



**NOTES:**

- FLOOR REINFORCEMENT IS RL1118 MESH, MAIN REINFORCING LAID IN DIRECTION OF TRAFFIC, MIN. COVER 45mm TO TOP SURFACE.
- BOX CULVERTS LESS THAN 450mm HEIGHT SHOULD NOT BE USED IN RURAL AREAS.
- BACKFILL AROUND THE CULVERT FOR THE FULL WIDTH OF THE TRENCH, AND FOR A MIN. 300mm ABOVE THE TOP OF CULVERT, OR TO SUBGRADE SURFACE IF LESS, WITH SELECT FILL.
- BACKFILL THE REMAINDER OF THE TRENCH WITH STANDARD FILL.
- STABILISE ALL BACKFILL WITH 2% CEMENT BY MASS AND COMPACT TO 95%MMDD.
- ALL CONCRETE SHALL BE STRENGTH GRADE N25 TO AS3600.
- MESH DENOTED "RLXXX" SHALL BE "D500RLXXX" MESH TO AS4671 TYPICAL.

NOMINAL CULVERT SIZE		FLOOR		ALL ANGLES $\theta$		ANGLE OF SKEW $\theta - \theta$															
H	S	THICKNESS	CONCRETE (m <sup>3</sup> /m/CELL)	L	E	$\theta = 0^\circ$				$\theta = 15^\circ$				$\theta = 30^\circ$				$\theta = 45^\circ$			
						E 1	Q	AC	E 2	E 3	Q	AC	E 2	E 3	Q	AC	E 2	E 3	Q	AC	
225	375	90	0.042	900	320	500	0.37	0.13	250	520	0.44	0.12	280	580	0.46	0.15	340	710	0.51	0.20	
225	450	90	0.049	910	330	580	0.40	0.15	290	600	0.47	0.14	320	670	0.51	0.17	390	820	0.56	0.22	
300	450	90	0.051	990	450	570	0.54	0.15	280	590	0.61	0.14	320	660	0.64	0.17	390	810	0.69	0.22	
225	600	115	0.088	950	340	750	0.46	0.20	370	780	0.55	0.19	420	860	0.60	0.22	510	1060	0.66	0.29	
300	600	115	0.087	1030	460	750	0.60	0.20	370	770	0.69	0.19	420	860	0.74	0.22	510	1060	0.80	0.29	
375	600	115	0.088	1100	570	740	0.76	0.20	370	770	0.85	0.19	410	860	0.90	0.22	510	1050	0.96	0.29	
450	600	115	0.087	1180	690	740	0.94	0.19	370	770	1.03	0.19	410	850	1.07	0.22	500	1050	1.14	0.28	
300	750	115	0.109	1040	480	910	0.66	0.24	460	950	0.77	0.23	510	1060	0.83	0.27	630	1290	0.91	0.35	
450	750	115	0.107	1190	710	910	1.00	0.24	460	940	1.11	0.23	510	1050	1.17	0.27	620	1280	1.25	0.35	
600	750	115	0.106	1340	940	900	1.41	0.24	450	930	1.53	0.23	510	1040	1.58	0.27	620	1270	1.66	0.34	
300	900	115	0.128	1040	480	1070	0.70	0.28	540	1110	0.82	0.28	610	1240	0.89	0.32	740	1520	0.99	0.41	
450	900	115	0.127	1190	710	1070	1.04	0.28	540	1110	1.17	0.28	610	1240	1.23	0.32	740	1520	1.33	0.41	
600	900	115	0.127	1340	940	1070	1.45	0.28	540	1110	1.58	0.28	600	1230	1.65	0.32	740	1510	1.74	0.41	
300	1200	130	0.179	1060	500	1400	0.81	0.37	710	1450	0.96	0.36	790	1610	1.04	0.42	970	1970	1.17	0.53	
450	1200	130	0.177	1210	730	1390	1.15	0.36	710	1440	1.31	0.36	790	1610	1.39	0.42	970	1970	1.52	0.53	
600	1200	130	0.177	1370	960	1380	1.57	0.36	700	1430	1.73	0.36	780	1600	1.82	0.42	960	1960	1.94	0.52	

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3.	BACKFILL NOTE UPDATED.	03/2004	K.S.
2.	DRAWING CONVERTED TO ELECTRONIC FORMAT & DEPARTMENT LOGO CHANGED	02/2003	K.S.
1.			
No.	DESCRIPTION	DATE	INIT.
AMENDMENTS			

DRAWN	CHECKED
DATE	DATE
DESIGNED	CHECKED
DATE	DATE
DESIGN PROJECT LEADER	PROJECT OFFICER
<i>Blair</i>	<i>D. F. Hill</i>
DATE	DATE



STANDARD DRAWING				
ENDWALLS TO PRECAST BOX CULVERTS				
FILE No.	ASSET No.	SHEET No.	DRAWING No.	AMEND.
		1 OF 1	C(S)1104-3	A1