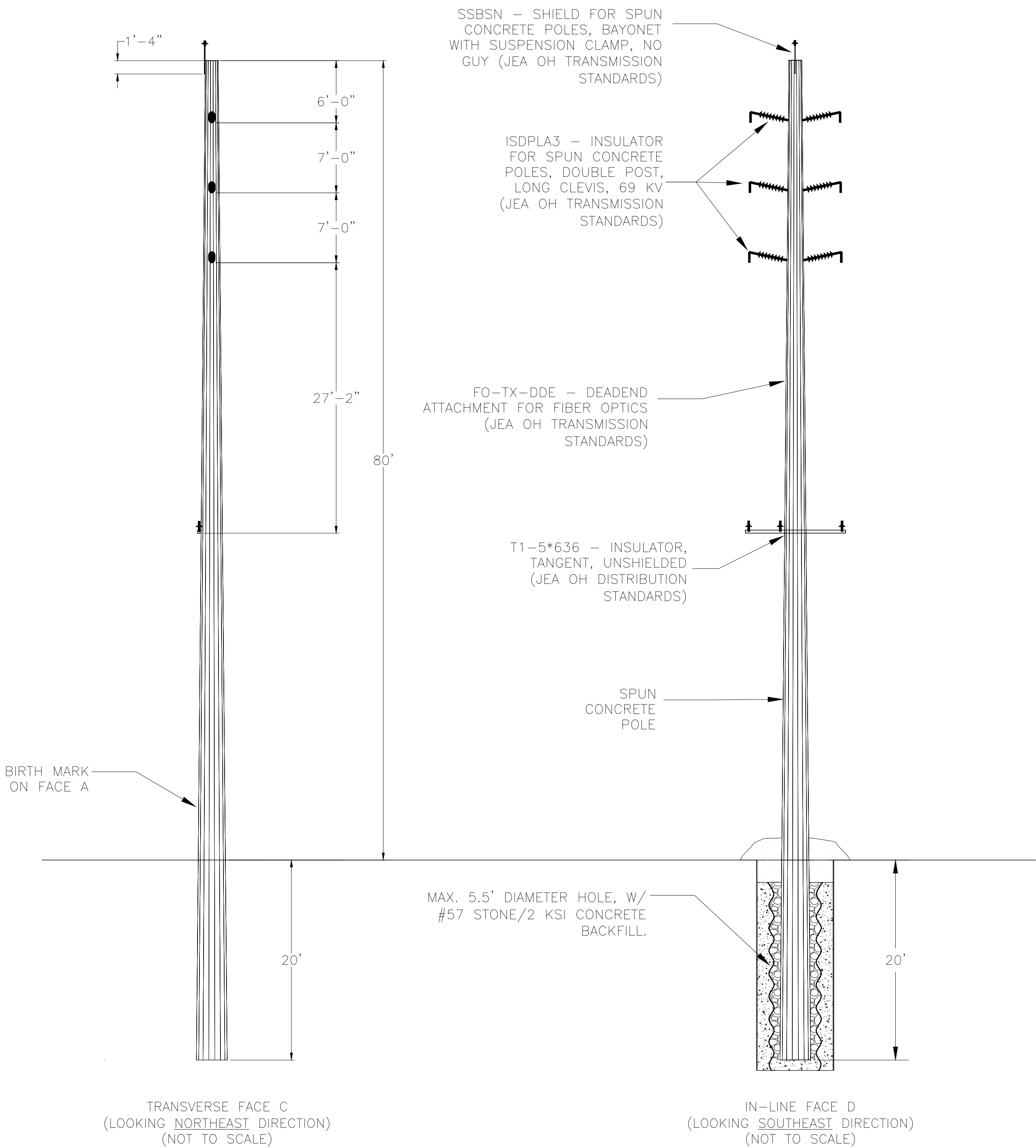
### **1) Pole Drawings:**

Structure Type A2251\*556S – Double Post, Unguyed, Angle Shield, 3-Phase

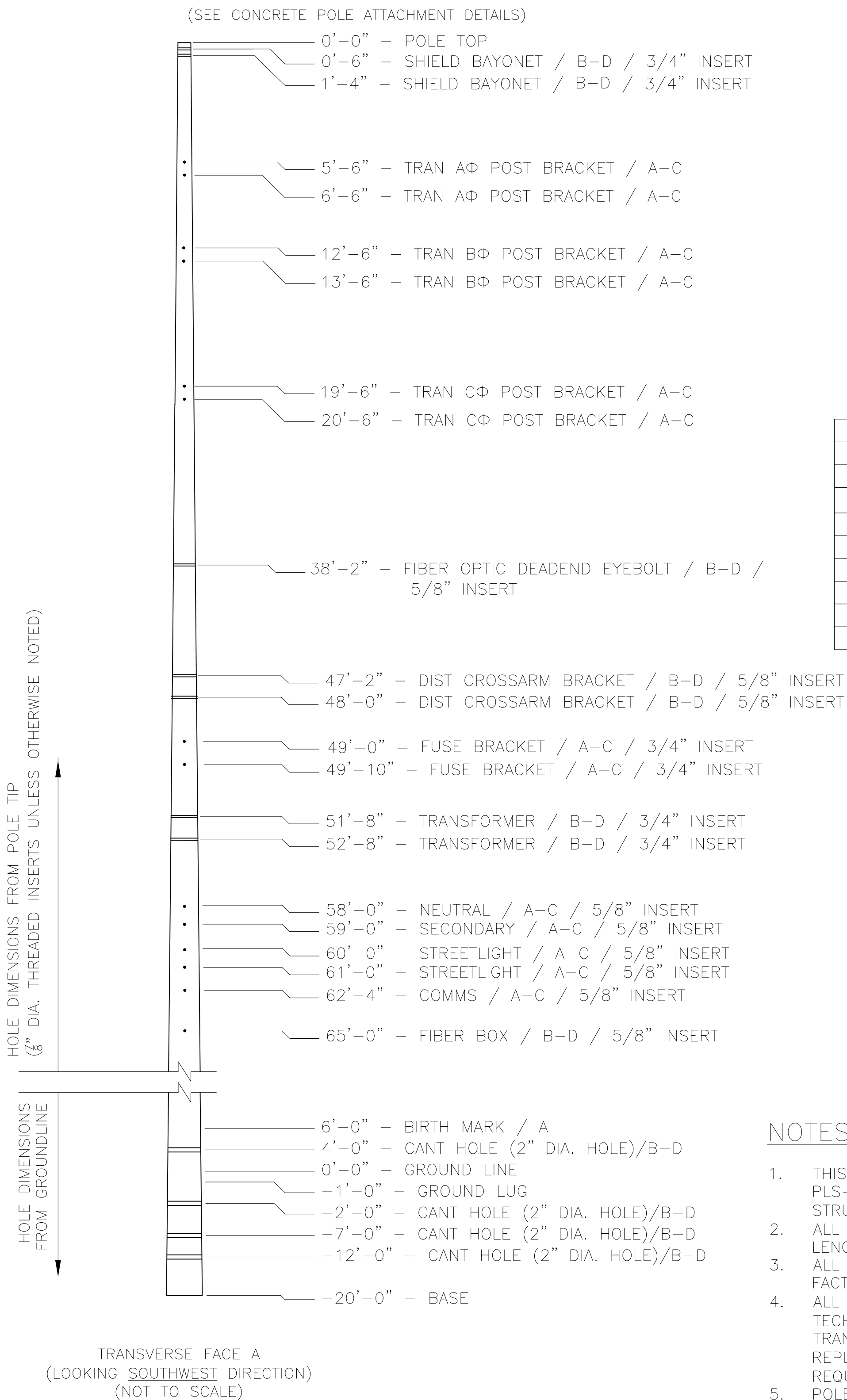
Structure(s): #8, #9, #10, #11, #12, #14, #15, #16

STRUCTURE TYPE  
A2251\*556S 69 KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE  
STRUCTURE 008

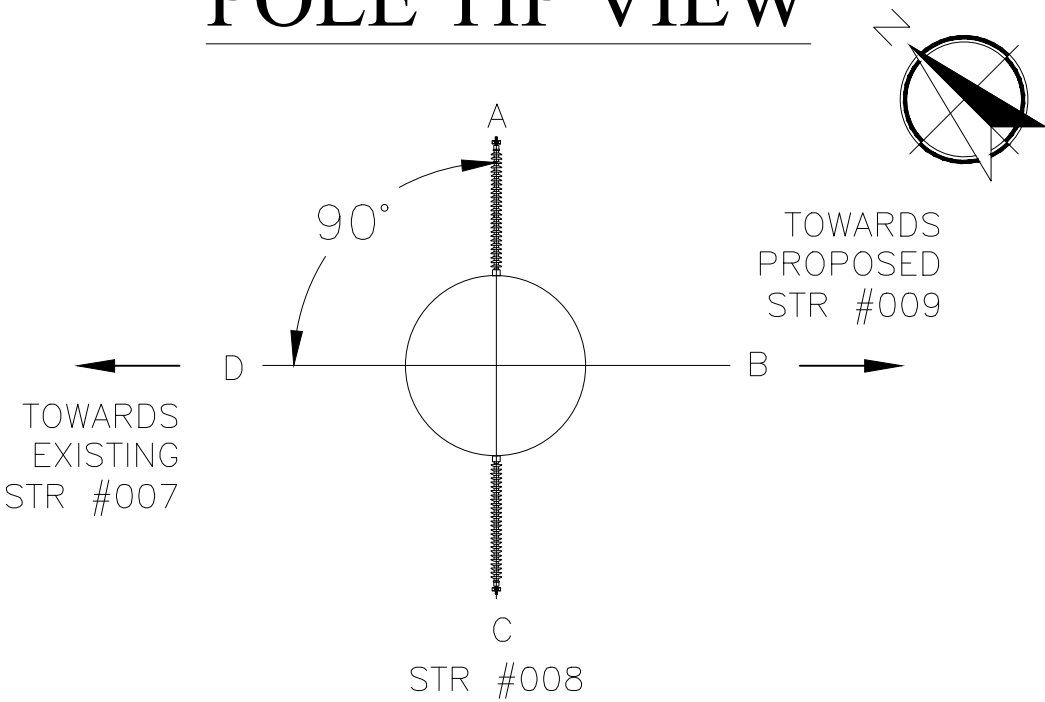
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW



GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-10"	-
TRANS AΦ	7'-0"	-
TRANS BΦ	14'-0"	-
TRANS CΦ	21'-0"	-
DIST	48'-2"	-
TRANSFORMER	52'-10"	-
NEUTRAL	58'-2"	-
SECONDARY	59'-2"	-
GROUND ROD	-	-1'-0"

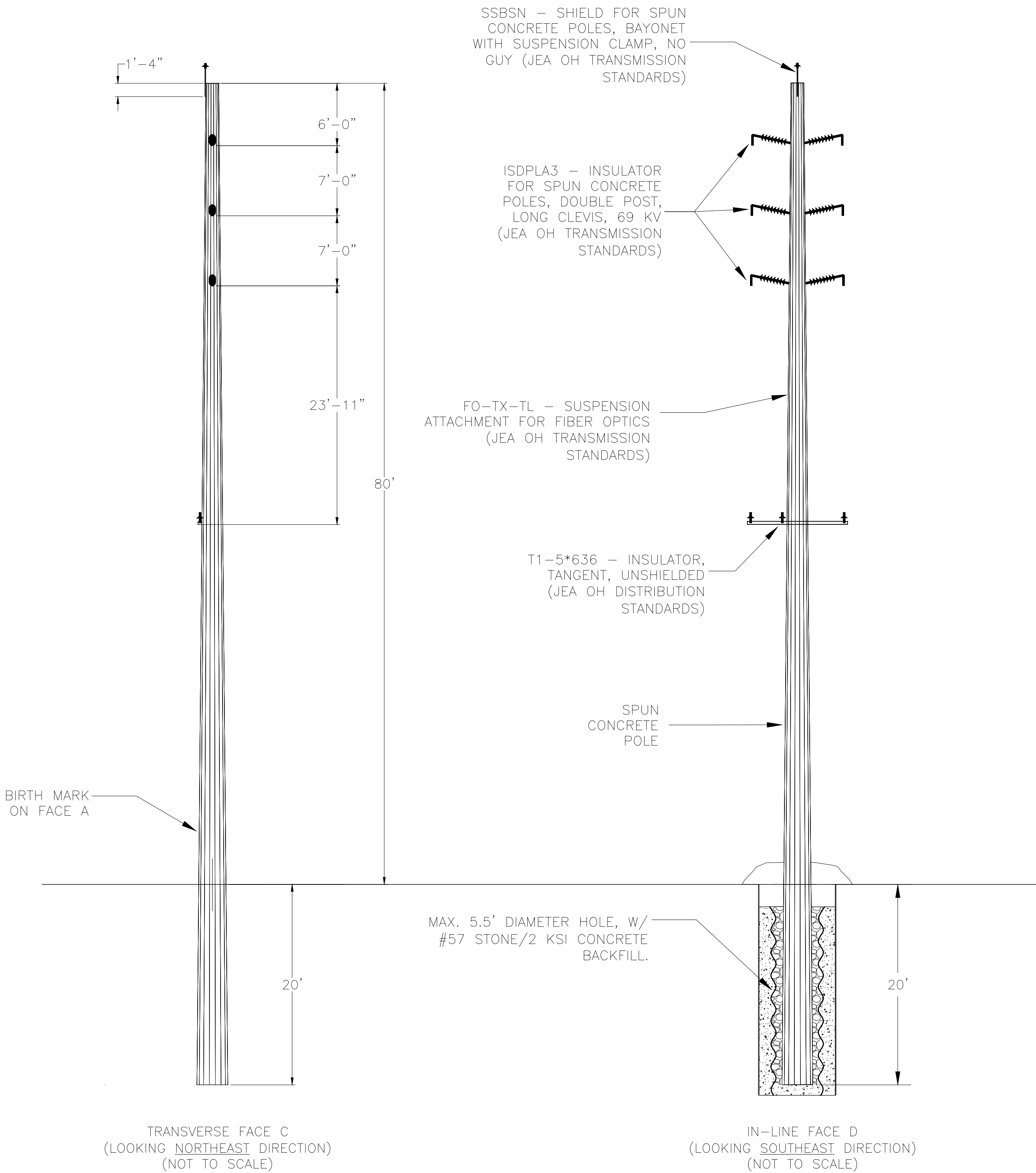
NOTES:

