

320

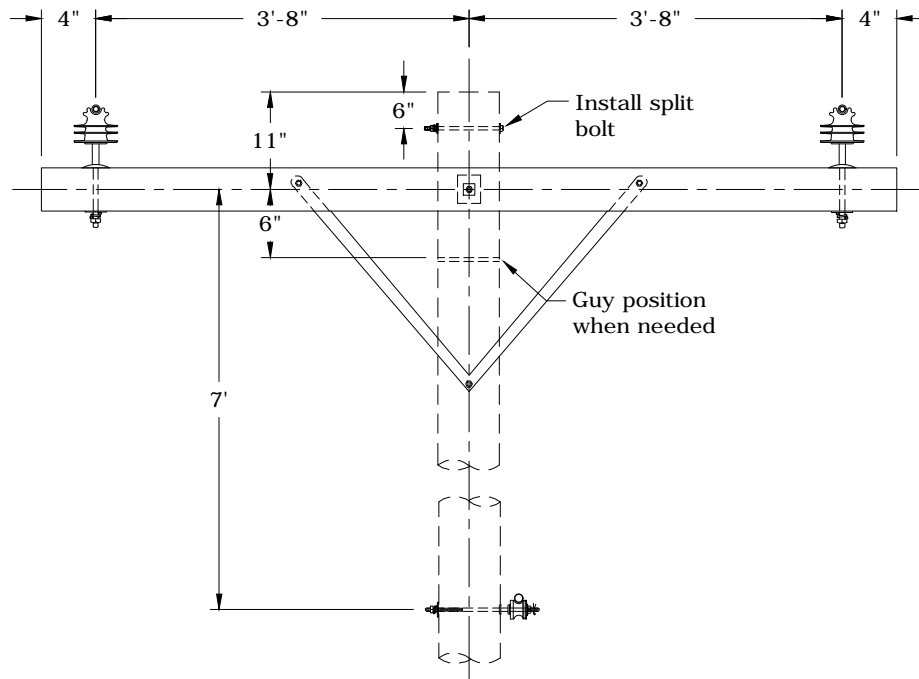
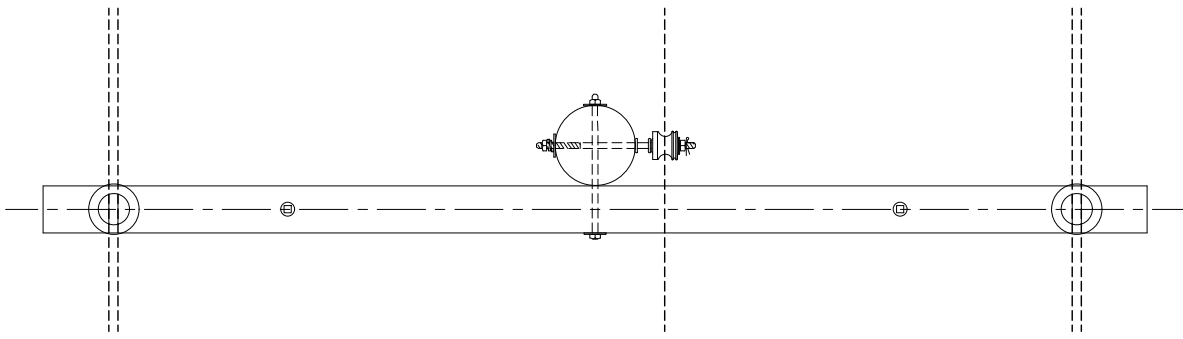
TWO-PHASE DISTRIBUTION

UP TO 2/0 ACSR

11/15/2017

- C** B1A,-TREE 2Ø Single 8' Crossarm - 0° to 5°
- C** B2A,-TREE 2Ø Double 8' Crossarm - 6° to 30°
- C** B4A,-TREE 2Ø Single 8' Crossarm - High Neutral, 0° to 5°
- C** B5A,-TREE 2Ø Double 8' Crossarm - High Neutral, 6° to 30°
- C** B13,-TREE 2Ø Vertical w/ Pole Top - 0° to 5°
- C** B14,-TREE 2Ø Vertical w/ Double Pole Top - 6° to 30°
- C** B48A 8' Pre-assembled Deadend - High Neutral
- C** B49A,-TREE 8' Pre-assembled Double Deadend - High Neutral
- C** B50A 8' Pre-assembled Deadend
- C** B51A,-TREE 8' Pre-assembled Double Deadend

- N** New Standard
- R** Redrawn Standard
- C** Changed Standard
- ~** No Change



Avian Safe

Note: Maximum line angle calculated for 2,000 lbs. MWT and 250-ft ruling span.

Rev. 3 - Eliminated porcelain pin insulators and added avian note.



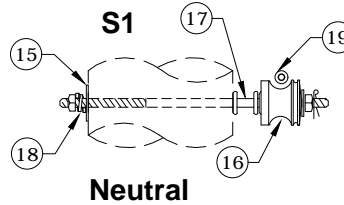
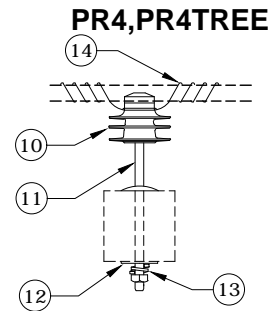
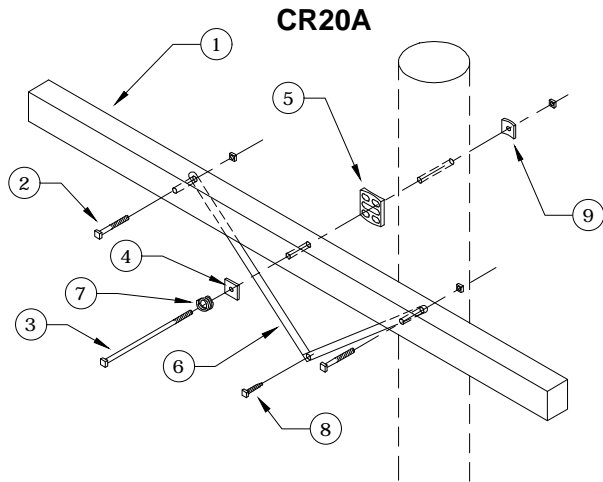
CONSTRUCTION STANDARDS
 2Ø SINGLE 8' CROSSARM
 0° TO 5°
 2/0 ACSR MAX WIRE

PAGE:
1 of 2

B1A, B1ATREE

CAD FILE:
B1A

REVISIONS			
△	DATE	ENGR	OPS
1	3/02	REDRAWN	IN CAD
2	3/5/08	LB	AH
3	11/15/17	CM	DK
△			
APP:	ELM	SECTION	
DATE:	1/31/80	320	



Rev. 3 - Eliminated porcelain pin insulators and added avian note.

ITEM NO.	DESCRIPTION	B1ATREE		B1A	
		QTY.	S/N	QTY.	S/N
1	Arm, Cross (Distr.) 3 3/4" x 4 3/4" x 8'	1	25	1	25
2	Bolt, Carriage 3/8" x 5", Galv., 4250 lbs Ultimate Tensile	2	78	2	78
3	Bolt, Machine 5/8" x 16", Galv., 12,400 lbs Ultimate Tensile	1	157	1	157 *
4	Washer, Square Flat 5/8", 2 1/4" x 2 1/4"	1	1412	1	1412
5	Gain, Pole Plastic	1	709	1	709
6	Brace, Crossarm 28", Galv. Stl. *	2	205	2	205
7	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	2217	1	2217
8	Screw, Lag 1/2" x 4 1/2", Twist Drive, Drive Point *	1	1132	1	1132
9	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	1	1392	1	1392
ITEM NO.	DESCRIPTION	PR4TREE (2)		PR4 (2)	
		QTY.	S/N	QTY.	S/N
10	Insulator, Pin, C Neck, Polymer	2	1968	2	1968 *
11	Pin, Crossarm	2	961	2	961
12	Washer, Square Flat 5/8", 2 1/4" x 2 1/4"	2	1412	2	1412
13	Washer, Lock, Spring Double Coil, Galv., 5/8"	2	2217	2	2217
14	Wire, Tie, AL Annealed #4 SD	* 22	3012	20	1421
ITEM NO.	DESCRIPTION	S1		S1	
		QTY.	S/N	QTY.	S/N
15	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	1	1392	1	1392
16	Insulator, Spool Clevis, Small, ANSI 53-2 Class	1	773	1	773
17	Bolt, Double Upset 5/8" x 14", Galv., 12,400 lbs Ultimate	1	1580	1	1580
18	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	2217	1	2217
19	Wire, Tie, AL Annealed #4 SD	10	1421	10	1421



