- REV. 11-1-95: CHANGED TO METRIC.
- REV. 1-19-97: GENERAL REVISION TO NOTES AND TABLES.
- REV. 4-15-97: CHANGED GENERAL NOTE Ⓒ.

CIRCULAR C.M. PIPE (STEEL)

68 mm X 13 mm CORRUGATIONS

PIPE DIAMETER (mm)	SHEET THICKNESS (mm)											
	1.63			2.01			2.77			3.51			4.27		
	HEIGHT OF COVER LIMITS-MINIMUM IN MILLIMETERS-MAXIMUM IN METERS														
	MIN. (mm)	MAX. (m) ①	MAX. (m) ②	MIN. (mm)	MAX. (m) ①	MAX. (m) ②	MIN. (mm)	MAX. (m) ①	MAX. (m) ②	MIN. (mm)	MAX. (m) ①	MAX. (m) ②	MIN. (mm)	MAX. (m) ①	MAX. (m) ②
375	300	22.6	51.8	300	24.4	65.0	300	31.7	90.8	300	32.9	116.7	300	34.4	143.0
450	300	18.6	43.3	300	20.4	53.9	300	26.2	75.6	300	27.4	97.2	300	28.7	119.2
600	300	14.0	32.3	300	15.2	40.5	300	19.8	56.7	300	20.7	72.8	300	21.6	89.3
750	300	11.3	25.9	300	12.2	32.3	300	15.8	45.4	300	16.5	58.2	300	17.1	71.3
900	300	9.1	21.6	300	10.1	26.8	300	13.1	37.8	300	13.7	48.5	300	14.3	59.4
1050	300	10.4	18.3	300	14.3	23.2	300	22.6	32.3	300	23.5	41.8	300	24.7	50.9
1200	300	9.1	16.2	300	12.5	20.1	300	19.8	28.3	300	20.7	36.3	300	21.5	44.5
1350				355	11.0	18.0	300	17.4	25.0	300	18.3	32.3	300	19.2	39.6
1500							300	15.8	22.6	300	16.5	29.0	300	17.4	35.7

75 mm X 25 mm AND 125 mm X 25 mm CORRUGATIONS

900	300	16.2	24.7	300	20.1	31.1	300	29.9	43.6	300	36.0	56.1	300	39.6	68.6
1050	300	13.7	21.0	300	17.1	26.5	300	25.6	37.2	300	30.8	47.9	300	34.1	58.8
1200	300	11.9	16.5	300	14.9	20.7	300	22.3	29.0	300	26.8	37.2	300	29.9	45.7
1350	300	10.7	14.6	300	13.4	18.3	300	19.8	25.6	300	23.8	33.2	300	26.5	40.5
1500	300	9.4	13.1	300	11.9	16.5	300	17.7	23.2	300	21.3	29.9	300	23.8	36.6
1650	325	8.8	11.9	300	11.0	14.9	300	16.2	21.0	300	19.5	27.1	300	21.5	33.2
1800	355	7.9	11.0	325	10.1	13.7	300	14.9	19.2	300	18.0	25.0	300	19.8	30.5
1950	405	7.3	10.0	355	9.1	12.8	300	13.7	17.7	300	16.0	22.9	300	18.3	28.0
③ 2100	430	6.7	9.4	380	8.5	11.9	325	12.8	16.5	300	15.2	21.3	300	17.1	25.9
2250	455	6.4	8.8	405	7.9	11.0	355	11.9	15.5	300	14.3	19.8	300	15.8	24.4
2400				430	7.3	10.4	380	11.0	14.3	325	13.4	18.6	300	14.9	22.9
2550				455	7.0	9.8	380	10.4	13.7	355	12.5	17.4	325	14.0	21.3
2700							405	9.8	12.8	355	11.9	16.5	355	13.1	20.1
2850							430	9.4	12.2	380	11.3	15.5	380	12.5	19.2
3000							455	8.8	11.6	405	10.7	14.9	380	11.9	18.3
3150										430	10.1	15.8	405	11.3	19.5
3300										430	9.4	15.2	430	10.7	18.6
3450													455	10.4	17.6
3600													455	9.8	17.1

① ANNULAR CORRUGATIONS
② HELICAL CORRUGATIONS
③ THE 125 mm X 25 mm CORRUGATIONS BEGIN WITH 1200 mm PIPE AND END WITH 3000 mm PIPE ON HELICAL CORRUGATED PIPE ONLY. THIS IS AN EQUAL ALTERNATE TO THE 75 mm X 25 mm CORRUGATED PIPE CULVERT.