- THIS POLE CONFIGURATION DRAWING IS ACCOMPANIED BY A PLS-POLE FILE WITH THE SITE SPECIFIC LOADING FOR THE STRUCTURE. THE FILE "STR 008".
- ALL BOLT LENGTHS ARE MINIMUMS. VENDOR TO PROVIDE ADEQUATE LENGTH REQUIRED PER PROVIDED LOADS FROM LCA FILE.
- ALL LOADS ARE ULTIMATE LOAD AND INCLUDE THE APPROPRIATE LOAD FACTORS.
- ALL REFERENCED DETAILS ARE PROVIDED IN THE "PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES FOR THE 691-693 69 KV STRUCTURE REPLACEMENTS". POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TO BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES", REVISION 1.3, UPDATED ON 8/4/2025

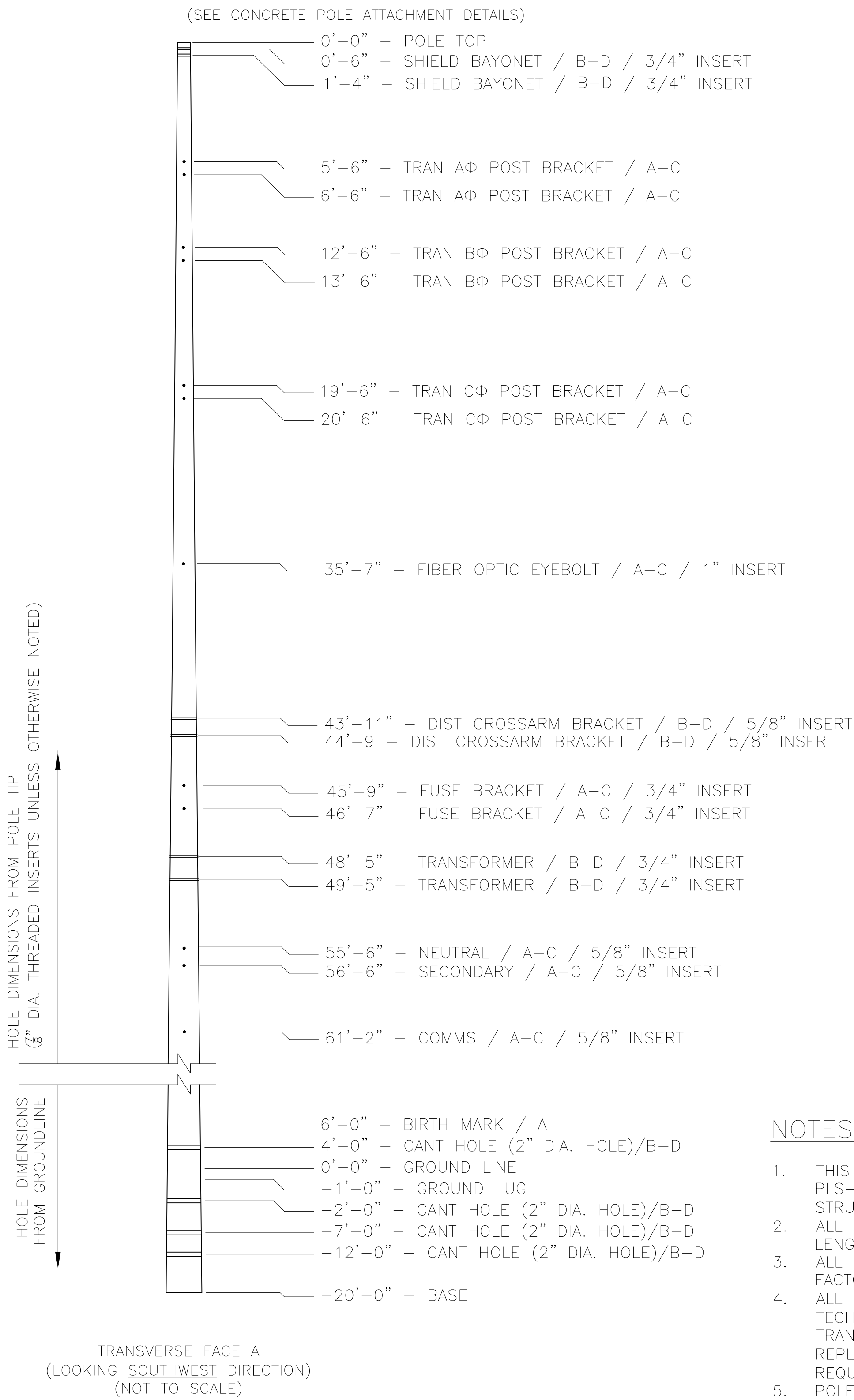
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STRUCTURE TYPE  
A2251\*556S 69 KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE  
STRUCTURE 009

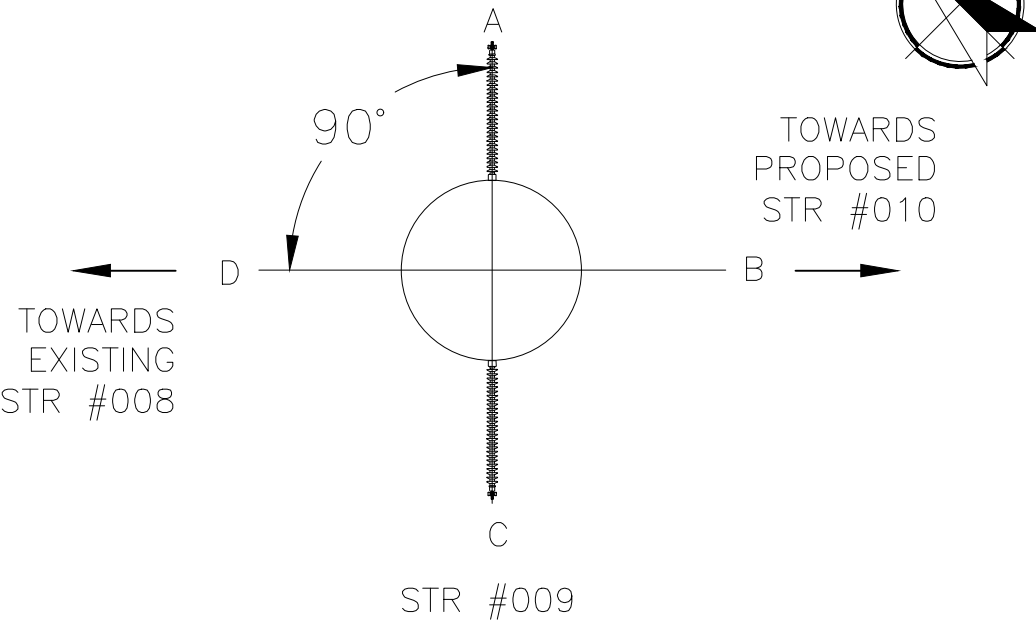
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW




GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-10"	-
TRANS AΦ	7'-0"	-
TRANS BΦ	14'-0"	-
TRANS CΦ	21'-0"	-
DIST	44'-11"	-
TRANSFORMER	49'-7"	-
NEUTRAL	55'-8"	-
SECONDARY	56'-8"	-
GROUND ROD	-	-1'-0"

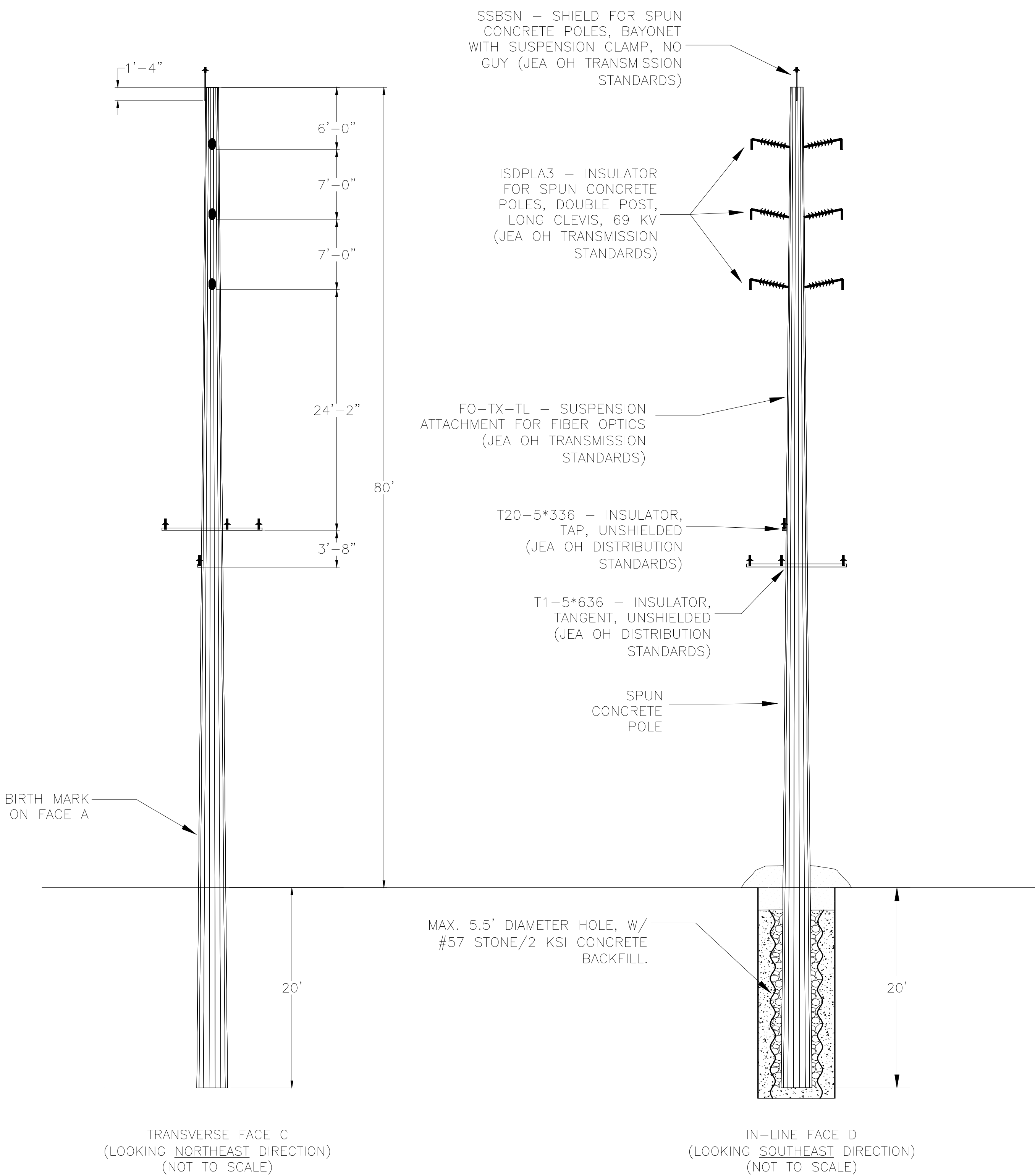
NOTES:

