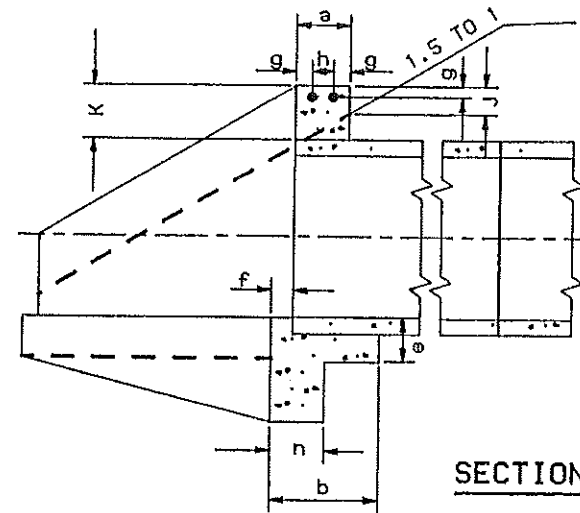
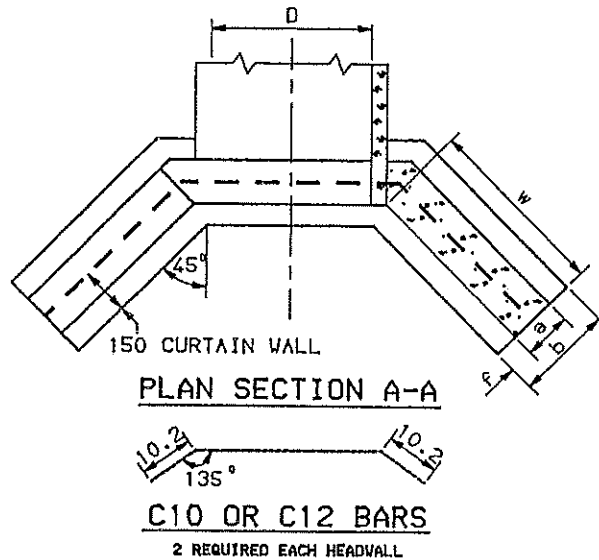


**ELEVATION**



**SECTIONAL ELEVATION**



**PLAN SECTION A-A**

**C10 OR C12 BARS**

2 REQUIRED EACH HEADWALL

PIPE DIAMETER D	300	375	450	525	600	675	750	825	900
a	150	150	150	150	180	180	205	205	230
b	300	300	300	300	450	450	450	450	450
c	300	300	300	300	380	380	380	380	380
d	380	380	380	380	530	530	530	530	530
e	150	150	150	150	180	180	205	205	230
f	75	75	75	75	100	100	100	100	100
g	40	40	40	40	50	50	50	50	50
h	70	70	70	70	80	80	105	105	130
J	100	100	100	100	100	100	100	100	100
k	200	200	200	200	250	250	250	250	250
n	150	150	150	150	150	150	150	150	150
w	690	690	840	990	1120	1300	1450	1600	1780
L	800	840	915	990	1100	1200	1250	1350	1400
REINF. DIA.	10	10	10	10	12	12	12	12	12
REINF. LENGTH	1600	1680	1830	1980	2200	2400	2500	2700	2800
REINF., kg MASS	0.986	1.035	1.127	1.220	1.954	2.131	2.220	2.398	2.486
CONC. VOLUME m	0.25	0.27	0.33	0.38	0.67	0.85	1.02	1.22	1.40

**NOTES:**

1. ALL EXPOSED SURFACES TO HAVE 25 CHAMFER.
2. REINFORCING BARS TO BE COLD WORKED DEFORMED.
3. CONCRETE COMPRESSIVE STRENGTH (F'c) 20 MPa AT 28 DAYS.
4. PRECAST CONCRETE HEADWALLS OF SIZES 375 TO 750 (INCL.) MAY BE SUBSTITUTED FOR THE EQUIVALENT SIZE IN-SITU HEADWALL.

Fig. D5. Misc. 13



SCALE 1: N.T.S.

SUBDIVISION  
CODE

CITY OF SHOALHAVEN  
STANDARD CONCRETE HEADWALLS  
FOR 300 TO 900 DIA. PIPES

ENGINEERING WORKS  
MANAGER

DRAWN C. FIESELER

CHECKED J. BLOH

PLAN REF. 263714