CIRCULAR C.M. PIPE (ALUMINUM)

68 mm X 13 mm CORRUGATIONS

PIPE DIAMETER (mm)	SHEET THICKNESS (mm)														
	1.52			1.91			2.67			3.43			4.17		
	HEIGHT OF COVER LIMITS-MINIMUM IN MILLIMETERS-MAXIMUM IN METERS														
	MIN. (mm)	MAX. (m) ①	MAX. (m) ②	MIN. (mm)	MAX. (m) ①	MAX. (m) ②	MIN. (mm)	MAX. (m) ①	MAX. (m) ②	MIN. (mm)	MAX. (m) ①	MAX. (m) ②	MIN. (mm)	MAX. (m) ①	MAX. (m) ②
375	300	12.2	37.8	300	12.2	46.9	300	21.0	66.1	300	21.9	85.0	300	22.6	103.6
450	300	10.1	31.4	300	10.1	39.3	300	17.4	54.9	300	18.3	71.0	300	18.9	86.6
600	300	7.6	23.5	300	7.6	29.3	300	13.1	41.1	300	13.7	53.0	300	14.0	64.9
750	300	6.1	18.9	300	6.1	23.5	300	10.4	32.9	300	11.0	42.4	300	11.3	51.8
900	300	4.9	15.5	300	4.9	19.5	300	8.5	27.4	300	9.1	35.4	300	9.5	43.3
1050	300	6.7	13.4	300	8.5	16.8	300	15.2	23.5	300	15.8	30.2	300	16.5	36.9
1200							300	13.1	20.1	300	13.7	26.2	300	14.3	32.3
1350							355	11.6	16.5	355	12.2	21.3	355	12.8	26.5
1500										380	11.0	17.4	380	11.3	21.6

75 mm X 25 mm CORRUGATIONS

900	300	9.1	18.0	300	11.6	22.6	300	15.5	31.7	300	23.5	42.4	300	30.5	49.7
1050	300	7.9	15.2	300	9.8	19.2	300	13.4	27.1	300	20.1	36.3	300	26.2	42.7
1200	300	6.7	13.4	300	8.5	16.8	300	11.6	23.8	300	17.7	31.7	300	22.9	37.2
1350	355	6.1	11.9	355	7.6	14.9	355	10.4	21.0	300	15.5	28.0	300	20.4	33.2
1500	380	5.5	10.7	380	6.7	13.4	380	9.4	18.9	355	14.0	25.3	300	18.3	29.9
1650	430	4.9	9.8	430	6.1	12.2	430	8.5	17.1	380	12.8	22.9	330	16.8	27.1
1800	455	4.6	8.8	455	5.8	11.3	455	7.6	15.8	405	11.6	21.0	380	15.3	24.7
1950				510	5.2	10.4	510	7.0	14.6	455	10.7	19.5	405	14.0	22.9
2100							535	6.7	13.4	480	10.1	18.0	430	13.1	21.3
2250							585	6.1	12.5	510	9.4	16.7	455	12.2	19.8
2400							610	5.8	11.6	560	8.8	15.5	485	11.3	18.3
2550										585	8.2	14.0	535	10.7	16.5
2700										610	7.6	12.5	560	10.1	14.9
2850													585	9.4	13.4
3000													610	9.1	12.1

① ANNULAR CORRUGATIONS
② HELICAL CORRUGATIONS

GENERAL NOTES

Ⓐ PIPE SHALL CONFORM TO SECTION 915 OF THE STANDARD SPECIFICATIONS.