- THIS POLE CONFIGURATION DRAWING IS ACCOMPANIED BY A PLS-POLE FILE WITH THE SITE SPECIFIC LOADING FOR THE STRUCTURE. THE FILE "STR 009".
- ALL BOLT LENGTHS ARE MINIMUMS. VENDOR TO PROVIDE ADEQUATE LENGTH REQUIRED PER PROVIDED LOADS FROM LCA FILE.
- ALL LOADS ARE ULTIMATE LOAD AND INCLUDE THE APPROPRIATE LOAD FACTORS.
- ALL REFERENCED DETAILS ARE PROVIDED IN THE "PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES FOR THE 691-693 69 kV STRUCTURE REPLACEMENTS". POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TO BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES", REVISION 1.3, UPDATED ON 8/4/2025

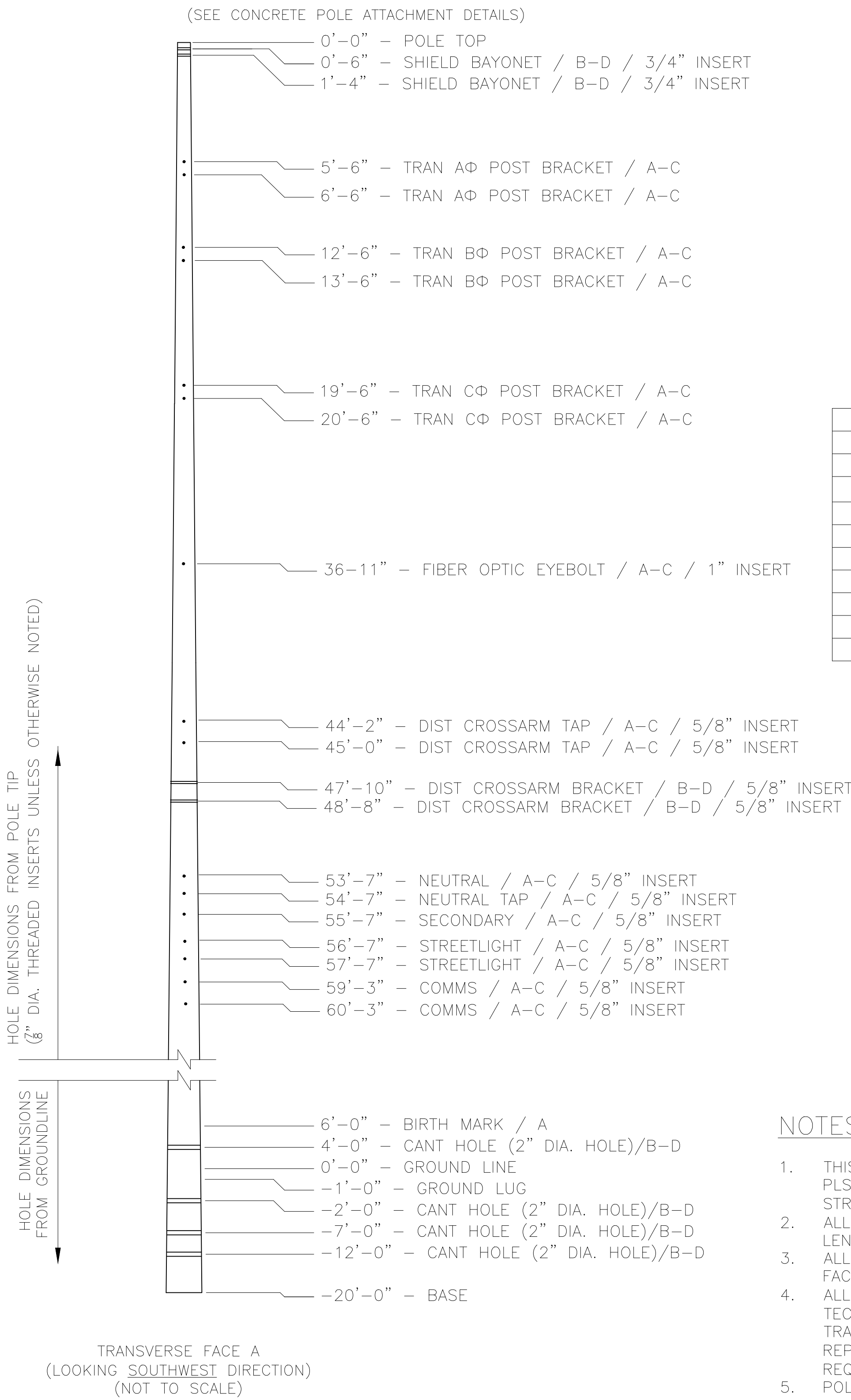
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STRUCTURE TYPE  
A2251\*556S 69 KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE  
STRUCTURE 010

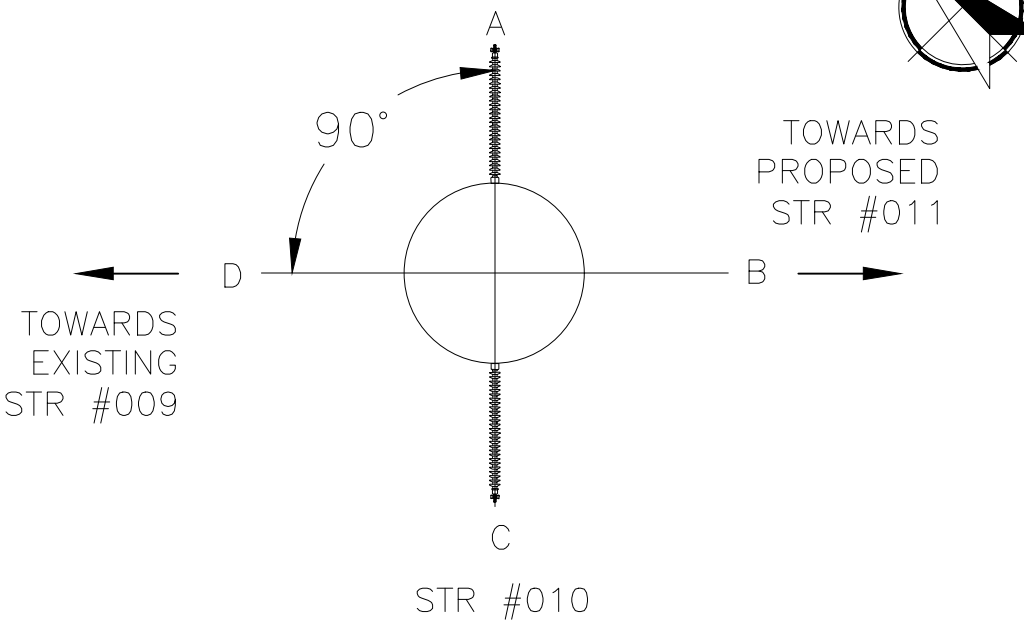
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW

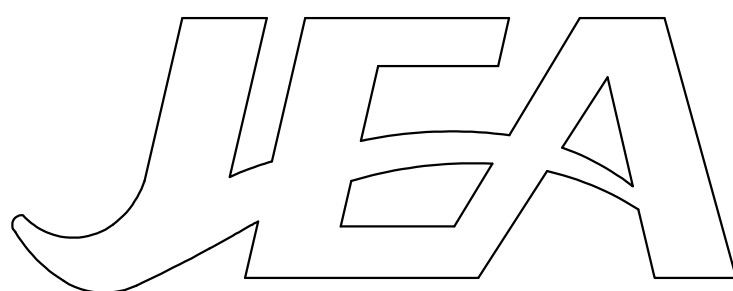


GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-10"	-
TRANS AΦ	7'-0"	-
TRANS BΦ	14'-0"	-
TRANS CΦ	21'-0"	-
DIST TAP	45'-2"	-
DIST	48'-10"	-
NEUTRAL	53'-9"	-
NEUTRAL TAP	54'-9"	-
SECONDARY	55'-9"	-
GROUND ROD	-	-1'-0"

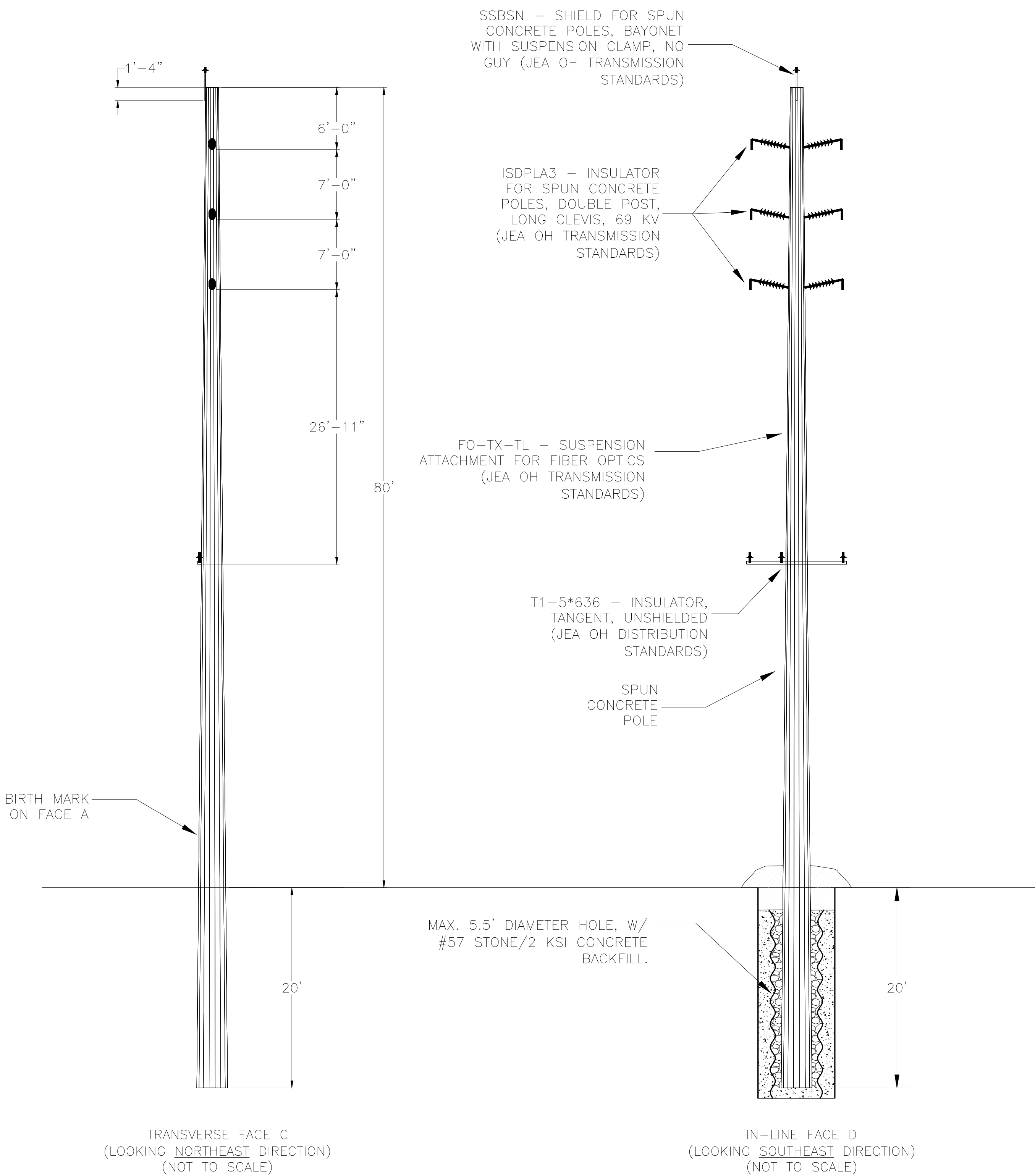
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- ALL BOLT LENGTHS ARE MINIMUMS. VENDOR TO PROVIDE ADEQUATE LENGTH REQUIRED PER PROVIDED LOADS FROM LCA FILE.
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- POLES ARE TO BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES", REVISION 1.3, UPDATED ON 8/4/2025