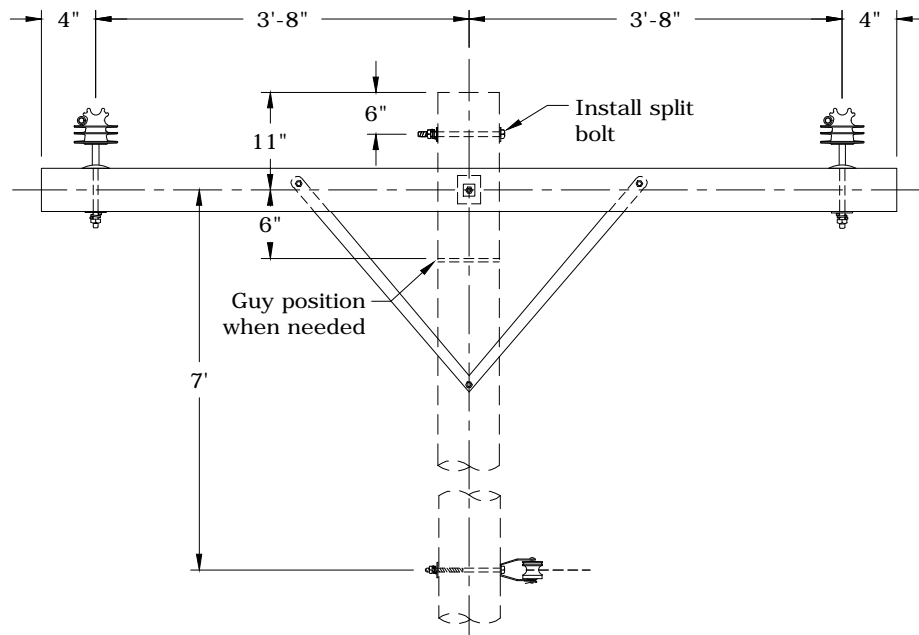
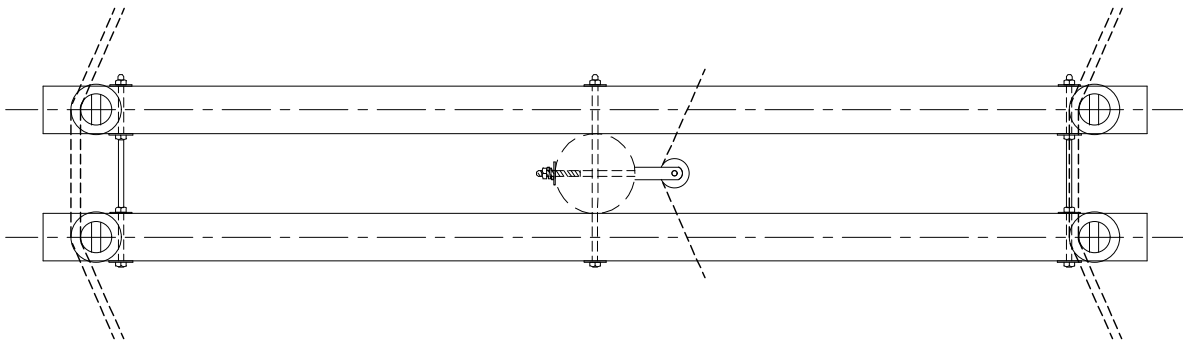
CONSTRUCTION STANDARDS
 2Ø SINGLE 8' CROSSARM
 0° TO 5°
 2/0 ACSR MAX WIRE

REVISIONS			
NO.	DATE	ENGR	OPS
1	3/02	REDRAWN	IN CAD
2	3/5/08	LB	AH
3	11/15/17	CM	DK
APP: ELM SECTION 320			
DATE: 1/31/80			

PAGE:
2 of 2

B1A, B1ATREE

CAD FILE:
B1A



Avian Safe

Note: Maximum line angle calculated for 2,000 lbs. MWT and 250-ft ruling span.

Rev. 3 - Eliminated porcelain pin insulators and added avian note.



CONSTRUCTION STANDARDS

2Ø DOUBLE 8' CROSSARM
6° TO 30°
2/0 ACSR MAX WIRE

PAGE:
1 of 2

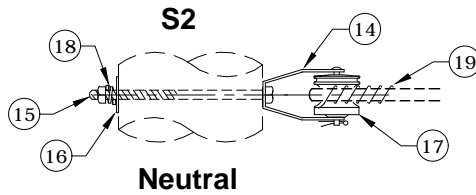
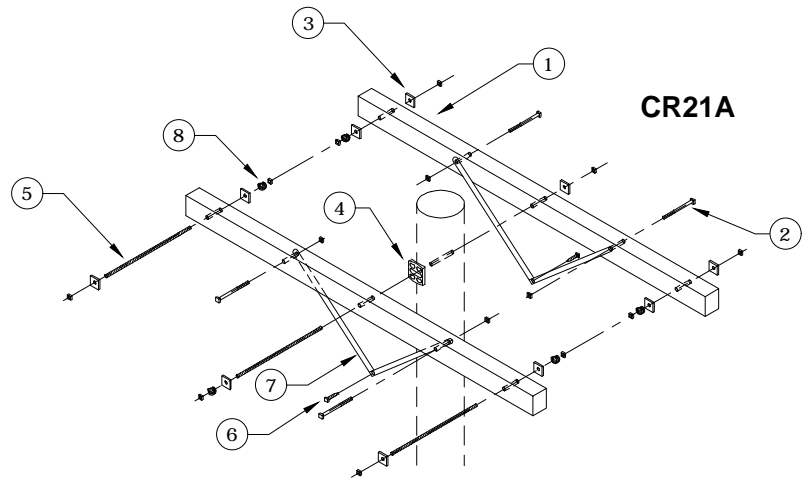
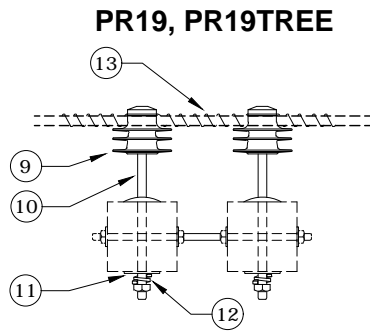
B2A, B2ATREE

CAD FILE:
B2A

REVISIONS

△	DATE	ENGR	OPS
1	3/02	REDRAWN	IN CAD
2	3/5/08	LB	AH
3	11/15/17	CM	DK

△	APP:	ELM	SECTION
	DATE:	1/31/80	320



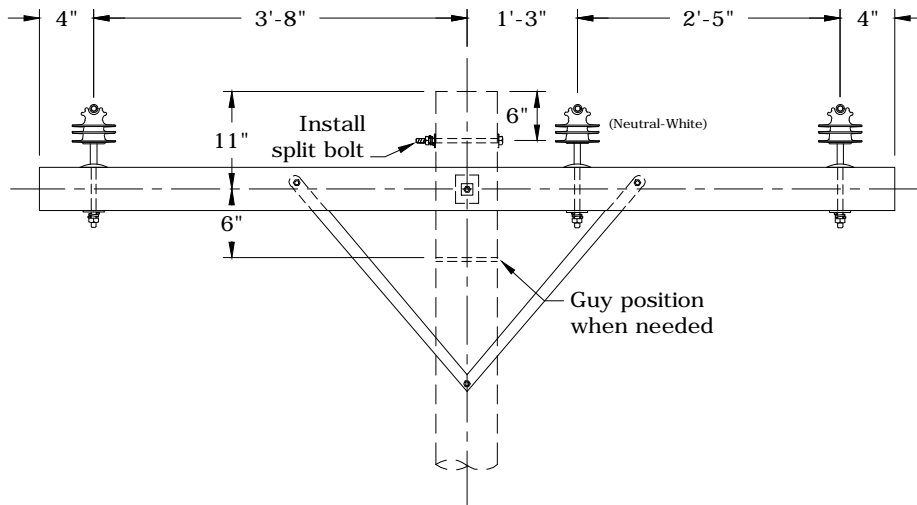
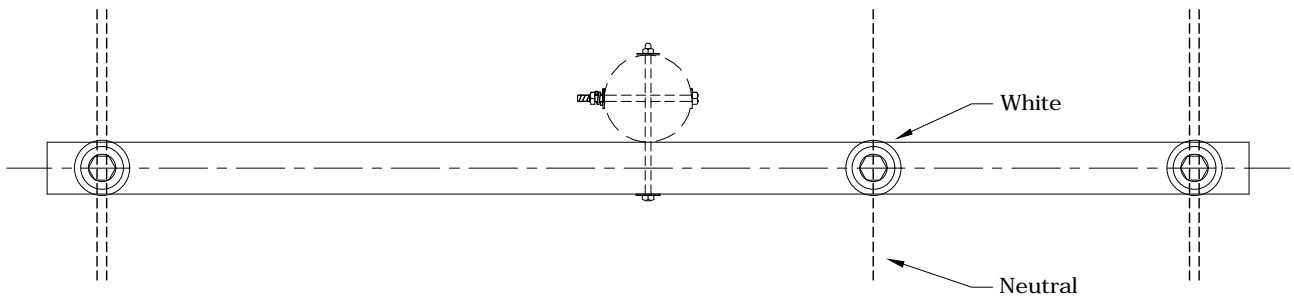
Rev. 3 - Eliminated porcelain pin insulators and added avian note.

ITEM NO.	DESCRIPTION	B2ATREE		B2A	
		QTY.	S/N	QTY.	S/N
1	Arm, Cross (Distr.) 3 3/4" x 4 3/4" x 8'	2	25	2	25
2	Bolt, Carriage 3/8" x 5", Galv., 4250 lbs Ultimate Tensile	4	78	4	78
3	Washer, Square Flat 5/8", 2 1/4" x 2 1/4"	10	1412	10	1412
4	Gain, Pole Plastic	1	709	1	709
5	Bolt, Double Arm 5/8" x 20", Galv., 12,400 lbs Ultimate Tensile	3	83	3	83
6	Screw, Lag 1/2" x 4 1/2", Twist Drive, Drive Point	2	1132	2	1132
7	Brace, Crossarm 28", Galv. Stl.	4	205	4	205
8	Washer, Lock, Spring, Double Coil, Galv., 5/8"	5	2217	5	2217
ITEM NO.	DESCRIPTION	PR19TREE (2)		PR19 (2)	
		QTY.	S/N	QTY.	S/N
9	Insulator, Pin, C Neck, Polymer	4	1968	4	1968 *
10	Pin, Crossarm	4	961	4	961
11	Washer, Square Flat, 5/8", 2 1/4" x 2 1/4"	4	1412	4	1412
12	Washer, Lock, Spring, Double Coil, Galv., 5/8"	4	2217	4	2217
13	Wire, Tie, AL Annealed #4 SD	44 *	3012	40	1421
ITEM NO.	DESCRIPTION	S2		S2	
		QTY.	S/N	QTY.	S/N
14	Clevis, D.E. Insulator 1340	1	335	1	335
15	Bolt, Machine 5/8" x 14", Galv., 12,400 lbs Ultimate Tensile	1	156	1	156
16	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	1	1392	1	1392
17	Insulator, Spool Clevis, Small, ANSI 53-2 Class	1	773	1	773
18	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	2217	1	2217
19	Wire, Tie, AL Annealed #4 SD	10	1421	10	1421



CONSTRUCTION STANDARDS
 2Ø DOUBLE 8' CROSSARM
 6° TO 30°
 2/0 ACSR MAX WIRE

REVISIONS			
Δ	DATE	ENGR	OPS
1	3/02	REDRAWN	IN CAD
2	3/5/08	LB	AH
3	11/15/17	CM	DK
Δ			
APP:	ELM	SECTION	
DATE:	1/31/80	320	



B4ATREE - Avian Safe

Notes:

1. Maximum line angle calculated for 2,000 lbs. MWT and 250-ft ruling span.
2. This framing is for clearance limited situations only.
3. See Std AC - Avian Covers - Section 400 if needed. Covers only required on neutral.

