

Q OF TRANSMISSION LINE
 CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: OTHER STANDARD DRAWINGS REQUIRED:
 TD FOUNDATION & BACKFILL
 TG GROUND WIRE & GROUND ROD DETAILS
 TH GUYING ASSEMBLIES
 TK MARKINGS
 TR GUY ANCHORS

NOTE B: POLE DRILLING: 7/8" BOLT - 15/16" DIAMETER HOLE
 5/8" BOLT - 11/16" DIAMETER HOLE

NOTE C: FOR ALL TENSIONS HIGHER THAN 4000# THIS STRUCTURE IS A FALSE DEADEND

NOTE D: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE E: THE HUGHES BROTHERS 2892-D DEADEND ASSEMBLY INCLUDES ALL MOUNTING HARDWARE, BOLTS, ETC. IN ORDER TO CONNECT THE ARM ASSEMBLY AND THE BRACE ASSEMBLY TO THE STRUCTURE WITH THE EXCEPTION OF SQUARE WASHERS (ITEM 11) AND HELICAL WASHERS (ITEM 8).

NOTE F: DEPENDING ON THE LINE ANGLE AND THE CLEARANCE BETWEEN THE GUYS AND THE CONDUCTORS THE GUYING ANGLE MAY DIFFER SLIGHTLY AT THE DISCRETION OF THE DESIGNER.

NOTE G: ANGLES SHOWN ARE DISPLAY ANGLES BETWEEN THE POLE AND THE GUY WIRE.

NOTE H: GUYING ANGLES SHOWN ARE GUIDELINES. IF THE SPECIFIC FIELD CONDITIONS IN THE AREA WHERE THIS STRUCTURE IS INSTALLED DO NOT ACCOMMODATE THIS GUYING ARRANGEMENT THEN THE CHANGES TO THE GUYING ARRANGEMENT SHALL BE NOTED ON THE RESPECTIVE PLAN AND PROFILE DRAWING.

NOTE I: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES.

BILL OF MATERIAL (CU Type: POLE)					
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TV-6HBAK	
1	8	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV	
2	2	EA	6000273770	NUT SQ 7/8 BOLT GALV	
3	2	EA	1035474012	BOLT SQ HEAD 3/4 X 12 W/ SQ NUT (NOTE D)	
4	4	EA	1035475020	BOLT SQ HEAD 7/8 X 20 W/ SQ NUT (NOTE D)	
5	4	EA	1035475022	BOLT SQ HEAD 7/8 X 22 W/ SQ NUT (NOTE D)	
6	2	EA	6000274600	WASHER HELICAL (5/8")	
7	2	EA	6000274610	WASHER HELICAL (3/4")	
8	12	EA	6000274612	WASHER HELICAL (7/8")	
9	2	EA	6000274710	WASHER 3-1/2" FLAT ROUND (3/4")	
10	2	EA	6000274821	WASHER 3" SQ CURVED (5/8")	
11	12	EA	6000274880	WASHER 4" SQ. CURVED (7/8")	
12	2	EA	6000272870	CLEVIS DEADEND, 15/16 H, BNK, 25K	
13	4	EA	6000274040	PLT POLE EYE 15/16 H	
14	1	EA	6000820052	POLE TOPPER 19"	

BILL OF MATERIAL (CU Type: SHLDO)					
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TV-6HBAK	
15	3	EA	6000115322	CLMP TEE AL BOLTED, 477-795 KCM RUN AND TAP	

BILL OF MATERIAL (CU Type: INSO)					
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9P-D3-6	
16	6 CUs	EA	6000310739	INS SUS CL52-3 20K M&E GRY (6 UNITS/STRING)	

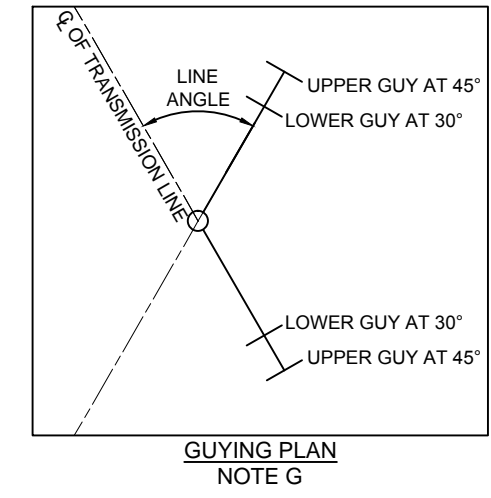
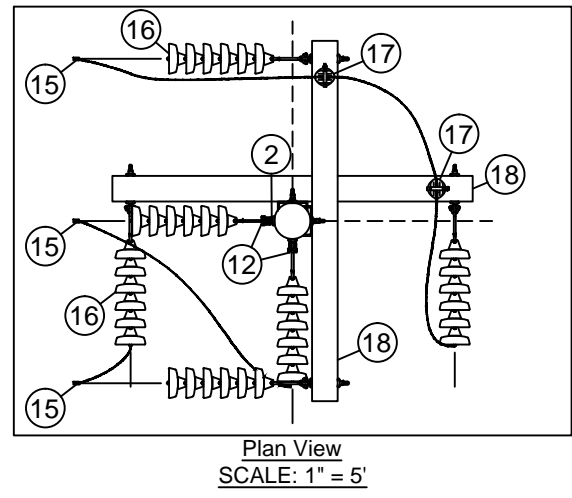
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9Y-P3-D	
16	6	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.	

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-6Y-V2 (2 CUs)	
17	1	EA	6000310215	INS VERTICAL POST 69KV POLYMER	

BILL OF MATERIAL (CU Type: DEAD END ASS.)					
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TT-9W-A-OU10	
18	2	EA	6000740590	HUGHES DEADEND ASSEMBLY 2892-D (NOTE E)	

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

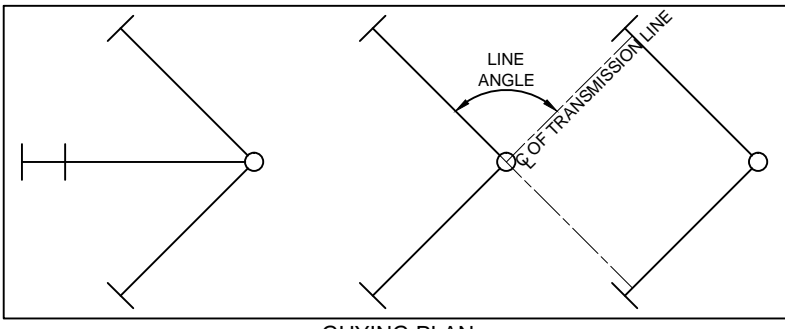
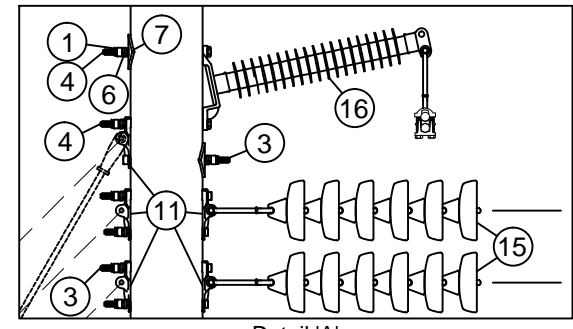
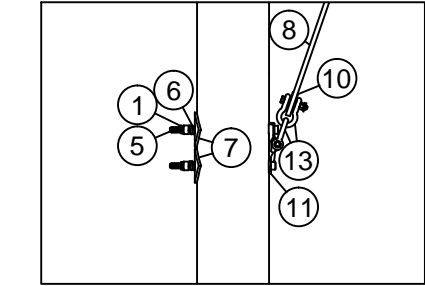
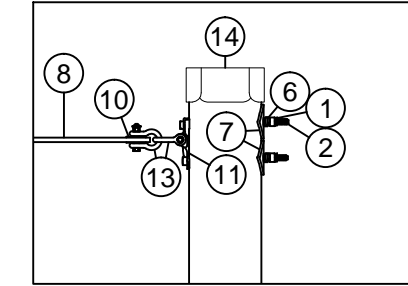
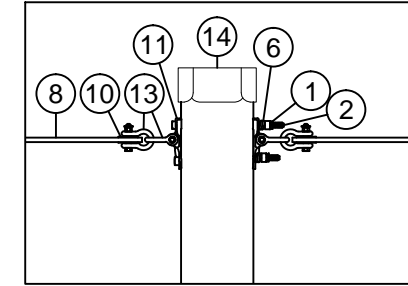
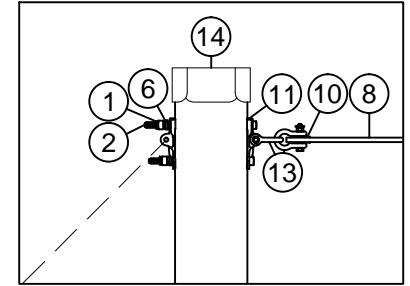
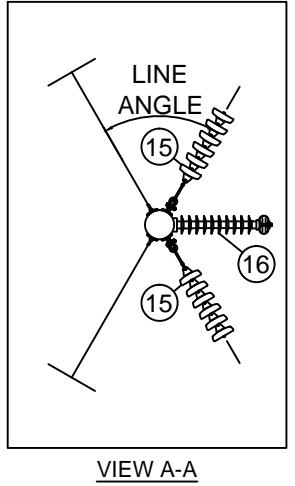
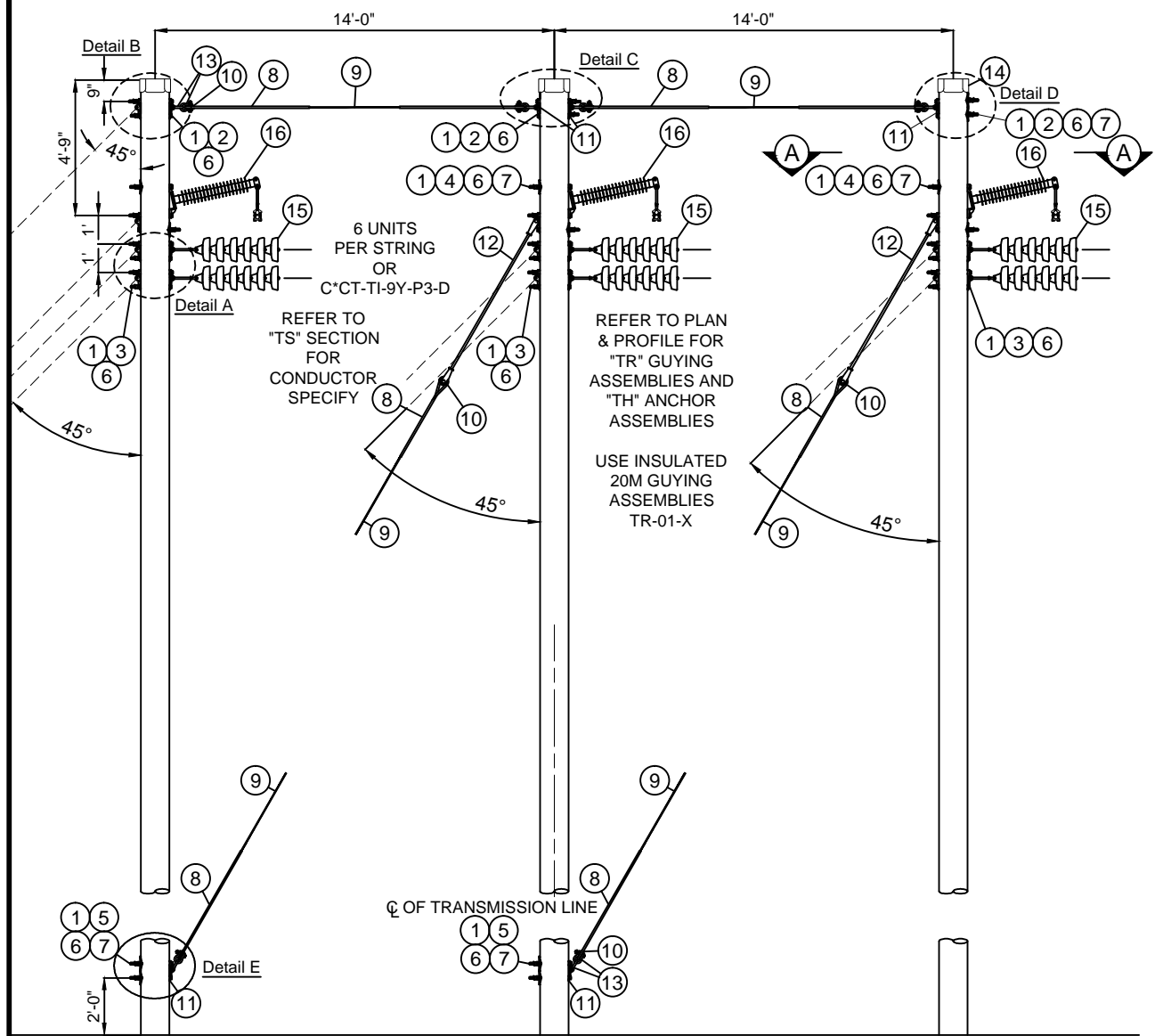
CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6HBAKF-B-U	(3) - 477 ACSR 18/1	-	TS-N2P1L1-B	-
C*M-TV6HBAKF-X-U	(3) - 795 ACSR 26/7	-	TS-N2P1L1-X	-



THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs. Drawing Scale: 1" = 5'

	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY DEADEND BUCKARM STRUCTURE - 50° TO 100° CMP TYPE BN-J	REVISION
			00
			DATE
			5/21/2015
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:
B. Franklin	1/22/2014	Becken/Hart	3/05/2015
Approved By:	Date App.:	TM2.23.TV-6HBAK-X	
Barry R. Hart	4/16/2015	Sheet 1	



GUYING PLAN

Detail 'A'

Detail 'B'

Detail 'C'

Detail 'D'

Detail 'E'

BILL OF MATERIAL (CU Type: POLE)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TV-6HDJK
1	31	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	6	EA	1035475018	BOLT SQ HEAD 7/8 X 18 W/ SQ NUT (NOTE C)
3	15	EA	1035475020	BOLT SQ HEAD 7/8 X 20 W/ SQ NUT (NOTE C)
4	6	EA	1035475022	BOLT SQ HEAD 7/8 X 22 W/ SQ NUT (NOTE C)
5	4	EA	1035475026	BOLT SQ HEAD 7/8 X 26 W/ SQ NUT (NOTE C)
6	31	EA	6000274612	WASHER HELICAL (7/8")
7	15	EA	6000274880	WASHER 4" SQ CURVED (7/8")
8	8	EA	6000250970	GRIP PRFRMD GUY 20M AWLD
9	100	EA	6000252400	WIRE ALWD GUY 20M
10	8	EA	1010145540	THMBL ROLLER 2-3/4" DIA 15/16" H
11	22	EA	6000274040	PLT POLE EYE 15/16 H
12	2	EA	6000251600	FIBERGLASS GUY STRAIN INSULATOR, 78", 30K
13	12	EA	1039220531	SHCKL ANCH 7/8 BNK 1-1/4 OPNG
14	3	EA	6000820052	POLE TOPPER 19"

BILL OF MATERIAL (CU Type: INSO)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9P-D3-6
15	6 CUs	EA	6000310739	INS SUS CL52-3 20K M&E GRY (6 UNITS/STRING)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9Y-P3-D
15	6	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.

BILL OF MATERIAL (CU Type: INSO)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-6Y-HC
16	3	EA	6000310218	INS 69KV 2.5" POLYMER POST

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6HDJKF-B-U	(3) - 477 ACSR 18/1	-	TS-N2S1L1-B	-
C*M-TV6HDJKF-X-U	(3) - 795 ACSR 26/7	-	TS-N2S1L1-X	-

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

- NOTE A: OTHER STANDARD DRAWINGS REQUIRED:
- TD FOUNDATION & BACKFILL
 - TG GROUND WIRE & GROUND ROD DETAIL
 - TH GUYING ASSEMBLIES
 - TK MARKINGS
 - TR GUY ANCHORS

NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

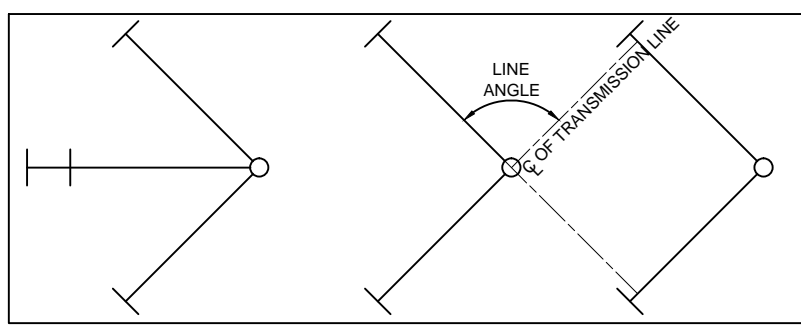
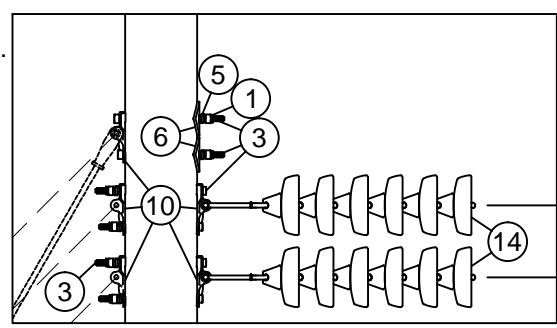
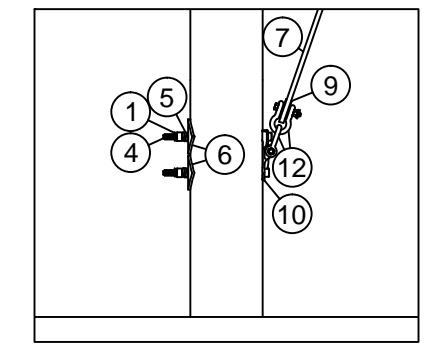
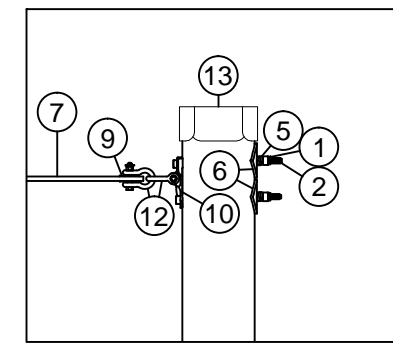
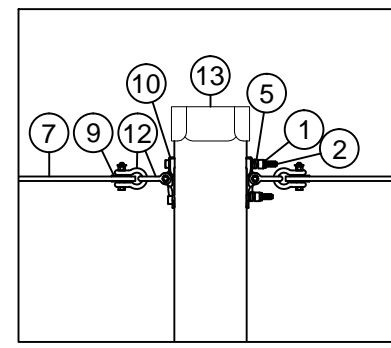
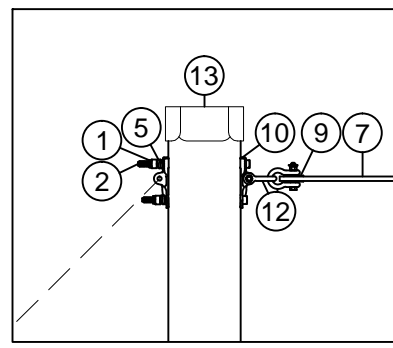
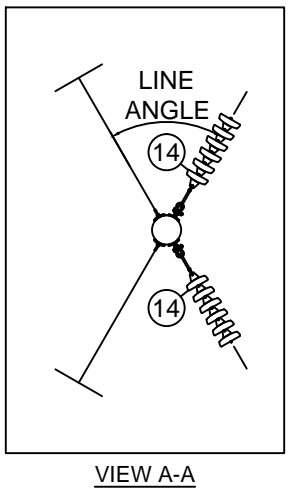
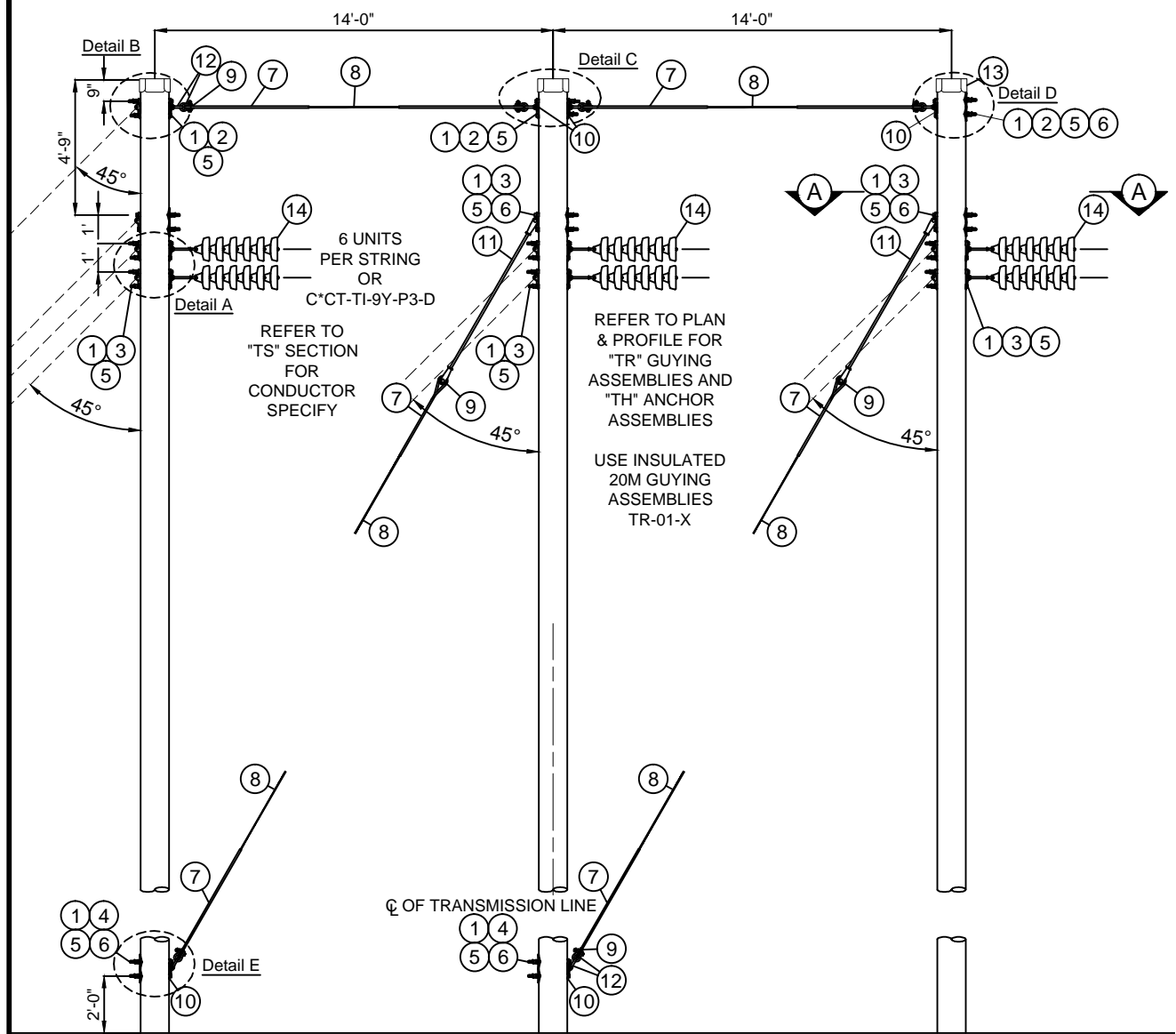
NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE D: GUYING ANGLES SHOWN ARE GUIDELINES. IF THE SPECIFIC FIELD CONDITIONS IN THE AREA WHERE THIS STRUCTURE IS INSTALLED DO NOT ACCOMMODATE THIS GUYING ARRANGEMENT THEN THE CHANGES TO THE GUYING ARRANGEMENT SHALL BE NOTED ON THE RESPECTIVE PLAN AND PROFILE DRAWING.