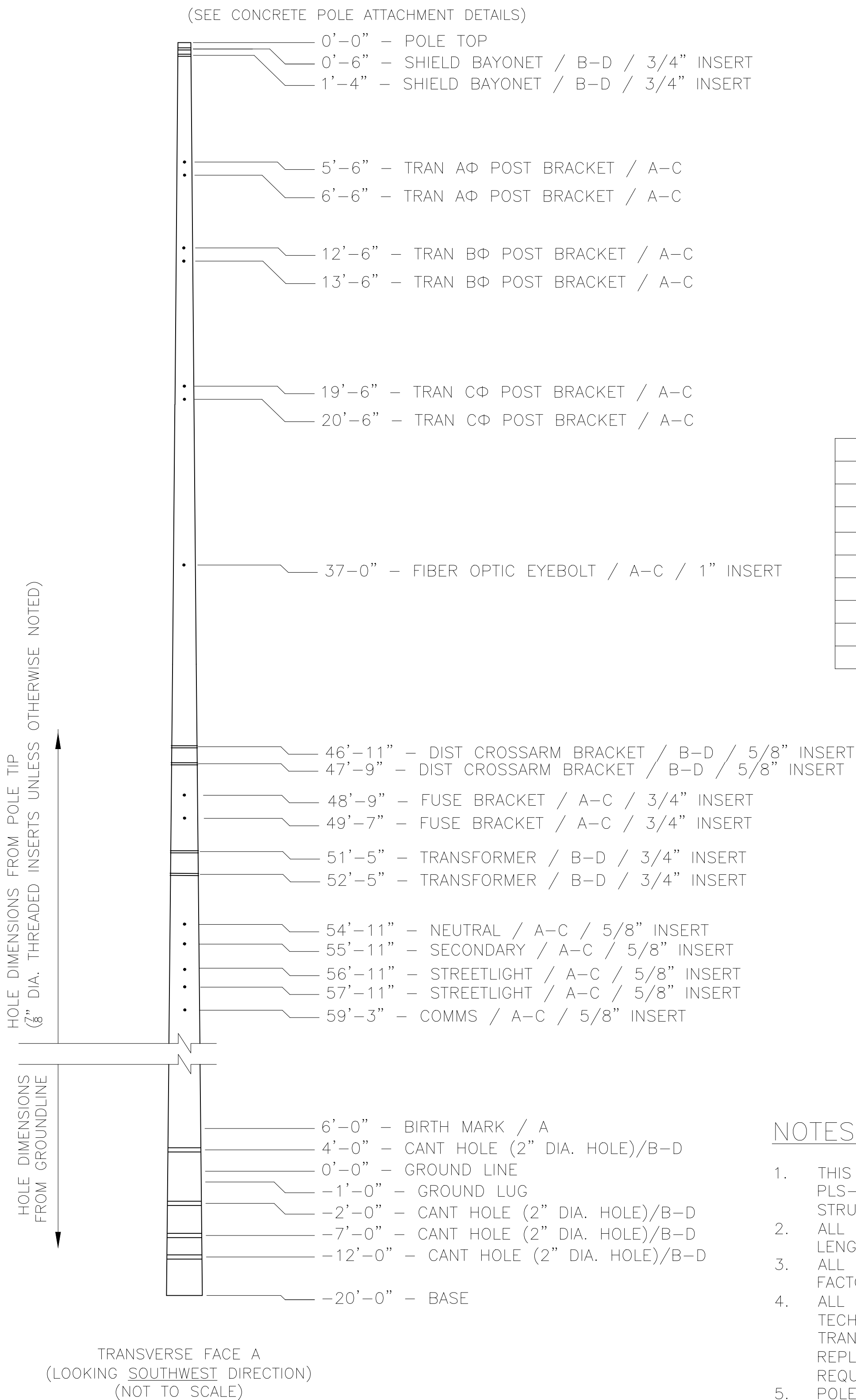
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STRUCTURE TYPE  
A2251\*556S 69 KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE  
STRUCTURE 011

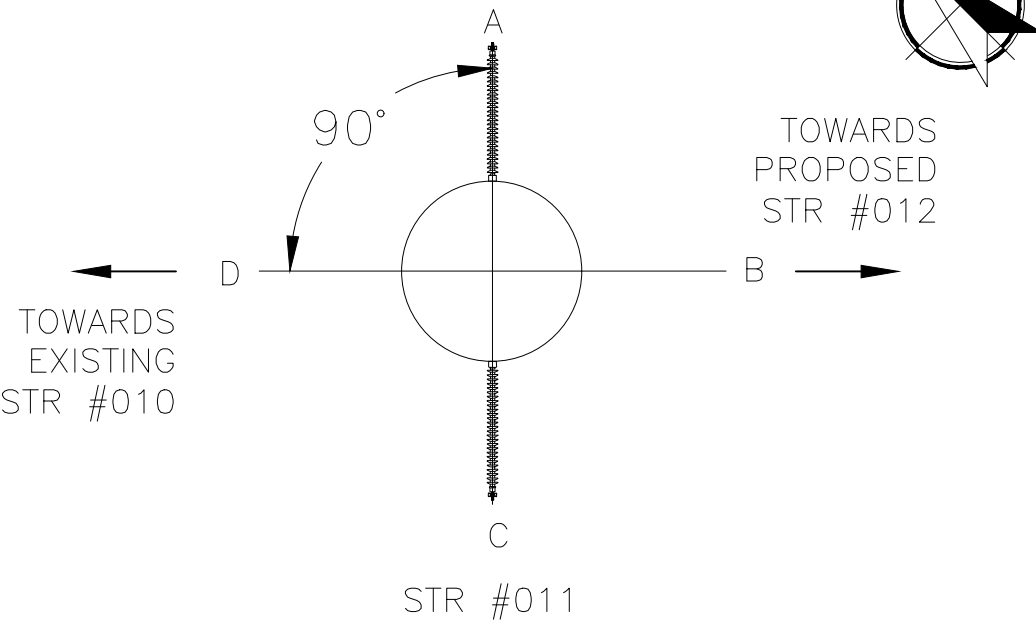
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW




GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-10"	-
TRANS AΦ	7'-0"	-
TRANS BΦ	14'-0"	-
TRANS CΦ	21'-0"	-
DIST	47'-11"	-
TRANSFORMER	52'-7"	-
NEUTRAL	55'-1"	-
SECONDARY	56'-1"	-
GROUND ROD	-	-1'-0"

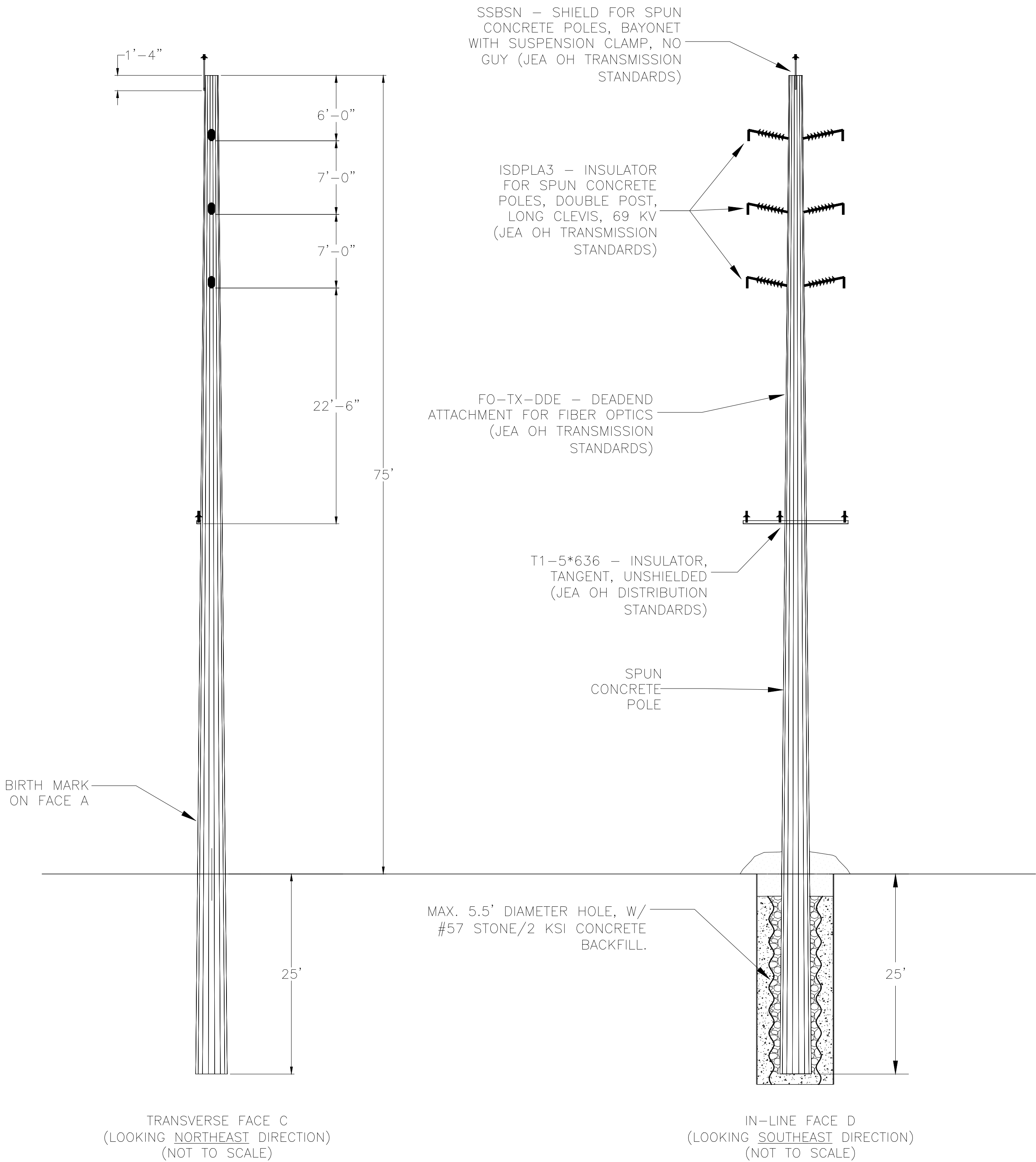
NOTES:

- THIS POLE CONFIGURATION DRAWING IS ACCOMPANIED BY A PLS-POLE FILE WITH THE SITE SPECIFIC LOADING FOR THE STRUCTURE. THE FILE "STR 011".
- ALL BOLT LENGTHS ARE MINIMUMS. VENDOR TO PROVIDE ADEQUATE LENGTH REQUIRED PER PROVIDED LOADS FROM LCA FILE.
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- POLES ARE TO BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES", REVISION 1.3, UPDATED ON 8/4/2025

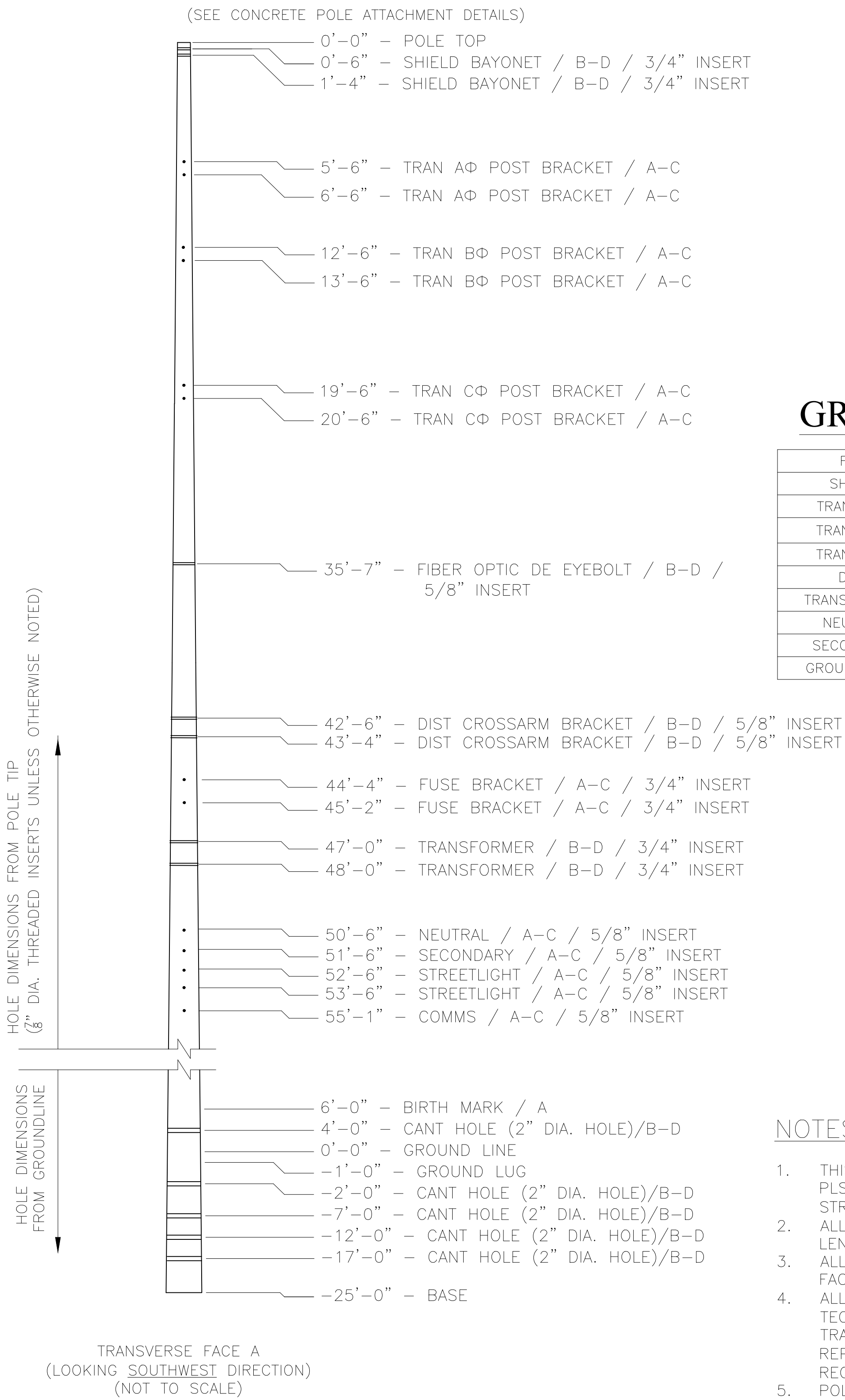
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												APP'D	TBD	-		SCALE: N/A	PROJECT DESIGN SEGMENT 8010196	

