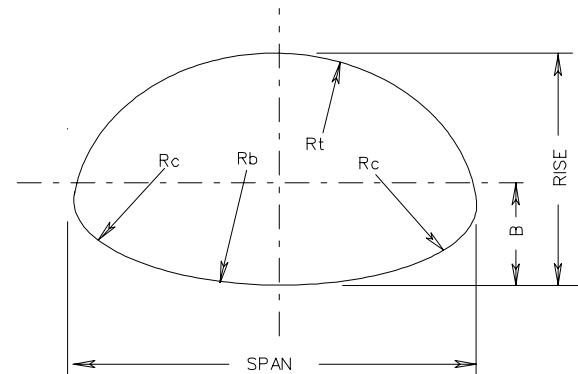


STRUCTURAL PLATE ALUMINUM ALLOY PIPE ARCHES  
9' x 2 1/2" CORRUGATIONS

SPAN	RISE	CORNER RADIUS	MAXIMUM COVER HEIGHT IN FEET								AREA SQ.FT.
			MINIMUM SHEET THICKNESS IN INCHES								
			MAXIMUM CORNER PRESSURE IN LBS./SQ. FT.								
			0.100"		0.125"		0.150"		0.175"		
			4000 (SEE NOTE 4)	4000 (SEE NOTE 4)	6000 (SEE NOTE 6)	4000 (SEE NOTE 4)	6000 (SEE NOTE 6)	4000 (SEE NOTE 6)	6000 (SEE NOTE 6)		
6'-2"	5'-0"	31.8	25	28	36	28	42	28	42	24.7	
6'-7"	4'-11"	31.8	23	26	34	26	40	26	40	26.6	
6'-7"	5'-8"	31.8	23	26	34	26	40	26	40	29.6	
6'-11"	5'-9"	31.8	22	25	32	25	38	25	38	31.9	
7'-3"	5'-11"	31.8	21	24	31	24	36	24	36	34.3	
7'-9"	6'-0"	31.8	20	22	29	22	34	22	34	36.8	
8'-1"	6'-1"	31.8	19	21	28	21	32	21	32	39.3	
8'-5"	6'-3"	31.8	18	20	27	20	31	20	31	41.9	
8'-10"	6'-4"	31.8	17	20	25	20	30	20	30	44.5	
9'-3"	6'-5"	31.8	16	19	24	19	28	19	28	45.1	
9'-7"	6'-6"	31.8	16	18	23	18	27	18	27	49.9	
9'-11"	6'-8"	31.8	15	17	22	17	26	17	26	52.7	
10'-3"	6'-9"	31.8	15	17	22	17	25	17	25	55.5	
10'-9"	6'-10"	31.8	14	16	21	16	24	16	24	58.4	
11'-1"	7'-0"	31.8	14	15	20	15	23	15	23	61.4	
11'-5"	7'-1"	31.8	13	15	19	15	23	15	23	64.4	
11'-9"	7'-2"	31.8	13	15	19	15	22	15	22	67.5	
12'-3"	7'-3"	31.8	12	14	18	14	21	14	21	70.5	
12'-7"	7'-5"	31.8	12	14	18	14	21	14	21	73.7	
12'-11"	7'-6"	31.8	12	13	17	13	20	13	20	77.0	
13'-1"	8'-2"	31.8	11	13	17	13	20	13	20	83.0	
13'-1"	8'-4"	31.8	11	13	17	13	20	13	20	86.8	
13'-11"	8'-5"	31.8	11	12	16	12	19	12	19	90.3	
14'-0"	8'-7"	31.8	11	12	16	12	18	12	18	94.2	
13'-11"	9'-5"	31.8	11	12	16	12	19	12	19	101.5	
14'-3"	9'-7"	31.8	10	12	15	12	18	12	18	105.7	
14'-8"	9'-8"	31.8		12	14	12	17	12	18	109.9	
14'-11"	9'-10"	31.8		11	13	11	16	11	17	114.2	
15'-4"	10'-0"	31.8		11	12	11	14	11	17	118.6	
15'-7"	10'-2"	31.8		11	11	11	14	11	16	123.1	
16'-1"	10'-4"	31.8		10		10	12	10	15	127.6	
16'-4"	10'-6"	31.8				10	12	10	14	132.3	
16'-9"	10'-8"	31.8				10	11	10	13	136.9	
17'-0"	10'-10"	31.8				10		10	12	141.8	
17'-3"	11'-0"	31.8				10		10	12		
18'-0"	11'-4"	31.8						9	10		

NOTES:

- COVER HEIGHTS INDICATED IN TABLE ARE FOR FINISHED CONSTRUCTION.
- TO PROTECT PIPE DURING CONSTRUCTION, MINIMUM HEIGHT OF COVER PRIOR TO ALLOWING CONSTRUCTION TRAFFIC TO CROSS INSTALLATION TO BE 1/2 SPAN. THE COVER SHALL EXTEND THE FULL LENGTH OF THE PIPE ARCH. THE APPROACH FILL RAMP IS TO EXTEND A MINIMUM OF 10(RISE + 1/2 SPAN) ON EACH SIDE OF THE PIPE, OR TO THE INTERSECTION WITH A CUT.
- STANDARD MINIMUM FINISHED HEIGHT OF COVER FOR ALL PIPES SHALL BE 2.0' OR 1/4 SPAN, WHICHEVER IS GREATER. IN CASES IN WHICH THESE COVER HEIGHTS CANNOT BE ACHIEVED, AN ABSOLUTE MINIMUM FINISHED COVER HEIGHT OF 1.0' OR 1/8 SPAN, WHICHEVER IS GREATER, WILL BE ALLOWED ONLY IF ALL POSSIBLE MEANS TO OBTAIN THE STANDARD VALUE HAVE BEEN EXHAUSTED.
- SEE STANDARD PB-1 FOR BEDDING AND BACKFILL REQUIREMENTS.
- THE MAXIMUM HEIGHT OF COVER SHOWN IN THE TABLES IS BASED ON A SOIL MODULUS OF 700 PSI. ALL OTHER DESIGN CRITERIA ARE IN ACCORDANCE WITH THE AASHTO SPECIFICATIONS AND VDOT MODIFICATIONS FOR SOIL CORRUGATED METAL STRUCTURE INTERACTION SYSTEMS.
- WHEN DESIGN HEIGHT OF COVER REQUIRES THE USE OF THIS CATEGORY OF PIPE, BEDDING AND BACKFILL MUST BE APPROVED BY THE ENGINEER.
- BOLTS ARE 3/4" DIAMETER, HIGH STRENGTH TO MEET CURRENT A.S.T.M. DESIGNATION M-164 AND GALVANIZED TO MEET CURRENT A.S.T.M. DESIGNATION A-394. BOLTS ARE TO BE LOCATED IN THE VALLEY AND CREST OF EACH CORRUGATION IN DOUBLE ROWS SPACED 1 1/4" APART.
- STRUCTURAL PLATE PIPE-ARCH DIMENSIONS ARE TO INSIDE CREST AND ARE SUBJECT TO MANUFACTURING TOLERANCES.



STRUCTURAL PLATE ALUMINUM ALLOY PIPE ARCH  
HEIGHT OF COVER TABLE FOR H-20 LIVE LOAD

SPECIFICATION  
REFERENCE

232  
302