NOTE E: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES

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Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.			Drawing Scale: 1" = 6'	
	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV H-FRAME SINGLE CIRCUIT - MAINTENANCE ONLY ANGLE DEADEND STRUCTURE - UP TO 60° CMP TYPE BN-DA		REVISION 00
	Drwn. By: B. Franklin Date Dr.: 1/22/2014	Checked By: Becken/Hart	Date Ck.: 3/05/2015	Approved By: Barry R. Hart Date App.: 4/16/2015
TM2.23.TV-6HDJK-X				Sheet 1



GUYING PLAN

BILL OF MATERIAL (CU Type: POLE)				
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TV-6HDOA
1	28	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	6	EA	1035475018	BOLT SQ HEAD 7/8 X 18 W/ SQ NUT (NOTE C)
3	18	EA	1035475020	BOLT SQ HEAD 7/8 X 20 W/ SQ NUT (NOTE C)
4	4	EA	1035475026	BOLT SQ HEAD 7/8 X 26 W/ SQ NUT (NOTE C)
5	28	EA	6000274612	WASHER HELICAL (7/8")
6	12	EA	6000274880	WASHER 4" SQ CURVED (7/8")
7	8	EA	6000250970	GRIP PRFRMD GUY 20M AWLD
8	100	EA	6000252400	WIRE ALWD GUY 20M
9	8	EA	1010145540	THMBL ROLLER 2-3/4" DIA 15/16" H
10	22	EA	6000274040	PLT POLE EYE 15/16 H
11	2	EA	6000251600	FIBERGLASS GUY STRAIN INSULATOR, 78", 30K
12	12	EA	1039220531	SHCKL ANCH 7/8 BNK 1-1/4 OPNG
13	3	EA	6000820052	POLE TOPPER 19"

BILL OF MATERIAL (CU Type: INSO)				
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9P-D3-6
14	6 CUs	EA	6000310739	INS SUS CL52-3 20K M&E GRY (6 UNITS/STRING)
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9Y-P3-D
14	6	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6HDOAC-B-U	(3) - 477 ACSR 18/1	-	TS-N2L1-B	-
C*M-TV6HDOAC-X-U	(3) - 795 ACSR 26/7	-	TS-N2L1-X	-

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

- NOTE A: OTHER STANDARD DRAWINGS REQUIRED:
- TD FOUNDATION & BACKFILL
 - TG GROUND WIRE & GROUND ROD DETAIL
 - TH GUYING ASSEMBLIES
 - TK MARKINGS
 - TR GUY ANCHORS

NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

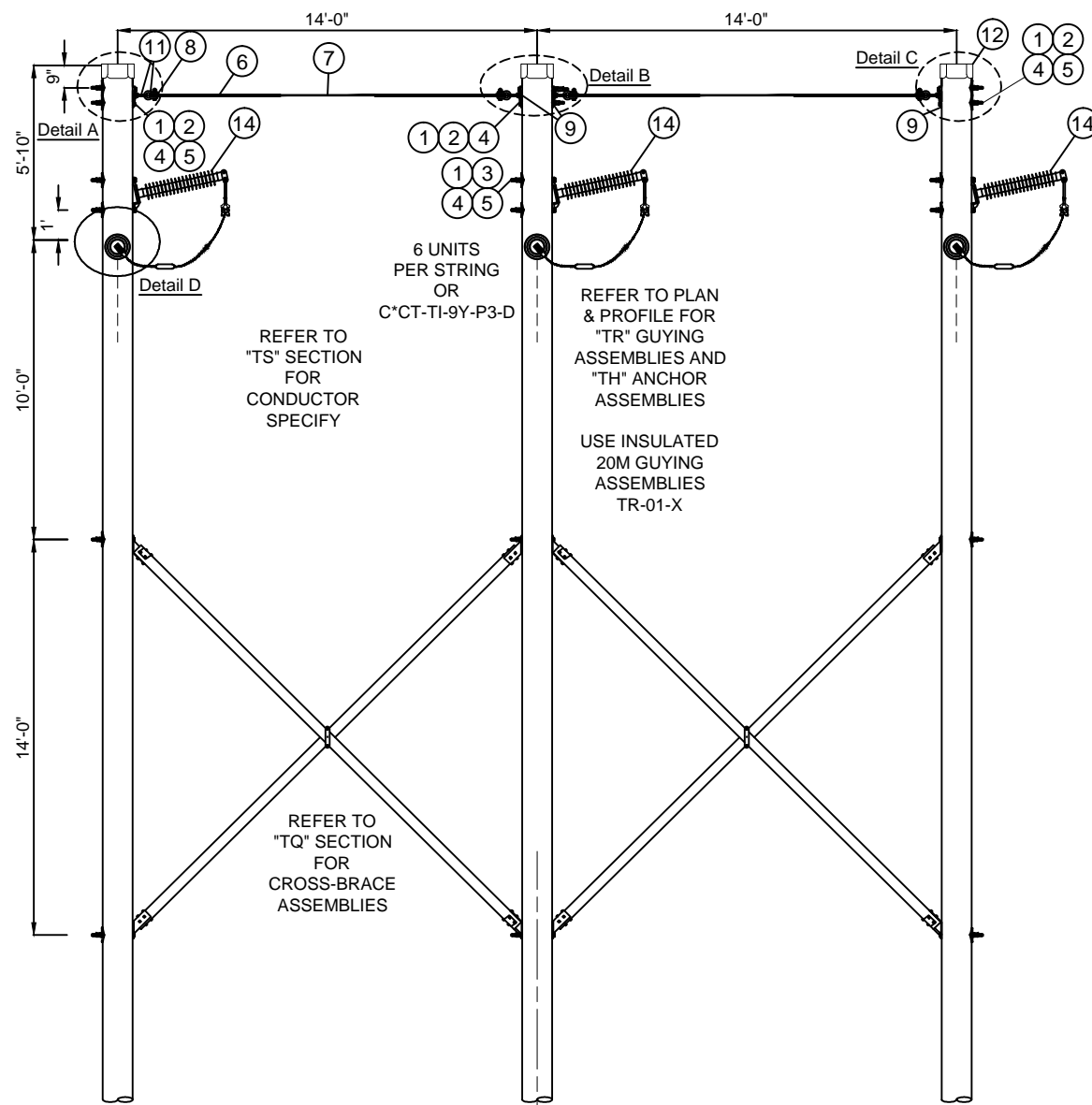
NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT SYSTEM ENGINEERING - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE D: GUYING ANGLES SHOWN ARE GUIDELINES. IF THE SPECIFIC FIELD CONDITIONS IN THE AREA WHERE THIS STRUCTURE IS INSTALLED DO NOT ACCOMMODATE THIS GUYING ARRANGEMENT THEN THE CHANGES TO THE GUYING ARRANGEMENT SHALL BE NOTED ON THE RESPECTIVE PLAN AND PROFILE DRAWING.

NOTE E: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES.

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.			Drawing Scale: 1" = 6'	
	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD		REVISION
		69kV H-FRAME SINGLE CIRCUIT - MAINTENANCE ONLY		00
		ANGLE DEADEND STRUCTURE - 60° AND GREATER		DATE
		CMP TYPE BN-DB		5/21/2015
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:
B. Franklin	1/22/2014	Becken/Hart	3/05/2015	Barry R. Hart
			Date App.:	4/16/2015
				TM2.23.TV-6HDOA-X
				Sheet 1



Q OF TRANSMISSION LINE

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: OTHER STANDARD DRAWINGS REQUIRED:

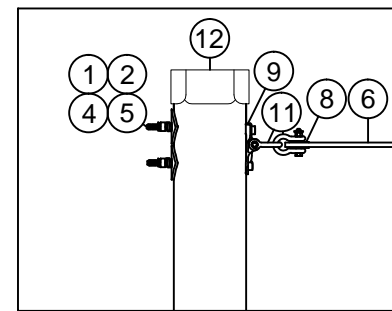
- TD FOUNDATION & BACKFILL
- TG GROUND WIRE & GROUND ROD DETAIL
- TH GUYING ASSEMBLIES
- TK MARKINGS
- TQ CROSS-BRACE INSTALLATION
- TR GUY ANCHORS

NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

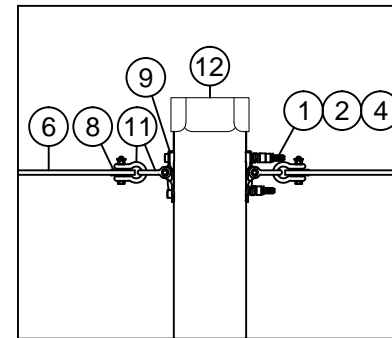
NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE D: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES

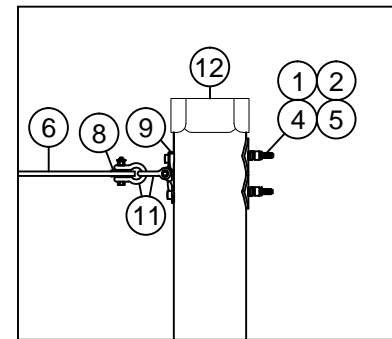
NOTE E: GUYING ANGLES SHOWN ARE GUIDELINES. IF THE SPECIFIC FIELD CONDITIONS IN THE AREA WHERE THIS STRUCTURE IS INSTALLED DO NOT ACCOMMODATE THIS GUYING ARRANGEMENT THEN THE CHANGES TO THE GUYING ARRANGEMENT SHALL BE NOTED ON THE RESPECTIVE PLAN AND PROFILE DRAWING.



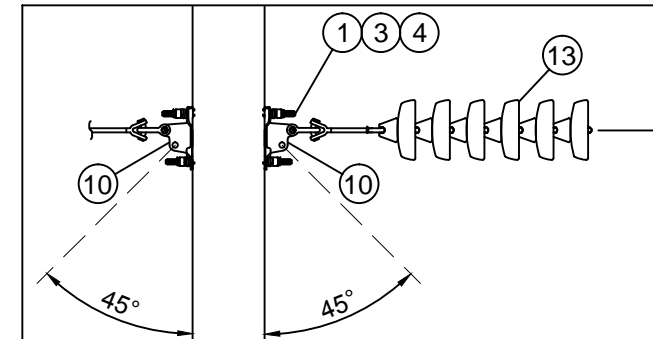
Detail 'A'



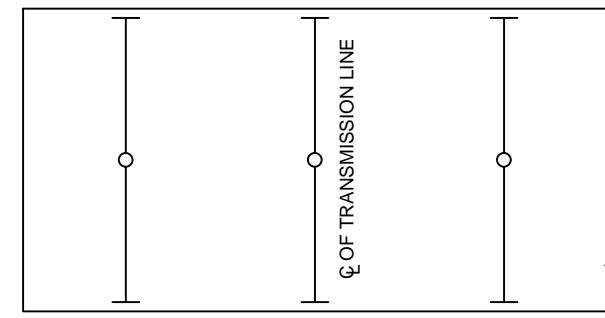
Detail 'B'



Detail 'C'



Detail 'D'



GUYING PLAN

BILL OF MATERIAL (CU Type: POLE)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TV-6HHYK
1	18	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	6	EA	1035475016	BOLT SQ HEAD 7/8 X 16 W/ SQ NUT (NOTE C)
3	12	EA	1035475022	BOLT SQ HEAD 7/8 X 22 W/ SQ NUT (NOTE C)
4	18	EA	6000274612	WASHER HELICAL (7/8")
5	10	EA	6000274880	WASHER 4" SQ CURVED (7/8")
6	4	EA	6000250970	GRIP PRFRMD GUY 20M AWLD
7	50	EA	6000252400	WIRE ALWD GUY 20M
8	4	EA	1010145540	THMBL ROLLER 2-3/4" DIA 15/16" H
9	4	EA	6000274040	PLT POLE EYE 15/16 H
10	6	EA	6000274044	DOUBLE PLT POLE EYE 15/16 H
11	8	EA	1039220531	SHCKL ANCH 7/8 BNK 1-1/4 OPNG
12	3	EA	6000820052	POLE TOPPER 19"

BILL OF MATERIAL (CU Type: INSO)

