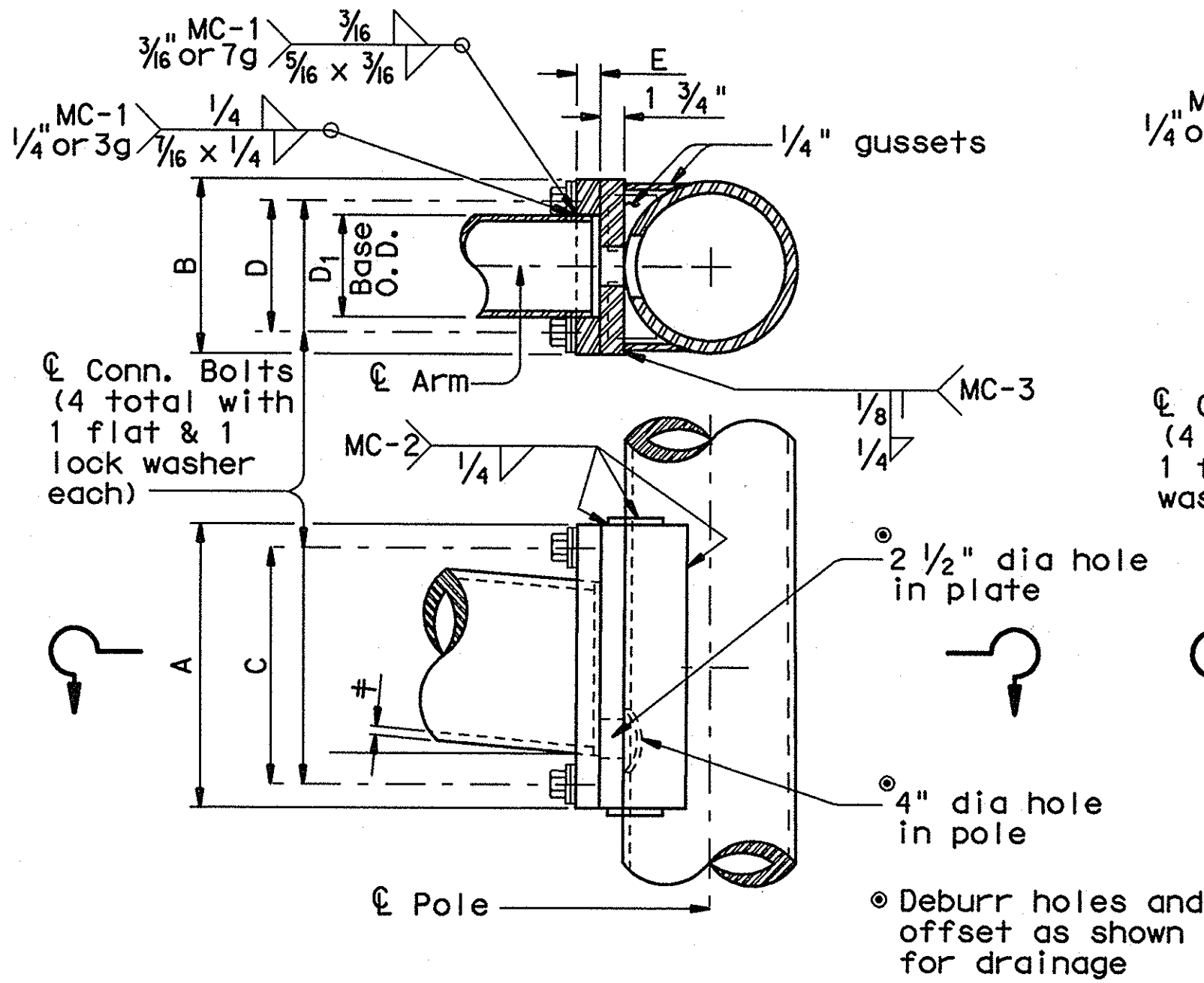


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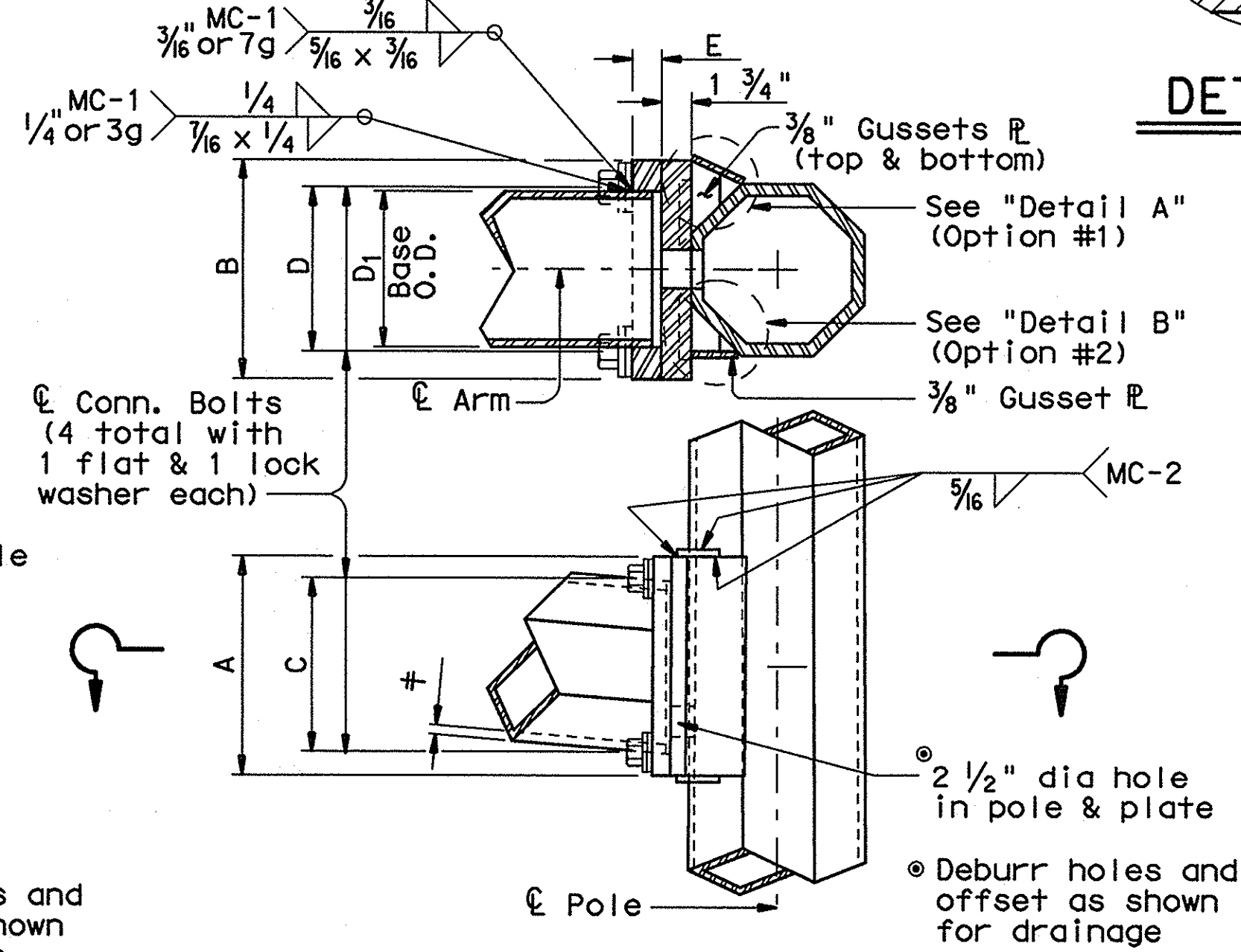
DATE: FILE:

ARM SIZE		A	B	C	D	E	CONN BOLT DIA
D <sub>1</sub>	±	in.	in.	in.	in.	in.	in.
6.5	.179	12	9	9	6	1 3/4	1
7.5	.179	13	9	10	6	1 3/4	1
8.0	.179	14	10	11	7	2	1 1/4
9.0	.179	16	11	13	8	2	1 1/4
9.5	.179	17	12	14	9	2	1 1/4
9.5	.239	18	12	15	9	2	1 1/4
10.0	.239	18	12	15	9	2	1 1/4
10.5	.239	18	13	15	10	3	1 1/2
11.0	.239	18	13	15	10	3	1 1/2

