

DIMENSIONS

NOM PIPE DIA	EXTERNAL PIPE DIA #	A**	E	H	TYPE 1 * SLOPE AT 1.5:1				TYPE 2 * SLOPE AT 2:1				TYPE 3 * SLOPE AT 3:1			
					B	C	D	F	B	C	D	F	B	C	D	F
600	698	698	300	854	477	1652	681	831	636	1970	908	1108	954	2605	1362	1663
675	781	781	340	933	560	1901	800	976	746	2274	1066	1301	1120	3020	1599	1952
750	864	864	375	1013	644	2152	920	1123	858	2581	1226	1497	1288	3439	1839	2245
825	946	946	410	1092	727	2400	1038	1267	969	2884	1384	1690	1454	3853	2076	2534
900	1029	1029	450	1172	811	2651	1158	1414	1081	3191	1544	1885	1622	4272	2316	2827
1050	1194	1194	525	1330	977	3148	1395	1703	1302	3799	1860	2271	1954	5101	2790	3406
1200	1359	1359	600	1489	1144	3647	1634	1994	1525	4409	2178	2659	2288	5934	3267	3988
1350	1524	1524	675	1648	1311	4146	1872	2285	1748	5019	2496	3047	2622	6767	3744	4571
1500	1676	1676	750	1800	1470	4617	2100	2564	1961	5597	2800	3418	2941	7558	4200	5127
1650	1842	1842	825	1959	1637	5117	2339	2855	2183	6208	3118	3806	3275	8392	4677	5710
1800	2006	2006	900	2117	1803	5613	2576	3144	2405	6815	3434	4192	3607	9220	5151	6288
1950	2198	2198	900	2296	1991	6181	2844	3472	2655	7508	3792	4629	3983	10164	5688	6944
2100	2388	2388	900	2474	2178	6745	3111	3798	2904	8197	4148	5064	4357	11101	6222	7596

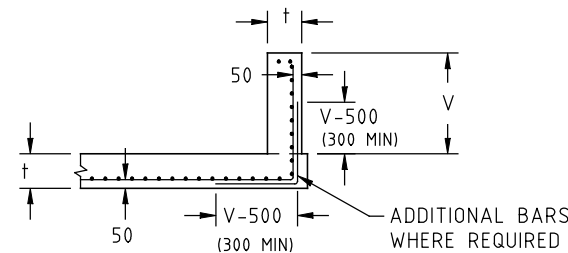
NOTES:

- BECAUSE THE RELATION OF THE BATTER TO THE TOP OF THE ENDWALL IS ESSENTIAL FOR THE SAFETY OF THE MOTORIST, THE DETAILS AS SHOWN IN SECTION A-A MUST BE ADHERED TO DURING CONSTRUCTION.
- REINFORCEMENT FABRIC SHALL COMPLY WITH AS/NZS 4671 UNLESS OTHERWISE SPECIFIED, REINFORCEMENT FABRIC SHALL BE F81 AND CONTINUOUS AROUND CORNERS AND LOCATED AS SHOWN ON SECTIONS A-A AND B-B. CLEAR COVER 50 MIN., LAPS 300 MIN.
- REINFORCEMENT BARS SHALL COMPLY WITH AS/NZS 4671, GRADE 400Y. CLEAR COVER 50 MIN., LAPS 25 x BAR DIAMETER MIN.
- ADDITIONAL BARS FOR LARGE CULVERTS (1950 AND 2100 DIA.) ARE PLACED ADJACENT TO MESH.
- CONCRETE SHALL BE NORMAL-CLASS N32 STANDARD STRENGTH GRADE OR HIGHER COMPLYING WITH THE REQUIREMENTS OF AS 1379. EXPOSURE CLASSIFICATIONS UP TO AND INCLUDING B1.
- EXPOSED EDGES SHALL HAVE 20 x 20 CHAMFERS.
- COMPACTION PRESSURE BEHIND WALLS NOT TO EXCEED 15 kPa. (1.5 TONNE VIBRATORY ROLLER OR 300 kg VIBRATING PLATE WITHIN 0.5m OF WALL).
- REFER TO SD 1932 FOR QUANTITIES
- CONCRETE AGGREGATES SHALL COMPLY WITH TABLE 701.021 OF VICROADS STANDARD SPECIFICATION SECTION 701.
- ENDWALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE RELEVANT PROVISIONS OF AS 3600.

* THEORETICAL SLOPE OF WINGWALL MEASURED AT RIGHT ANGLES TO THE ROADWAY.