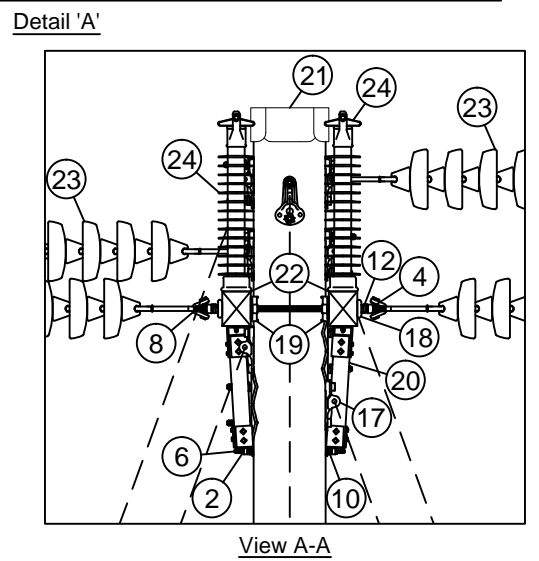
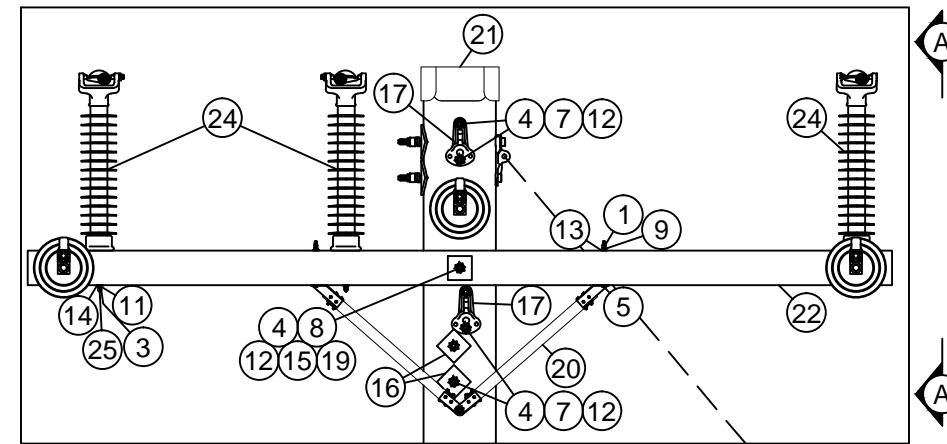
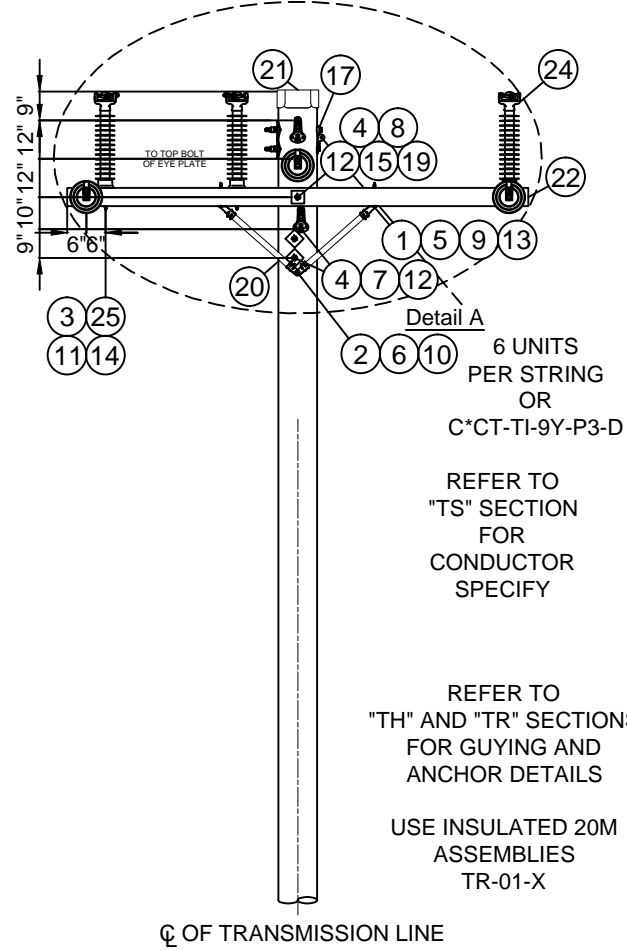
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9P-D3-6
13	6 CUs	EA	6000310739	INS SUS CL52-3 20K M&E GRY (6 UNITS/STRING)
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9Y-P3-D
13	6	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-6Y-HC
14	3	EA	6000310218	INS 69kV 2.5" POLYMER POST

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6HHYKF-B-U	(3) - 477 ACSR 18/1	-	TS-N2S1L1-B	-
C*M-TV6HHYKF-X-U	(3) - 795 ACSR 26/7	-	TS-N2S1L1-X	-

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.		Drawing Scale: 1" = 6'	
	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD	REVISION
		69kV H-FRAME SINGLE CIRCUIT - MAINTENANCE ONLY	00
		TANGENT DEADEND STRUCTURE	DATE
		CMP TYPE BN-LD	5/21/2015
Drwn. By: B. Franklin	Date Dr.: 1/21/2014	Checked By: Becken/Hart	Date Ck.: 3/05/2015
		Approved By: Barry R. Hart	Date App.: 4/16/2015
TM2.23.TV-6HHYK-X			Sheet 1



CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

- NOTE A: OTHER STANDARD DRAWINGS REQUIRED:
- TD FOUNDATION & BACKFILL
 - TG GROUND WIRE & GROUND ROD DETAILS
 - TH GUYING ASSEMBLIES
 - TK MARKINGS
 - TR GUY ANCHORS

NOTE B: POLE DRILLING: 5/8" BOLT - 11/16" DIAMETER HOLE
 3/4" BOLT - 13/16" DIAMETER HOLE
 7/8" BOLT - 15/16" DIAMETER HOLE

NOTE C: FOR ALL TENSIONS HIGHER THAN 3000# AND/OR ANGLES LESS THAN 15° THIS STRUCTURE IS A FALSE DEADEND

NOTE D: FOR ALL ANGLES LESS THAN 15° DO NOT INSTALL THE MIDDLE PHASE IN-LINE GUYS ABOVE THE CROSSARMS OR THE BISECT GUY.

NOTE E: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE F: DEPENDING ON THE LINE ANGLE AND THE CLEARANCE BETWEEN THE GUYS AND THE CONDUCTORS THE GUYING ANGLE MAY DIFFER SLIGHTLY AT THE DISCRETION OF THE DESIGNER.

NOTE G: ANGLES SHOWN ARE DISPLAY ANGLES BETWEEN THE POLE AND THE GUY WIRE.

NOTE H: GUYING ANGLES SHOWN ARE GUIDELINES. IF THE SPECIFIC FIELD CONDITIONS IN THE AREA WHERE THIS STRUCTURE IS INSTALLED DO NOT ACCOMMODATE THIS GUYING ARRANGEMENT THEN THE CHANGES TO THE GUYING ARRANGEMENT SHALL BE NOTED ON THE RESPECTIVE PLAN AND PROFILE DRAWING.

NOTE I: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES

BILL OF MATERIAL (CU Type: POLE)

ITEM NO.	QTY.	UOM	IUSA MID	DESCRIPTION
CU: C*PT-TV-6HTYK				
1	4	EA	1000910500	NUT LCK MF SQ 1/2 BOLT GALV
2	2	EA	1000910600	NUT LCK MF SQ 5/8 BOLT GALV
3	6	EA	1000910700	NUT LCK MF SQ 3/4 BOLT GALV
4	20	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
5	4	EA	6000272053	BOLT SQ HEAD 1/2 X 7 W/ SQ NUT (NOTE E)
6	1	EA	192163	BOLT DA 5/8 X 16 W/ 4 NUTS (NOTE E)
7	10	EA	1035475022	BOLT SQ HEAD 7/8 X 22 W/ SQ NUT (NOTE E)
8	5	EA	6000272460	BOLT DA 7/8 X 26 W/ 4 NUTS (NOTE E)
9	4	EA	6000274590	WASHER HELICAL (1/2")
10	2	EA	6000274600	WASHER HELICAL (5/8")
11	6	EA	6000274610	WASHER HELICAL (3/4")
12	20	EA	6000274612	WASHER HELICAL (7/8")
13	4	EA	6000274808	WASHER 2" FLAT ROUND (1/2")
14	6	EA	6000274710	WASHER 3-1/2" FLAT ROUND (3/4")
15	10	EA	1000946500	WASHER 4" SQ. FLAT (7/8")
16	6	EA	6000274880	WASHER 4" SQ. CURVED (7/8")
17	6	EA	6000274040	PLT POLE EYE 15/16 H
18	4	EA	6000274505	DEAD END TEE, 60K
19	2	EA	1036470025	GRID, TMBR CNCTR, 4-1/8 SQ 15/16 H
20	2	EA	6000740330	CROSSARM BRACES WOOD, 35" LONG (1 PAIR)
21	1	EA	6000820052	POLE TOPPER 19"

BILL OF MATERIAL (CU Type: XARM)

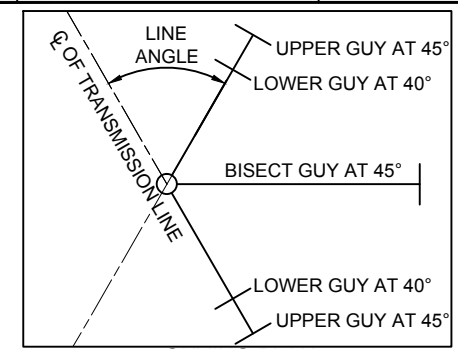
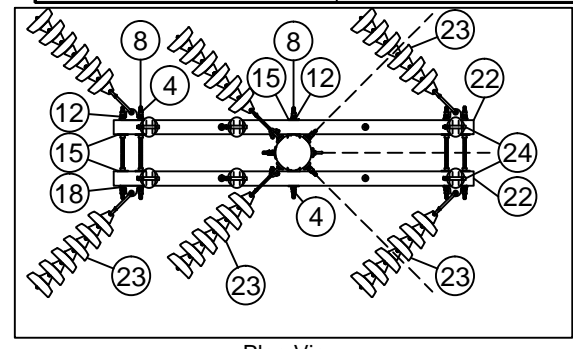
ITEM NO.	QTY.	UOM	IUSA MID	DESCRIPTION
CU: C*PT-TT-9F-C-BB12				
22	2 CUs	EA	6000740560	DOUBLE CROSSARM FIBERGLASS 2 PIN 4-3/4" X 5-3/4" X 12FT

BILL OF MATERIAL (CU Type: INSO)

ITEM NO.	QTY.	UOM	IUSA MID	DESCRIPTION
CU: C*CT-TI-9P-D3-6				
23	6 CUs	EA	6000310739	INS SUS CL52-3 20K M&E GRY (6 UNITS/STRING)
CU: C*CT-TI-9Y-P3-D				
23	6	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.
CU: C*CT-TI-6Y-V2 (6 CUs)				
24	1	EA	6000310215	INS VERTICAL POST 69KV POLYMER
25	1	EA	1035469027	PIN INSULATOR LONG W/ NUT & WASHER

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TN6HTYKF-B-H-U	(3) - 477 ACSR 18/1	-	TS-N2P2L1-B	-
C*M-TN6HTYKF-X-H-U	(3) - 795 ACSR 26/7	-	TS-N2P2L1-X	-



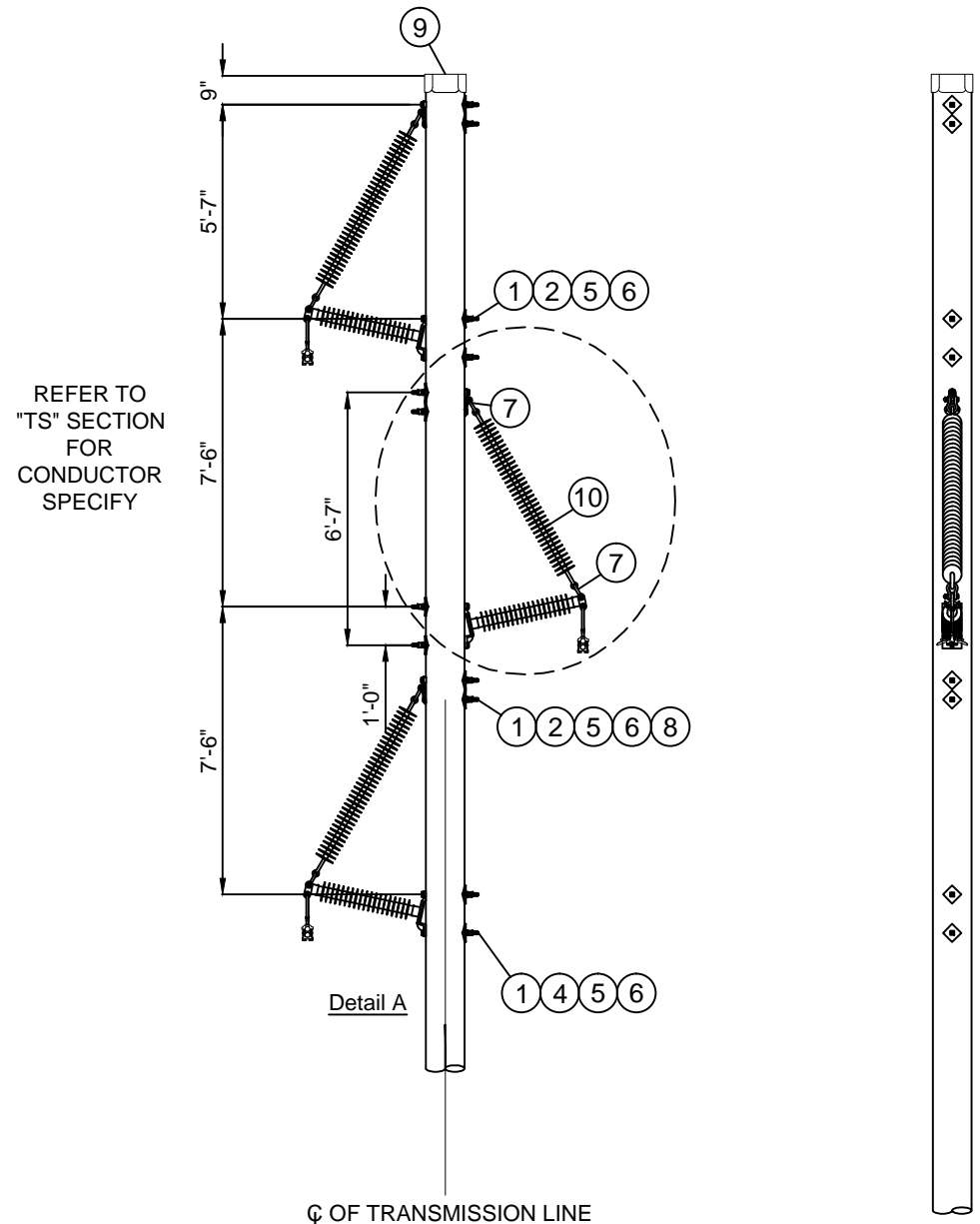
Plan View
SCALE: 1" = 5'

