

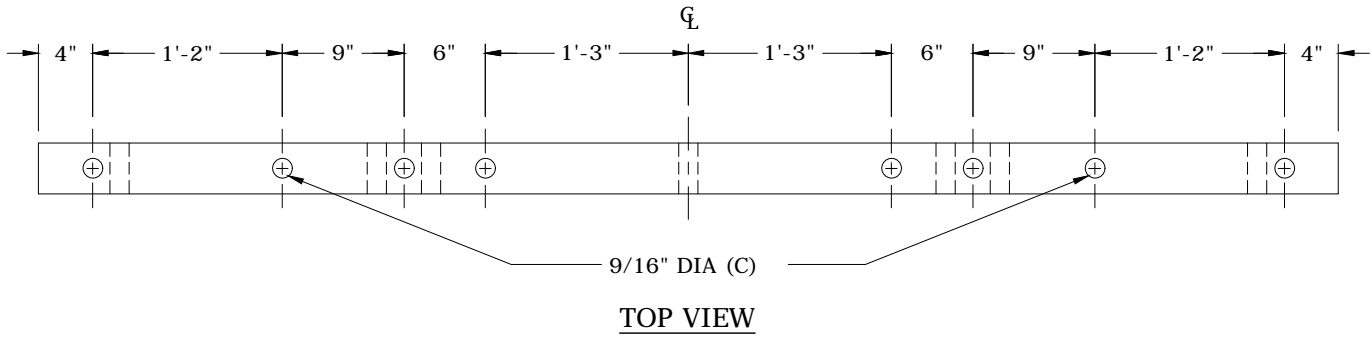
# 500

## CROSSARMS AND POLES

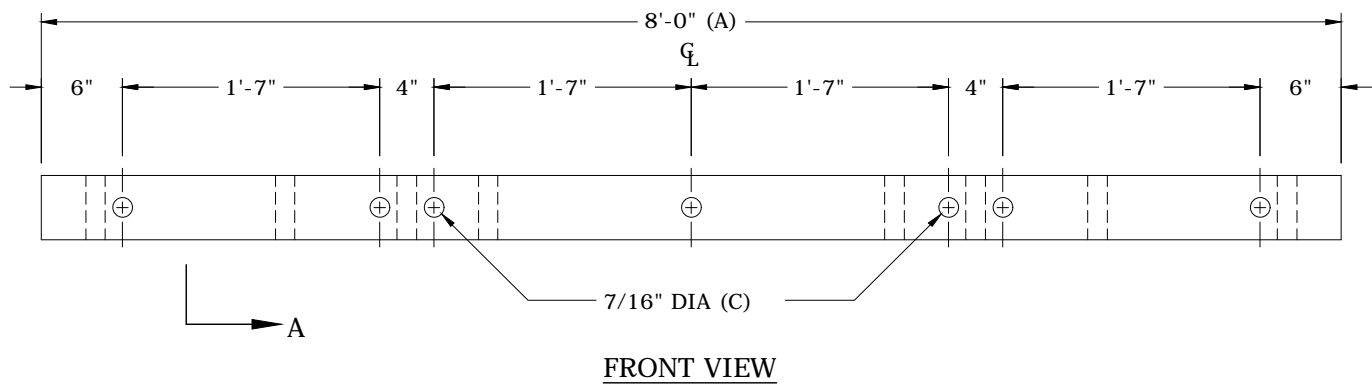
3/13/2020

~	CR1	8' Standard Crossarm Drilling Guide
~	CR2	10' Standard Crossarm Drilling Guide
~	CR3	12' Standard Crossarm Drilling Guide
~	CR4	5' Standard Crossarm Drilling Guide
~	DEA1	8' Pre-assembled Deadend Assembly 3-position Drilling Guide
~	DEA2	10' Pre-assembled Deadend Assembly 3-position Drilling Guide
~	DEA3	10' Pre-assembled Deadend Assembly 4-position Drilling Guide
~	P1	25' to 35' Distribution Pole Framing Guide
~	P2	40' to 60' Distribution Pole Framing Guide
~	P3	Pole Setting Depth Guide
~	P4	Transmission-Distribution Pole Thru Boring at Ground Line
~	P5	Transmission-Distribution Pole Thru Boring at Pole Top
<b>N</b>	TP2	115kV Transmission Line General Pole Drilling Specification

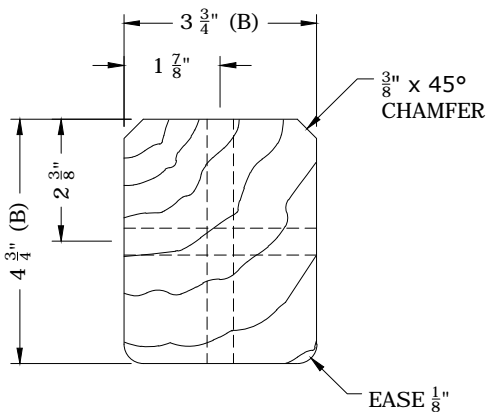
<b>N</b>	New Standard
<b>R</b>	Redrawn Standard
<b>C</b>	Changed Standard
~	No Change



A



A



SECTION A-A

TOLERANCES

	<u>OVER</u>	<u>UNDER</u>
(A)	1/4"	1/4"
(B)	1/8"	1/8"
(C)	1/32"	1/32"

