06-JUN-2002 09:53

TABLE 1

CORRUGATED STEEL PIPE
(2 2/3 INCH X 1/2 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	40.1-50	
8 OR LESS	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
10	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
12	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
15	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
18	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	9
21	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	9
24	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	12	9
30	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	12	8	9
36	14 (16)	14 (16)	14 (16)	14 (16)	14	14	10	--	9
42	14 (16)	14 (16)	14 (16)	14 (16)	14	14	12	--	9
48	14 (16)	14 (16)	14 (16)	14 (16)	14	14	12	--	9
54	14	14	14	14	14	12	12	--	9
60	12	12	12	12	12	12	12	--	9
66	10	10	10	10	10	10	10	--	9
72	10	10	10	10	10	10	10	--	9
78	8	8	8	8	8	8	--	--	9
84	8	8	8	8	8	8	--	--	9

TABLE 2

CORRUGATED STEEL PIPE
(5 INCH X 1 INCH CORRUGATION AND
3 INCH X 1 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	41.1-50	
36	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	9
42	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	9
48	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	12	9
54	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	12	12	9
60	14 (16)	14 (16)	14 (16)	14 (16)	14	14	12	10	9
66	14 (16)	14 (16)	14 (16)	14 (16)	14	12	12	8	9
72	14 (16)	14 (16)	14 (16)	14	12	12	12	--	9
78	14 (16)	14 (16)	14 (16)	14	12	12	12	--	9
84	14 (16)	14 (16)	14 (16)	14	12	12	10	--	9
90	14 (16)	14 (16)	14	12	12	12	10	--	12
96	14	14	14	12	12	10	8	--	12
102	14	14	14	12	12	10	8	--	12
108	12	12	12	12	10	8	--	--	12
114	12	12	12	12	10	8	--	--	12
120	12	12	12	12	10	8	--	--	12
126	10	10	10	10	10	--	--	--	12
132	10	10	10	10	8	--	--	--	12
138	10	10	10	10	8	--	--	--	12
144	8	8	8	8	--	--	--	--	12

TABLE 3

CORRUGATED STEEL PIPE ARCH
(5 INCH X 1 INCH CORRUGATION AND
3 INCH X 1 INCH CORRUGATION)

EQUIV. PIPE DIAMETER INCHES	C.M. PIPE ARCH SPAN X RISE INCHES	HEIGHT OF FILL ABOVE TOP OF ARCH (FEET)		MIN. COVER INCHES
		1-4	4.1-9	
36	40 X 31	14 (16)	14 (16)	9
42	46 X 36	14 (16)	14 (16)	9
48	53 X 41	14 (16)	14 (16)	9
54	60 X 46	14 (16)	14 (16)	9
60	66 X 51	14 (16)	14 (16)	9
66	73 X 55	14	14	9
72	81 X 59	14	14	9
78	87 X 63	14	14	9
84	95 X 67	14	14	9
90	103 X 71	12	12	12
96	112 X 75	12	12	12
102	117 X 79	12	12	12
108	128 X 83	10	10	12
114	137 X 87	10	10	12
120	142 X 91	8	8	12

TABLE 4

CORRUGATED STEEL PIPE ARCH
(2 2/3 INCH X 1/2 INCH CORRUGATION)

EQUIV. PIPE DIAMETER INCHES	C.M. PIPE ARCH SPAN X RISE INCHES	HEIGHT OF FILL ABOVE TOP OF ARCH (FEET)		MIN. COVER INCHES
		1-4	4.1-9	
15	17 X 13	14 (16)	14 (16)	9
18	21 X 15	14 (16)	14 (16)	9
21	24 X 18	14 (16)	14 (16)	9
24	28 X 20	14 (16)	14 (16)	9
30	35 X 24	14 (16)	14 (16)	9
36	42 X 29	14 (16)	14 (16)	9
42	49 X 33	14	14	9
48	57 X 38	12	12	9
54	64 X 43	12	12	9
60	71 X 47	10	10	9
66	77 X 52	8	8	9
72	83 X 57	8	8	9