STRUCTURE TYPE  
A2251\*556S 69 KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE  
STRUCTURE 012

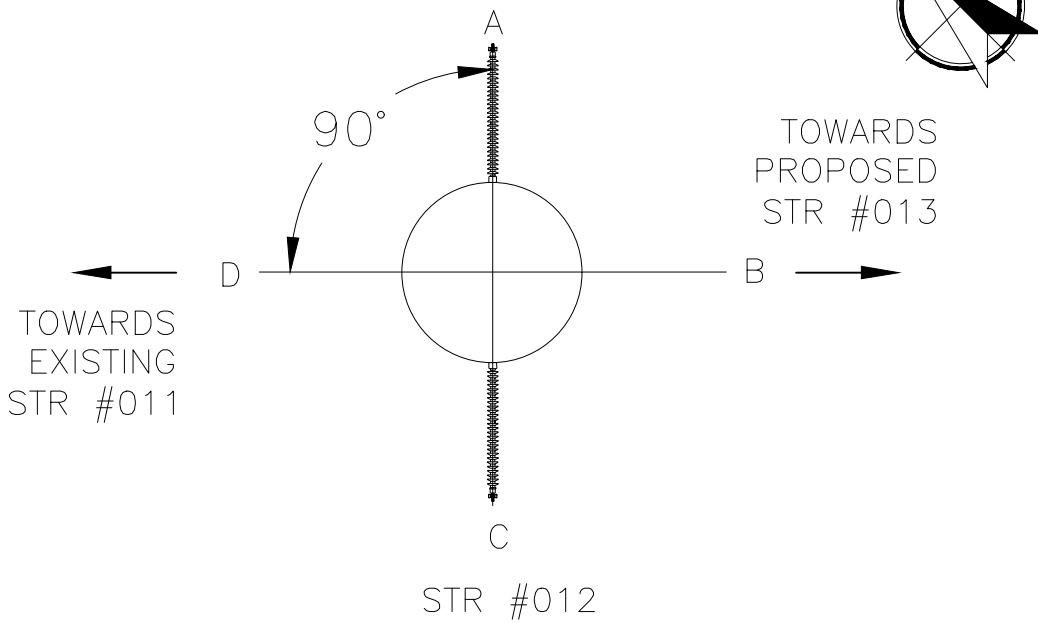
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW

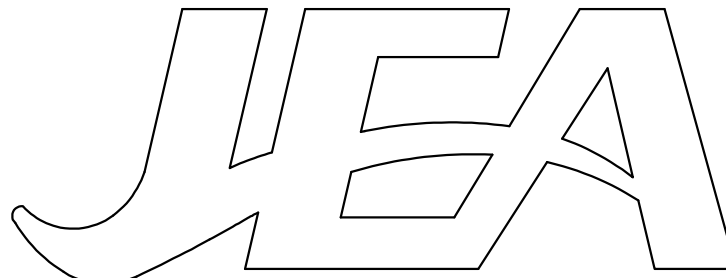


GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-10"	-
TRANS AΦ	7'-0"	-
TRANS BΦ	14'-0"	-
TRANS CΦ	21'-0"	-
DIST	43'-6"	-
TRANSFORMER	48'-2"	-
NEUTRAL	50'-8"	-
SECONDARY	51'-8"	-
GROUND ROD	-	-1'-0"

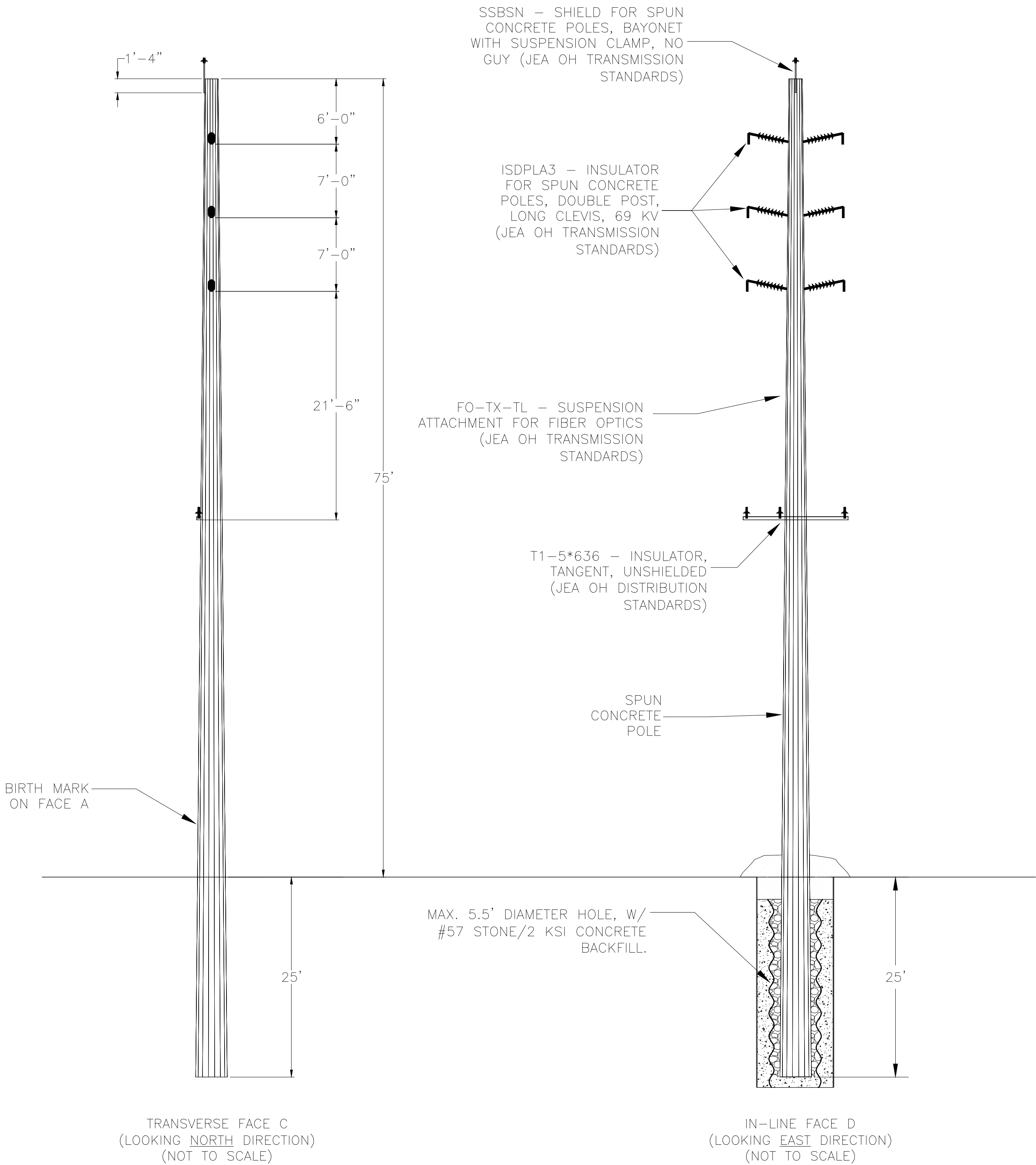
NOTES:

- THIS POLE CONFIGURATION DRAWING IS ACCOMPANIED BY A PLS-POLE FILE WITH THE SITE SPECIFIC LOADING FOR THE STRUCTURE. THE FILE "STR 012".
- ALL BOLT LENGTHS ARE MINIMUMS. VENDOR TO PROVIDE ADEQUATE LENGTH REQUIRED PER PROVIDED LOADS FROM LCA FILE.
- ALL LOADS ARE ULTIMATE LOAD AND INCLUDE THE APPROPRIATE LOAD FACTORS.
- ALL REFERENCED DETAILS ARE PROVIDED IN THE "PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES FOR THE 691-693 69 kV STRUCTURE REPLACEMENTS". POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TO BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES", REVISION 1.3, UPDATED ON 8/4/2025

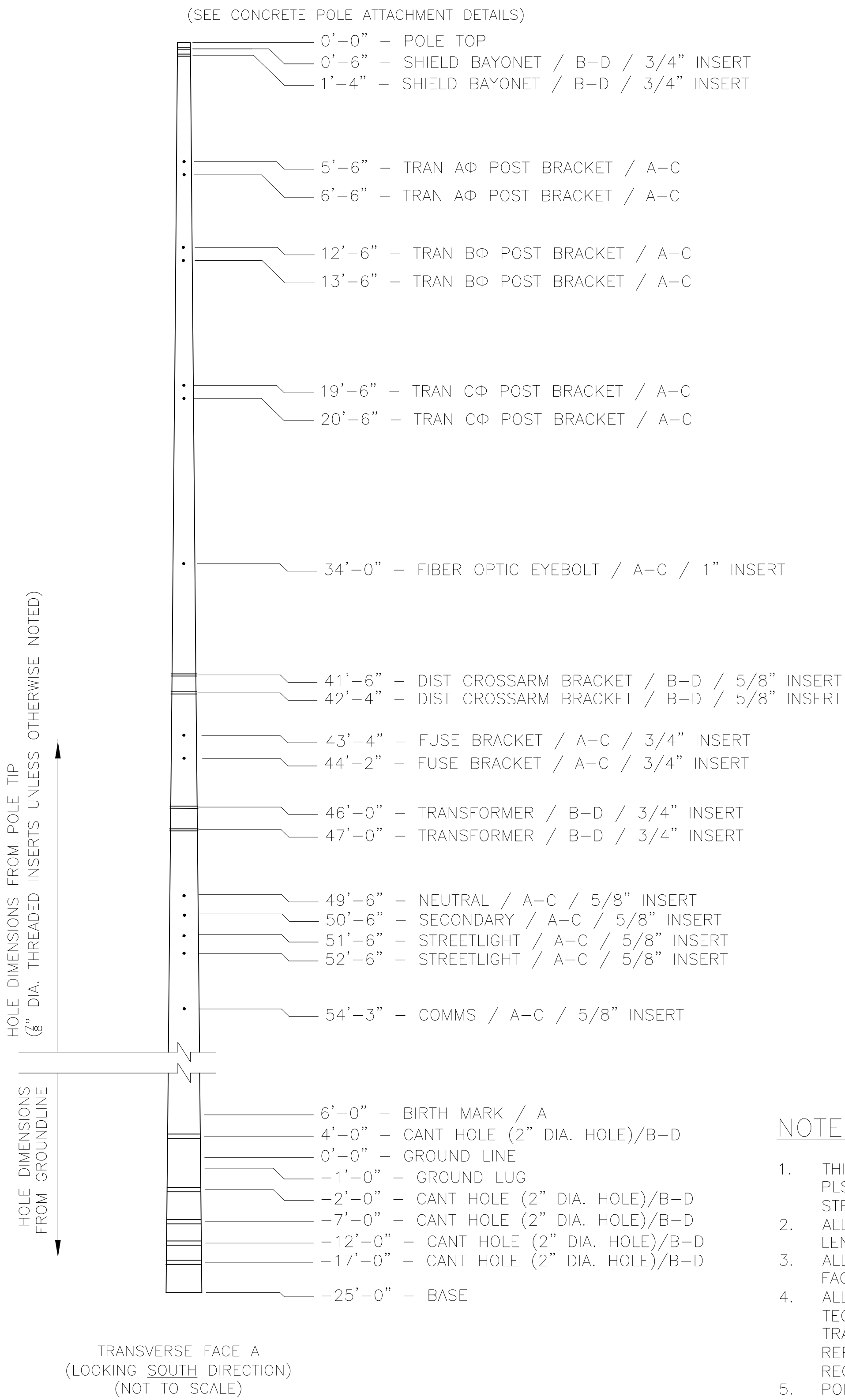
NO.	REVISION	DATE	BY	CH'D	APP'D	REVISION	DATE	BY	CH'D	APP'D	ENGINEERING	RECORD	 BUILDING COMMUNITY	PROPOSED STR #012 POLE CONFIGURATION FOR THE 691-693 69 kV STRUCTURE REPLACEMENTS		PROJECT NO. 8010196
	ISSUED FOR 30% DESIGN REVIEW	05/20/25	AJS	JA							STATUS	BY	DATE			DRAWING NO. TR 1404
	ISSUED FOR BID	08/18/25	AJS	JA							ASSIGNED	PLAN	12/10/24			
											DESIGNED	AJS	05/20/25	SCALE: N/A		PROJECT DESIGN SEGMENT 8010196
											DRAWN	AJS	05/20/25			
											CHECKED	JA	06/26/25			
											APP'D	TBD	-			SHEET NO. 5 OF 16