NOTES

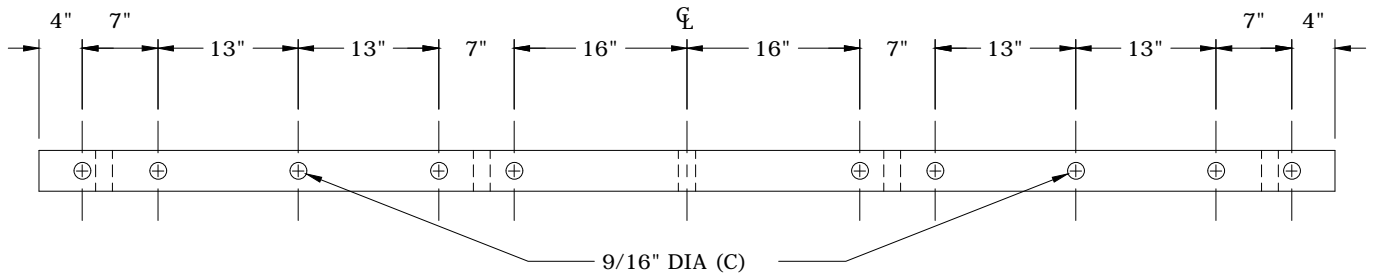
- HOLES TO BE 11/16" DIA. (c) UNLESS OTHERWISE INDICATED.



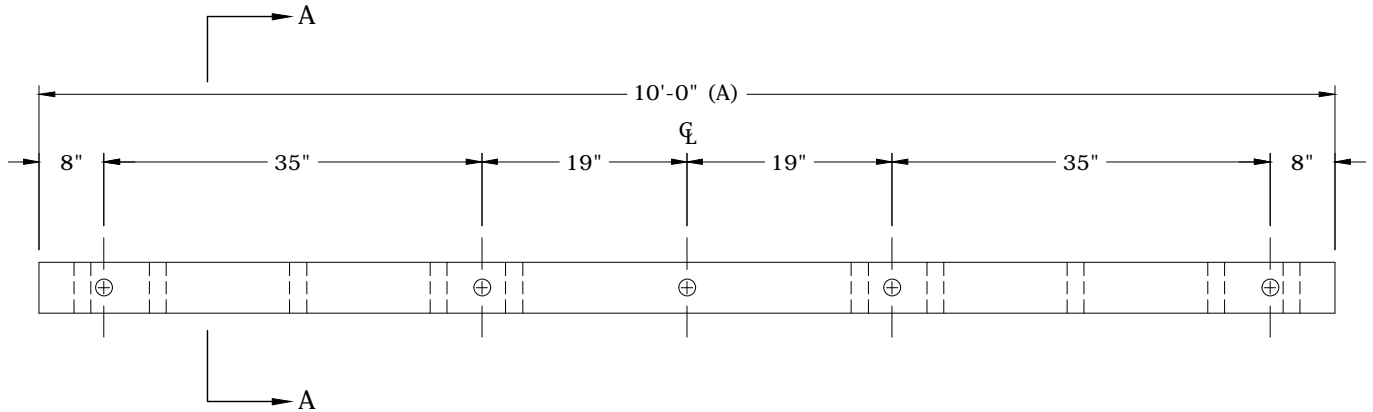
**CONSTRUCTION STANDARDS**

**8' STANDARD CROSSARM DRILLING GUIDE**

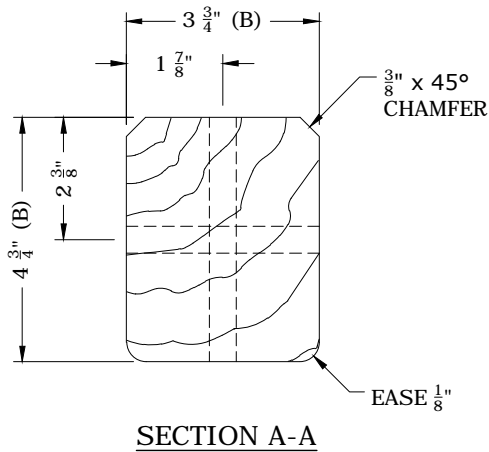
<u>REVISIONS</u>			
<u>REV</u>	<u>DATE</u>	<u>ENGR</u>	<u>OPS</u>
1	2/8/93		
<u>APP:</u>			
<u>DATE:</u>			<u>SECTION</u>
1/22/80			<b>500</b>



**TOP VIEW**



**FRONT VIEW**



**TOLERANCES**

	<u>OVER</u>	<u>UNDER</u>
(A)	1/4"	1/4"
(B)	1/8"	1/8"
(C)	1/32"	1/32"

**NOTES**

- HOLES TO BE 11/16" DIA. (c) UNLESS OTHERWISE INDICATED.