Rev. 3 - Eliminated porcelain pin insulators and added avian notes.



CONSTRUCTION STANDARDS

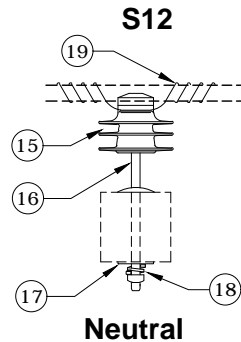
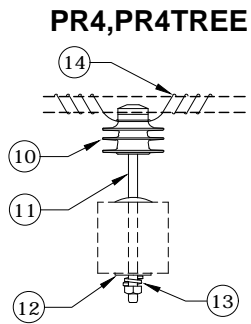
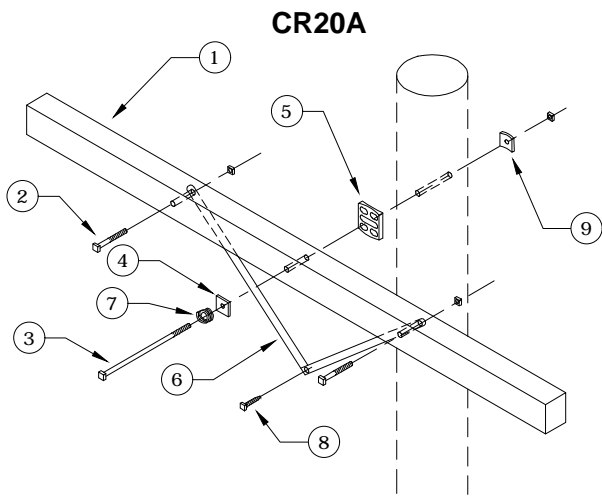
2Ø SINGLE 8' CROSSARM
HIGH NEUTRAL, 0° TO 5°
2/0 ACSR MAX WIRE

PAGE:
1 of 2

B4A, B4ATREE

CAD FILE:
B4A

REVISIONS			
△	DATE	ENGR	OPS
1	3/02	REDRAWN	IN CAD
2	3/5/08	LB	AH
3	11/15/17	CM	DK
△			
APP:	ELM	SECTION	
DATE:	1/31/80	320	



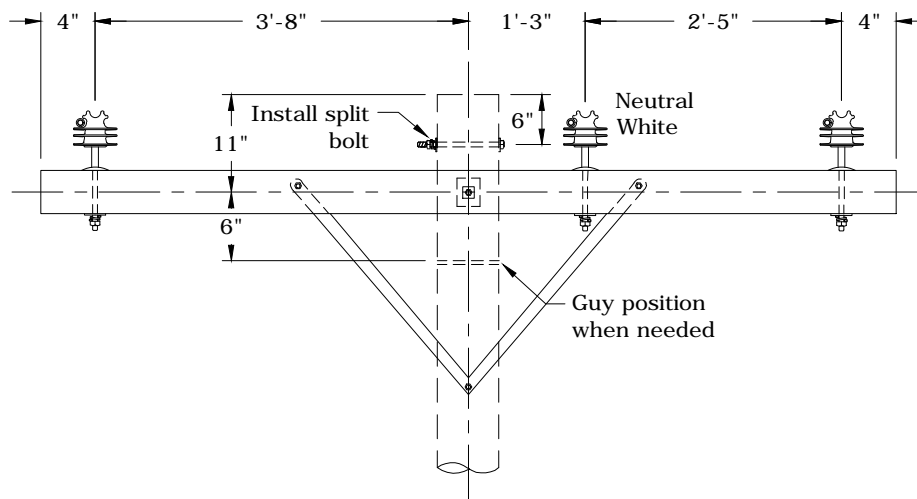
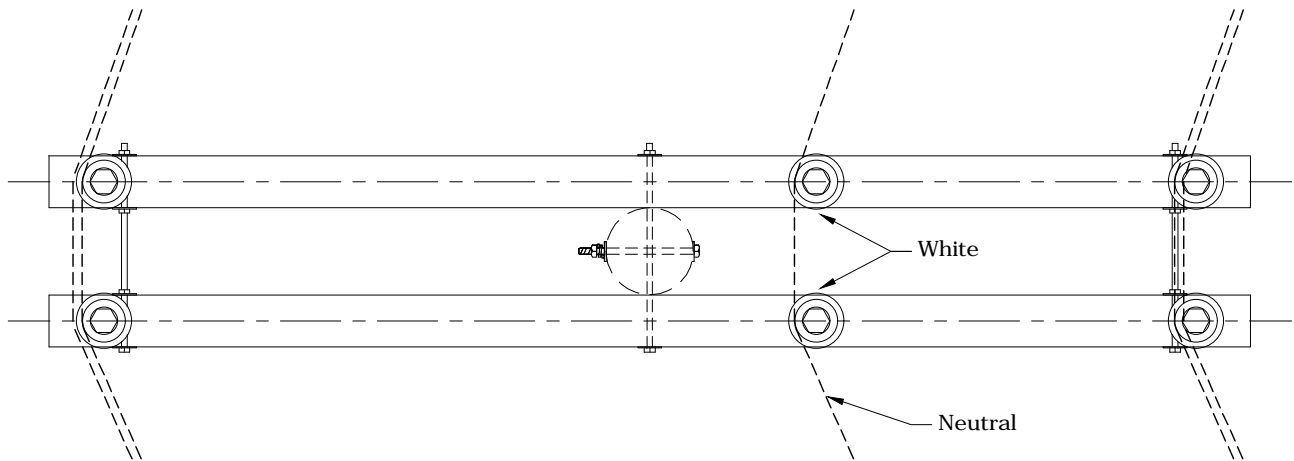
Rev. 3 - Eliminated porcelain pin insulators and added avian notes.

ITEM NO.	DESCRIPTION	B4ATREE		B4A	
		CR20A		CR20A	
		QTY.	S/N	QTY.	S/N
1	Arm, Cross (Distr.) 3 3/4" x 4 3/4" x 8'	1	25	1	25
2	Bolt, Carriage 3/8" x 5", Galv., 4250 lbs Ultimate Tensile	2	78	2	78
3	Bolt, Machine 5/8" x 16", Galv., 12,400 lbs Ultimate Tensile	1	157	1	157*
4	Washer, Square, Flat 5/8", 2 1/4" x 2 1/4"	1	1412	1	1412
5	Gain, Pole Plastic	1	709	1	709
6	Brace, Crossarm 28", Galv. Stl.	2	205	2	205
7	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	2217	1	2217
8	Screw, Lag 1/2" x 4 1/2", Twist Drive, Drive Point	1	1132	1	1132
9	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	1	1392	1	1392
ITEM NO.	DESCRIPTION	PR4TREE (2)		PR4 (2)	
		QTY.	S/N	QTY.	S/N
10	Insulator, Pin, C Neck, Polymer	2	1968	2	1968 *
11	Pin, Crossarm	2	961	2	961
12	Washer, Square, Flat 5/8", 2 1/4" x 2 1/4"	2	1412	2	1412
13	Washer, Lock, Spring, Double Coil, Galv., 5/8"	2	2217	2	2217
14	Wire, Tie, AL Annealed #4 SD	22*	3012	20	1421
ITEM NO.	DESCRIPTION	S12		S12	
		QTY.	S/N	QTY.	S/N
15	Insulator, Pin, C Neck, White Polymer	1	2656	1	2656 *
16	Pin, Crossarm	1	961	1	961
17	Washer, Square, Flat, 5/8", 2 1/4" x 2 1/4"	1	1412	1	1412
18	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	2217	1	2217
19	Wire, Tie, AL Annealed #4 SD	10	1421	10	1421



CONSTRUCTION STANDARDS
 2Ø SINGLE 8' CROSSARM
 HIGH NEUTRAL, 0° TO 5°
 2/0 ACSR MAX WIRE

REVISIONS			
NO.	DATE	ENGR	OPS
1	3/02	REDRAWN	IN CAD
2	3/5/08	LB	AH
3	11/15/17	CM	DK
APP: ELM		SECTION	
DATE: 1/31/80		320	



B5ATREE - Avian Safe

Notes:

1. Maximum line angle calculated for 2,000 lbs. MWT and 250-ft ruling span.
2. This framing is for clearance limited situations only.
3. See Std AC - Avian Covers - Section 400 if needed. Covers only required on neutral.

Rev. 3 - Eliminated porcelain pin insulators and added avian notes.



