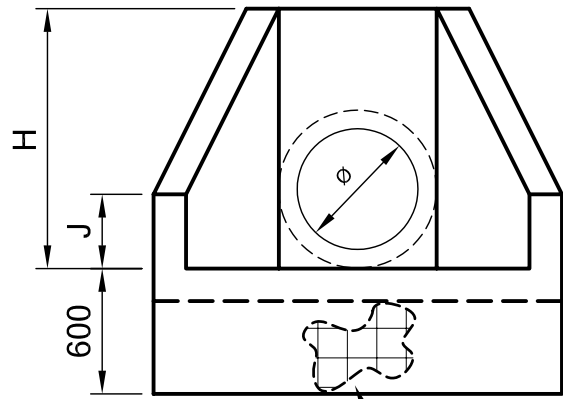


PLAN

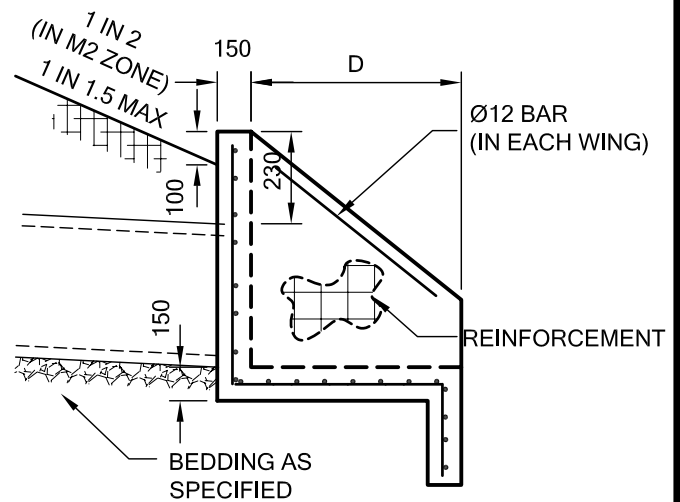
* APPROPRIATE ROCK BEACHING TO BE PLACED AT PIPE OUTLET



FRONT ELEVATION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
2. ALL CONCRETE SHALL BE 25MPa MINIMUM STRENGTH
3. QUANTITIES SHOWN ARE FOR ONE ENDWALL UNIT FOR 1:1.5 BATTER SLOPE.
4. ALL REINFORCEMENT SHALL BE AT 150 CTRS AND BE PLACED CENTRALLY IN WALLS AND FLOOR AND SHALL BE CONTINUOUS BETWEEN WALLS AND BETWEEN WALLS AND FLOOR.
5. THERE SHALL BE AT LEAST TWO HORIZONTAL BARS (FABRIC OR M.S.) OVER THE PIPE IN THE ENDWALL AND ONE BAR ALONG SLOPING TOP OF ALL WINGWALLS.
6. LAPS IN STRUCTURAL GRADE BARS AND FABRIC 300 MINIMUM.
7. 10% ALLOWANCE HAS BEEN MADE FOR ON SITE CUTTING AND SPLICING OF REINFORCEMENT QUANTITIES.
8. ENDWALL UNIT IS SUITABLE FOR REINFORCED CONCRETE OR CORRUGATED STEEL PIPES OF SIMILAR DIAMETER.
9. FOR 1:2 BATTER SLOPE INCREASE FABRIC AND BAR REINFORCEMENT QUANTITIES BY 5% AND CONCRETE VOLUMES BY 6%.
10. FOR 1:4 BATTER SLOPE INCREASE FABRIC AND BAR REINFORCEMENT QUANTITIES BY 13% AND CONCRETE VOLUMES BY 15%.
11. CLEAR COVER TO ALL REINFORCEMENT 50mm MINIMUM UNLESS NOTED.
12. IF ENDWALL IS WITHIN 3m FROM THE EDGE OF ROAD, THEN TOP LEVEL OF ENDWALL SHOULD MATCH ROAD LEVEL



SIDE ELEVATION

NOM DIA. (Ø)	CONCRETE DIMENSIONS									REINFORCEMENT AND QUANTITIES					
	A	B	C	D	F	H	J (BATTER SLOPE)			APPROX O/D PIPE	BAR DIA. AT 150 CTRS	BAR REINF'T (m)	ALTER-NATIVE FABRIC REINF'T	FABRIC SHEETS (6000x 2400)	VOLUME (cu.m)
							1.5:1	2:1	4:1						
600	700	310	1320	860	920	930	360	500	720	700	6.3	70	F42	0.3	0.6
675	790	350	1490	980	1040	1020	370	530	780	790	6.3	85	F42	0.4	0.7
750	870	400	1670	1090	1160	1100	370	560	830	870	6.3	100	F42	0.5	0.8
825	950	440	1830	1200	1280	1180	370	570	870	945	6.3	110	F52	0.5	0.9
900	1030	480	1990	1320	1400	1260	380	600	930	1030	6.3	125	F52	0.6	1.1
1050	1200	560	2320	1550	1650	1430	390	650	1040	1195	6.3	160	F62	0.8	1.4
1200	1360	650	2660	1780	1890	1590	400	700	1150	1360	6.3	195	F62	1.0	1.7
1350	1530	730	2990	2010	2130	1760	420	750	1250	1525	10.0	240	F72	1.2	2.0
1500	1690	810	3310	2230	2380	1920	430	800	1360	1690	10.0	285	F82	1.4	2.4
1650	1860	900	3660	2460	2620	2090	440	850	1470	1855	10.0	330	F82	1.6	2.8
1800	2020	980	3980	2690	2860	2250	460	910	1580	2020	10.0	385	F92	1.9	3.3
1950	2190	1060	4310	2920	3100	2420	470	960	1690	2185	12.0	440	F102	2.2	3.7
2100	2340	1140	4620	3140	3340	2570	470	990	1780	2335	12.0	495	F102	2.5	4.2

AMENDMENTS	DATE
ORIGINAL - WDA	8/97
UPDATED NOTES & DETAILS	1/07



REINFORCED CONCRETE ENDWALL
FOR PIPES GREATER THAN Ø525

MANAGER CIVIL DEVELOPMENT SERVICES

Handwritten signature

DRAWN BY: WDA
DATE: JAN '07
SCALE: N.T.S.
DRAWING NO.: SD / E4