GUYING PLAN
NOTE G

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs. Drawing Scale: 1" = 5'

	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY DEADEND STRUCTURE ON CROSSARMS- 0° TO 50° CMP TYPE BN-H	REVISION
			00
			DATE
			5/21/2015
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:
B. Franklin	1/22/2014	Becken/Hart	3/05/2015
Approved By:	Date App.:	TM2.23.TV-6HTYK-X	
Barry R. Hart	4/16/2015	Sheet 1	



REFER TO
"TS" SECTION
FOR
CONDUCTOR
SPECIFY

Detail A

CL OF TRANSMISSION LINE

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: OTHER STANDARD DRAWINGS REQUIRED:
 TD FOUNDATION & BACKFILL
 TG GROUND WIRE & GROUND ROD DETAIL
 TK MARKINGS

NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE D: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES

BILL OF MATERIAL (CU Type: POLE)

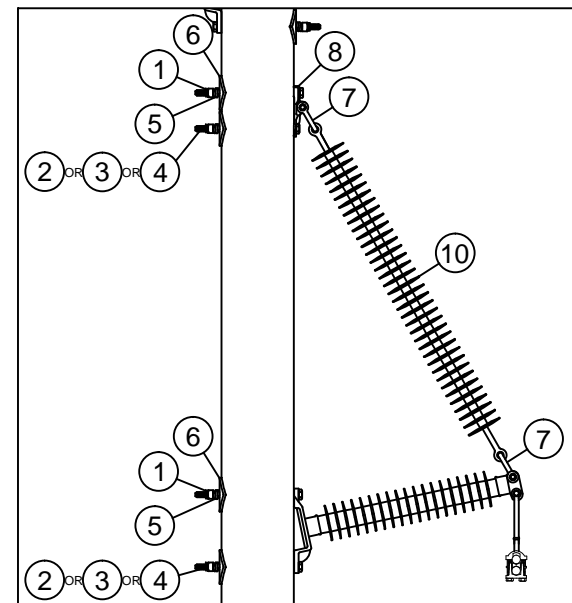
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TN-6SBPG
1	12	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	4	EA	1035475012	BOLT SQ HEAD 7/8 X 12 W/ SQ NUT (NOTE C)
3	4	EA	1035475014	BOLT SQ HEAD 7/8 X 14 W/ SQ NUT (NOTE C)
4	4	EA	1035475016	BOLT SQ HEAD 7/8 X 16 W/ SQ NUT (NOTE C)
5	12	EA	6000274612	WASHER HELICAL (7/8")
6	12	EA	1000943700	WASHER 4" SQ CURVED (7/8")
7	6	EA	1039220531	SHCKL ANCH 7/8 BNK 1-1/4 OPNG
8	3	EA	6000274040	PLT POLE EYE 15/16 H
9	1	EA	6000820052	POLE TOPPER 19"

BILL OF MATERIAL (CU Type: INSO)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-6Y-BP
10	3	EA	6000310230	INS 69KV 2.5" POLYMER BRACED POST ASSY

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6SBPG-B-U	(3) - 477 ACSR 18/1	-	TS-S1A1-B	-
C*M-TV6SBPG-X-U	(3) - 795 ACSR 26/7	-	TS-S1A1-X	-



Detail 'A'

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.		Drawing Scale: 1" = 5'	
	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY TANGENT STRUCTURE - BRACED POST CMP TYPE BP-X	REVISION 00 DATE 5/21/2015
		Drwn. By: B. Franklin Date Dr.: 1/15/2014	Checked By: Becken/Hart Date Ck.: 3/05/2015

BILL OF MATERIAL (CU Type: POLE)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TN-6STPF
1	6	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	2	EA	1035475012	BOLT SQ HEAD 7/8 X 12 W/ SQ NUT (NOTE C)
3	2	EA	1035475014	BOLT SQ HEAD 7/8 X 14 W/ SQ NUT (NOTE C)
4	2	EA	1035475016	BOLT SQ HEAD 7/8 X 16 W/ SQ NUT (NOTE C)
5	6	EA	6000274612	WASHER HELICAL (7/8")
6	6	EA	6000274880	WASHER 4" SQ CURVED (7/8")
7	1	EA	6000820052	POLE TOPPER 19"

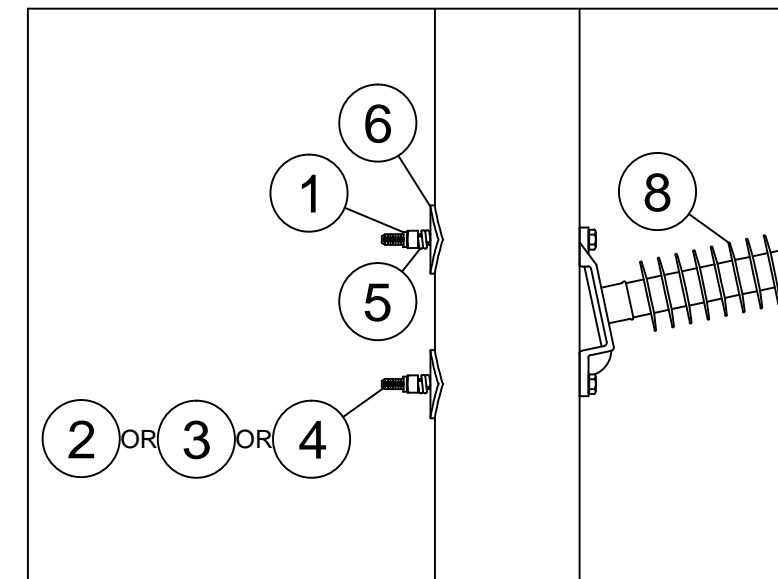
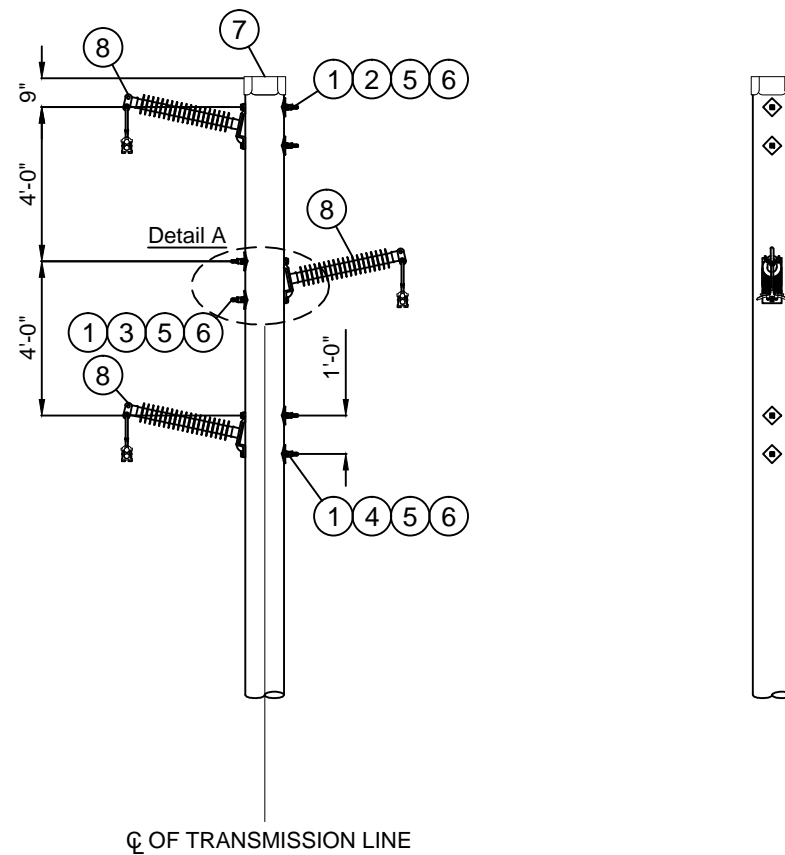
BILL OF MATERIAL (CU Type: INSO)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-6Y-HC
8	3	EA	6000310218	INS 69kV 2.5" POLYMER POST

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6STPF-B-U	(3) - 477 ACSR 18/1	-	TS-S1A1-B	-
C*M-TV6STPF-X-U	(3) - 795 ACSR 26/7	-	TS-S1A1-X	-

REFER TO "TS" SECTION FOR CONDUCTOR SPECIFY



Detail 'A'

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: OTHER STANDARD DRAWINGS REQUIRED:

- TD FOUNDATION & BACKFILL
- TG GROUND WIRE & GROUND ROD DETAIL
- TK MARKINGS

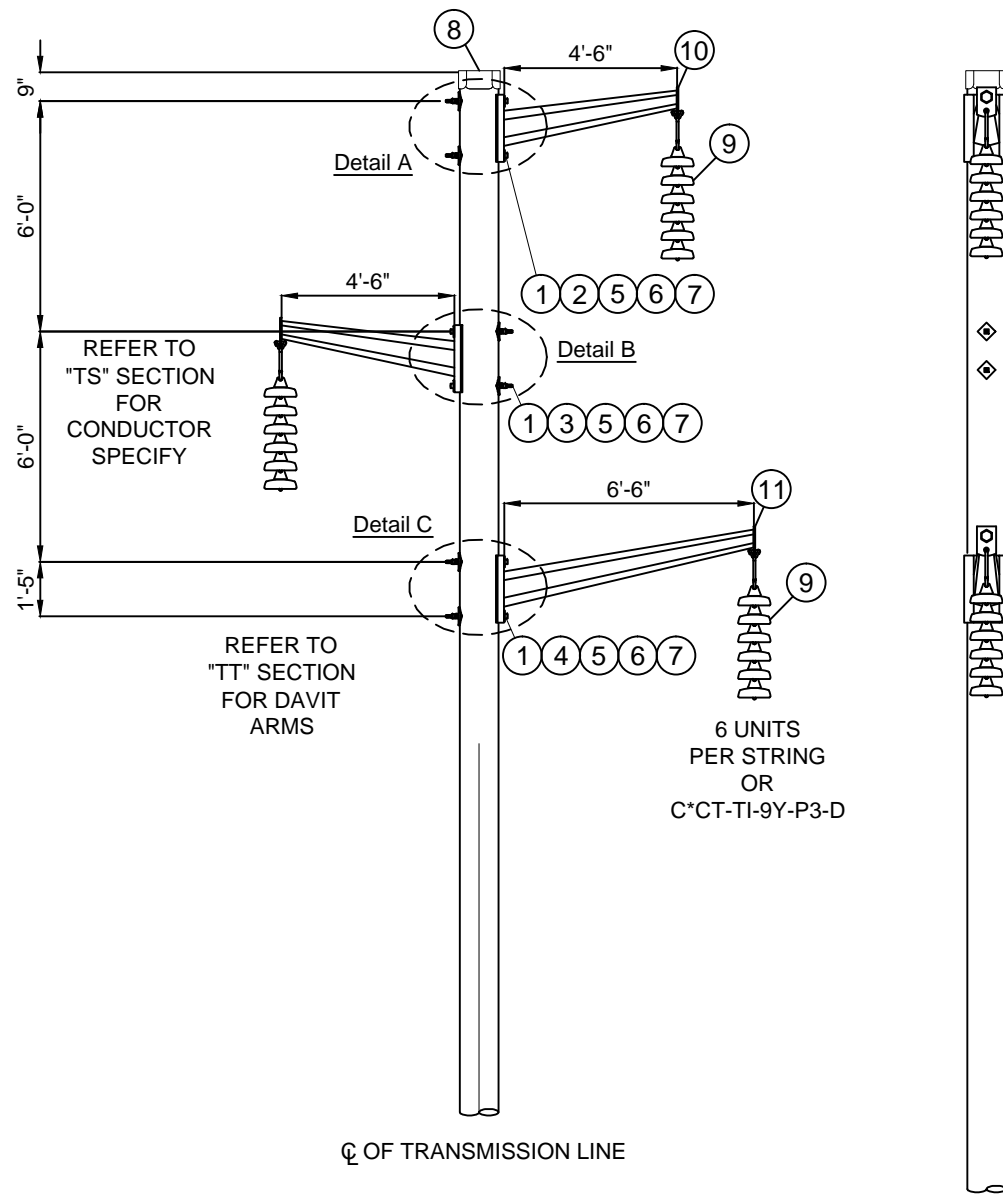
NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE D: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.			Drawing Scale: 1" = 5'	
	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69kV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY TANGENT STRUCTURE - HORIZONTAL POST CMP TYPE LP-X		REVISION 00
				DATE 5/21/2015
Drwn. By: B. Franklin Date Dr.: 1/15/2014	Checked By: Becken/Hart	Date Ck.: 3/05/2015	Approved By: Barry R. Hart Date App.: 4/16/2015	TM2.23.TV-6STPF-X Sheet 1