CONSTRUCTION STANDARDS

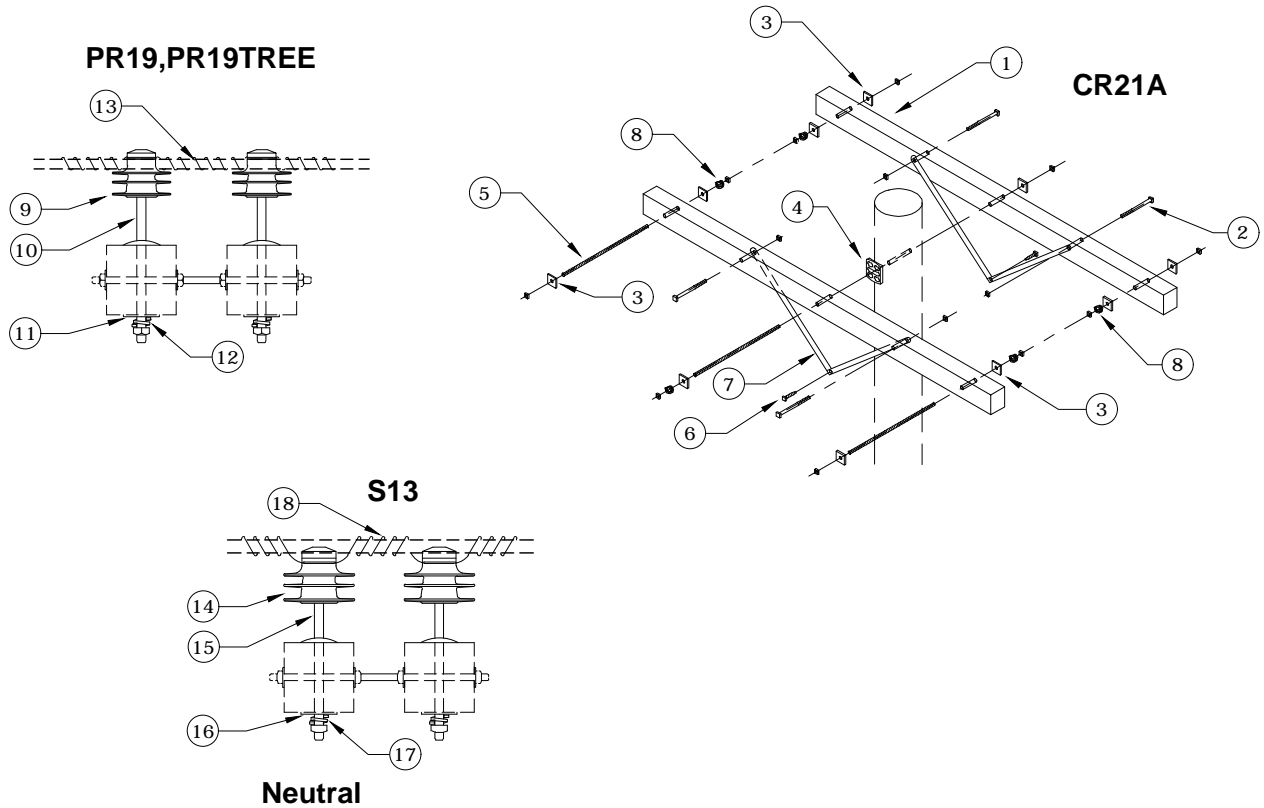
2Ø DOUBLE 8' CROSSARM
 HIGH NEUTRAL, 6° TO 30°
 2/0 ACSR MAX WIRE

PAGE:
1 of 2

B5A, B5ATREE

CAD FILE:
B5A

REVISIONS			
△	DATE	ENGR	OPS
1	3/02	REDRAWN	IN CAD
2	3/5/08	LB	AH
3	11/15/17	CM	DK
△			
APP:	ELM	SECTION	
DATE:	1/31/80	320	



Rev. 3 - Eliminated porcelain pin insulators and added avian notes.

ITEM NO.	DESCRIPTION	B5ATREE		B5A	
		QTY.	S/N	QTY.	S/N
1	Arm, Cross (Distr.) 3 3/4" x 4 3/4" x 8'	2	25	2	25
2	Bolt, Carriage 3/8" x 5", Galv., 4250 lbs Ultimate Tensile	4	78	4	78
3	Washer, Square, Flat 5/8", 2 1/4" x 2 1/4"	10	1412	10	1412
4	Gain, Pole Plastic	1	709	1	709
5	Bolt, Double Arm 5/8" x 20", Galv., 12,400 lbs Ultimate Tensile	3	83	3	83
6	Screw, Lag 1/2" x 4 1/2", Twist Drive, Drive Point	2	1132	2	1132
7	Brace, Crossarm 28", Galv. Stl.	4	205	4	205
8	Washer, Lock, Spring, Double Coil, Galv., 5/8"	5	2217	5	2217
ITEM NO.	DESCRIPTION	PR19TREE (2)		PR19 (2)	
		QTY.	S/N	QTY.	S/N
9	Insulator, Pin, C Neck, Polymer	4	1968	4	1968*
10	Pin, Crossarm	4	961	4	961
11	Washer, Square, Flat, 5/8", 2 1/4" x 2 1/4"	4	1412	4	1412
12	Washer, Lock, Spring, Double Coil, Galv., 5/8"	4	2217	4	2217
13	Wire, Tie, AL Annealed #4 SD	44*	3012	40	1421
ITEM NO.	DESCRIPTION	S13		S13	
		QTY.	S/N	QTY.	S/N
14	Insulator, Pin, C Neck, White Polymer	2	2656	2	2656*
15	Pin, Crossarm	2	961	2	961
16	Washer, Square, Flat, 5/8", 2 1/4" x 2 1/4"	2	1412	2	1412
17	Washer, Lock, Spring, Double Coil, Galv., 5/8"	2	2217	2	2217
18	Wire, Tie, AL Annealed #4 SD	20	1421	20	1421



CONSTRUCTION STANDARDS

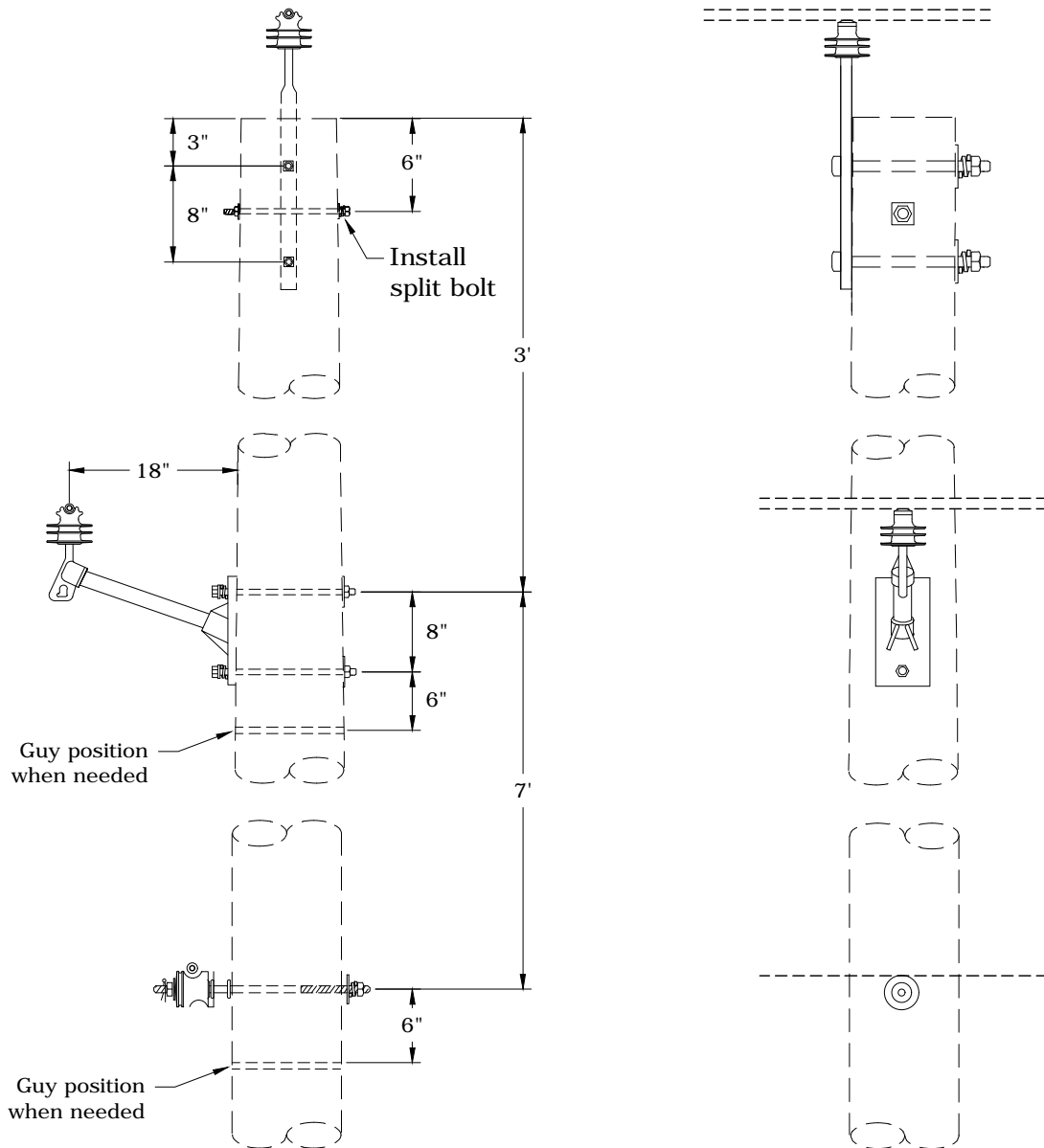
2Ø DOUBLE 8' CROSSARM
HIGH NEUTRAL, 6° TO 30°
2/0 ACSR MAX WIRE

REVISIONS			
Δ	DATE	ENGR	OPS
1	3/02	REDRAWN	IN CAD
2	3/5/08	LB	AH
3	11/15/17	CM	DK
Δ			
APP:	ELM	SECTION	
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B5A, B5ATREE

CAD FILE:
B5A



B13TREE - Avian Safe

- Notes:**
1. Maximum line angle calculated for 2,000 lbs. MWT and 250-ft ruling span.
 2. See Std AC - Avian Covers - Section 400 if needed. Covers only required on one phase.

Rev. 1 - Eliminated porcelain pin insulators and added avian notes.