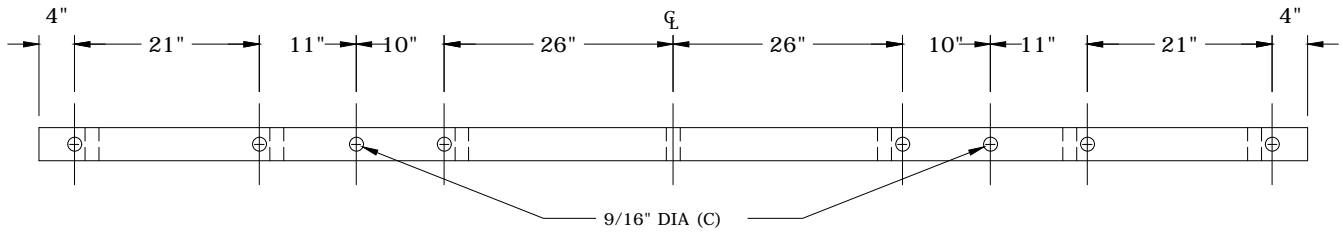


**CONSTRUCTION STANDARDS**

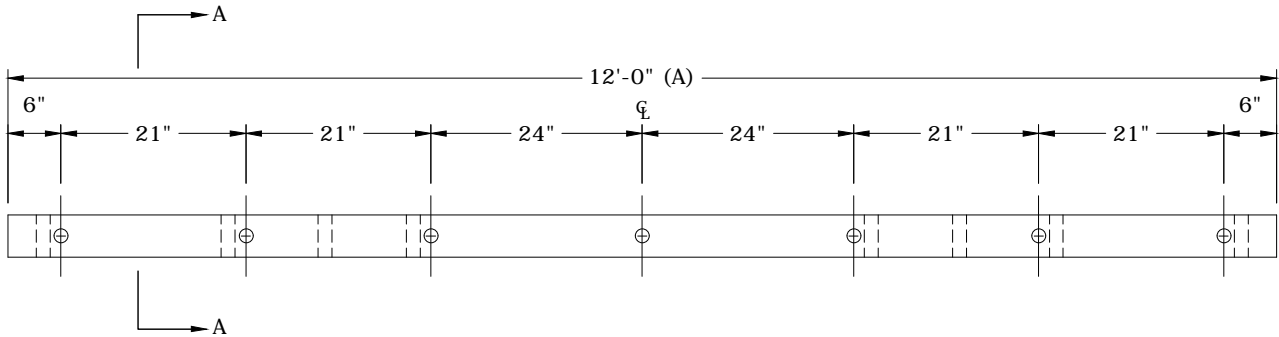
**10' STANDARD CROSSARM  
DRILLING GUIDE**

**REVISIONS**

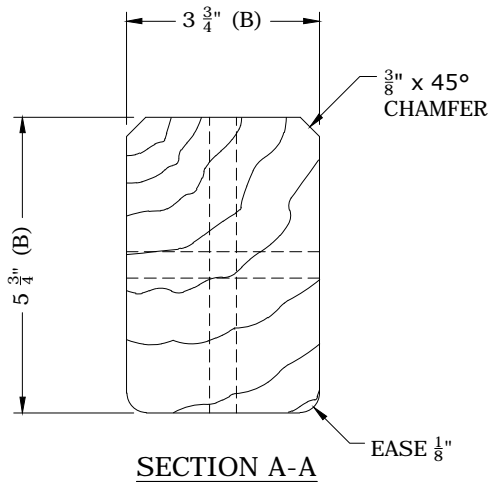
REV	DATE	ENGR	OPS
1	2/8/93		



TOP VIEW



SIDE VIEW



SECTION A-A

TOLERANCES

	<u>OVER</u>	<u>UNDER</u>
(A)	1/4"	1/4"
(B)	1/8"	1/8"
(C)	1/32"	1/32"

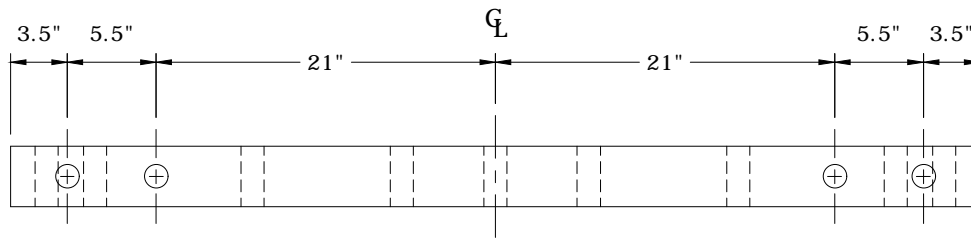
NOTES

- HOLES TO BE 11/16" DIA. (c) UNLESS OTHERWISE INDICATED.

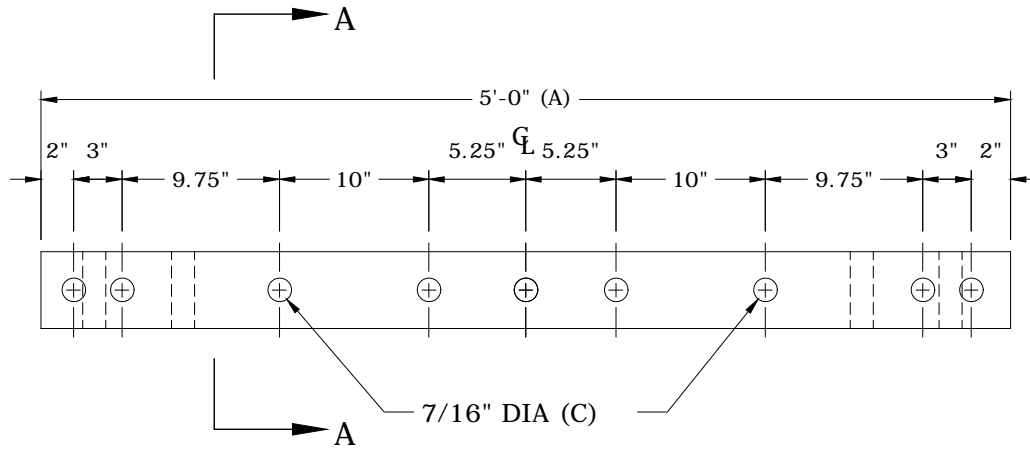


**CONSTRUCTION STANDARDS**  
12' STANDARD CROSSARM  
DRILLING GUIDE

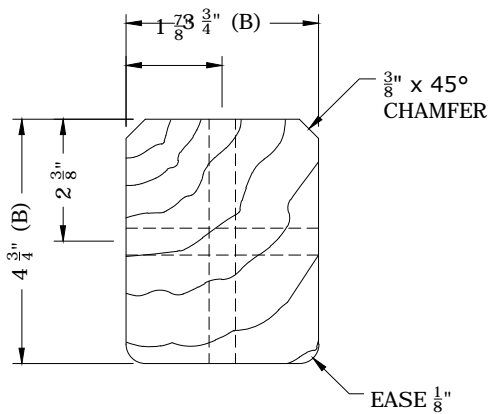
<u>REVISIONS</u>			
$\Delta$	DATE	ENGR	OPS
1	2/8/93		
$\Delta$			
APP:	HWH	SECTION	
DATE:	1/22/80	<b>500</b>	