Ⓑ THE VERTICAL ELONGATION OR STRUTTING OF PIPES IS NO LONGER SPECIFIED IN THIS STANDARD DRAWING. IF SUCH IS REQUIRED BY SPECIAL PROVISION OR NOTE IN THE PLANS, IT SHALL BE DONE ACCORDING TO STANDARD DRAWING NO. DM-PS-1. IF PART OF A CULVERT IS ELONGATED, ALL OF IT MUST BE ELONGATED.

Ⓒ FOR ALL SIDE DRAINS THE MINIMUM SHEET THICKNESS SHALL BE 16 GAUGE (1.5 mm THICK) ON ALL CIRCULAR PIPE OTHER THAN STRUCTURAL PLATE PIPE.

Ⓓ FOR ALL CROSS DRAINS THE MINIMUM SHEET THICKNESS SHALL BE 14 GAUGE (1.9 mm THICK) ON ALL CIRCULAR PIPE OTHER THAN STRUCTURAL PLATE PIPE.

Ⓔ THE HEIGHTS OF COVER SHOWN IN THE TABLES ARE FOR FINISHED CONSTRUCTION. A MINIMUM COVER OF 1.2 m SHALL BE PLACED OVER CULVERTS PRIOR TO DRIVING HEAVY CONSTRUCTION VEHICLES OVER THEM. THE WIDTH OF THIS EXTRA COVER SHALL BE WIDE ENOUGH TO FULLY ACCCOMMODATE THE HEAVY CONSTRUCTION VEHICLES AND SHALL BE THE ONLY ACCESS ACROSS THESE CULVERTS DURING CONSTRUCTION.

Ⓕ LENGTH OF PIPE SHALL BE IN INCREMENTS OF EVEN 600 mm FOR THE PURPOSE OF ESTIMATING PLANS QUANTITIES. SEE STANDARD DRAWING NO. DM-PE-8 FOR METHOD OF MEASUREMENT OF PAYMENT, DETAILS OF BEVELED ENDS AND RIP-RAP PROTECTION.

Ⓖ POLYMERIC COATED PIPE - ARCH, WHEN REQUIRED, SHALL CONFORM TO SECTION 915.03 OF THE STANDARD SPECIFICATIONS.

Ⓗ VARIATION OF MATERIALS OR CORRUGATION WILL NOT BE PERMITTED IN ANY LINE OF PIPE.

Ⓘ PLATES FOR STEEL STRUCTURAL PLATE STRUCTURES ARE STANDARD 150 mm X 50 mm CORRUGATION WITH THIRTEEN (13) BOLTS PER METER IN EACH LONGITUDINAL SEAM (UNLESS OTHERWISE SHOWN).

Ⓙ PLATES FOR ALUMINUM STRUCTURAL PLATE STRUCTURES ARE STANDARD 230 mm X 64 mm CORRUGATION WITH SEVENTEEN AND ONE - HALF (17.5) BOLTS PER METER IN EACH LONGITUDINAL SEAM (UNLESS OTHERWISE SHOWN).

Ⓚ TYPE I AND TYPE II PIPE WITH HELICAL CORRUGATIONS SHALL BE REROLLED TO FORM ANNULAR (CIRCUMFERENTIAL) ENDS WHERE THE CULVERT IS TO BE JOINED. SEE CURRENT AASHTO SPECIFICATIONS M36 AND M196, SECTIONS ON END FINISH AND COUPLING BANDS. ONLY COUPLING BANDS WITH ANNULAR CORRUGATIONS SHALL BE ALLOWED. WHEN EXTENDING AN EXISTING CULVERT, A CONCRETE COLLAR SHALL BE USED IF A COUPLING BAND WITH ANNULAR CORRUGATIONS WILL NOT FIT.

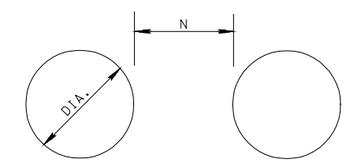
CIRCULAR C.M. PIPE (STEEL STR. PLATE)- 150 mm X 50 mm CORR.