CONSTRUCTION STANDARDS

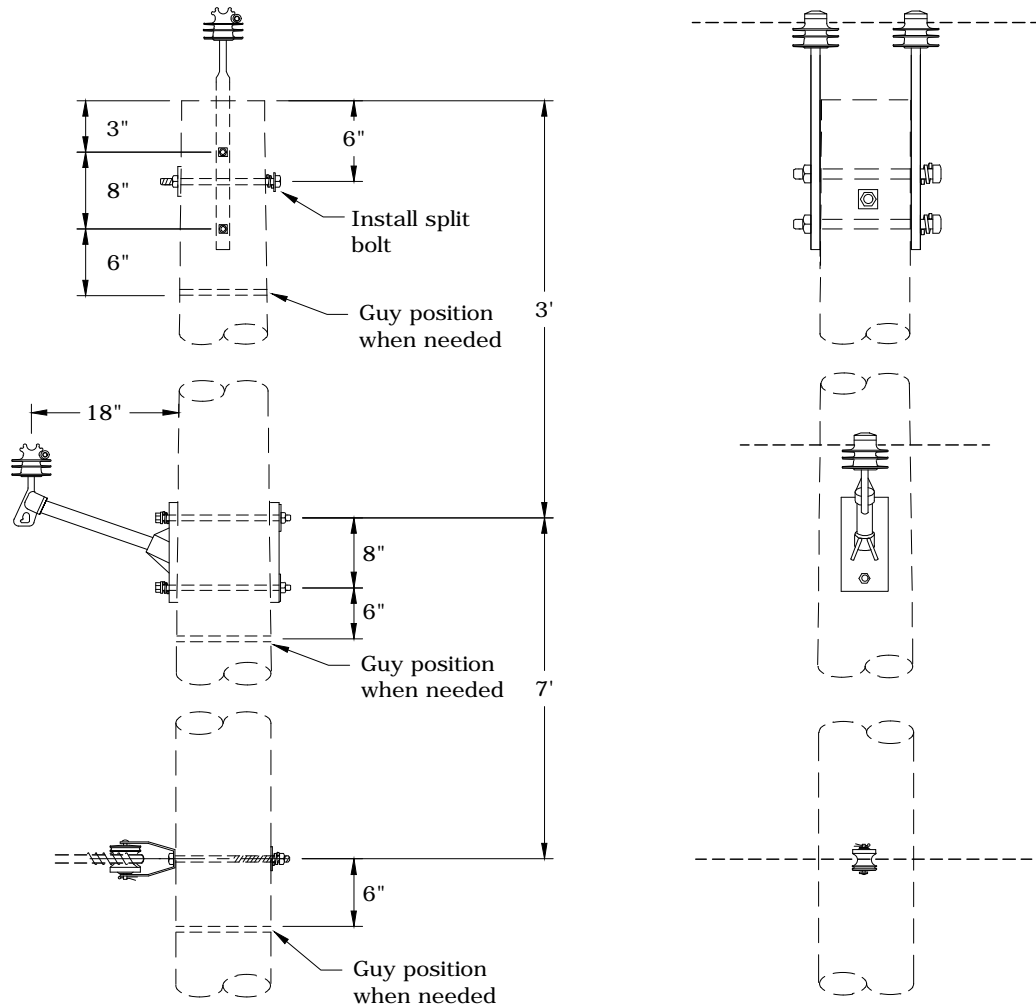
2Ø VERTICAL W/ POLE TOP
0° TO 5°
2/0 ACSR MAX WIRE

PAGE:
1 of 2

B13, B13TREE

CAD FILE:
B13

REVISIONS			
△	DATE	ENGR	OPS
1	11/15/17	CM	DK
△			
APP:	LB/AH	SECTION	
DATE:	3/5/08	320	



B14TREE - Avian Safe

Notes:

1. Maximum line angle calculated for 2,000 lbs. MWT and 250-ft ruling span.
2. See Std AC - Avian Covers - Section 400 if needed. Covers only required on one phase.

Rev. 1 - Eliminated porcelain pin insulators and added avian notes.



CONSTRUCTION STANDARDS

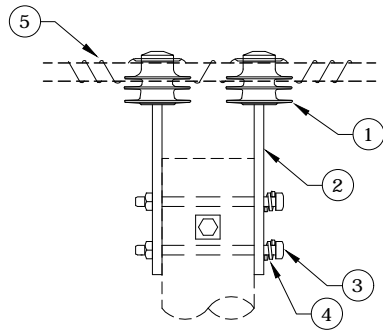
2Ø VERTICAL W/ DOUBLE POLE TOP
6° TO 30°
2/0 ACSR MAX WIRE

REVISIONS			
Δ	DATE	ENGR	OPS
1	11/15/17	CM	DK
Δ			
APP:	LB/AH	SECTION	
DATE:	3/5/08	320	

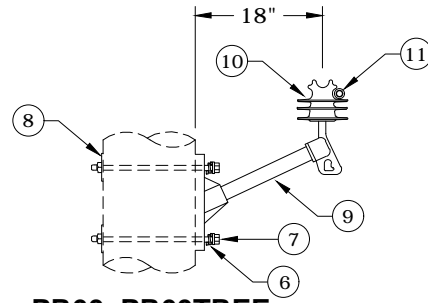
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B14, B14TREE

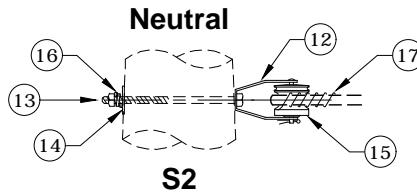
CAD FILE:
B14



PR2, PR2TREE



PR60, PR60TREE



Rev. 1 - Eliminated porcelain pin insulators and added avian notes.

ITEM NO.	DESCRIPTION	B14TREE		B14	
		QTY.	S/N	QTY.	S/N
1	Insulator, Pin, C Neck, Polymer	2	1968	2	1968 *
2	Pin, Pole Top	2	962	2	962
3	Bolt, Machine 5/8" x 14", Galv., 12,400 lbs Ultimate Tensile*	2	156	2	156
4	Washer, Lock, Spring, Double Coil, Galv., 5/8"	2	2217	2	2217
5	Wire, Tie, AL Annealed #4 SD	22 *	3012	20	1421

ITEM NO.	DESCRIPTION	PR60TREE		PR60	
		QTY.	S/N	QTY.	S/N
6	Washer, Lock, Spring, Double Coil, Galv., 5/8"	2	2217	2	2217
7	Bolt, Machine 5/8" x 16", Galv., 12,400 lbs Ultimate Tensile*	2	157	2	157
8	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	1392	2	1392
9	Arm, Epoxy 18" 2500 lbs	1	2504	1	2504
10	Insulator, Pin, C Neck, Polymer	1	1968	1	1968 *
11	Wire, Tie, AL Annealed #4 SD	11*	3012	10	1421

ITEM NO.	DESCRIPTION	S2		S2	
		QTY.	S/N	QTY.	S/N
12	Clevis, D.E. Insulator 1340	1	335	1	335
13	Bolt, Machine 5/8" x 14", Galv., 12,400 lbs Ultimate Tensile *	1	156	1	156
14	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	1	1392	1	1392
15	Insulator, Spool, Clevis, Small, ANSI 53-2 Class	1	773	1	773
16	Washer, Lock, Spring, Double Coil, Galv., 5/8" *	1	2217	1	2217
17	Wire, Tie, AL Annealed #4 SD	10	1421	10	1421



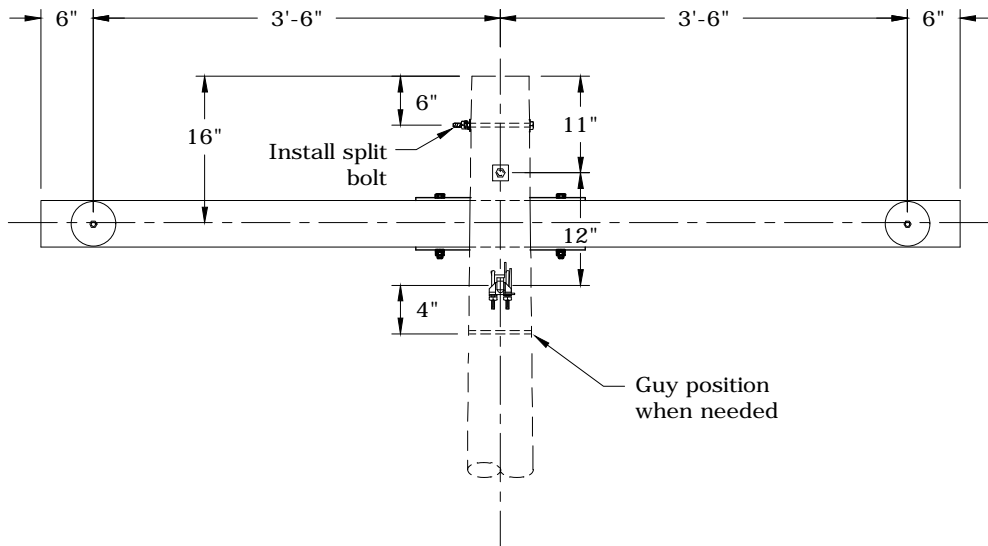
CONSTRUCTION STANDARDS

2Ø VERTICAL W/ DOUBLE POLE TOP
6° TO 30°
2/0 ACSR MAX WIRE

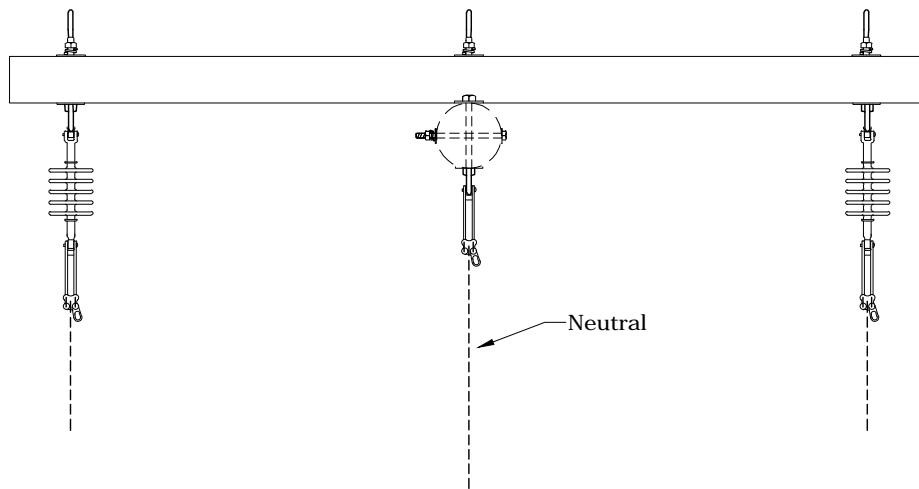
REVISIONS			
Δ	DATE	ENGR	OPS
1	11/15/17	CM	DK

APP:	LB/AH	SECTION
DATE:	3/5/08	320

FRONT VIEW



TOP VIEW



- Notes:**
1. This framing is for clearance limited situations only.
 2. See Std AC - Avian Covers - Section 400 if needed. Covers only required on neutral.