**TOP VIEW**



**FRONT VIEW**



**SECTION A-A**

**TOLERANCES**

	<u>OVER</u>	<u>UNDER</u>
(A)	1/4"	1/4"
(B)	1/8"	1/8"
(C)	1/32"	1/32"

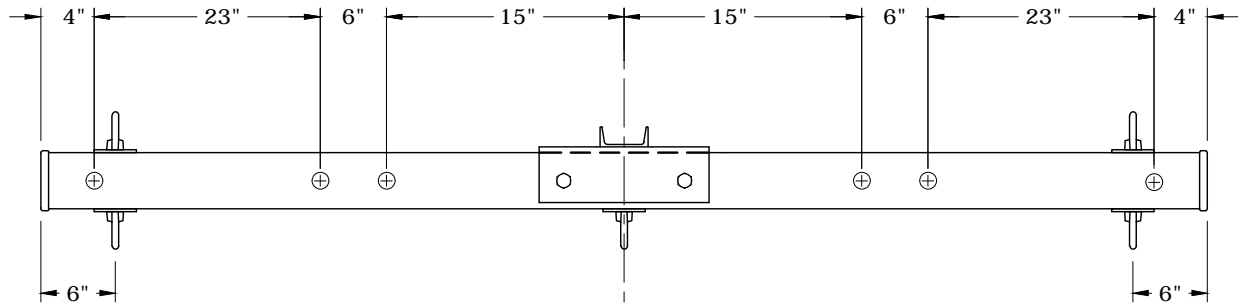
**NOTES**

- HOLES TO BE 11/16" DIA. (c) UNLESS OTHERWISE INDICATED.

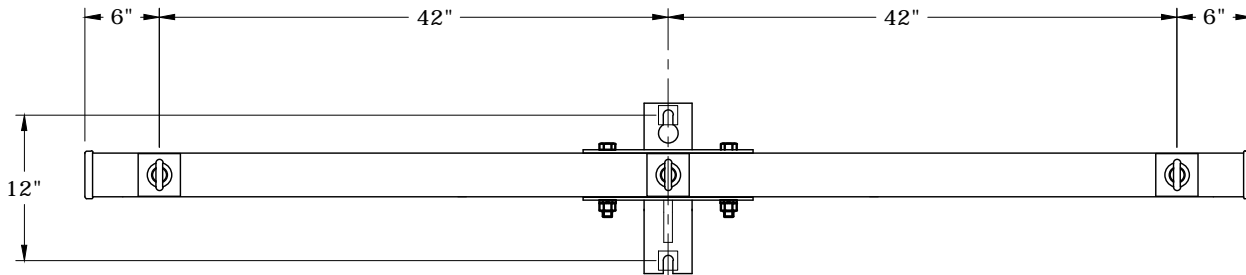


**CONSTRUCTION STANDARDS**  
5' STANDARD CROSSARM  
DRILLING GUIDE

REVISIONS			
REV	DATE	ENGR	OPS
0	4/02		
△ REDRAWN IN CAD			
APP: ELM		SECTION	
DATE: 1/31/80		<b>500</b>	



TOP VIEW



FRONT VIEW

- Notes: 1.) Holes to be 11/16" diameter.  
 2.) Double guy attachment required.



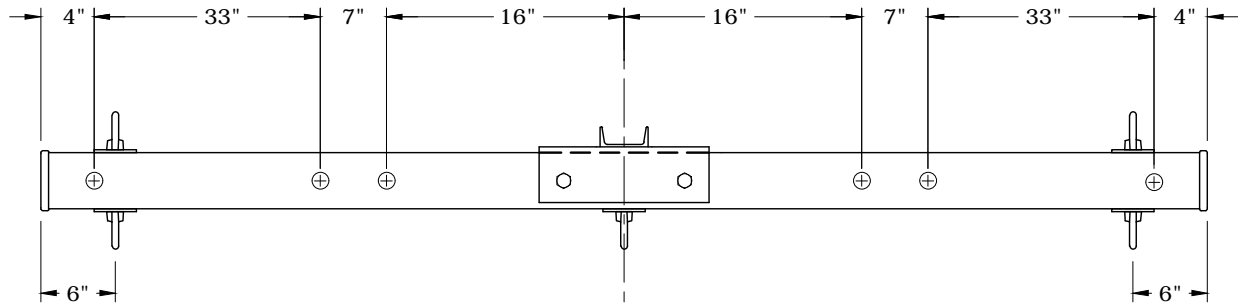
**CONSTRUCTION STANDARDS**  
 8' PRE-ASSEMBLED DEADEND ASSEMBLY  
 3-POSITION  
 DRILLING GUIDE

PAGE:  
1 of 1

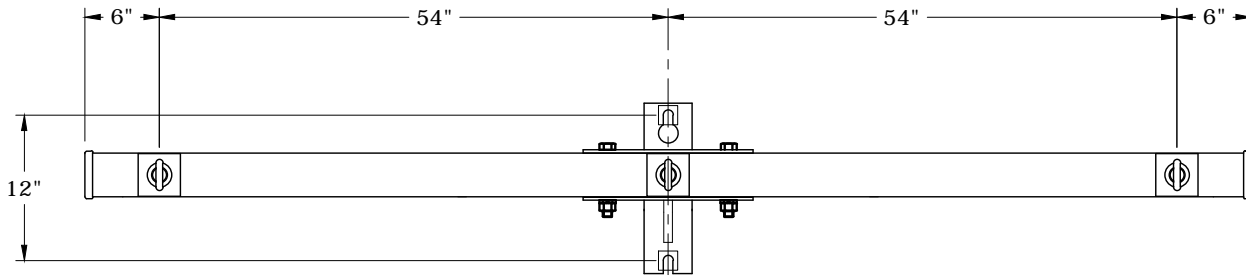
**DEA1**

CAD FILE:  
DEA1

REVISIONS			
△	DATE	ENGR	OPS
△			
APP:	LB/AH	SECTION	
DATE:	3/5/08	<b>500</b>	



TOP VIEW



FRONT VIEW

- Notes: 1.) Holes to be 11/16" diameter.  
 2.) Double guy attachment required.



