


SKEW ANGLE (DEGREES)	FLARE ANGLE (DEGREES)	NOMINAL PIPE DIAMETER (mm)	SINGLE PIPE								
			TYPE 1 - SLOPE AT 1.5: 1			TYPE 2 - SLOPE AT 2: 1			TYPE 3 - SLOPE AT 3: 1		
			CONC. VOLUME (m <sup>3</sup> )	BAR REINF. (m)	FABRIC REINF. (m <sup>2</sup> )	CONC. VOLUME (m <sup>3</sup> )	BAR REINF. (m)	FABRIC REINF. (m <sup>2</sup> )	CONC. VOLUME (m <sup>3</sup> )	BAR REINF. (m)	FABRIC REINF. (m <sup>2</sup> )
15	20	600	0.66	6.1	4.1	0.82	7.1	4.9	1.16	9.2	6.9
		675	0.79	7.0	4.8	0.99	8.1	5.9	1.44	10.6	8.4
		750	0.94	7.9	5.7	1.19	9.2	7.0	1.74	12.0	10.0
		825	1.09	8.7	6.5	1.39	10.2	8.2	2.06	13.4	11.8
		900	1.26	9.6	7.5	1.62	11.3	9.4	2.41	14.8	13.7
		1050	1.61	11.3	9.4	2.09	13.3	12.0	3.16	17.5	17.7
		1200	2.03	13.1	11.7	2.67	15.4	15.1	4.07	20.4	22.6
		1350	2.49	14.8	14.2	3.28	17.5	18.4	5.06	23.2	27.9
		1500	2.96	16.4	16.7	3.93	19.5	21.8	6.10	25.9	33.3
		1650	3.50	18.2	19.6	4.67	21.6	25.8	7.29	28.7	39.6
		1800	4.08	19.9	22.7	5.47	23.6	30.0	8.58	31.5	46.4
		1950	6.17	41.5	27.4	8.26	50.6	36.1	12.97	66.9	55.9
2100	7.14	61.1	31.5	9.59	78.3	41.7	15.13	107.7	64.9		
30	20	600	0.74	6.8	4.6	0.93	8.0	5.6	1.34	10.4	8.0
		675	0.89	7.8	5.5	1.13	9.2	6.8	1.66	12.0	9.7
		750	1.06	8.8	6.5	1.36	10.3	8.1	2.01	13.6	11.7
		825	1.24	9.7	7.5	1.60	11.5	9.4	2.39	15.2	13.8
		900	1.44	10.7	8.5	1.86	12.7	10.9	2.80	16.9	16.0
		1050	1.84	12.6	10.8	2.41	14.9	13.9	3.68	19.9	20.8
		1200	2.33	14.6	13.5	3.08	17.4	17.5	4.75	23.3	26.6
		1350	2.86	16.5	16.3	3.80	19.7	21.4	5.92	26.5	32.7
		1500	3.41	18.4	19.3	4.55	22.0	25.4	7.14	29.5	39.2
		1650	4.04	20.3	22.7	5.42	24.3	30.0	8.55	32.7	46.6
		1800	4.71	22.3	26.3	6.35	26.7	34.9	10.07	35.9	54.6
		1950	7.11	44.1	31.6	9.58	56.5	42.0	15.21	77.7	65.7
2100	8.24	70.3	36.4	11.14	87.4	48.6	17.76	124.8	76.4		
45	20	600	0.96	8.6	6.0	1.22	10.2	7.5	1.80	13.6	10.8
		675	1.17	9.8	7.2	1.50	11.7	9.1	2.25	15.7	13.3
		750	1.39	11.1	8.5	1.81	13.3	10.8	2.74	17.8	16.0
		825	1.63	12.3	9.9	2.14	14.8	12.6	3.27	19.9	18.9
		900	1.90	13.5	11.3	2.50	16.3	14.6	3.84	22.0	22.1
		1050	2.44	15.9	14.4	3.25	19.2	18.8	5.07	26.1	28.8
		1200	3.11	18.5	18.0	4.17	22.4	23.8	6.58	30.5	36.9
		1350	3.82	21.0	21.9	5.16	25.5	29.1	8.22	34.7	45.6
		1500	4.57	23.3	25.9	6.19	28.4	34.7	9.94	38.7	54.7
		1650	5.42	25.8	30.5	7.38	31.4	41.0	11.92	43.0	65.2
		1800	6.33	28.3	35.4	8.66	34.5	47.8	14.06	47.2	76.4
		1950	9.54	55.8	42.5	13.06	71.1	57.4	21.22	101.1	91.8
2100	11.07	92.0	49.0	15.20	114.9	66.4	24.82	165.5	106.8		

- NOTES :
- REFER SD 1941 FOR CULVERT DETAILS.
  - ALL REINFORCEMENT BARS ARE 12 mm DIAMETER.
  - 10% ALLOWANCE HAS BEEN MADE FOR ON-SITE CUTTING AND SPLICING OF BAR REINFORCEMENT
  - ACTUAL FABRIC QUANTITIES SHALL BE CALCULATED BY THE CONTRACTOR. THE TABULATED AREAS ARE PROVIDED AS A GUIDE ONLY AND DO NOT INCLUDE ANY ALLOWANCE FOR BENDS OR LAPS OR CUTTING WASTAGE.

E				GENERAL NOTES / CROSS REFERENCES 1. THE QUANTITIES ARE PROVIDED AS A GUIDE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTORS AND USERS OF THIS DRAWING TO CHECK AND ENSURE THAT THE QUANTITIES ARE ACCURATE BEFORE THEY ARE USED.	 PRINCIPAL ROAD DESIGN ENGINEER'S DEPARTMENT	STANDARD DRAWING REINFORCED CONCRETE WINGWALL QUANTITIES SKEW PIPE CULVERTS 600 TO 2100 mm DIA. TYPES 1, 2 & 3					
D						APPROVED <i>J. Cunningham</i>	DATE 12.95	SPEC. REF. No.	SHEET No.	DRAWING No.	AMENDMENT
C										SD 1942	
B											
A											
AMEND.	Appd.	Date		AMENDMENTS							