STRUCTURE TYPE  
A2251\*556S 69 KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE  
STRUCTURE 014

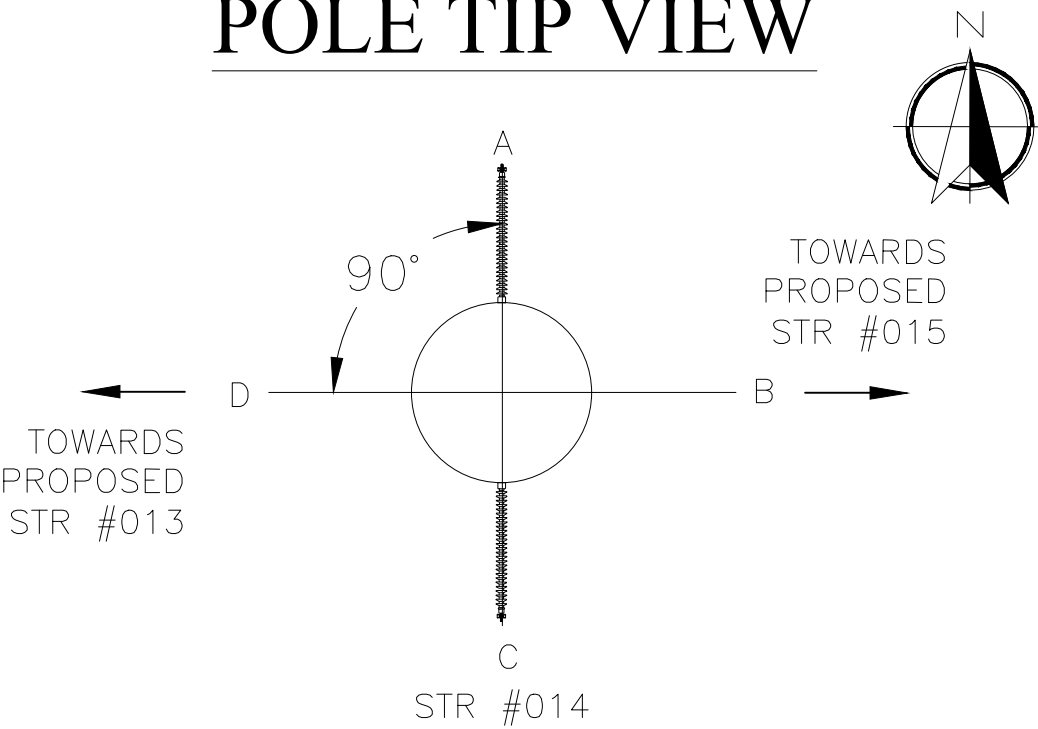
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW

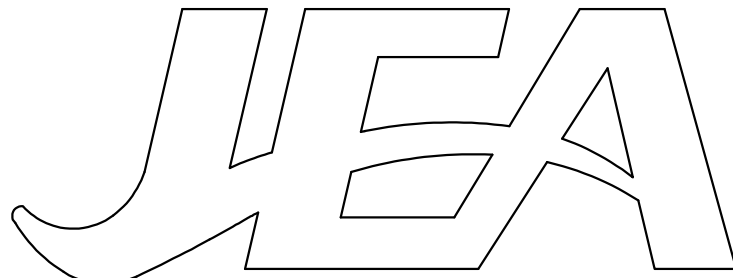


GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-10"	-
TRANS AΦ	7'-0"	-
TRANS BΦ	14'-0"	-
TRANS CΦ	21'-0"	-
DIST	42'-6"	-
TRANSFORMER	47'-2"	-
NEUTRAL	49'-8"	-
SECONDARY	50'-8"	-
GROUND ROD	-	-1'-0"

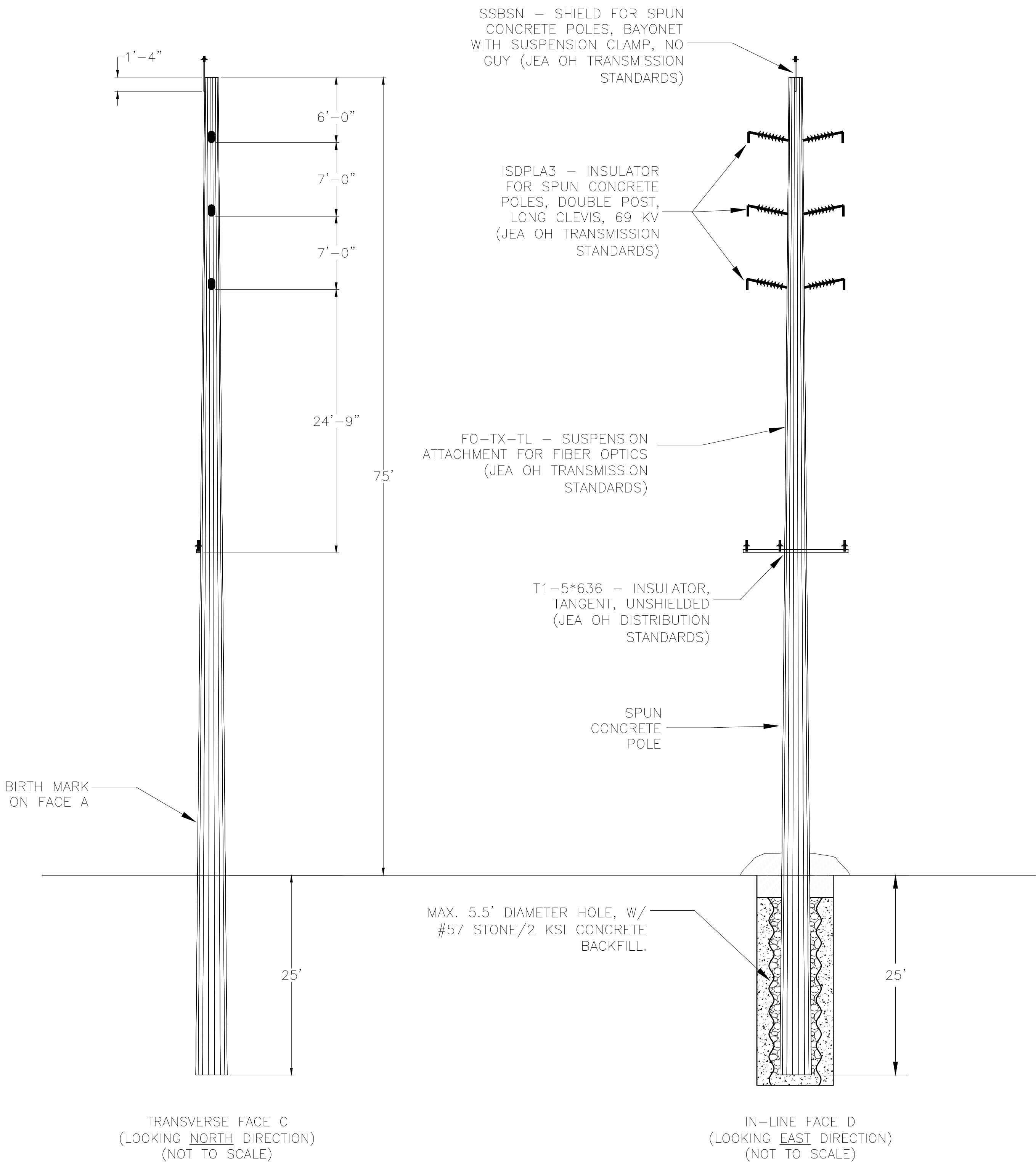
NOTES:

- THIS POLE CONFIGURATION DRAWING IS ACCOMPANIED BY A PLS-POLE FILE WITH THE SITE SPECIFIC LOADING FOR THE STRUCTURE. THE FILE "STR 014".
- ALL BOLT LENGTHS ARE MINIMUMS. VENDOR TO PROVIDE ADEQUATE LENGTH REQUIRED PER PROVIDED LOADS FROM LCA FILE.
- ALL LOADS ARE ULTIMATE LOAD AND INCLUDE THE APPROPRIATE LOAD FACTORS.
- ALL REFERENCED DETAILS ARE PROVIDED IN THE "PROJECT SPECIFIC TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES FOR THE 691-693 69 kV STRUCTURE REPLACEMENTS". POLES SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF THESE SPECIFICATIONS AND DETAILS.
- POLES ARE TO BE DESIGNED TO MEET ALL OF THE REQUIREMENTS FOUND IN THE "GENERAL TECHNICAL SPECIFICATIONS FOR THE PURCHASE OF SPUN CONCRETE TRANSMISSION POLES", REVISION 1.3, UPDATED ON 8/4/2025