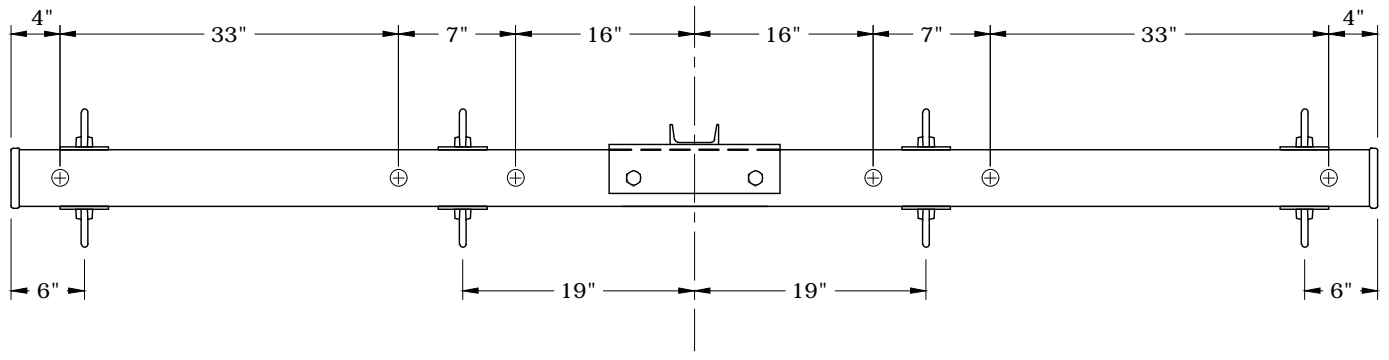
**CONSTRUCTION STANDARDS**  
 10' PRE-ASSEMBLED DEADEND ASSEMBLY  
 3-POSITION  
 DRILLING GUIDE

PAGE:  
1 of 1

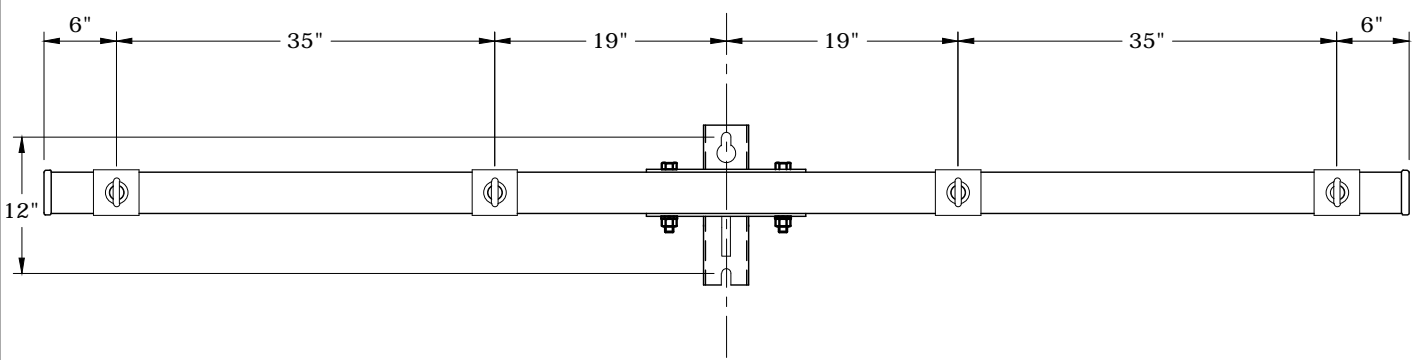
**DEA2**

CAD FILE:  
DEA2

REVISIONS			
△	DATE	ENGR	OPS
△			
APP:	LB/AH	SECTION	
DATE:	3/5/08	<b>500</b>	



TOP VIEW



FRONT VIEW

Notes: 1.) Holes to be 11/16" diameter.  
 2.) Double guy attachment required.



**CONSTRUCTION STANDARDS**  
 10' PRE-ASSEMBLED DEADEND ASSEMBLY  
 4-POSITION  
 DRILLING GUIDE

PAGE:  
1 of 1

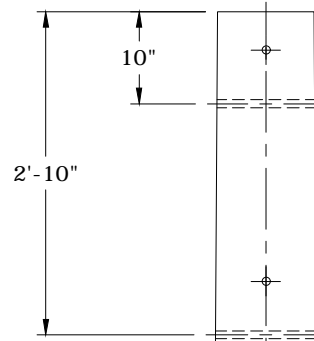
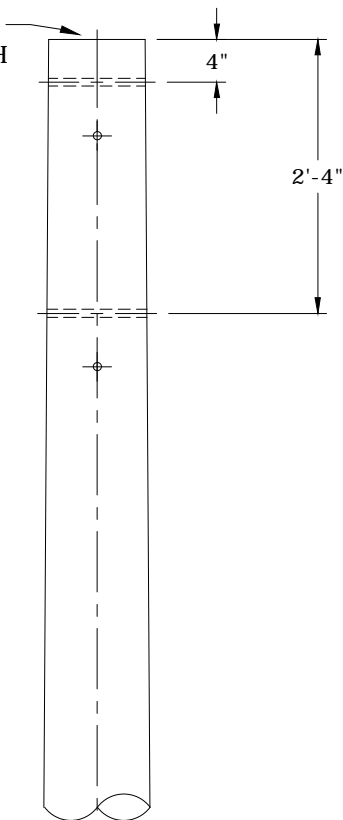
**DEA3**