BILL OF MATERIAL (CU Type: POLE)				
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TN-XSTS
1	6	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	2	EA	1035475024	BOLT SQ HEAD 7/8 X 24 W/ SQ NUT (NOTE C)
3	2	EA	1035475026	BOLT SQ HEAD 7/8 X 26 W/ SQ NUT (NOTE C)
4	2	EA	1035475028	BOLT SQ HEAD 7/8 X 28 W/ SQ NUT (NOTE C)
5	6	EA	6000274612	WASHER HELICAL (7/8")
6	6	EA	6000274880	WASHER 4" SQ CURVED (7/8")
7	6	EA	1000946500	WASHER 4" SQ FLAT (7/8")
8	1	EA	6000820052	POLE TOPPER 19"

BILL OF MATERIAL (CU Type: INSO)				
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9P-D3-6
9	3 CUs	EA	6000310739	INS SUS CL52-3 20K M&E BRN (6 UNITS/STRING)
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9Y-P3-D
9	3	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.

BILL OF MATERIAL (CU Type: DAVIT ARM)				
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TT-9S-D-ZZ84
10	2	EA	6000617074	ARM DAVIT STEEL 4'-6"

BILL OF MATERIAL (CU Type: DAVIT ARM)				
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TT-9S-D-ZZ87
11	1	EA	6000617058	ARM DAVIT STEEL 6'-6"

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TN6STSA-B-U	(6) - 477 ACSR 18/1	-	TS-S1A1-B	-
C*M-TN6STSA-B-U	(6) - 477 ACSR 18/1	-	TS-S1A1-B	-
C*M-TN6STSA-B-U	(6) - 477 ACSR 18/1	-	TS-S1A1-B	-
C*M-TN6STSA-X-U	(6) - 795 ACSR 26/7	-	TS-S1A1-X	-
C*M-TN6STSA-X-U	(6) - 795 ACSR 26/7	-	TS-S1A1-X	-
C*M-TN6STSA-X-U	(6) - 795 ACSR 26/7	-	TS-S1A1-X	-

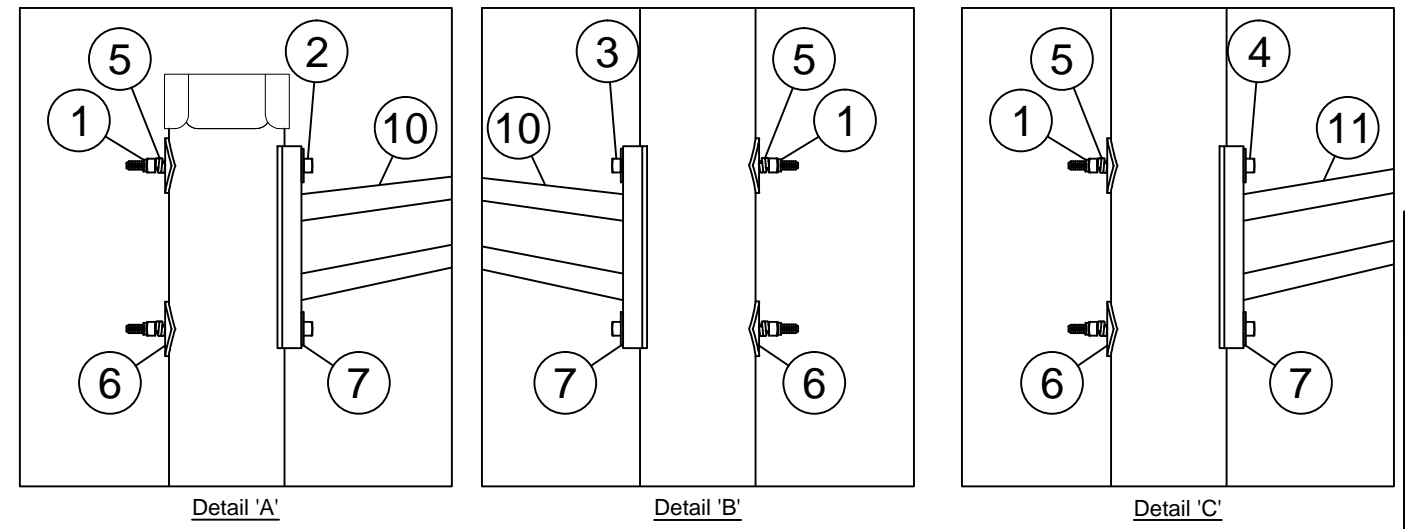
CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.
 FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: OTHER STANDARD DRAWINGS REQUIRED:
 TD FOUNDATION & BACKFILL
 TG GROUND WIRE & GROUND ROD DETAIL
 TK MARKINGS

NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

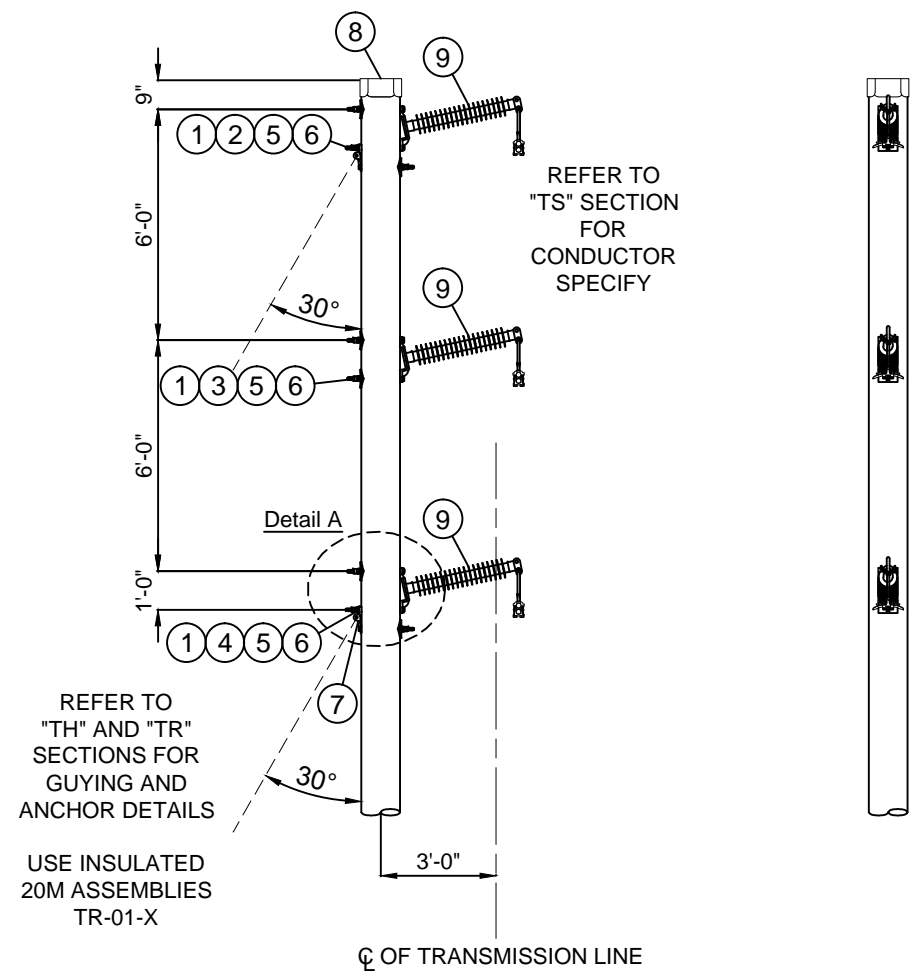
NOTE D: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES.



THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs. Drawing Scale: 1" = 5'

	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY TANGENT STRUCTURE - SUSPENSION INSULATORS CMP TYPE BN-T	REVISION
			00
			DATE
			5/21/2015
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:
B. Franklin	1/15/2014	Becken/Hart	3/05/2015
Approved By:	Date App.:		
Barry R. Hart	4/16/2015	TM2.23.TV-6STSA-X	
			Sheet 1

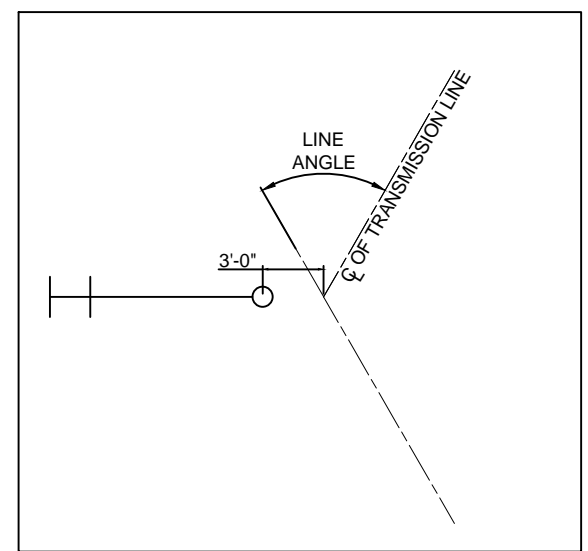
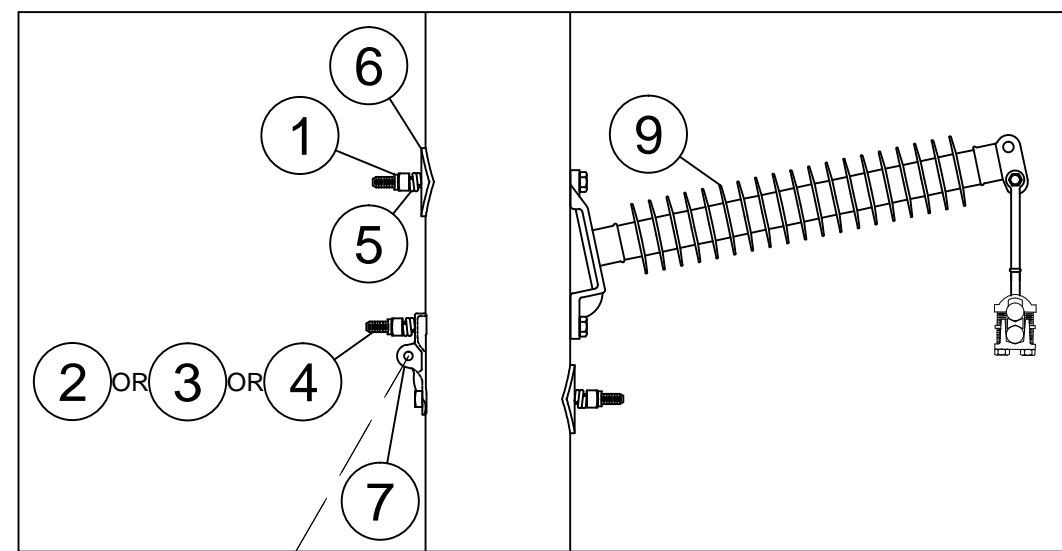


BILL OF MATERIAL (CU Type: POLE)					
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TV-6VAPF	
1	8	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV	
2	3	EA	1035475012	BOLT SQ HEAD 7/8 X 12 W/ SQ NUT (NOTE C)	
3	2	EA	1035475014	BOLT SQ HEAD 7/8 X 14 W/ SQ NUT (NOTE C)	
4	3	EA	1035475016	BOLT SQ HEAD 7/8 X 16 W/ SQ NUT (NOTE C)	
5	8	EA	6000274612	WASHER HELICAL (7/8")	
6	6	EA	6000274880	WASHER 4" SQ CURVED (7/8")	
7	2	EA	6000274040	PLT POLE EYE 15/16 H	
8	1	EA	6000820052	POLE TOPPER 19"	