PIPE DIAMETER (mm)	SHEET THICKNESS (mm)							
	2.77		3.51	4.27	4.78	5.54	6.32	7.11
	HEIGHT OF COVER LIMITS-MINIMUM IN MILLIMETERS-MAXIMUM IN METERS							
	MIN. (mm)	MAX. (m) ANNULAR	MAX. (m) ANNULAR	MAX. (m) ANNULAR	MAX. (m) ANNULAR	MAX. (m) ANNULAR	MAX. (m) ANNULAR	MAX. (m) ANNULAR
1500	300	14.0	20.7	27.4	31.4	37.8	44.5	48.8
1650	300	12.8	18.9	24.7	28.3	34.4	40.5	44.2
1800	300	11.6	17.4	22.9	26.2	31.4	37.2	40.5
1950	300	10.7	16.2	21.0	24.1	29.0	34.1	37.5
2100	300	10.0	14.9	19.5	22.2	26.8	31.7	34.7
2250	300	9.4	13.7	18.3	20.7	25.3	29.6	32.3
2400	300	8.8	13.1	17.1	19.5	23.5	27.7	30.5
2550	325	8.2	12.2	15.8	18.3	22.3	26.2	28.7
2700	355	7.6	11.6	15.2	17.4	21.0	24.7	26.8
2850	380	7.3	11.0	14.3	16.5	19.8	23.5	25.6
3000	380	7.0	10.4	13.7	15.5	18.9	22.2	24.4
3150	405	6.7	9.8	12.8	14.9	18.0	21.1	23.2
3300	430	6.4	9.4	12.2	14.0	17.1	20.0	21.9
3450	455	6.0	8.8	11.9	13.4	16.5	19.2	21.0
3600	455	5.8	8.5	11.3	13.1	15.5	18.6	20.1
3750	485	5.5	8.2	11.0	12.5	14.9	17.7	19.5
3900	510	5.2	7.9	10.4	11.9	14.3	17.1	18.6
4050	535	5.2	7.6	10.1	11.6	14.0	16.5	18.0
4200	535	4.9	7.3	9.8	11.0	13.4	15.8	17.4
4350	560	4.9	7.0	9.4	10.9	12.8	15.2	16.8
4500	585	4.6	6.7	9.1	10.4	12.5	14.6	16.2