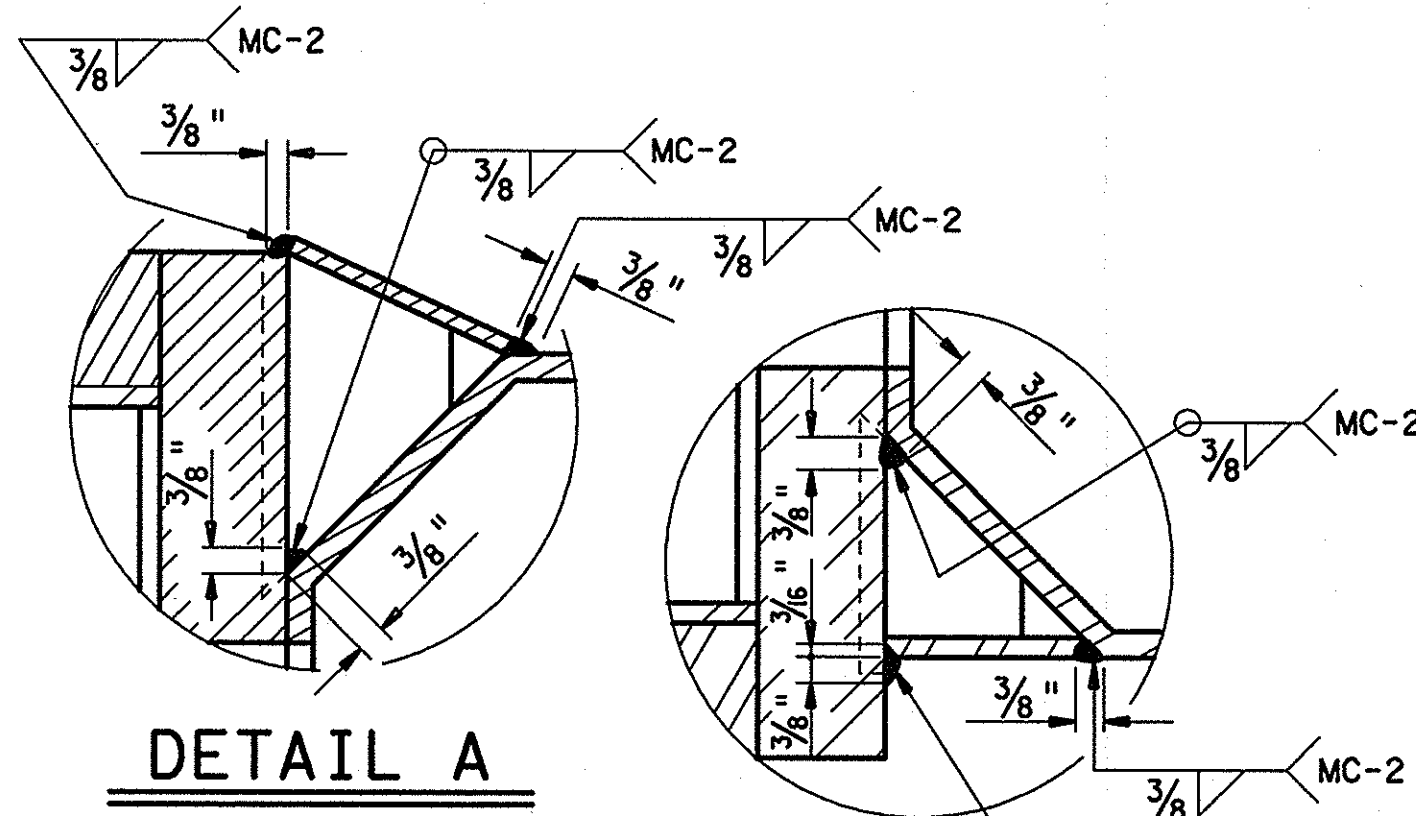
ARM SIZE		A	B	C	D	E	CONN BOLT DIA
D <sub>1</sub>	±	in.	in.	in.	in.	in.	in.
7.0	.179	11	11	8	8	1 3/4	1 1/4
7.5	.179	11	11	8	8	1 3/4	1 1/4
8.0	.179	11	11	8	8	2	1 1/4
9.0	.179	13	13	10	10	2	1 1/4
10.0	.179	13	13	10	10	2	1 1/4
9.5	.239	13	13	10	10	2	1 1/4
10.0	.239	14	14	11	11	2	1 1/2
11.0	.239	14	14	11	11	3	1 1/2
11.5	.239	14	14	11	11	3	1 1/2