BILL OF MATERIAL (CU Type: INSO)					
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-6Y-HC	
9	3	EA	6000310218	INS 69KV 2.5" POLYMER POST	

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TN6VAPF-B-H-U	(3) - 477 ACSR 18/1	-	TS-S1A1-B	-
C*M-TN6VAPF-X-H-U	(3) - 795 ACSR 26/7	-	TS-S1A1-X	-



CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: OTHER STANDARD DRAWINGS REQUIRED:
 TD FOUNDATION & BACKFILL
 TG GROUND WIRE & GROUND ROD DETAIL
 TH GUYING ASSEMBLIES
 TK MARKINGS
 TR GUY ANCHORS

NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

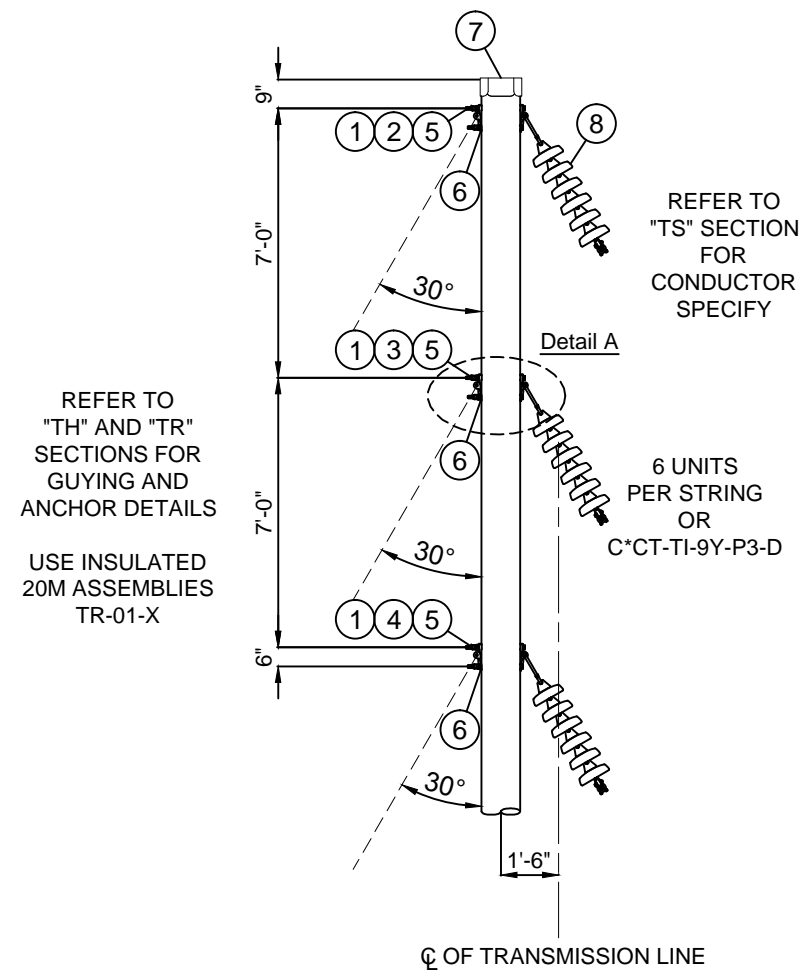
NOTE D: GUYING ANGLES SHOWN ARE GUIDELINES. IF THE SPECIFIC FIELD CONDITIONS IN THE AREA WHERE THIS STRUCTURE IS INSTALLED DO NOT ACCOMMODATE THIS GUYING ARRANGEMENT THEN THE CHANGES TO THE GUYING ARRANGEMENT SHALL BE NOTED ON THE RESPECTIVE PLAN AND PROFILE DRAWING.

NOTE E: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs. Drawing Scale: 1" = 5'

	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY ANGLE STRUCTURE - HORIZONTAL POST - 0° TO 10° CMP TYPE LP-B	REVISION
			00
			DATE
			5/21/2015
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:
B. Franklin	1/15/2014	Becken/Hart	3/05/2015
Approved By:	Date App.:	TM2.23.TV-6VAPF-X	
Barry R. Hart	4/16/2015	Sheet 1	

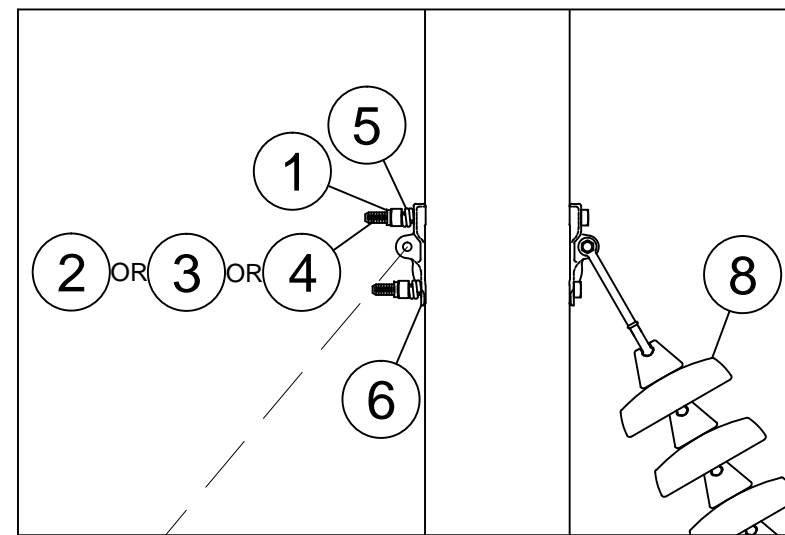


BILL OF MATERIAL (CU Type: POLE)				
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TV-6VASA
1	6	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	2	EA	1035475012	BOLT SQ HEAD 7/8 X 12 W/ SQ NUT (NOTE C)
3	2	EA	1035475014	BOLT SQ HEAD 7/8 X 14 W/ SQ NUT (NOTE C)
4	2	EA	1035475016	BOLT SQ HEAD 7/8 X 16 W/ SQ NUT (NOTE C)
5	6	EA	6000274612	WASHER HELICAL (7/8")
6	6	EA	6000274040	PLT POLE EYE 15/16 H
7	1	EA	6000820052	POLE TOPPER 19"

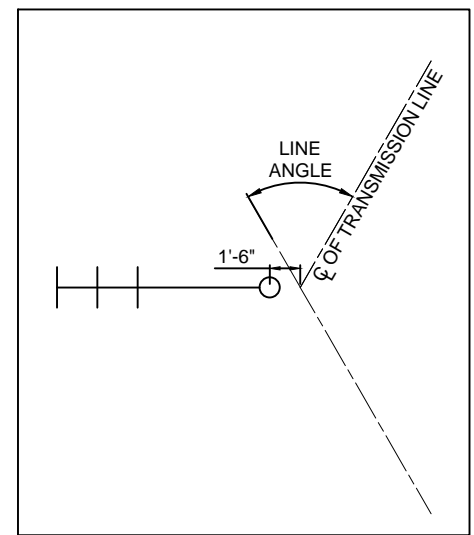
BILL OF MATERIAL (CU Type: INSO)				
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9P-D3-6
8	3 CUs	EA	6000310739	INS SUS CL52-3 20K M&E BRN (6 UNITS/STRING)
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9Y-P3-D
8	3	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6VASA-B-U	(3) - 477 ACSR 18/1	-	TS-S1A1-B	-
C*M-TV6VASA-X-U	(3) - 795 ACSR 26/7	-	TS-S1A1-X	-



Detail 'A'



GUYING PLAN

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: OTHER STANDARD DRAWINGS REQUIRED:

- TD FOUNDATION & BACKFILL
- TG GROUND WIRE & GROUND ROD DETAILS
- TH GUYING ASSEMBLIES
- TK MARKINGS
- TR GUY ANCHORS

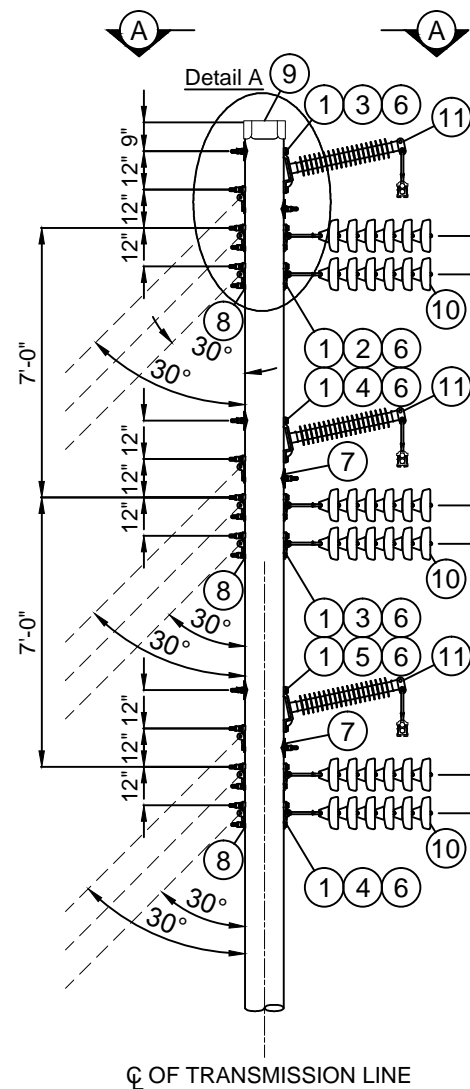
NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE D: GUYING ANGLES SHOWN ARE GUIDELINES. IF THE SPECIFIC FIELD CONDITIONS IN THE AREA WHERE THIS STRUCTURE IS INSTALLED DO NOT ACCOMMODATE THIS GUYING ARRANGEMENT THEN THE CHANGES TO THE GUYING ARRANGEMENT SHALL BE NOTED ON THE RESPECTIVE PLAN AND PROFILE DRAWING.

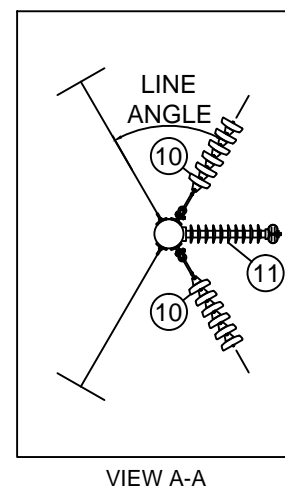
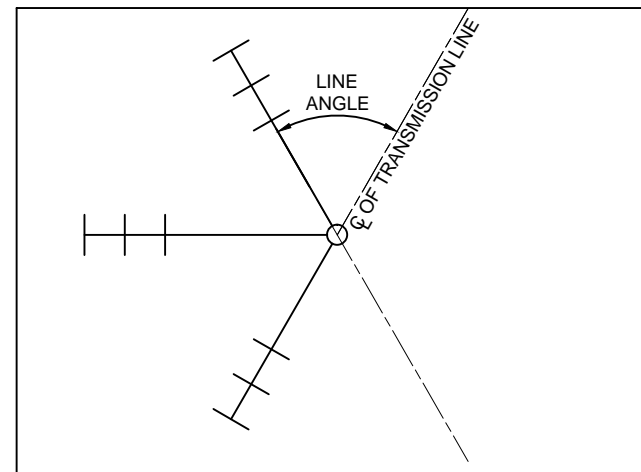
NOTE E: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES.

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY				
Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.			Drawing Scale: 1" = 5'	
	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY ANGLE STRUCTURE - SUSPENSION - 10° TO 45° CMP TYPE BN-N		REVISION 00
				DATE 5/21/2015
Drwn. By: B. Franklin	Date Dr.: 1/15/2014	Checked By: Becken/Hart	Date Ck.: 3/05/2015	Approved By: Barry R. Hart
TM2.23.TV-6VASA-X				Sheet 1



REFER TO "TH" AND "TR" SECTIONS FOR GUYING AND ANCHOR DETAILS
USE INSULATED 20M ASSEMBLIES TR-01-X

REFER TO "TS" SECTION FOR CONDUCTOR SPECIFY
6 UNITS PER STRING OR C*CT-TI-9Y-P3-D



CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: OTHER STANDARD DRAWINGS REQUIRED:

- TD FOUNDATION & BACKFILL
- TG GROUND WIRE & GROUND ROD DETAILS
- TH GUYING ASSEMBLIES
- TK MARKINGS
- TR GUY ANCHORS

NOTE B: POLE DRILLING: ALL HOLES - 15/16" DIAMETER

NOTE C: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ENGINEERING STANDARDS - TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE D: GUYING ANGLES SHOWN ARE GUIDELINES. IF THE SPECIFIC FIELD CONDITIONS IN THE AREA WHERE THIS STRUCTURE IS INSTALLED DO NOT ACCOMMODATE THIS GUYING ARRANGEMENT THEN THE CHANGES TO THE GUYING ARRANGEMENT SHALL BE NOTED ON THE RESPECTIVE PLAN AND PROFILE DRAWING.