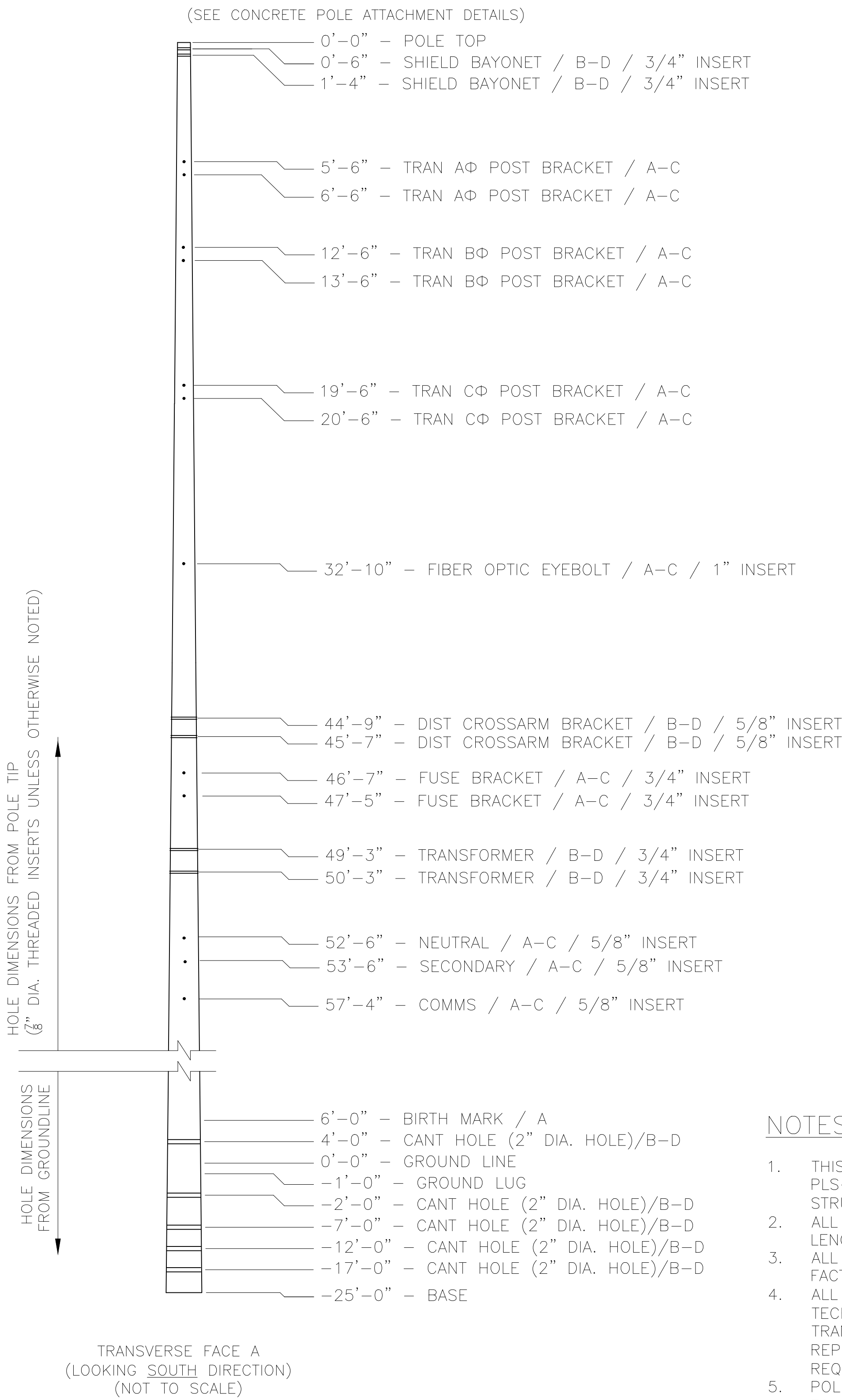
NO.	REVISION	DATE	BY	CH'D	APP'D	REVISION	DATE	BY	CH'D	APP'D	ENGINEERING	RECORD	 BUILDING COMMUNITY	PROPOSED STR #014 POLE CONFIGURATION FOR THE 691-693 69 kV STRUCTURE REPLACEMENTS		PROJECT NO. 8010196
	ISSUED FOR 30% DESIGN REVIEW	05/20/25	AJS	JA							STATUS	BY	DATE			DRAWING NO. TR 1404
	ISSUED FOR BID	08/18/25	AJS	JA							ASSIGNED	PLAN	12/10/24			
											DESIGNED	AJS	05/20/25	SCALE: N/A		PROJECT DESIGN SEGMENT 8010196
											DRAWN	AJS	05/20/25			SHEET NO.
											CHECKED	JA	06/26/25			6 OF 16
											APP'D	TBD	-			

STRUCTURE TYPE  
A2251\*556S 69 KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE  
STRUCTURE 015

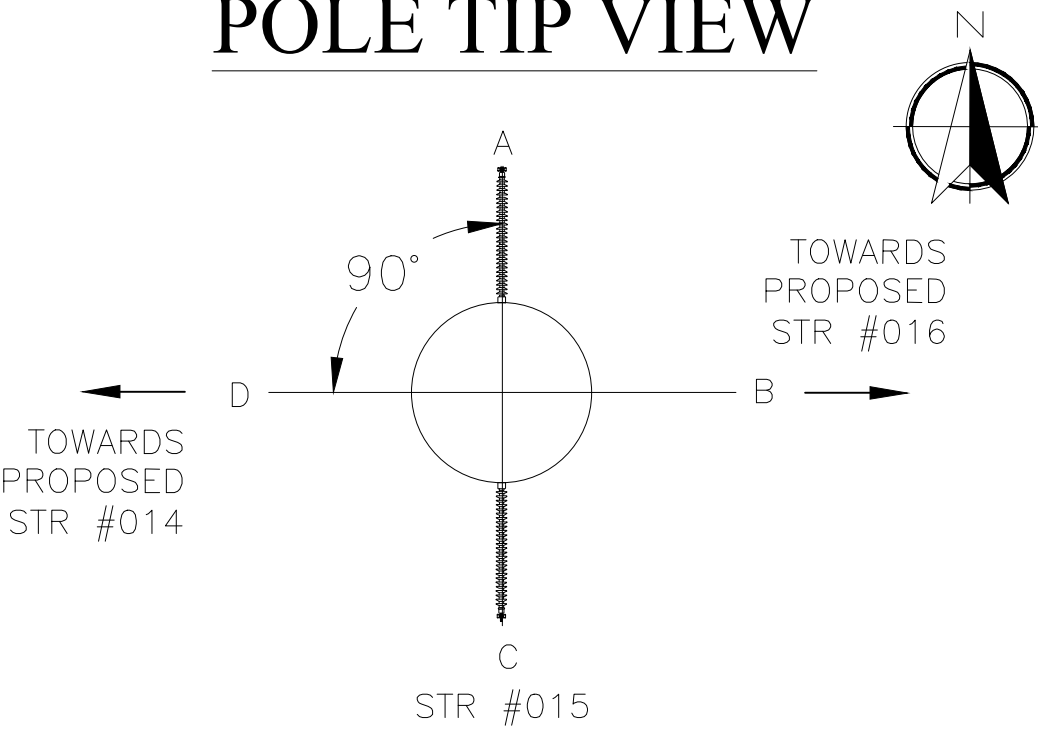
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW

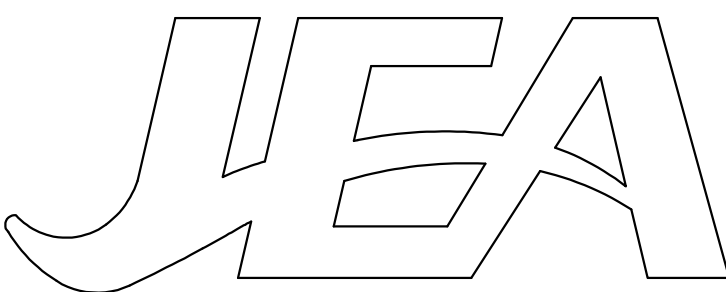


GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-10"	-
TRANS AΦ	7'-0"	-
TRANS BΦ	14'-0"	-
TRANS CΦ	21'-0"	-
DIST	45'-9"	-
TRANSFORMER	50'-5"	-
NEUTRAL	52'-8"	-
SECONDARY	53'-8"	-
GROUND ROD	-	-1'-0"

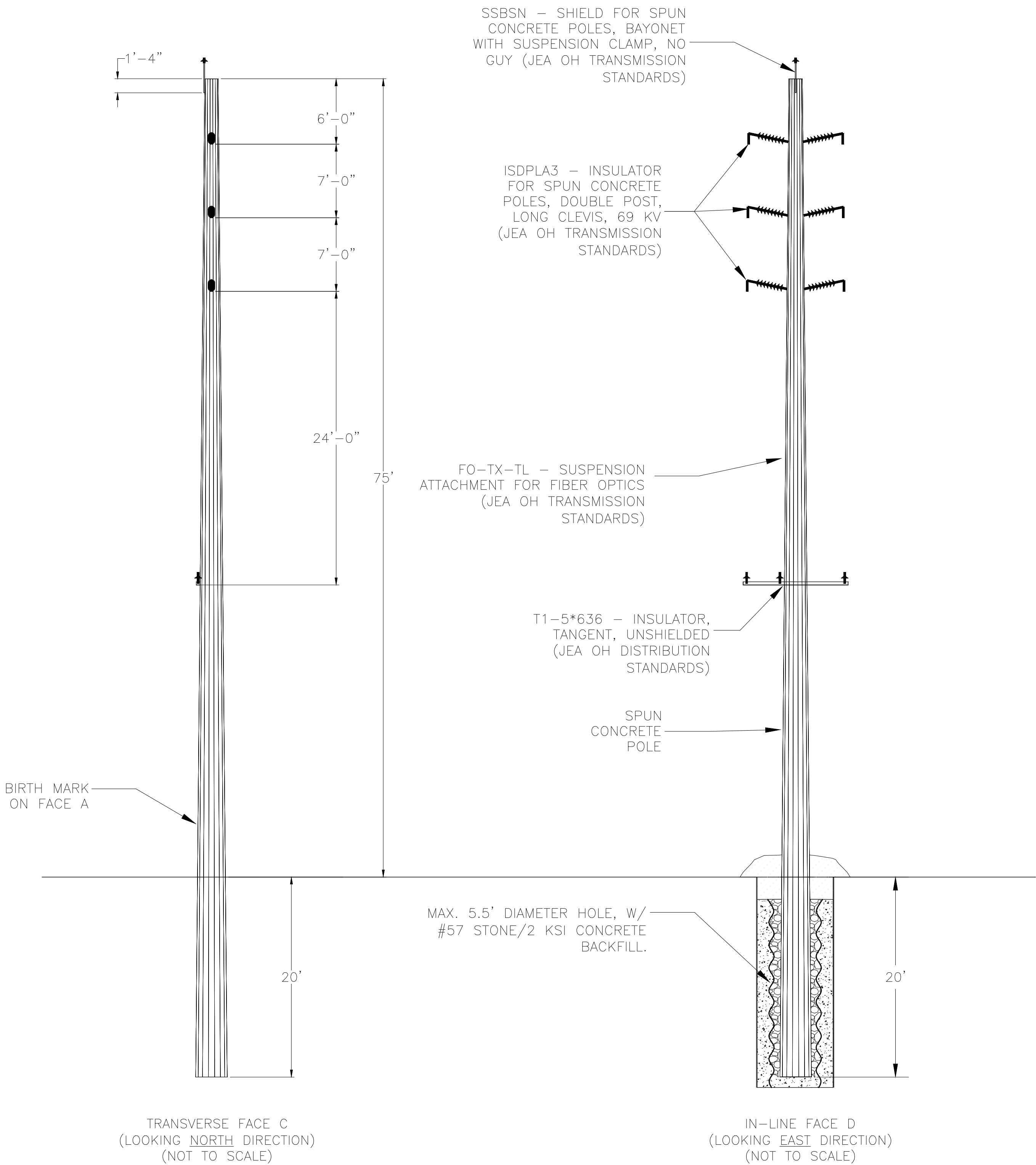
NOTES:

- THIS POLE CONFIGURATION DRAWING IS ACCOMPANIED BY A PLS-POLE FILE WITH THE SITE SPECIFIC LOADING FOR THE STRUCTURE. THE FILE "STR 015".
- ALL BOLT LENGTHS ARE MINIMUMS. VENDOR TO PROVIDE ADEQUATE LENGTH REQUIRED PER PROVIDED LOADS FROM LCA FILE.
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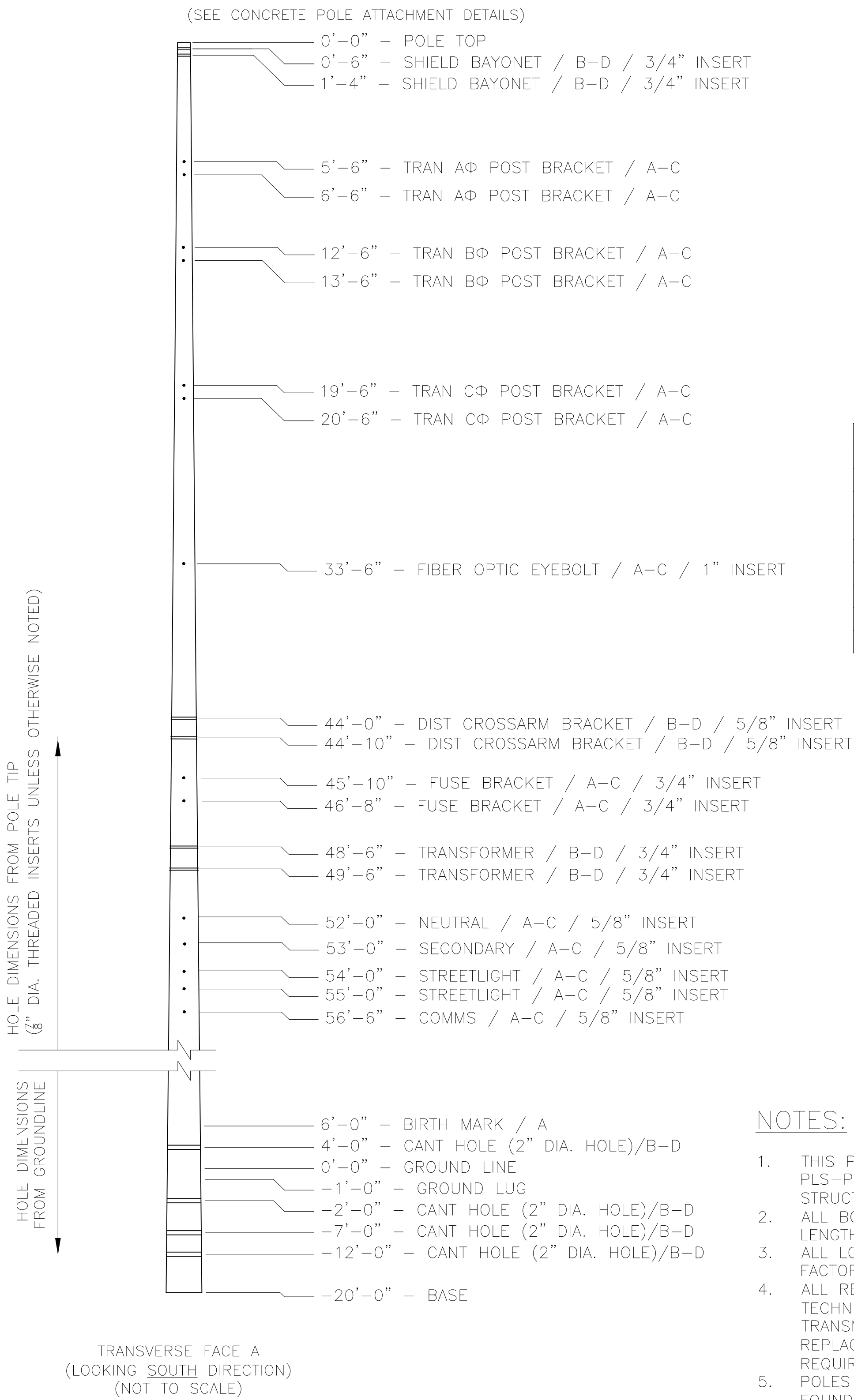
NO.	REVISION	DATE	BY	CH'D	APP'D	REVISION	DATE	BY	CH'D	APP'D	ENGINEERING	RECORD	 BUILDING COMMUNITY	PROPOSED STR #015 POLE CONFIGURATION FOR THE 691-693 69 kV STRUCTURE REPLACEMENTS		PROJECT NO. 8010196
	ISSUED FOR 30% DESIGN REVIEW	05/20/25	AJS	JA							STATUS	BY	DATE			DRAWING NO. TR 1404
	ISSUED FOR BID	08/18/25	AJS	JA							ASSIGNED	PLAN	12/10/24			
											DESIGNED	AJS	05/20/25	SCALE: N/A		PROJECT DESIGN SEGMENT 8010196
											DRAWN	AJS	05/20/25			
											CHECKED	AJS	06/26/25			
											APP'D	TBD	-			SHEET NO. 7 OF 16

