

TABLE NO. 1R ROUND PIPE - SPIRAL RIB STEEL - SPIRAL RIB ALUMINUM  
MINIMUM THICKNESS OF STEEL AND ALUMINUM  
HEIGHT OF FILL (FEET) ABOVE TOP OF PIPE

PIPE DIAMETER (INCHES)	TYPE	MINIMUM COVER (INCHES)	1 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 50	50 - 60	60 - 70	70 - 80	80 - 90	PIPE DIAMETER (INCHES)
12															12
15															15
18	STEEL R	2	.064	.064	.064	.064	.064	.064	.064	.064	.064	.079	.079	.079	18
	ALUM R	1	.060	.060	.060	.060	.060	.060	.075	.075	.075				
24	STEEL R	2	.064	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	24
	ALUM R	1	.060	.060	.060	.060	.075	.075	.105	.105	.105				
30	STEEL R	1.5	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.109	30
	ALUM R	1	.060	.060	.060	.075	.075	.105	.105	.105	.135				
36	STEEL R	2	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.109	36
	ALUM R	1.5	.060	.060	.075	.075	.105	.105	.105	.135					
42	STEEL R	1.2	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.109	42
	ALUM R	2	.075	.075	.105	.105	.135	.135	.135						
48	STEEL R	1.2	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.109	48
	ALUM R	2.4	.105	.105	.135	.135	.165	.165	.165						
54	STEEL R	1.5	.064	.064	.064	.064	.064	.064	.064	.079	.109	.109	.109	.109	54
	ALUM R	2.4	.105	.105	.135	.135	.165	.165	.165						
60	STEEL R	1.5	.079	.079	.079	.079	.079	.079	.079	.109	.109	.109	.109	.109	60
	ALUM R	2.4	.105	.105	.135	.135	.165	.165	.165						
66	STEEL R	1.8	.079	.079	.079	.079	.079	.079	.079	.109	.109	.109	.109	.109	66
	ALUM R	2.4	.135	.135	.165	.165	.195	.195	.195						
72	STEEL R	1.8	.109	.109	.109	.109	.109	.109	.109	.135	.135	.135	.135	.135	72
	ALUM R	2.7	.135	.135	.165	.165	.195	.195	.195						
78	STEEL R	2.1	.109	.109	.109	.109	.109	.109	.109	.135	.135	.135	.135	.135	78
	ALUM R	2.1	.109	.109	.135	.135	.165	.165	.165						
84	STEEL R	2.1	.109	.109	.109	.109	.109	.109	.109	.135	.135	.135	.135	.135	84
	ALUM R	2.1	.109	.109	.135	.135	.165	.165	.165						
90															90
96															96
102															102
108															108
114															114
120															120

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R DENOTES SPIRAL RIB PROFILE 3/4" X 3/4" X 7-1/2"

TABLE VALUES FOR ALUMINUM SPIRAL RIB PIPE ARE COMPUTED BASED UPON ALCLAD ALLOY 3004-H14 HAVING MINIMUM YIELD STRENGTH,  $f_y=24,000$  PSI. IF ALUMINUM PIPE IS OTHERWISE FURNISHED AS 3004-H32 ( $f_y=20,000$  PSI), ALLOWABLE FILL HEIGHTS SHALL BE ADJUSTED AS FOLLOWS:

- A. ALL MINIMUM COVER VALUES SHALL BE INCREASED BY 15 PERCENT. (EXAMPLE: 12 IN. BECOMES 13.8 IN.)
- B. ALL HEIGHT OF FILL VALUES SHALL BE DECREASED BY 15 PERCENT. (EXAMPLE: 35-40 FT. BECOMES 29.7-34.0 FT.)

MINIMUM COVER VALUES APPLY TO HS-20 LIVE LOAD. MINIMUM COVER NEEDED FOR CONSTRUCTION VEHICLES MAY BE GREATER AND IS THE RESPONSIBILITY OF THE CONTRACTOR.

TRENCH CONSTRUCTION IS REQUIRED FOR ALL INSTALLATIONS.

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
GA.			

TABLE NO. 2 (PIPE-ARCH)

TABLE SHOWING MINIMUM THICKNESS IN INCHES OF CORRUGATED STEEL AND CORRUGATED ALUMINUM PIPE-ARCH AND MAXIMUM HEIGHTS OF FILL IN FEET ABOVE THE TOP OF THE PIPE-ARCH.

DIAMETER OF PIPE OR ARCH (FEET)	MIN. THICKNESS (INCHES)		COR. ALUMINUM	MIN. COVER (INCHES)	MAX. HT. OF FILL (FEET)
	NOM.-MIN. RISE INCH	NOM.-MIN. SPAN INCH			
15	17	13	.064	.18	13
18	21	15	.064	.18	15
21	24	18	.064	.18	14
24	28	20	.064	.18	10
30	35	24	.064	.18	9
36	42	29	.064	.18	7
42	49	33	.079	.18	7
48	57	38	.079	.18	7
54	64	43	.079	.18	7
60	71	47	.079	.18	7
66	77	52	.079	.18	7
72	83	57	.079	.18	7
78	87	63	.079	.18	7
84	95	67	.079	.18	7
90	103	71	.079	.18	7

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
STANDARD CONCRETE & METAL PIPE CULVERTS SHEET 3 OF 3 (FILL HEIGHTS FOR SPIRAL RIB METAL PIPE & FOR PIPE ARCH)	
NO SCALE	SEPT., 2001
DESIGNED _____ TRACED _____ CHECKED _____ REVISED _____	(SUBMITTED) <i>James A. Keaul</i> STATE ROAD REPORT DESIGN ENGINEER (APPROVED) <i>Tom L. Fambly</i> CHIEF ENGINEER
BY _____	NUMBER <b>1030D</b>

NOTE FOR TABLE NO. 2. ALTERNATE SPAN-RISE COMBINATIONS FOR PIPE-ARCHES HAVING EQUAL PERIPHERY TO THAT SHOWN, MAY BE SUBSTITUTED IF LISTED IN AASHTO SPECIFICATION.