NOTE E: REFER TO SECTION "TS" FOR CONDUCTOR ASSEMBLIES.

BILL OF MATERIAL (CU Type: POLE)

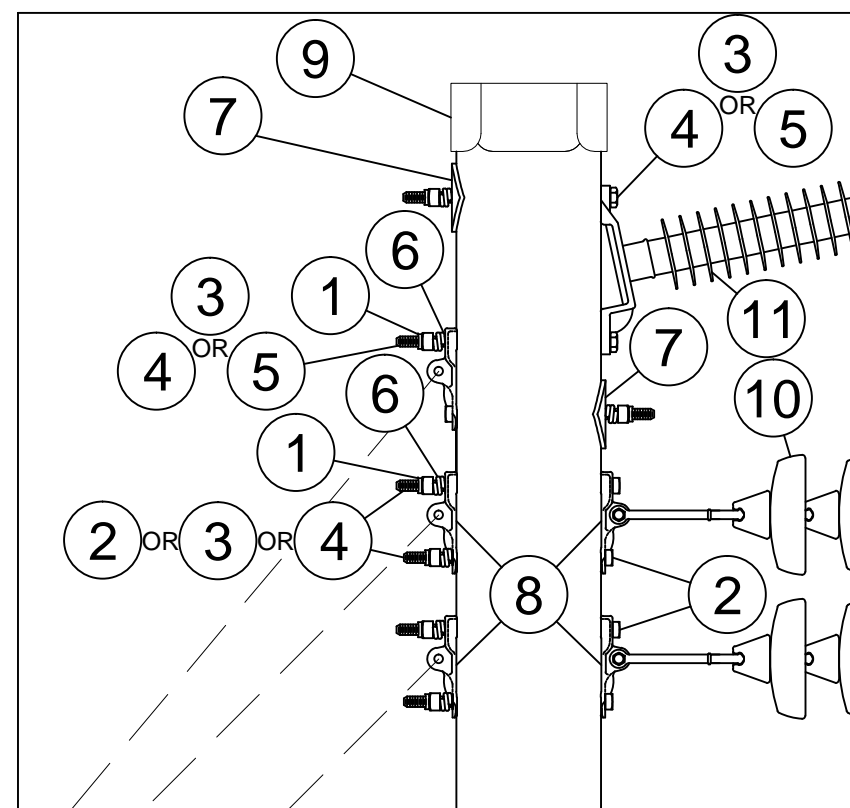
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TV-6VDJK
1	21	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	4	EA	1035475020	BOLT SQ HEAD 7/8 X 20 W/ SQ NUT (NOTE C)
3	7	EA	1035475022	BOLT SQ HEAD 7/8 X 22 W/ SQ NUT (NOTE C)
4	7	EA	1035475024	BOLT SQ HEAD 7/8 X 24 W/ SQ NUT (NOTE C)
5	3	EA	1035475026	BOLT SQ HEAD 7/8 X 26 W/ SQ NUT (NOTE C)
6	21	EA	6000274612	WASHER HELICAL (7/8")
7	6	EA	6000274880	WASHER 4" SQ. CURVED (7/8")
8	15	EA	6000274040	PLT POLE EYE 15/16 H
9	1	EA	6000820052	POLE TOPPER 19"

BILL OF MATERIAL (CU Type: INSO)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9P-D3-6
10	6 CUs	EA	6000310739	INS SUS CL52-3 20K M&E GRY (6 UNITS/STRING)
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9Y-P3-D
10	3	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-6Y-HC
11	3	EA	6000310218	INS 69KV 2.5" POLYMER POST

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

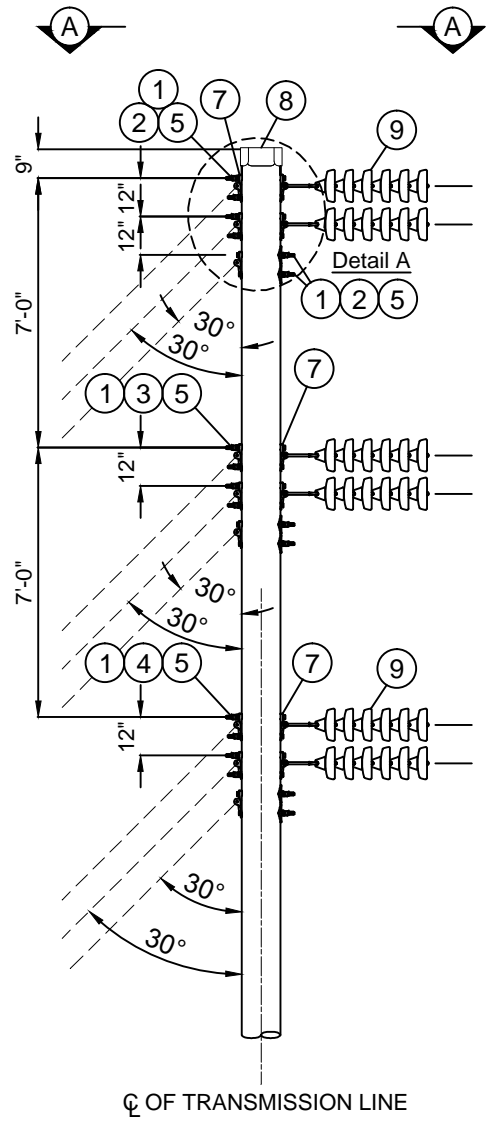
CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6VDJKF-B-U	(3) - 477 ACSR 18/1	-	TS-N2S1L1-B	-
C*M-TV6VDJKF-X-U	(3) - 795 ACSR 26/7	-	TS-N2S1L1-X	-



Detail 'A'

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.			Drawing Scale: 1" = 5'	
	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY DEADEND STRUCTURE - 30° TO 60° CMP TYPE BN-M		REVISION 00
				DATE 5/21/2015
Drwn. By: B. Franklin Date Dr.: 1/21/2014	Checked By: Becken/Hart	Date Ck.: 3/05/2015	Approved By: Barry R. Hart Date App.: 4/16/2015	TM2.23.TV-6VDJK-X Sheet 1

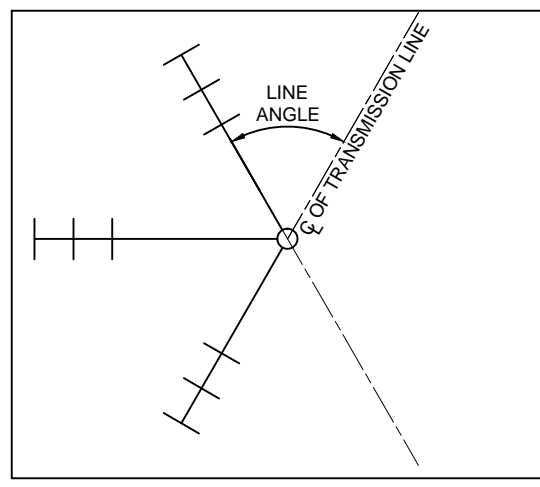


REFER TO "TS" SECTION FOR CONDUCTOR SPECIFY

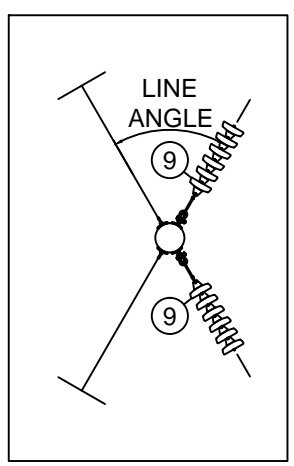
6 UNITS PER STRING OR C*CT-TI-9Y-P3-D

REFER TO "TH" AND "TR" SECTIONS FOR GUYING AND ANCHOR DETAILS

USE INSULATED 20M ASSEMBLIES TR-01-X



GUYING PLAN



VIEW A-A

BILL OF MATERIAL (CU Type: POLE)

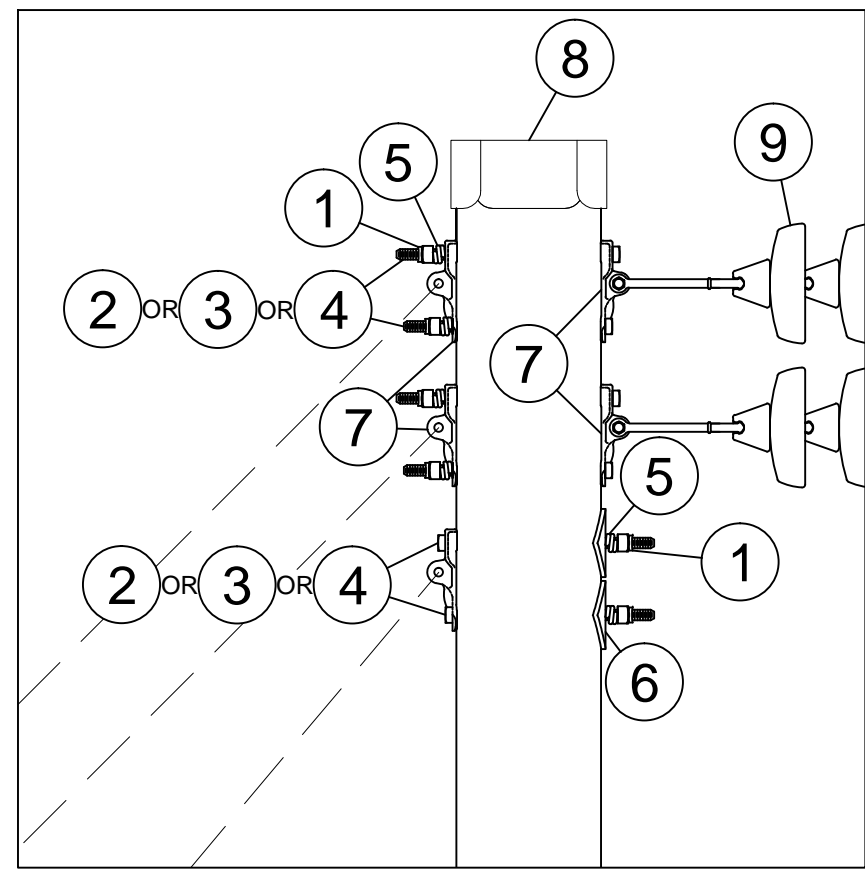
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*PT-TV-6VDOA
1	18	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	6	EA	1035475020	BOLT SQ HEAD 7/8 X 20 W/ SQ NUT (NOTE C)
3	6	EA	1035475022	BOLT SQ HEAD 7/8 X 22 W/ SQ NUT (NOTE C)
4	6	EA	1035475024	BOLT SQ HEAD 7/8 X 24 W/ SQ NUT (NOTE C)
5	18	EA	6000274612	WASHER HELICAL (7/8")
6	6	EA	6000274880	WASHER 4" SQ. CURVED (7/8")
7	15	EA	6000274040	PLT POLE EYE 15/16 H
8	1	EA	6000820052	POLE TOPPER 19"

BILL OF MATERIAL (CU Type: INSO)

ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9P-D3-6
9	6 CUs	EA	6000310739	INS SUS CL52-3 20K M&E GRY (6 UNITS/STRING)
ITEM NO.	QTY.	UOM	IUSA MID	CU: C*CT-TI-9Y-P3-D
9	3	EA	6000316439	INS POLY Y-BALL 30K 6 UNIT EQ.

USE THE MACRO CUs INSTEAD OF INDIVIDUAL CU COMPONENTS FOR EASE OF WORK ORDER ENTRY.

CU MACRO	CONDUCTOR	STATIC	COND SPECIFY	STATIC SPECIFY
C*M-TV6VDOAC-B-U	(3) - 477 ACSR 18/1	-	TS-N2L1-B	-
C*M-TV6VDOAC-X-U	(3) - 795 ACSR 26/7	-	TS-N2L1-X	-



Detail 'A'

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Contact Engineering Standards - Transmission Section for the creation of new standards and CUs. Drawing Scale: 1" = 5'

	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	STRUCTURE STANDARDS - WOOD 69KV SINGLE POLE SINGLE CIRCUIT - MAINTENANCE ONLY DEADEND STRUCTURE - 60° AND GREATER CMP TYPE BN-M	REVISION
			00
			DATE
			5/21/2015
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:
B. Franklin	1/21/2014	Becken/Hart	3/05/2015
Approved By:	Date App.:		
Barry R. Hart	4/16/2015	TM2.23.TV-6VDOA-X	
			Sheet 1