STRUCTURE TYPE  
A2251\*556S 69 KV DOUBLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE  
STRUCTURE 016

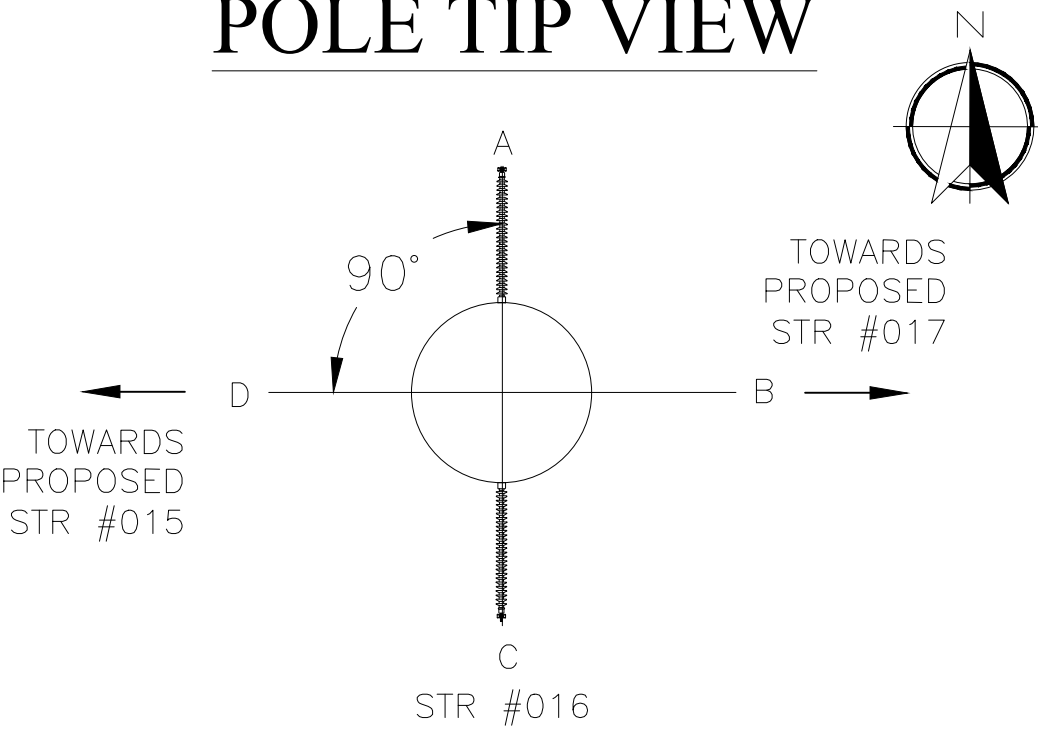
ELEVATION VIEW



DRILLING DETAIL



POLE TIP VIEW

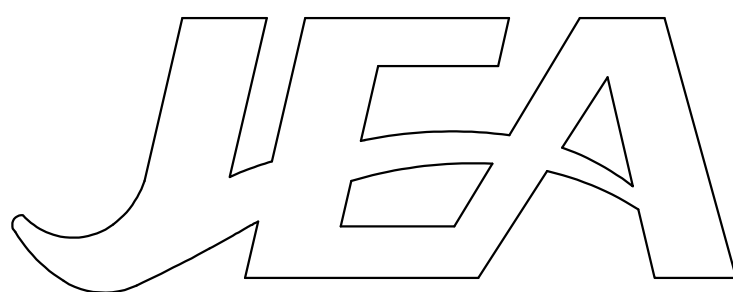


GROUND LUG LOCATIONS

FOR	FROM POLE TOP	FROM POLE GROUNDLINE
SHIELD	1'-10"	-
TRANS AΦ	7'-0"	-
TRANS BΦ	14'-0"	-
TRANS CΦ	21'-0"	-
DIST	45'-0"	-
TRANSFORMER	49'-8"	-
NEUTRAL	52'-2"	-
SECONDARY	53'-2"	-
GROUND ROD	-	-1'-0"

NOTES:

- THIS POLE CONFIGURATION DRAWING IS ACCOMPANIED BY A PLS-POLE FILE WITH THE SITE SPECIFIC LOADING FOR THE STRUCTURE. THE FILE "STR 016".
- ALL BOLT LENGTHS ARE MINIMUMS. VENDOR TO PROVIDE ADEQUATE LENGTH REQUIRED PER PROVIDED LOADS FROM LCA FILE.
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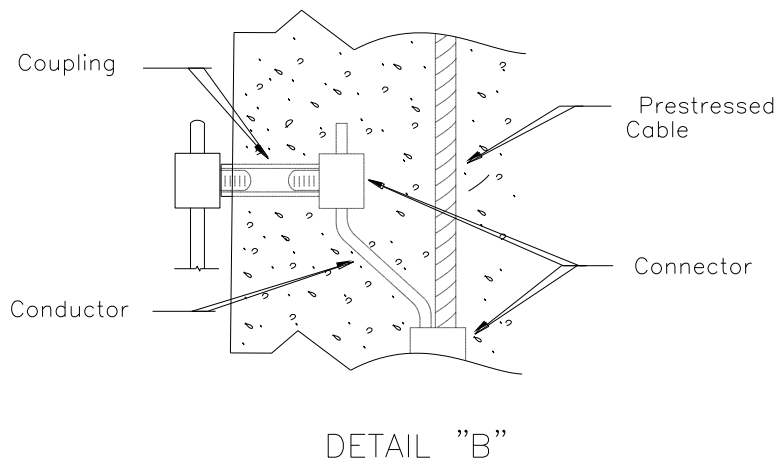
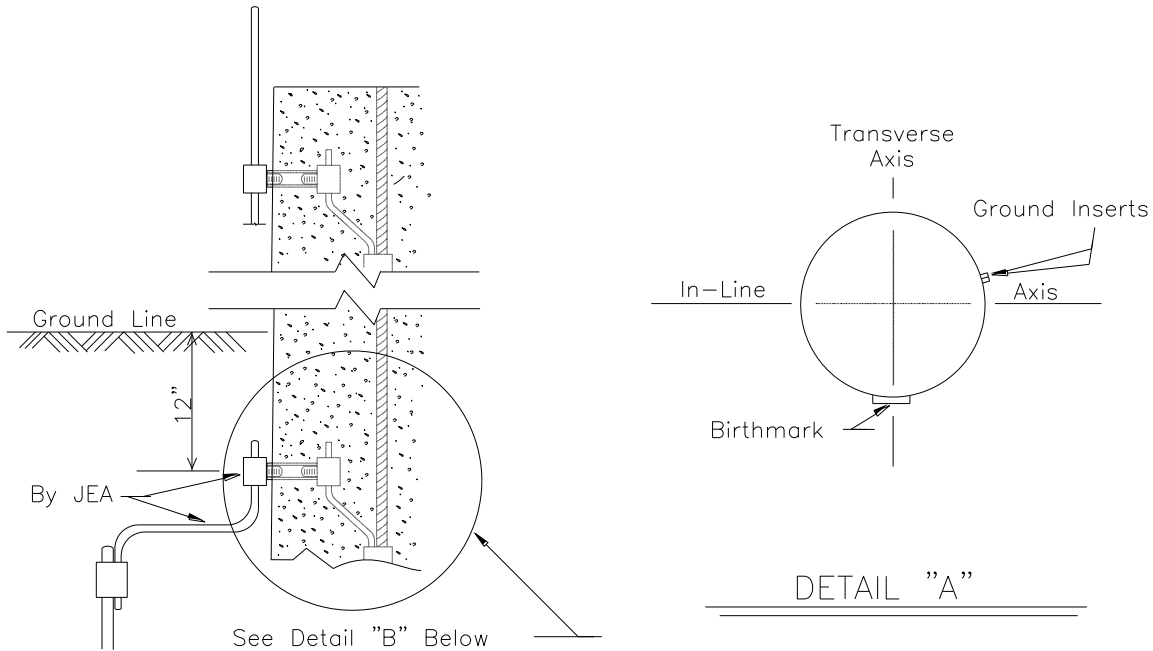
NO.	REVISION	DATE	BY	CH'D	APP'D	REVISION	DATE	BY	CH'D	APP'D	ENGINEERING	RECORD	 BUILDING COMMUNITY	PROPOSED STR #016 POLE CONFIGURATION FOR THE 691-693 69 kV STRUCTURE REPLACEMENTS		PROJECT NO. 8010196
	ISSUED FOR 30% DESIGN REVIEW	05/20/25	AJS	JA							STATUS	BY	DATE			DRAWING NO. TR 1404
	ISSUED FOR BID	08/18/25	AJS	JA							ASSIGNED	PLAN	12/10/24			
											DESIGNED	AJS	05/20/25	SCALE: N/A		PROJECT DESIGN SEGMENT 8010196
											DRAWN	AJS	05/20/25			SHEET NO.
											CHECKED	JA	06/26/25			8 OF 16
											APP'D	TBD	-			

## **9. POLE ATTACHMENT DETAILS**

- 1) Ground Inserts Detail PGI

## PGI

### GROUND INSERT DETAILS



Note: Coupling and Internal Cable with Connectors To Be Furnished By Pole Manufacturer

## 10. PLS-POLE BACKUP FILES

### 1) Pole Drawings:

Structure A2251\*556S – Double Post, Unguyed, Angle Shield, 3-Phase

Structure(s): #8, #9, #10, #11, #12, #14, #15, #16

- a. See electronically attached PLS-POLE back up file “691-693 69kV Structure Replacements.bak”

## 11. POLE DELIVERY MAPS

- 1) The following map show the transmission corridor and the locations near 691-693 69kV Structure Replacement Project, where each pole shall be delivered. Structures are to be installed at the coordinates provided in the table below. Structures are to be installed upon arrival and not to be laid down. Note that only one structure can be delivered to jobsite per day.



Structure	Latitude	Longitude
8	30.28801636	-81.61999764
9	30.28763404	-81.61915785
10	30.28730667	-81.61847177
11	30.28700444	-81.61779628
12	30.28661087	-81.61692968
14	30.28625354	-81.61578807
15	30.28620325	-81.61504894
16	30.28614300	-81.61403197