** A2=A+E+EXTERNAL DIAMETER OF PIPE

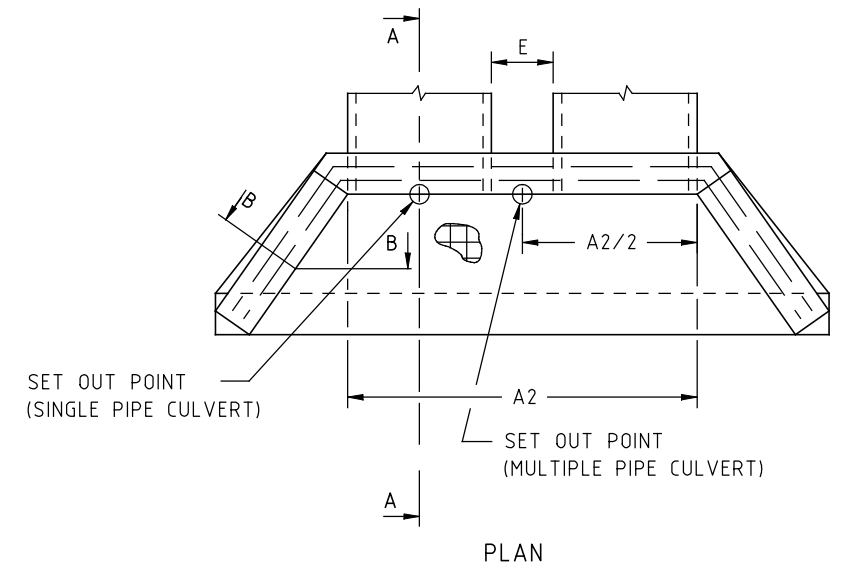
APPROXIMATE ONLY



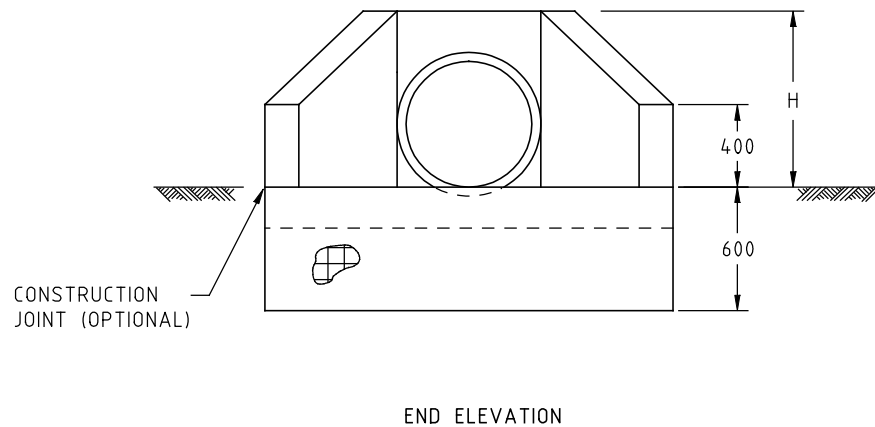
SECTION B-B
LOCATION OF ADDITIONAL BARS.

NOTES:

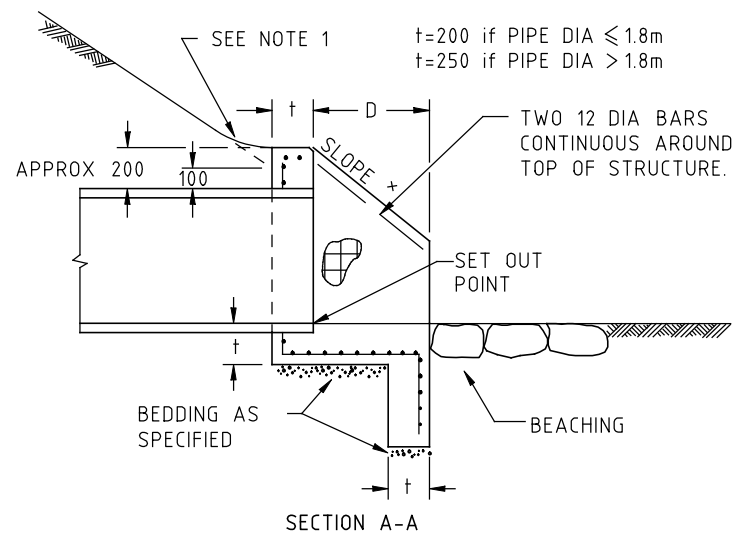
- ADDITIONAL BARS FOR THE FOLLOWING PIPE SIZES:
-2100 DIA PIPE-F12 BARS AT 500 CENTRES
-1950 DIA PIPE-F12 BARS AT 1000 CENTRES
- V = VARIABLE HEIGHT OF THE WINGWALL



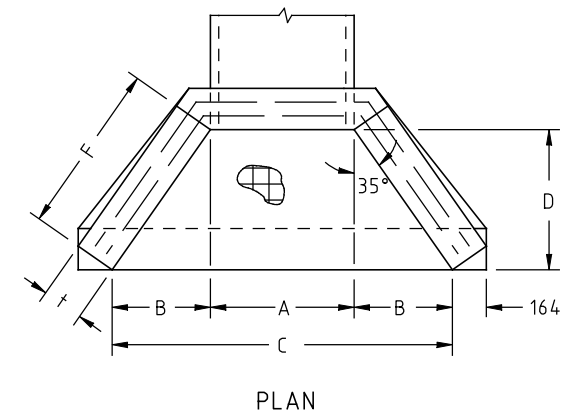
PLAN



END ELEVATION



SECTION A-A



PLAN

ISSUE	APP'D	DATE	AMENDMENT
E			
D			
C	J.K.	1/7/05	NOTES 2 & 3 AMENDED
B	J.C.	1/2/98	AMENDMENT TO NOTE 5, NOTES 9 & 10 ADDED, CONCRETE STRENGTH GRADES
A	J.C.	1/2/95	NOTES 2, 3, 4, 5 & 8. GENERAL NOTES 1 & 2, SECTION B-B WALL THICKNESS.

GENERAL NOTES	
1.	ALL DIMENSIONS ARE IN MILLIMETRES.
2.	CULVERT INLET AND OUTLET STRUCTURES - SELECTION GUIDE

DESIGNED	PRINCIPAL ROAD DESIGN ENGINEER
APPROVED	1.2.95 <i>J. Cunningham</i>
CATALOG PROJECT FILENAME	PRED sddgnew sd-1931c.dgn

		3 PROSPECT HILL ROAD, CAMBERWELL, VICTORIA, 3124 PHONE NO. (03) 9811 8355 FAX NO. (03) 9811 8329
SCALE OF METRES	HOR VER	NOT TO SCALE

STANDARD DRAWING				
REINFORCED CONCRETE WINGWALL				
TYPES 1, 2 & 3				
PIPE CULVERTS 600 TO 2100 DIA				
FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO.	ISSUE
			SD 1931	C

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