CAD FILE:  
DEA3

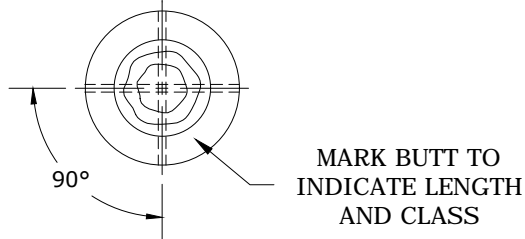
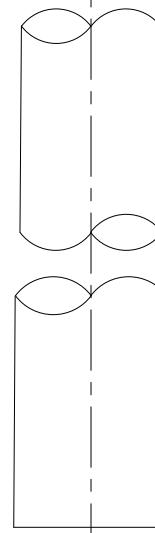
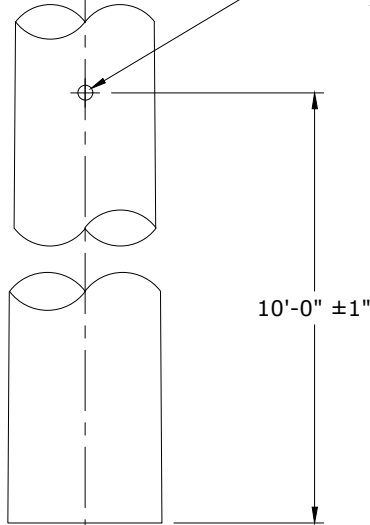
REVISIONS			
△	DATE	ENGR	OPS
△			
APP:	LB/AH	SECTION	
DATE:	3/5/08	<b>500</b>	



MARK TOP TO  
INDICATE LENGTH  
AND CLASS



METAL TAG  
REFER TO SPECS FOR  
MARKING DETAIL



**Notes:**

- 1.) Holes to be 11/16" dia.
- 2.) Call for P1 drilling, 30' pole class 4 as (P1-30-4)

Rev 2: Added length and class tag at top of pole.