FIXED MOUNT DETAIL 1

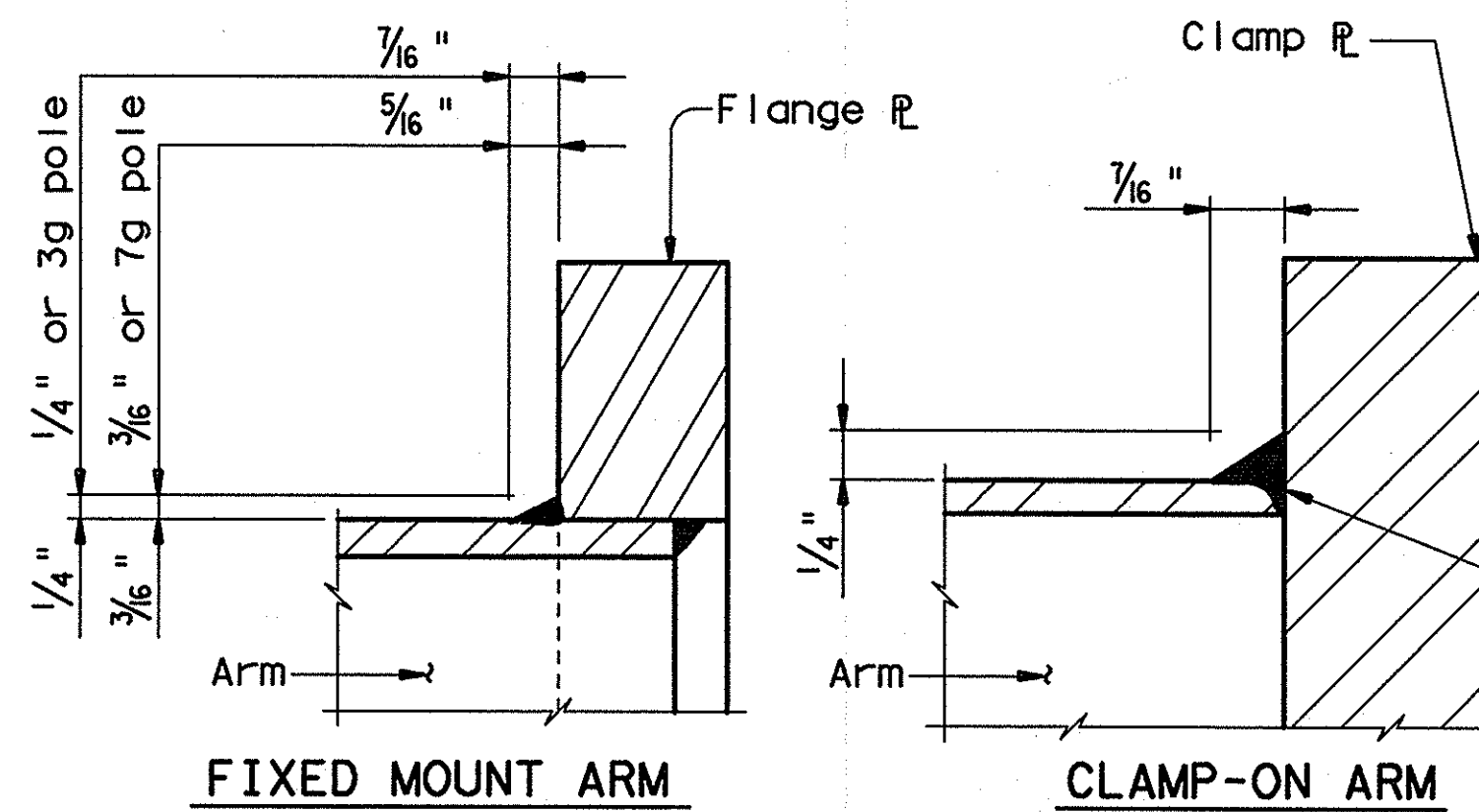


FIXED MOUNT DETAIL 2



DETAIL A

DETAIL B



FIXED MOUNT ARM

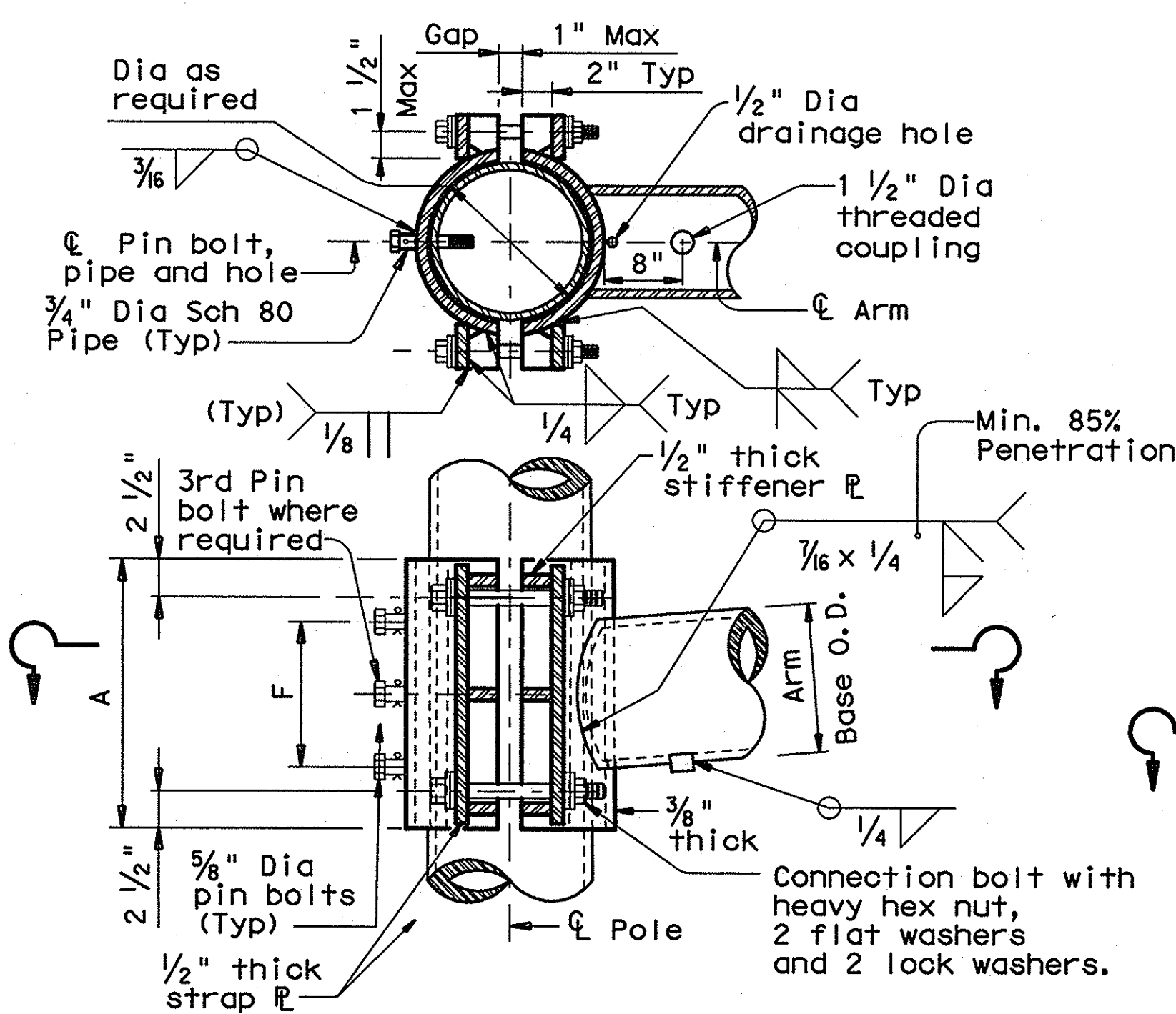