CIRCULAR C.M. PIPE (ALUMINUM STR. PLATE) - 230 mm X 64 mm CORRUGATIONS

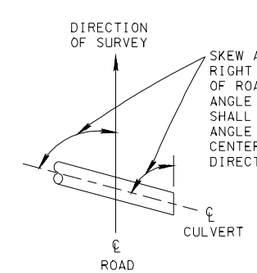
PIPE DIAMETER (mm)	SHEET THICKNESS (mm)													
	2.54		3.18		3.81		4.45		5.08		5.72		6.35	
	④ HEIGHT OF COVER LIMITS - MINIMUM IN MILLIMETERS - MAXIMUM IN METERS													
	MIN. (mm)	MAX. (m) ANNULAR	MIN. (mm)	MAX. (m) ANNULAR	MIN. (mm)	MAX. (m) ANNULAR	Mmm. (IN)	MAX. (m) ANNULAR	Mmm. (IN)	MAX. (m) ANNULAR	MIN. (mm)	MAX. (m) ANNULAR	MIN. (mm)	MAX. (m) ANNULAR
1525	300	8.8 / 9.4	300	11.6 / 13.7	300	14.9 / 18.3	300	17.7 / 21.3	300	17.7 / 24.7	300	17.7 / 28.0	300	17.7 / 31.4
1675	300	7.9 / 8.5	300	10.7 / 12.5	300	13.4 / 16.5	300	16.2 / 19.5	300	16.2 / 22.6	300	16.2 / 25.6	300	16.2 / 28.7
1830	325	7.3 / 7.6	300	9.8 / 11.6	300	12.5 / 15.2	300	14.6 / 18.0	300	14.6 / 20.7	300	14.6 / 23.5	300	14.6 / 26.2
1980	355	6.7 / 7.0	300	8.8 / 10.7	300	11.6 / 14.0	300	13.7 / 16.5	300	13.7 / 18.9	300	13.7 / 21.6	300	13.7 / 24.1
2135	380	6.4 / 6.7	325	8.2 / 9.8	300	10.7 / 12.8	300	12.5 / 15.2	300	12.5 / 17.1	300	12.5 / 20.1	300	12.5 / 22.3
2285	405	5.8 / 6.1	355	7.6 / 9.1	325	9.8 / 12.2	300	11.9 / 14.3	300	11.9 / 16.5	300	11.9 / 18.6	300	11.9 / 21.0
2440	430	5.5 / 5.8	380	7.3 / 8.5	355	9.1 / 11.3	325	11.0 / 13.4	300	11.0 / 15.5	300	10.1 / 17.4	300	11.0 / 19.5
2590	455	5.2 / 5.5	405	6.7 / 7.9	380	8.8 / 10.7	355	10.4 / 12.5	325	10.4 / 14.6	325	10.4 / 16.5	325	10.4 / 18.3
2745	485	4.9 / 5.2	430	6.4 / 7.6	405	8.2 / 10.0	355	9.8 / 11.9	355	9.8 / 13.7	355	9.8 / 15.5	355	9.8 / 17.4
2895	510	4.6 / 4.9	455	6.1 / 7.3	405	7.9 / 9.4	380	9.1 / 11.3	380	9.1 / 12.8	380	9.1 / 14.6	380	9.1 / 16.5
3050	535	4.3 / 4.6	485	5.8 / 6.7	430	7.3 / 9.1	405	8.8 / 10.7	380	8.8 / 12.2	380	8.8 / 14.0	380	8.8 / 15.5
3200	560	4.0 / 4.3	510	5.5 / 6.4	455	7.0 / 8.5	430	8.2 / 10.1	405	8.2 / 11.6	405	8.2 / 13.4	405	8.2 / 14.9
3355	585	4.0 / 4.3	535	5.2 / 6.1	485	6.7 / 8.2	455	7.9 / 9.8	430	7.9 / 11.3	430	7.9 / 12.8	430	7.9 / 14.3
3505	610	3.7 / 4.0	560	4.9 / 5.8	510	6.4 / 7.9	455	7.6 / 9.1	455	7.6 / 10.7	455	7.6 / 12.2	455	7.6 / 13.4
3660	635	3.7 / 3.7	560	4.9 / 5.5	535	6.1 / 7.6	485	7.3 / 8.8	455	7.3 / 10.1	455	7.3 / 11.6	455	7.3 / 13.1
3810			585	4.6 / 5.5	535	5.8 / 7.3	510	7.0 / 8.5	485	7.0 / 9.8	485	7.0 / 11.0	485	7.0 / 12.5
3960			610	4.3 / 5.2	560	5.5 / 7.0	535	6.7 / 8.2	510	6.7 / 9.4	510	6.7 / 10.7	510	6.7 / 11.9
4115					585	5.5 / 6.7	535	6.7 / 7.9	535	6.4 / 9.1	535	6.4 / 10.4	535	6.4 / 11.6
4265					610	5.2 / 6.4	560	6.1 / 7.6	535	6.1 / 8.8	535	6.1 / 10.1	535	6.1 / 11.0
4420					635	5.2 / 6.1	585	6.1 / 7.3	560	6.1 / 8.5	560	6.1 / 9.4	560	6.1 / 10.7
4570							610	5.8 / 7.0	585	5.8 / 8.2	585	5.8 / 9.1	585	5.8 / 10.4

④ VALUES TO LEFT OF SLASH MARK (/) ARE FOR USE OF ALUMINUM BOLTS ON SEAMS AND VALUES TO RIGHT ARE FOR USE OF STEEL BOLTS ON SEAMS.



DIAMETER	MINIMUM SPACE (N) BETWEEN PIPE WITH CLASS "B" OR "C" BEDDING
375 TO 600	300 mm
750 TO 2400	½ DIAMETER OF PIPE
2550 TO 3000	1.2 mm

WHEN CLASS "A" BEDDING IS USED, A DETAIL SHALL BE SHOWN ON PLANS FOR MINIMUM SPACE BETWEEN PIPE.



ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

☐ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

FERROUS AND ALUMINUM CORRUGATED METAL PIPE

11-1-95 | DM-PG-3