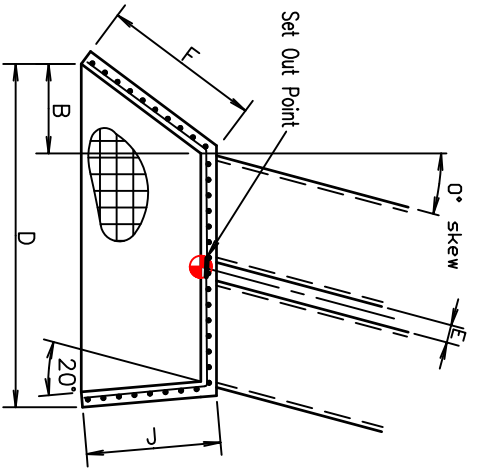


**CULVERT ENDWALLS  
FILL RETAINING WORKS  
FOR BATTERS FLATTER THAN 1.5:1**

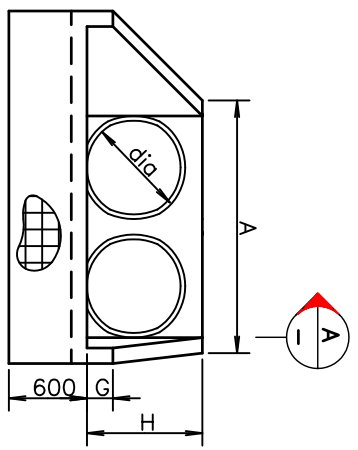
Place and grout 300 dia. rock as shown, to prevent spill-round of fill. Set the rock 300 nom. below stream bed.  
Where no defined channel exists, turn rock around toe of fill as shown (dashed).



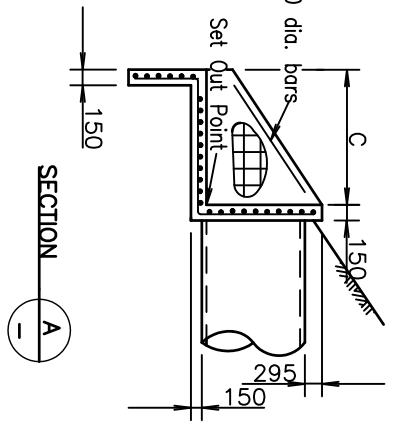
**PLAN**

All reinforcement shall be continuous between wing walls and apron slab and shall be placed centrally.  
There shall be at least two 10 dia. horiz. bars over pipe in endwall and two sloping bars in the top of all wingwalls. Grade N25 concrete.

SKIEW	NOM. PIPE DIA.	A	B	C	D	E	F	G1	G2	G3	H	J	REINFORCED BAR DIAMETERS	EQUIV. MESH No.
15°	600	1973	600	850	2583	300	1120	370	500	600	930	1010	10 @ 150	F81
	750	2346	770	1100	3196	380	1420	370	500	680	1090	1260	10 @ 150	F81
	900	2817	910	1300	3777	450	1670	400	600	800	1260	1460	10 @ 150	F81
30°	600	2195	1010	850	2975	300	1380	370	500	600	930	1020	10 @ 150	F81
	750	2649	1310	1100	3689	380	1760	370	500	680	1090	1270	10 @ 150	F81
	900	3124	1550	1300	4369	450	2080	400	600	800	1260	1470	10 @ 150	F81
45°	600	2666	1820	850	4201	300	2050	370	500	600	930	1100	10 @ 150	F81
	750	3267	2360	1100	5392	380	2640	370	500	680	1090	1380	10 @ 150	F81
	900	3794	2790	1300	6209	450	3110	400	600	800	1260	1600	10 @ 150	F81



**ELEVATION**



**SECTION**

G1 = 1.5:1 batters  
G2 = 2:1 batters  
G3 = 3:1 batters

NOTE: All dimensions in millimetres

NOT TO SCALE

DRAFTING		DESIGN		DEPARTMENT OF INFRASTRUCTURE, ENERGY AND RESOURCES, TASMANIA	
Drawn	R.R.W.	Checked	R.R.W.	Design Date	DEC 91
Checked	R. WILSON	Checked	R. WILSON	Design Date	16/12/91
Approved	K. RVAN	Approved	K. RVAN	Design Date	16/12/91
DETAILS FOR 1350mm & 1500mm DIA. PIPES ADDED		DETAILS FOR 1350mm & 1500mm DIA. PIPES ADDED		R.C. ENDWALL FOR MULTI-PIPE CULVERTS (600 - 1500) SKEWED FLOW CONDITIONS	
2:1 & 3:1 batters added		2:1 & 3:1 batters added		3402-2/P17-3	