Rev. 1 - Updated material list and added avian notes.



CONSTRUCTION STANDARDS
 8' PRE-ASSEMBLED DEADEND
 HIGH NEUTRAL
 2/0 ACSR MAX WIRE

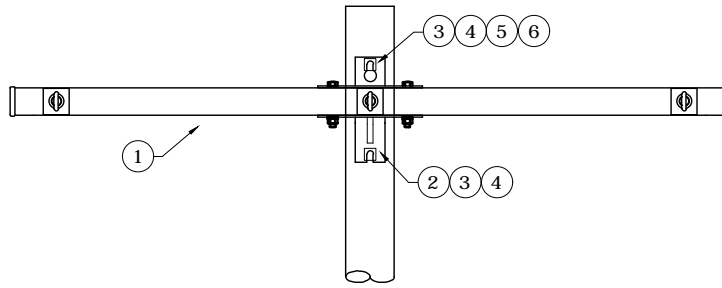
PAGE:
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B48A

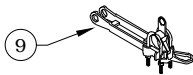
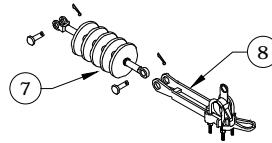
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B48A

REVISIONS			
NO.	DATE	ENGR	OPS
1	11/15/17	CM	DK
APP: LB/AH		SECTION	
DATE: 3/5/08	320		

CR26A



PR24



Neutral

Road & Field Phases

Rev. 1 - Updated material list and added avian notes.

ITEM NO.	DESCRIPTION	B48A	
		QTY.	S/N
1	Arm, Deadend Assembly, 8', 3-position, 397 Max	1	2508
2	Bolt, Machine, 3/4" x 14", Galv., 18,350 lbs Ultimate Tensile	1	174
3	Washer, Lock, Spring, Double Coil, Galv., 3/4"	2	2218
4	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	1392
5	Nut, Eye Oval 3/4"	1	914
6	Bolt, Machine 3/4" x 16", Galv., 18,350 lbs Ultimate Tensile	1	175
ITEM NO.	DESCRIPTION	PR24 (2)	
		QTY.	S/N
7	Insulator, Suspension 15 kV Clevis-Tongue, Polymer	2	1967
8	Clamp, Strain, Distribution #2 to 397.5	2	302
ITEM NO.	DESCRIPTION	ADDITIONAL MATERIAL	
		QTY.	S/N
9	Clamp, Strain #2	1	300



CONSTRUCTION STANDARDS

8' PRE-ASSEMBLED DEADEND
HIGH NEUTRAL
2/0 ACSR MAX WIRE

PAGE:
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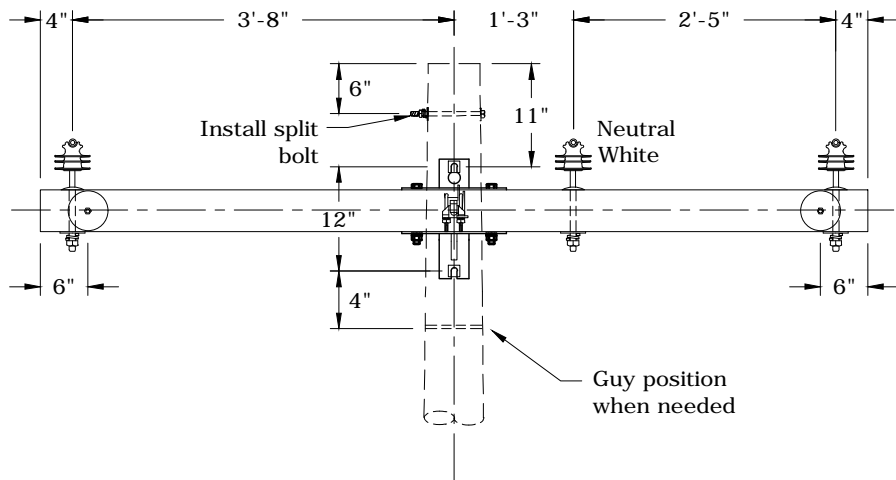
B48A

CAD FILE:
B48A

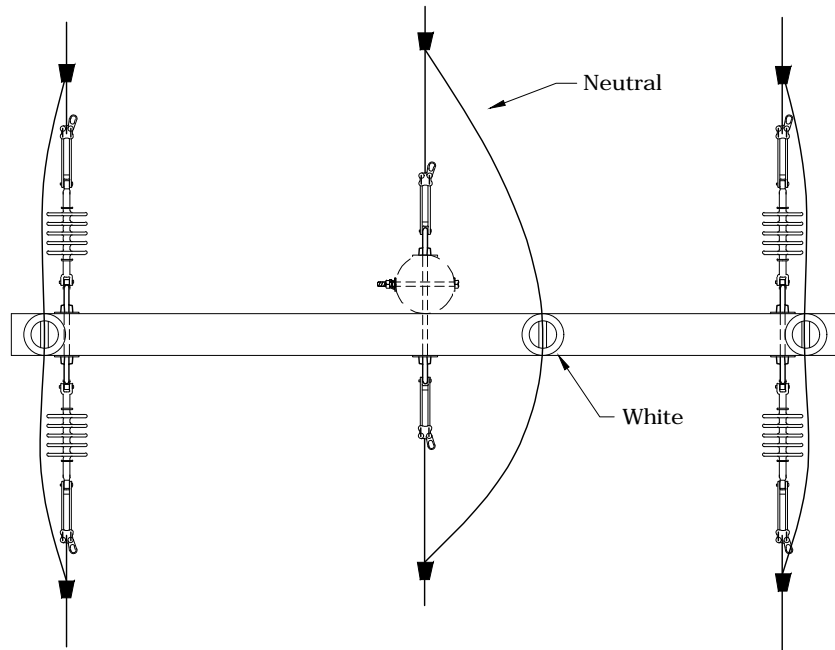
REVISIONS			
DATE	ENGR	OPS	
11/15/17	CM	DK	

APP:	LB/AH	SECTION
DATE:	3/5/08	320

FRONT VIEW



TOP VIEW



Notes:

1. This framing is for clearance limited situations only.
2. See Std AC - Avian Covers - Section 400 if needed. Covers and covered jumper only required on neutral.

Rev. 5 - Eliminated porcelain pin insulators and added avian notes.



CONSTRUCTION STANDARDS
 8' PRE-ASSEMBLED DOUBLE DEADEND
 HIGH NEUTRAL
 2/0 ACSR MAX WIRE

PAGE:
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B49A, B49ATREE

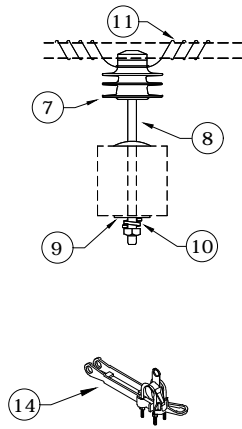
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B49A

REVISIONS

REV	DATE	ENGR	OPS
2	3/02	REDRAWN	IN CAD
3	3/5/08	LB	AH
4	7/29/10	KJP	
5	11/15/17	CM	DK

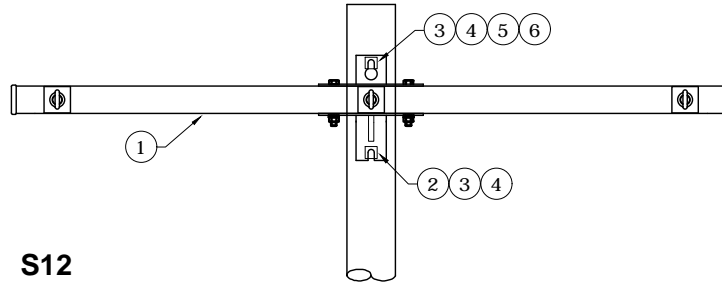
APP:	ELM	SECTION
DATE:	1/31/80	320

PR4,PR4TREE

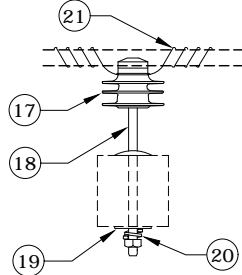


Neutral

CR26A

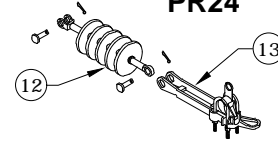


S12



Neutral

PR24



Road & Field Phases

Rev. 5 - Eliminated porcelain pin insulators and added avian notes.