DOUBLE LINE RIVETS — SINGLE LINE RIVETS

TABLE 5

CORRUGATED ALUMINUM PIPE
(2 2/3 INCH X 1/2 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	40.1-50	
8 OR LESS	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
10	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
12	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	12	9
15	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	12	12	9
18	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	12	12	12	9
21	14 (16)	14 (16)	14 (16)	14 (16)	12	12	12	--	9
24	14 (16)	14 (16)	14	12	12	12	10	--	9
30	14 (16)	14 (16)	12	12	12	--	--	--	9
36	14	14	12	12	--	--	--	--	9
42	14	14	14	14	12	12	12	--	9
48	14	14	12	12	12	12	10	--	9
54	12	12	12	12	12	12	--	--	9
60	10	10	10	10	10	--	--	--	9
66	10	10	10	10	10	--	--	--	9
72	8	8	8	8	--	--	--	--	9

TABLE 6

CORRUGATED ALUMINUM PIPE
(3 INCH X 1 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	40.1-50	
36	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	14	14	9
42	14 (16)	14 (16)	14 (16)	14 (16)	14	14	14	10	9
48	14 (16)	14 (16)	14 (16)	14	14	14	14	8	9
54	14 (16)	14 (16)	14	14	14	14	12	--	9
60	14 (16)	14 (16)	14	14	14	14	12	--	9
66	14 (16)	14 (16)	14	14	14	12	12	--	9
72	14	14	14	14	12	12	12	--	9
78	14	14	14	14	12	12	12	--	9
84	12	12	12	12	12	12	10	--	9
90	12	12	12	12	12	12	10	--	12
96	12	12	12	12	12	10	8	--	12
102	10	10	10	10	10	10	8	--	12
108	10	10	10	10	10	10	--	--	12
114	8	8	8	8	8	8	--	--	12
120	8	8	8	8	8	8	--	--	12

TABLE 7

CORRUGATED ALUMINUM PIPE
(6 INCH X 1 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	40.1-50	
30	14 (16)	14 (16)	14 (16)	14 (16)	14	14	12	12	9
36	14 (16)	14 (16)	14 (16)	14	14	14	12	10	9
42	14 (16)	14 (16)	14 (16)	14	14	12	12	10	9
48	14 (16)	14 (16)	14 (16)	14	12	12	10	--	9
54	14 (16)	14 (16)	14 (16)	12	12	10	8	--	9
60	14 (16)	14 (16)	14 (16)	12	10	10	8	--	9
66	14 (16)	14 (16)	14	12	10	8	--	--	9
72	12	12	12	10	8	--	--	--	9
84	10	10	10	10	--	--	--	--	9
96	8	8	8	8	--	--	--	--	12

TABLE 8

CORRUGATED ALUMINUM PIPE ARCH
(2 2/3 INCH X 1/2 INCH CORRUGATION)

EQUIV. PIPE DIAMETER INCHES	C.A. PIPE ARCH SPAN X RISE INCHES	HEIGHT OF FILL ABOVE TOP OF ARCH (FEET)		MIN. COVER INCHES
		1-4	4.1-9	
15	17 X 13	14 (16)	14 (16)	9
18	21 X 15	14 (16)	14 (16)	9
21	24 X 18	14 (16)	14 (16)	9
24	28 X 20	14 (16)	14 (16)	9
30	35 X 24	14	14	9
36	42 X 29	14	14	9
42	49 X 33	12	12	9
48	57 X 38	10	10	9
54	64 X 43	10	10	9
60	71 X 47	8	8	9
66	77 X 52	8	8	9

GENERAL NOTES

1) MINIMUM PIPE WALL THICKNESS AND COATING REQUIREMENTS FOR ALL METAL PIPE WILL BE AS SHOWN ON THE PROJECT PLANS UNDER " SUMMARY OF DRAINAGE STRUCTURES ".

2) JOINT TYPES FOR ALL CIRCULAR AND ARCH METAL PIPE SHALL CONFORM TO CURRENT LA DOTD STANDARD SPECIFICATIONS AND SHALL BE AS SHOWN ON THE SUMMARY OF DRAINAGE STRUCTURE PLAN SHEETS.