CLAMP-ON ARM

ARM BASE WELD DETAILS

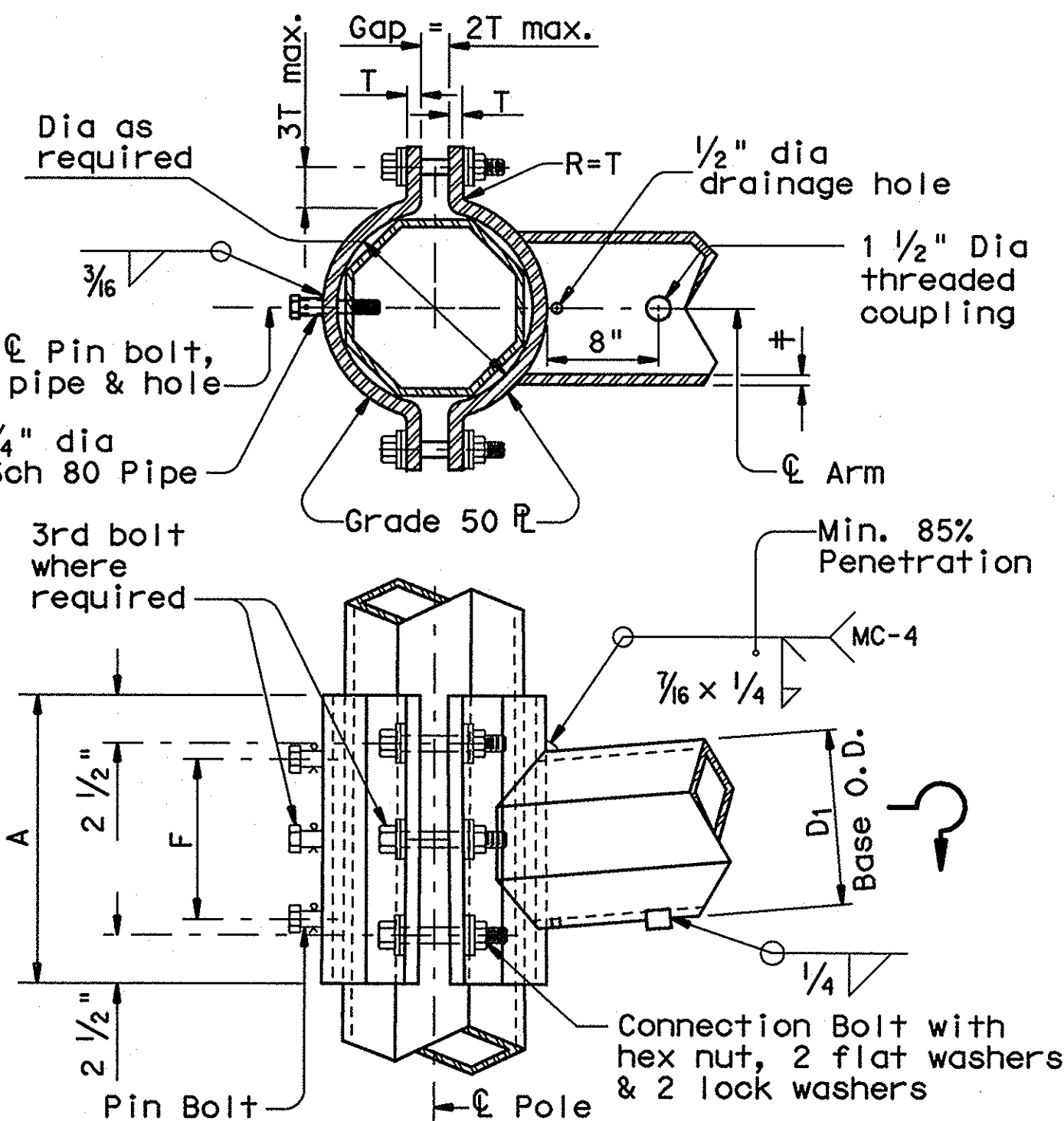
ARM SIZE		A	F	CONN. BOLTS		PIN BOLTS	
D <sub>1</sub>	±	in.	in.	No.	Dia	No.	Dia
6.5	.179	12	6	4	1	2	5/8
7.5	.179	14	8	4	1	2	5/8
8.0	.179	14	8	4	1	2	5/8
9.0	.179	16	10	4	1	2	5/8
9.5	.179	18	12	4	1 1/4	3	5/8
9.5	.239	18	12	4	1 1/4	3	5/8
10.0	.239	18	12	4	1 1/4	3	5/8