ITEM NO.	DESCRIPTION	B49ATREE		B49A	
		QTY.	S/N	QTY.	S/N
1	Arm, Deadend Assembly, 8', 3-position, 397 Max	1	2508	1	2508
2	Bolt, Machine 3/4" x 14", Galv., 18,350 lbs Ultimate Tensile	1	174	1	174
3	Washer, Lock, Spring, Double Coil, Galv., 3/4"	2	2218	2	2218
4	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	1392	2	1392
5	Nut, Eye Oval 3/4"	1	914	1	914
6	Bolt, Machine 3/4" x 16", Galv., 18,350 lbs Ultimate Tensile	1	175	1	175
ITEM NO.	DESCRIPTION	PR4TREE (2)		PR4 (2)	
		QTY.	S/N	QTY.	S/N
7	Insulator, Pin, C Neck, Polymer	2	1968	2	1968 *
8	Pin, Crossarm	2	961	2	961
9	Washer, Square, Flat 5/8", 2 1/4" x 2 1/4"	2	1412	2	1412
10	Washer, Lock, Spring, Double Coil, Galv., 5/8"	2	2217	2	2217
11	Wire, Tie, AL Annealed #4 SD	22 *	3012	20	1421
ITEM NO.	DESCRIPTION	PR24 (4)		PR24 (4)	
		QTY.	S/N	QTY.	S/N
12	Insulator, Suspension 15 kV Clevis-Tongue, Polymer	4	1967	4	1967
13	Clamp, Strain, Distribution #2 to 397.5	4	302	4	302
ITEM NO.	DESCRIPTION	ADDITIONAL MATERIAL			
		QTY.	S/N	QTY.	S/N
14	Clamp, Strain #2	2	300	2	300
15	Connector, Tap, Wedge 2/0 to 2/0	4	2559	4	2559
16	Connector, Tap, Wedge #2 to #2	2	2688	2	2688
ITEM NO.	DESCRIPTION	S12		S12	
		QTY.	S/N	QTY.	S/N
17	Insulator, Pin, C Neck, White Polymer	1	2656	1	2656 *
18	Pin, Crossarm	1	961	1	961
19	Washer, Square, Flat, 5/8", 2 1/4" x 2 1/4"	1	1412	1	1412
20	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	2217	1	2217
21	Wire, Tie, AL Annealed #4 SD	10	1421	10	1421



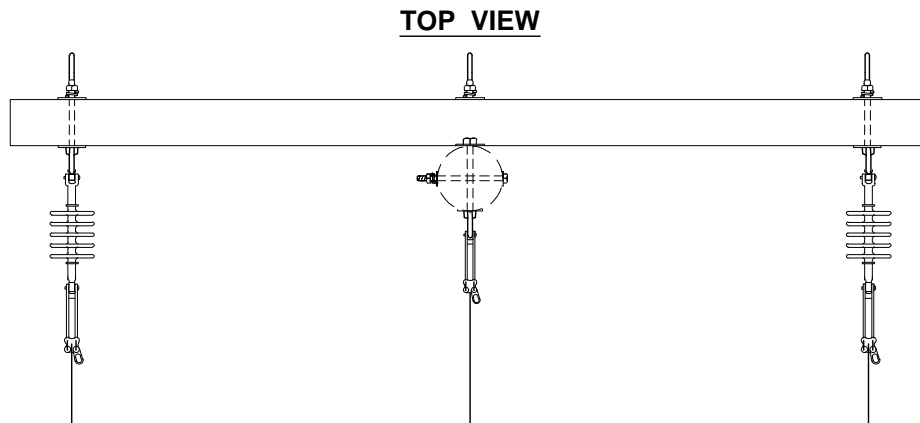
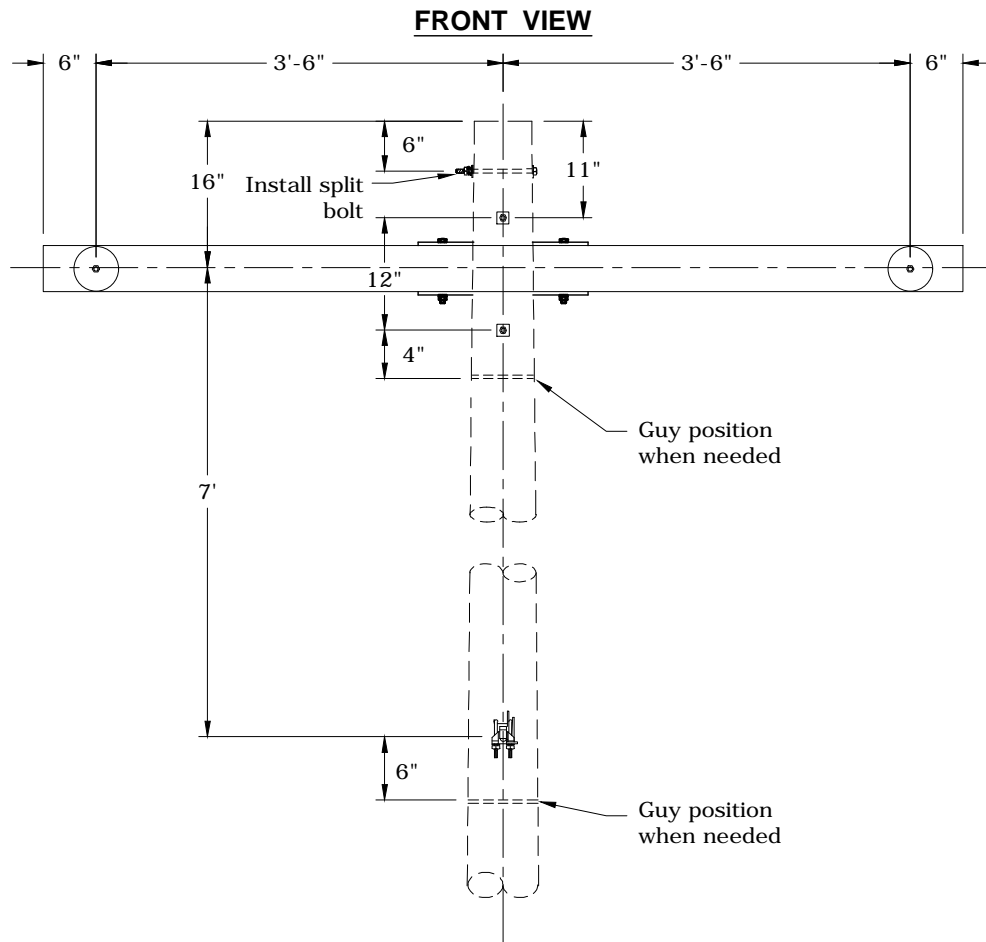
CONSTRUCTION STANDARDS
 8' PRE-ASSEMBLED DOUBLE DEADEND
 HIGH NEUTRAL
 2/0 ACSR MAX WIRE

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B49A, B49ATREE

CAD FILE:
B49A

REVISIONS			
REV	DATE	ENGR	OPS
2	3/02	REDRAWN	IN CAD
3	3/5/08	LB	AH
4	7/29/10	KJP	
5	11/15/17	CM	DK
APP: ELM			
DATE: 1/31/80		SECTION: 320	



Avian Safe

Rev. 5 - Added avian note.



CONSTRUCTION STANDARDS

8' PRE-ASSEMBLED DEADEND
2/0 ACSR MAX WIRE

REVISIONS

NO.	DATE	ENGR	OPS
2	3/02	REDRAWN	IN CAD
3	3/5/08	LB	AH
4	7/29/10	KJP	
5	11/15/17	CM	DK

PAGE:
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B50A

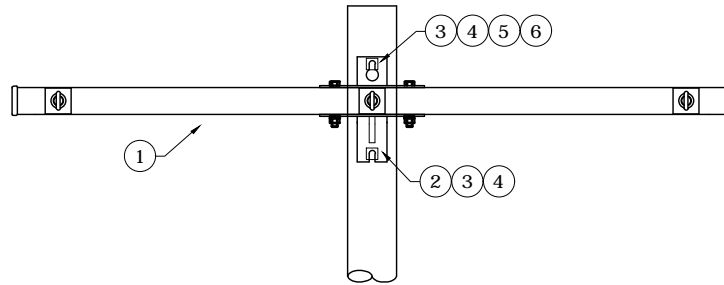
CAD FILE:
B50A

APP: ELM
DATE: 1/31/80

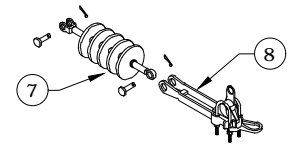
SECTION
320

BACK VIEW

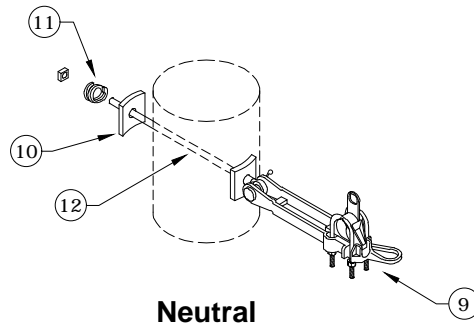
CR26A



PR24



Road & Field Phases



Neutral

Rev. 5 - Added avian note.

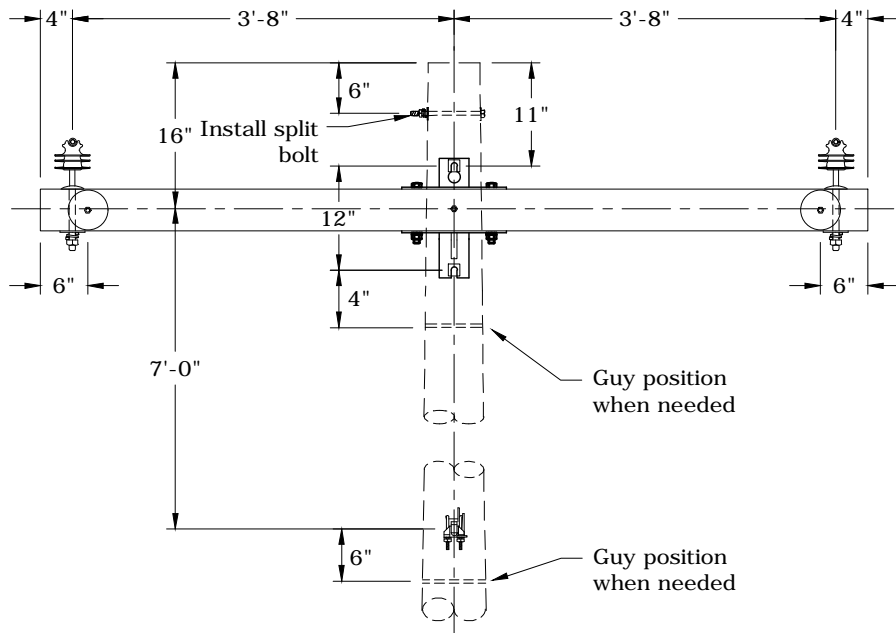
ITEM NO.	DESCRIPTION	B50A	
		QTY.	S/N
1	Arm, Deadend Assembly, 8', 3-position, 397 Max	1	2508
2	Bolt, Machine 3/4" x 14", Galv., 18,350 lbs Ultimate Tensile	1	174
3	Washer, Lock, Spring, Double Coil, Galv., 3/4"	2	2218
4	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	1392
5	Nut, Eye Oval 3/4"	1	914
6	Bolt, Machine 3/4" x 16", Galv., 18,350 lbs Ultimate Tensile	1	175
ITEM NO.	DESCRIPTION	PR24 (2)	
		QTY.	S/N
7	Insulator, Suspension 15 kV Clevis-Tongue, Polymer	2	1967
8	Clamp, Strain, Distribution #2 to 397.5	2	302
ITEM NO.	DESCRIPTION	ADDITIONAL MATERIAL	
		QTY.	S/N
9	Clamp, Strain #2	1	300
10	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	1392
11	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	2217
12	Bolt, Eye 5/8" x 14", Galv., 12,400 lbs Ultimate Tensile	1	108