GAGE NO.	16	14	12	10	8	
THICKNESS (IN.)	0.060	0.075	0.105	0.135	0.164	ALUMINUM
	0.064	0.079	0.109	0.138	0.168	GALVANIZED STEEL

3) PIPE WALL THICKNESS SHOWN ON PROJECT PLANS MAY VARY FROM PIPE WALL THICKNESS SHOWN IN TABLES DUE TO LOCAL PH, RESISTIVITY AND ABRASIVE CONDITIONS.

4) MINIMUM COVER IS MEASURED FROM TOP OF PIPE TO THE TOP OF THE SUBGRADE. MINIMUM COVER SHOWN IS ADEQUATE FOR H-20 LOADING WHEN PAVEMENT IS IN PLACE. DURING CONSTRUCTION, WHEN HEAVY LOADS MAY BE DRIVEN OVER OR CLOSE TO BURIED STRUCTURE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE ADDITIONAL COVER NEEDED TO PROTECT THE PIPE.

5) MAXIMUM FILL HEIGHT IS MEASURED FROM TOP OF PIPE TO TOP OF SURFACING.

6) SEE STANDARD SPECIFICATIONS FOR DETAILS OF BACKFILL PROCEDURES. SPECIAL CARE SHOULD BE TAKEN TO THOROUGHLY COMPACT BACKFILL UNDER PIPE HAUNCHES.

7) FOR CIRCULAR PIPE, THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN 1% OR 1/2", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER.

8) FOR ARCH PIPE A TOLERANCE OF 1" ± OR 2% OF EQUIVALENT CIRCULAR DIAMETER, WHICHEVER IS GREATER, WILL BE PERMISSIBLE IN SPAN AND RISE.

9) GAGES SHOWN IN PARENTHESES MEET AASHTO REQUIREMENTS AND ARE THE GAGE WHICH WOULD NORMALLY BE USED. THE HEAVIER GAGES (NOT IN PARENTHESES) SHOULD BE USED ON DOTD PROJECTS.

10) ALL PLASTIC PIPE MUST BE IN ACCORDANCE WITH CURRENT LA DOTD STANDARD SPECIFICATIONS AND ON THE CURRENT LA DOTD QUALIFIED PRODUCTS LIST.

TABLE 9

PLASTIC PIPE
MAXIMUM FILL HEIGHT TABLE (FEET)

PIPE DIAMETER INCHES	CPECP CORRUGATED POLYETHYLENE CULVERT PIPE	RPVCCP RIBBED POLYVINYL CHLORIDE CULVERT PIPE	RPECP RIBBED POLYETHYLENE CULVERT PIPE	MIN. COVER INCHES
	AASHTO M 294* TYPE S	AASHTO M 304*	ASTM F 894 *	
12	5	15	--	12
15	5	15	--	12
18	5	15	10	12
21	5	15	10	12
24	5	15	10	12
30	5	15	10	12
36	5	15	10	12
42	5	15	10	12
48	5	15	10	12

* THESE ARE DESIGN SPECIFICATIONS FROM AASHTO SECTION 18 INTERIM 2000. THE LA DOTD SPECIFICATIONS MAY EXCEED THESE, SEE NOTE 10 FOR COMPLIANCE.

DATE	REVISION DESCRIPTION	BY
7-3-02	Redrafted, Added Plastic Pipe Table, General Revisions	WMR
3-27-84	Fill Height Tables - Connecting Bands	HJB
11-7-83	Fill Height Tables - Connecting Bands	HJB

APPROVED BY CHIEF ENGINEER: Original Signed by Chief Engineer DATE: 7-3-02

SHEET NUMBER

PARISH | FEDERAL PROJECT | STATE PROJECT

DESIGNED CDJ
CHECKED HJB
DETAILED KAJ
CHECKED WMR
DATE
SHEET 1 OF 2

STANDARD PLAN SAM-1

METAL PIPE WALL THICKNESS AND CONNECTING BANDS, FILL HEIGHT FOR PLASTIC & METAL PIPE

HYDRAULICS SECTION

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