ARM SIZE		A	F	T	CONN. BOLTS		PIN BOLTS	
D <sub>1</sub>	±	in.	in.	in.	No.	Dia	No.	Dia
7.0	.179	12	6	3/4	4	3/4	2	5/8
7.5	.179	14	8	3/4	4	3/4	2	5/8
8.0	.179	14	8	3/4	4	3/4	2	5/8
9.0	.179	16	10	7/8	4	1	2	5/8
10.0	.179	18	10	7/8	4	1	2	5/8
9.5	.239	18	10	1	6	1	3	5/8
10.0	.239	18	10	1	6	1	3	5/8

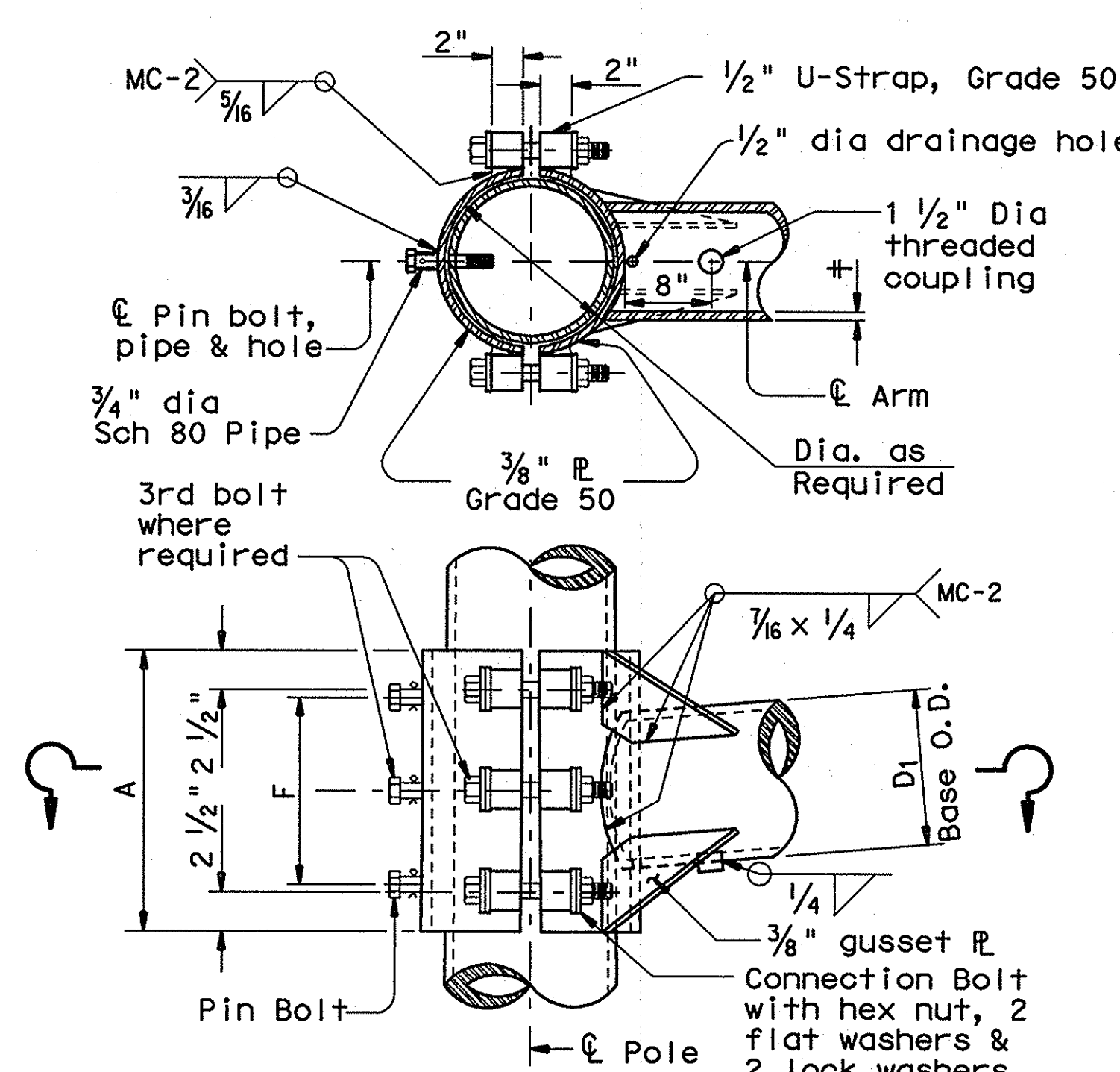
ARM SIZE		A	F	CONN. BOLTS		PIN BOLTS	
D <sub>1</sub>	±	in.	in.	No.	Dia	No.	Dia
6.5	.179	12	6	4	1	2	5/8
7.5	.179	14	8	4	1	2	5/8
8.0	.179	14	8	4	1	2	5/8
9.0	.179	16	10	4	1	2	5/8
9.5	.179	18	12	6	1	3	5/8
9.5	.239	18	12	6	1	3	5/8
10.0	.239	18	12	6	1	3	5/8