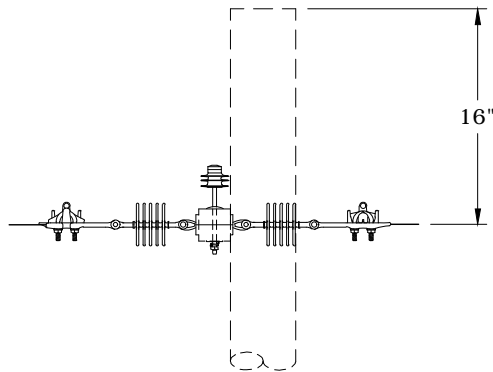
CONSTRUCTION STANDARDS
 8' PRE-ASSEMBLED DEADEND
 2/0 ACSR MAX WIRE

REVISIONS			
REV	DATE	ENGR	OPS
2	3/02	REDRAWN	IN CAD
3	3/5/08	LB	AH
4	7/29/10	KJP	
5	11/15/17	CM	DK

FRONT VIEW



SIDE VIEW



Avian Safe

Rev. 5 - Eliminated porcelain pin insulators and added avian notes.



CONSTRUCTION STANDARDS
 8' PRE-ASSEMBLED DOUBLE DEADEND
 2/0 ACSR MAX WIRE

REVISIONS			
NO.	DATE	ENGR	OPS
2	3/02	REDRAWN	IN CAD
3	3/5/08	LB	AH
4	7/29/10	KJP	
5	11/15/17	CM	DK

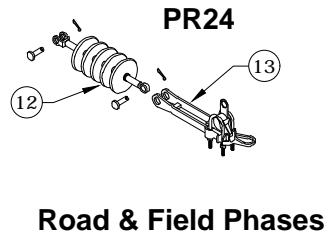
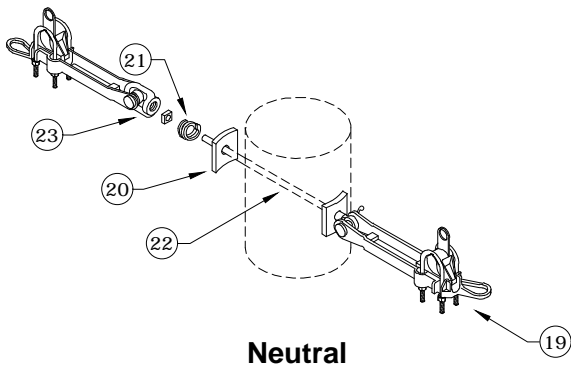
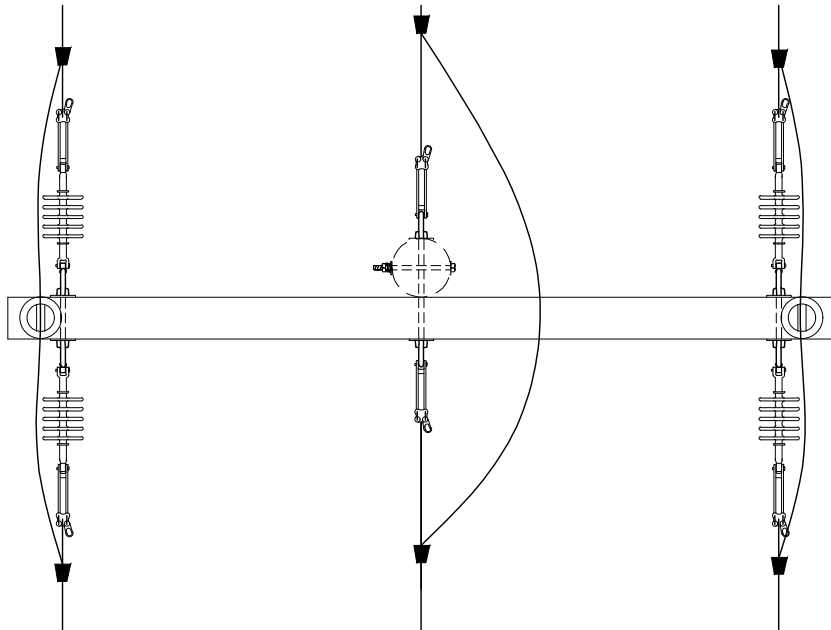
APP:	ELM	SECTION
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B51A, B51ATREE

CAD FILE:
B51A

TOP VIEW



Rev. 5 - Eliminated porcelain pin insulators and added avian notes.



CONSTRUCTION STANDARDS
 8' PRE-ASSEMBLED DOUBLE DEADEND
 2/0 ACSR MAX WIRE

REVISIONS

△	DATE	ENGR	OPS
2	3/02	REDRAWN	IN CAD
3	3/5/08	LB	AH
4	7/29/10	KJP	
5	11/15/17	CM	DK

PAGE:
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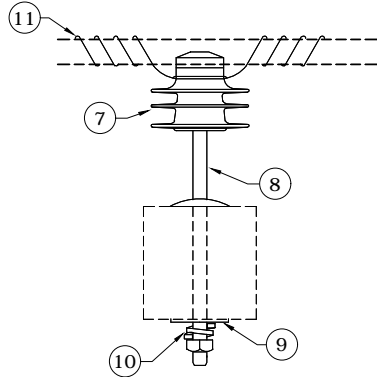
B51A, B51ATREE

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B51A

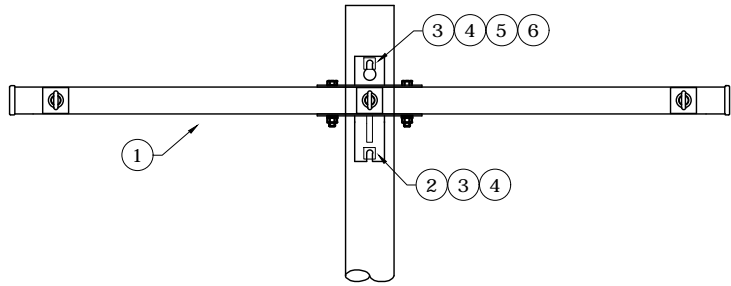
APP: ELM
DATE: 1/31/80

SECTION
320

PR4,PR4TREE



CR26A



Rev. 5 - Eliminated porcelain pin insulators and added avian notes.

ITEM NO.	DESCRIPTION	B51ATREE		B51A	
		QTY.	S/N	QTY.	S/N
1	Arm, Deadend Assembly, 8', 3-position, 397 Max	1	2508	1	2508
2	Bolt, Machine 3/4" x 14", Galv., 18,350 lbs Ultimate Tensile	1	174	1	174
3	Washer, Lock, Spring, Double Coil, Galv., 3/4"	2	2218	2	2218
4	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	1392	2	1392
5	Nut, Eye Oval 3/4"	1	914	1	914
6	Bolt, Machine 3/4" x 16", Galv., 18,350 lbs Ultimate Tensile	1	175	1	175
ITEM NO.	DESCRIPTION	PR4TREE (2)		PR4 (2)	
		QTY.	S/N	QTY.	S/N
7	Insulator, Pin, C Neck, Polymer	2	1968	2	1968 *
8	Pin, Crossarm	2	961	2	961
9	Washer, Square, Flat 5/8", 2 1/4" x 2 1/4"	2	1412	2	1412
10	Washer, Lock, Spring, Double Coil, Galv., 5/8"	2	2217	2	2217
11	Wire, Tie, AL Annealed #4 SD	22 *	3012	20	1421
ITEM NO.	DESCRIPTION	PR24 (4)		PR24 (4)	
		QTY.	S/N	QTY.	S/N
12	Insulator, Suspension 15 kV Clevis-Tongue, Polymer	4	1967	4	1967
13	Clamp, Strain, Distribution #2 to 397.5	4	302	4	302
ITEM NO.	DESCRIPTION	ADDITIONAL MATERIAL			
		QTY.	S/N	QTY.	S/N
17	Connector, Tap, Wedge, 2/0 to 2/0	4	2559	4	2559
18	Connector, Tap, Wedge, #2 to #2	2	2688	2	2688
19	Clevis, Strain #2	2	300	2	300
20	Washer, Curved, Square, Cast, 3" x 3" x 3/8" Thick x 13/16" Hole	2	1392	2	1392
21	Washer, Lock, Spring, Double Coil, Galv., 5/8"	1	2217	1	2217
22	Bolt, Eye 5/8" x 14", Galv., 12,400 lbs Ultimate Tensile	1	108	1	108
23	Nut, Eye Oval 5/8"	1	913	1	913



CONSTRUCTION STANDARDS
 8' PRE-ASSEMBLED DOUBLE DEADEND
 2/0 ACSR MAX WIRE

REVISIONS			
NO.	DATE	ENGR	OPS
2	3/02	REDRAWN	IN CAD
3	3/5/08	LB	AH
4	7/29/10	KJP	
5	11/15/17	CM	DK