


NOMINAL PIPE DIAMETER (mm)	SINGLE PIPE								
	TYPE 1 - SLOPE 1.5 : 1			TYPE 2 - SLOPE 2 : 1			TYPE 3 - SLOPE 3 : 1		
	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)
600	0.72	6.2	4.2	0.92	7.3	5.4	1.37	9.6	7.8
675	0.87	7.1	5.1	1.13	8.4	6.5	1.70	11.1	9.6
750	1.04	8.0	6.0	1.36	9.5	7.8	2.08	12.6	11.7
825	1.22	8.9	7.0	1.61	10.6	9.1	2.48	14.1	13.8
900	1.41	9.8	8.1	1.87	11.7	10.5	2.92	15.6	16.1
1050	1.84	11.6	10.3	2.46	13.9	13.7	3.88	18.6	21.3
1200	2.31	13.4	12.9	3.12	16.1	17.2	4.99	21.6	27.1
1350	2.84	15.3	15.7	3.86	18.3	21.1	6.23	24.7	33.6
1500	3.39	17.0	18.6	4.64	20.4	25.2	7.54	27.5	40.4
1650	4.02	18.8	22.0	5.53	22.6	29.9	9.05	30.6	48.2
1800	4.70	20.6	25.5	6.49	24.8	34.9	10.68	33.6	56.7
1950	7.01	44.8	30.4	9.69	54.4	41.6	15.99	69.1	67.7
2100	8.13	64.7	35.1	11.28	82.4	48.2	18.71	116.5	78.9

NOMINAL PIPE DIAMETER (mm)	TWIN PIPE								
	TYPE 1 - SLOPE 1.5 : 1			TYPE 2 - SLOPE 2 : 1			TYPE 3 - SLOPE 3 : 1		
	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)
600	1.07	8.4	6.1	1.32	9.5	7.5	1.86	11.8	10.4
675	1.30	9.5	7.4	1.62	10.8	9.1	2.31	13.5	12.8
750	1.55	10.7	8.8	1.95	12.2	10.9	2.81	15.3	15.5
825	1.82	11.9	10.2	2.30	13.6	12.8	3.36	17.1	18.4
900	2.11	13.1	11.8	2.69	14.9	14.8	3.96	18.9	21.6
1050	2.76	15.4	15.2	3.54	17.7	19.3	5.28	22.4	28.5
1200	3.48	17.8	19.0	4.50	20.4	24.4	6.80	25.9	36.4
1350	4.29	20.1	23.3	5.58	23.1	30.1	8.51	29.5	45.3
1500	5.13	22.3	27.7	6.72	25.7	36.0	10.30	32.9	54.6
1650	6.10	24.7	32.8	8.02	28.5	42.8	12.37	36.4	65.3
1800	7.15	27.0	38.2	9.43	31.2	50.0	14.62	39.9	76.8
1950	10.50	51.6	44.8	13.92	61.2	59.0	21.69	76.0	91.0
2100	12.10	72.0	51.4	16.10	89.6	68.0	25.24	123.7	105.5

NOMINAL PIPE DIAMETER (mm)	ADDITIONAL PIPE								
	TYPE 1 - SLOPE 1.5 : 1			TYPE 2 - SLOPE 2 : 1			TYPE 3 - SLOPE 3 : 1		
	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)	CONCRETE VOLUME (m ³)	BAR REINF. (m)	FABRIC REINF. (m ²)
600	0.35	2.2	1.9	0.39	2.2	2.1	0.49	2.2	2.6
675	0.43	2.5	2.3	0.49	2.5	2.6	0.61	2.5	3.2
750	0.51	2.7	2.7	0.59	2.7	3.1	0.74	2.7	3.9
825	0.60	3.0	3.2	0.69	3.0	3.7	0.88	3.0	4.6
900	0.70	3.3	3.7	0.81	3.3	4.3	1.04	3.3	5.4
1050	0.92	3.8	4.9	1.08	3.8	5.7	1.40	3.8	7.3
1200	1.17	4.3	6.1	1.38	4.3	7.2	1.81	4.3	9.3
1350	1.45	4.8	7.6	1.72	4.8	8.9	2.27	4.8	11.7
1500	1.74	5.3	9.1	2.08	5.3	10.8	2.76	5.3	14.2
1650	2.08	5.9	10.8	2.50	5.9	12.9	3.33	5.9	17.0
1800	2.44	6.4	12.7	2.94	6.4	15.2	3.94	6.4	20.1
1950	3.50	6.8	14.5	4.23	6.8	17.4	5.70	6.8	23.3
2100	3.96	7.2	16.3	4.82	7.2	19.8	6.52	7.2	26.6

NOTES:-

- REFER TO SD 1931 FOR CULVERT DETAILS.
- ALL REINFORCEMENT BARS ARE 12mm 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 PIPE CULVERTS 600 TO 2100 mm DIA. - TYPES 1, 2 & 3				
D						APPROVED <i>J. Cunningham</i> DATE 1.2.95	SPEC. REF. No.	SHEET No.	DRAWING No.	AMENDMENT
C									SD 1932	
B										
A										
AMEND.	Appd.	Date	AMENDMENTS							