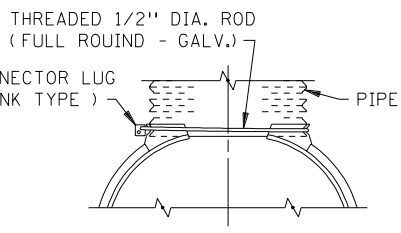
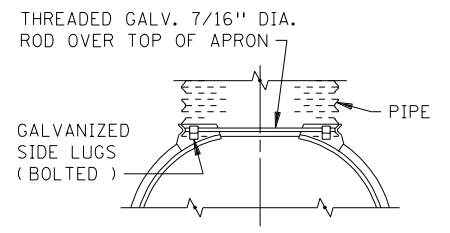


TOP VIEW

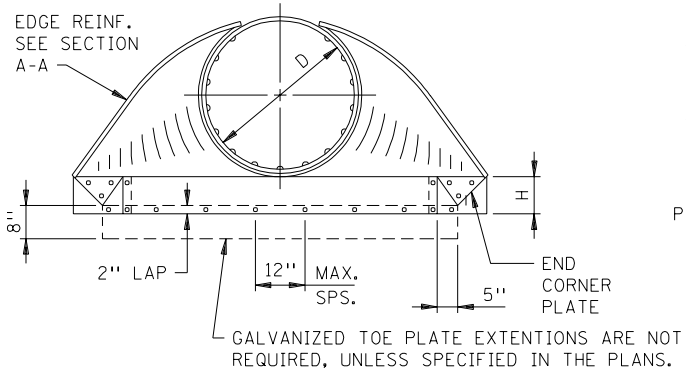


FOR 12" THRU 24" DIA. ONLY

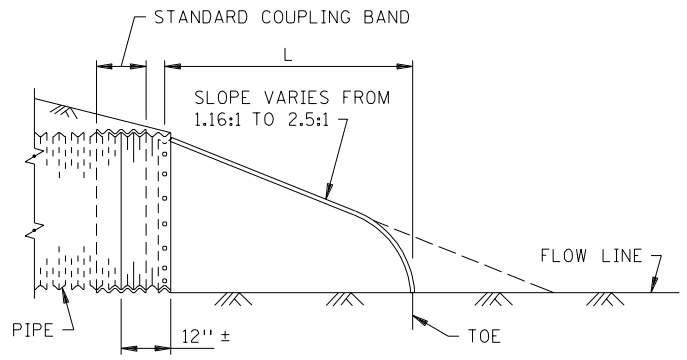


FOR 30" THRU 36" DIA. ONLY

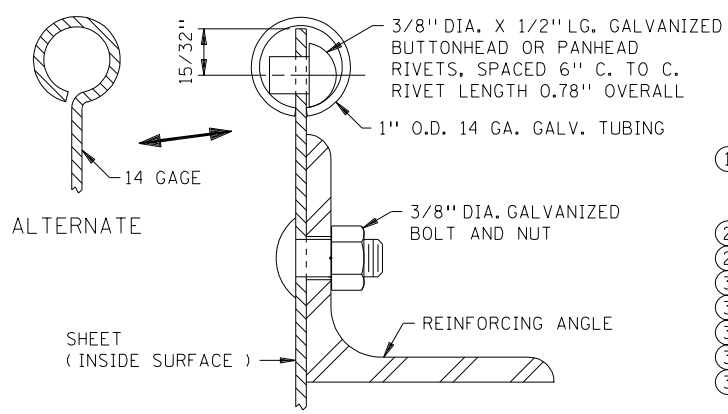
ALTERNATE ROD CONNECTIONS



ELEVATION



CROSS SECTION



SECTION A-A

PIPE DIA. (IN.)	GAUGE	DIMENSIONS					REMARKS
		A 1" ± (IN.)	B MAX. (IN.)	H 1" ± (IN.)	L 1-1/2" ± (IN.)	W 2" ± (IN.)	
⑤ 12	16	6	6	6	21	24	1 PIECE
15	16	7	8	6	26	30	"
18	16	8	10	6	31	36	"
21	16	9	12	6	36	42	"
24	16	10	13	6	41	48	"
① 30	14	12	16	8	51	60	"
36	14	14	19	9	60	72	2 PIECES, ① SPLICE
42	12	16	22	11	69	84	" "
② 48	12	18	27	12	78	90	" "
② 54	12	18	30	12	84	102	" "
③ 60	12	18	33	12	87	114	3 PIECES, 2 SPLICES
③ 66	12	18	36	12	87	120	" "
③ 72	12	18	39	12	87	126	" "
③ 78	12	18	42	12	87	132	" "
③ 84	12	18	45	12	87	138	" "

NOTES:

FOR OTHER APPROVED CONNECTIONS, SEE STANDARD PLATE 3124. MULTIPLE PANEL BODIES SHALL HAVE 2" MIN. LAP SEAMS WHICH ARE TO BE JOINED BY 3/8" DIA. RIVETS OR BOLTS (GALVANIZED) SPACED AT 6" MAX. C. TO C. NUTS SHALL BE TIGHTENED TO 25 LB. ± TORQUE. WHERE METAL APRONS ARE TO BE FASTENED TO HELICALLY CORRUGATED PIPE, AN APPROVED CONNECTION SHALL BE USED. THE TOP EDGE OF ALL APRONS SHALL HAVE TUBING REINFORCING (SEE SECTION A-A). THE TUBING SHALL BE SUPPLEMENTED WITH 2" X 2" X 1/4" GALV. ANGLE FOR 60" THRU 72" DIA. AND 2-1/2" X 2-1/2" X 1/4" GALV. ANGLE FOR 78" AND 84" DIA. ALTERNATE ROLLED TOP EDGE DESIGNS APPROVED BY THE MN/DOT MATERIALS SECTION MAY BE USED.

- ① A 2 PIECE APRON WITH ① SPLICE MAY BE USED IN LIEU OF A 1 PIECE APRON.
- ② A 3 PIECE APRON WITH 2 SPLICES MAY BE USED IN LIEU OF A 2 PIECE APRON. THE 3 PIECE BODIES SHALL BE MADE OF 3 EQUAL SECTIONS OF 12 GA. MATERIAL.
- ③ 3 PIECE BODIES SHALL HAVE 12 GA. SIDES AND 10 GA. CENTER PANELS. WIDTH OF CENTER PANEL SHALL EXCEED 20% OF PIPES PERIPHERY.
- ④ FOR 12" THRU 24" DIA. PIPE, A FLAT STRAP CONNECTOR MAY BE USED IN PLACE OF THE ROD CONNECTION. STRAP CONNECTOR SHALL BE 1" WIDE, 12 GA. STRAP WITH STANDARD 6" LONG X 1/2" DIA. BAND BOLT AND NUT.
- ⑤ THE PIPE DIAMETER IS EQUAL TO DIMENSION D OF APRON.

APPROVED Nov. 13, 1986
R.H. Sullivan
 Director
 Materials, Research and Standards

STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION

METAL APRON FOR C.S. PIPE

SPECIFICATION REFERENCE
 2501
 REVISED 5-3-99 A.K.J.

STANDARD PLATE NO.
 3123J