**CONSTRUCTION STANDARDS**  
25' TO 35' DISTRIBUTION POLE  
FRAMING GUIDE

REVISIONS

NO.	DATE	ENGR	OPS
1	10/17/08	CM	AH
2	12/31/09	KJP	

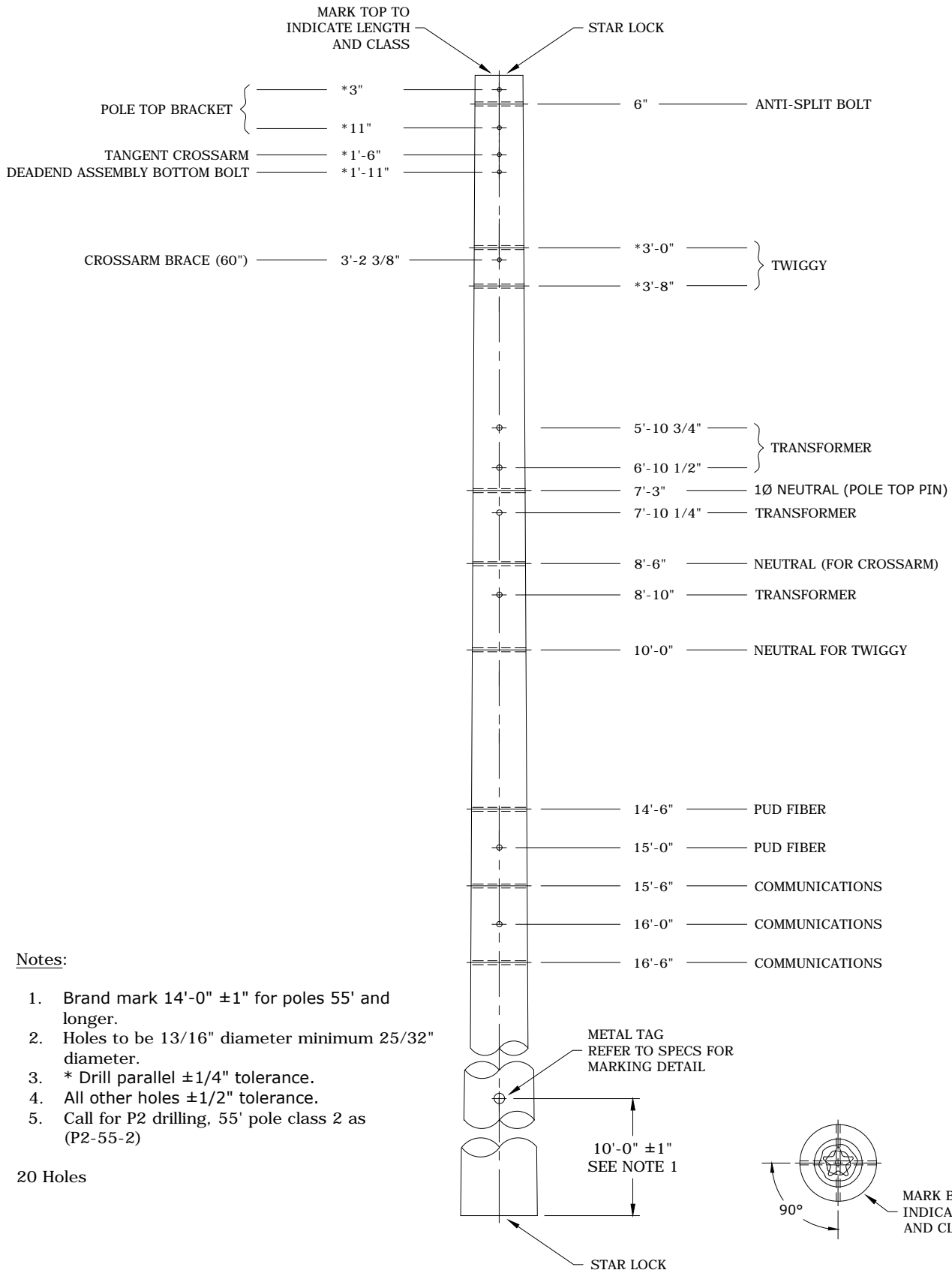
PAGE:  
1 of 1

**P1**

CAD FILE:  
P1

APP:  
DATE: 1/31/80

SECTION  
**500**




**Notes:**

1. Brand mark 14'-0" ± 1" for poles 55' and longer.
2. Holes to be 13/16" diameter minimum 25/32" diameter.
3. \* Drill parallel ± 1/4" tolerance.
4. All other holes ± 1/2" tolerance.
5. Call for P2 drilling, 55' pole class 2 as (P2-55-2)

20 Holes

Rev. 6 - Added star lock on butt.

	CONSTRUCTION STANDARDS		REVISIONS				
	40' TO 60' DISTRIBUTION POLE FRAMING GUIDE		DATE	ENGR	OPS	APP	SECTION
PAGE: 1 of 1	P2		CAD FILE: P2	3	10/17/08	CM	AH
				4	12/31/08	KJP	AH
				5	12/15/16	KJP	
				6	10/3/17	KJP	
				5	10/3/17	KJP	500



# POLE DEPTH SETTING CHART

THE MINIMUM DEPTH FOR SETTING POLES SHALL BE AS FOLLOWS:

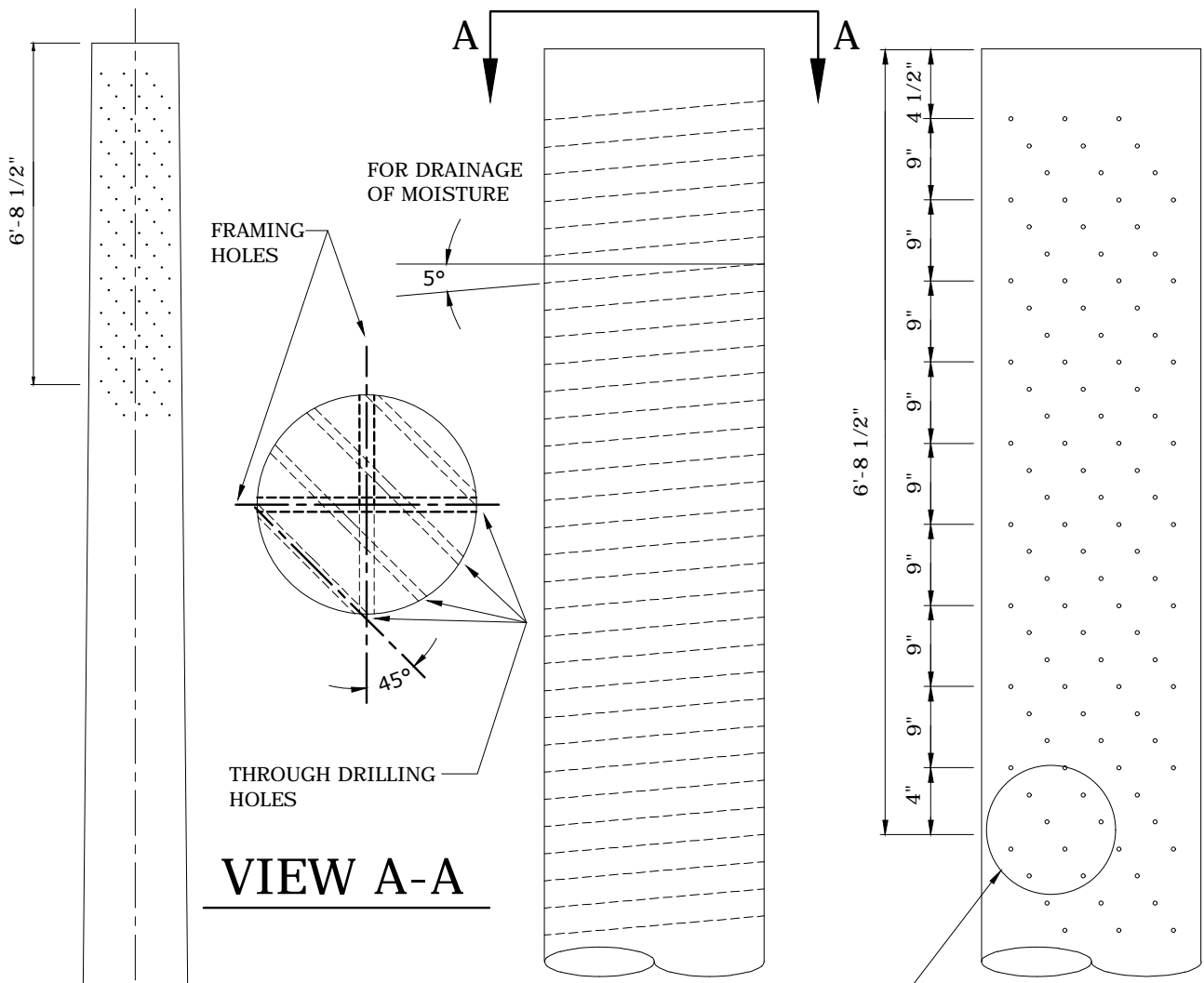
LENGHT OF POLE (FT)	MINIMUM SETTING DEPTH
UP TO 30'	5'-0"
35'-0"	5'-6"
40'-0"	6'-0"
45'-0"	6'-6"
50'-0"	7'-0"
55'-0"	7'-6"
60'-0"	8'-0"
65'-0"	8'-6"
70'-0"	9'-0"
75'-0"	9'-6"
80' AND ABOVE	10'-0"

Notes: 1. Setting depth in rock or swamp will be determined as required.