CLAMP-ON DETAIL 1



CLAMP-ON DETAIL 2



CLAMP-ON DETAIL 3

MATERIALS	
Round Shafts or Polygonal Shafts <sup>①</sup>	ASTM A595 Gr. A, A588, A1008 HSLAS Gr. 50 Class 2, A1011 HSLAS Gr. 50 Class 2, A572 Gr. 50 or A1011 SS Gr. 50 <sup>②</sup>
Plates <sup>①</sup>	ASTM A36, A588, or A572 Gr. 50
Connection Bolts	ASTM A325 or A449, except where noted
Pin Bolts	ASTM A325
Pipe <sup>①</sup>	ASTM A53 Gr. B, A501, A1008 HSLAS-F Gr. 50, A1011 HSLAS-F Gr. 50
Misc. Hardware	Galvanized steel or stainless steel or as noted

- ① ASTM A572, A1008 HSLAS, A1011 HSLAS, A1008 HSLAS-F, A1011 HSLAS-F or A1011 SS may have higher yield strengths but shall not have less elongation than the grade indicated.
- ② ASTM A1011 SS Gr. 50 material shall also have a minimum elongation of 18 percent in 8 inches or 23 percent in 2 inches. Material thickness in excess of those stipulated under A1011 SS will be acceptable providing the material meets all other A1011 SS requirements and the requirements of this item.

GENERAL NOTES:

Clamp-on details are used for the second arm on dual mast arm assemblies. A Maximum 1 1/2 inch wide vertical slotted hole shall be cut in the front clamp plate to facilitate drainage during galvanizing. The slot shall be centered behind the arm and shall be no longer than the arm diameter minus 1 inch.

Fixed mount details are used for single mast arm assemblies and for the first arm on dual mast arm assemblies.

Where duplicate parts occur on a detail, welds shown for one part shall apply to all similar parts on the detail.

Pin bolts are required to prevent rotation of clamp-on arms under design wind forces.

NOTE:

Pin bolts shall be A325 with threads excluded from the shear plane. Pin bolt and 3/4 inch dia pipe shall have 3/16 inch dia holes for a 1/8 inch dia galvanized cotter pin. Back clamp plate shall be furnished with a 3/4 inch dia hole for each pin bolt. An 1/16 inch dia hole for each pin bolt shall be field drilled through the pole after arm orientations have been approved by the Engineer.

RECORD DRAWINGS  
(July 2013)  
INFORMATION PROVIDED BY:  
Rogers-O'Brien Construction Company

Texas Department of Transportation  
Traffic Operations Division

STANDARD ASSEMBLY  
FOR TRAFFIC SIGNAL  
SUPPORT STRUCTURES

MAST ARM CONNECTIONS  
MA-C-12

© TxDOT August 1995	DH: MS	CK: JSY	DW: MMF	CK: JSY
5-96	REVISIONS	CONT	SECT	JOB
5-09				HIGHWAY
1-12				
	DIST		COUNTY	SHEET NO.