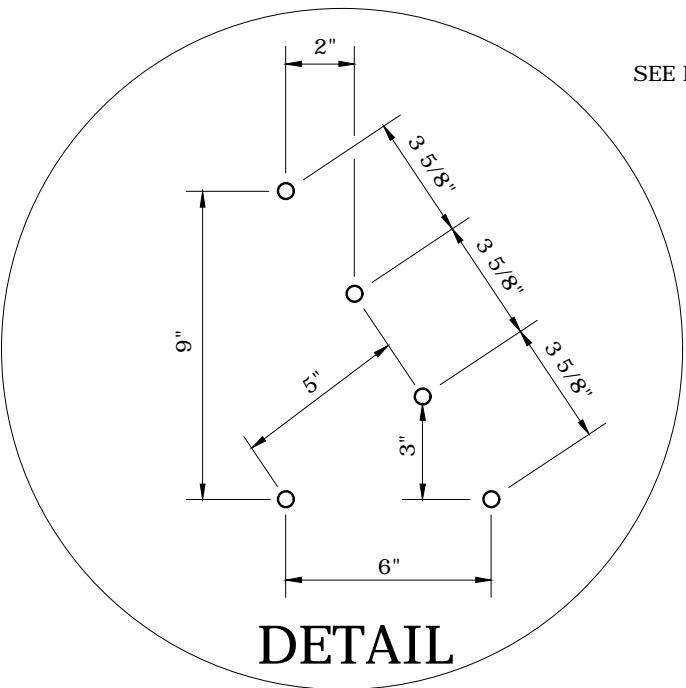
Rev 1: Redrawn in CAD

	<b>CONSTRUCTION STANDARDS</b> POLE SETTING GUIDE		REVISIONS		
				DATE	ENGR
	1	10/17/08	CM	AH	
PAGE: 1 of 1	<b>P3</b>		CAD FILE: P3	APP: ELM DATE: 1/31/80	SECTION <b>500</b>





**VIEW A-A**



**DETAIL**

SEE DETAIL

- NOTES:
1. ALL HOLES AND MARKING DISK RECESS TO BE MADE BEFORE TREATMENT.
  2. ALL HOLES SHALL BE COMPLETELY DRILLED THROUGH THE POLE FROM ONE DIRECTION.
  3. MAINTAIN 2 INCH MINIMUM EDGE DISTANCE.
  4. ALL HOLES SHALL BE 5/16 INCH MAXIMUM DIAMETER.
  5. FOR DOUGLAS FIR ONLY.

Rev 1: Added to Standards Book.



**CONSTRUCTION STANDARDS**

TRANSMISSION POLE  
THROUGH BORING GUIDE  
AT THE POLE TOP

PAGE:  
1 of 1

**P5**

CAD FILE:  
P5

REVISIONS			
NO.	DATE	ENGR	OPS
1	4/2/14	KJP	

APP:	SECTION
DATE:	<b>500</b>

MARK TOP TO INDICATE LENGTH AND CLASS

STAR LOCK

1" Dia. Holes

1'-0"

0"

7"

1'-7"

2'-10"

5'-4"

6'-4"

MEASUREMENTS ARE FROM TOP OF POLE

13/16" Dia. Holes (min. 25/32" Dia.)

\*35'-6" TWIGGY  
35'-3 5/8" CROSSARM BRACE (60")  
34'-10" TWIGGY

32'-7 1/4" } TRANSFORMER

31'-7 1/2" }

31'-3" 1Ø NEUTRAL (POLE TOP PIN)

30'-7 3/4" TRANSFORMER

30'-0" NEUTRAL (FOR CROSSARM)

29'-8" TRANSFORMER

28'-6" NEUTRAL FOR TWIGGY

24'-0" PUD FIBER

23'-6" PUD FIBER

23'-0" COMMUNICATIONS

22'-6" COMMUNICATIONS

22'-0" COMMUNICATIONS

MEASUREMENTS ARE FROM THE GROUNDLINE (10% OF POLE HEIGHT PLUS 2 FEET)

**Notes:**

1. All holes are  $\pm 1/16"$  tolerance.
2. \* All parallel holes shall be parallel with a tolerance of  $\pm 1/4"$ .
3. Install processor identification tag (metal tag) with drilling spec "TP2" on both ends of pole.

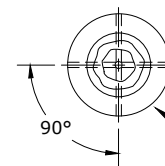
21 Holes

METAL TAG REFER TO SPECS FOR MARKING DETAIL

GROUNDLINE

14'-0"  $\pm 1"$

STAR LOCK



MARK BUTT TO INDICATE LENGTH AND CLASS

Rev. 2 - Added star lock on butt and added pre-drilled holes for communications.



**CONSTRUCTION STANDARDS**  
115kV TRANSMISSION LINE  
GENERAL POLE DRILLING  
SPECIFICATION

PAGE:  
1 of 1

**TP2**

CAD FILE:  
TP2

REVISIONS			
NO.	DATE	ENGR	OPS
1	12/28/16	KJP	
2	3/12/20	KJP	

APP: HWH/DK	SECTION
DATE: 2/02	500