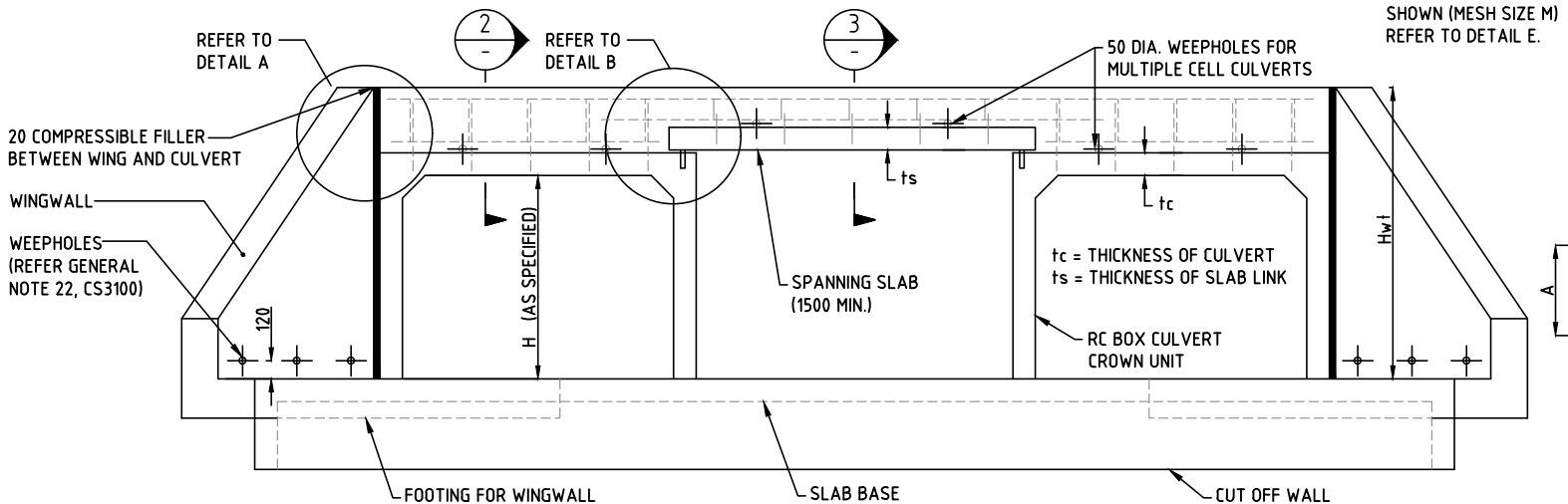
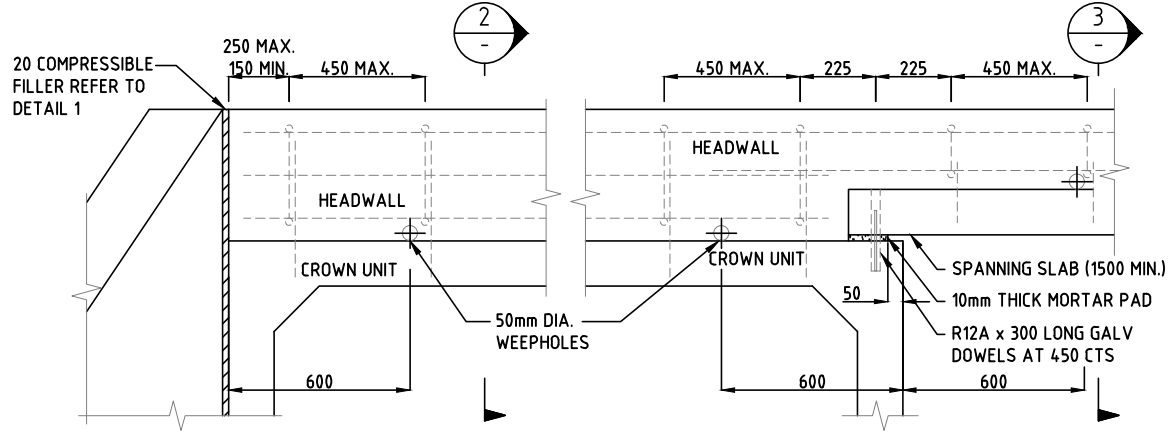


PLAN - HEADWALL AND WINGWALL DETAILS FOR SLBC & RCBC

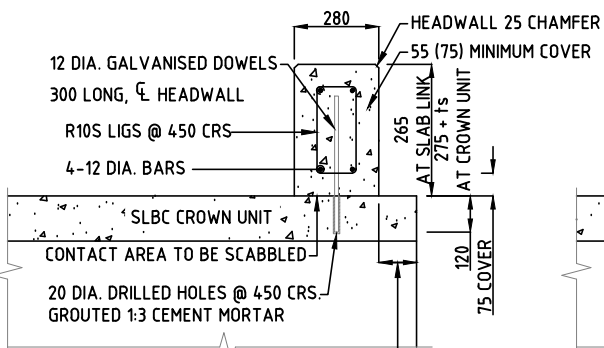


ELEVATION - HEADWALL & WINGWALL DETAILS FOR SLBC & RCBC (BASE WITH NIBS)

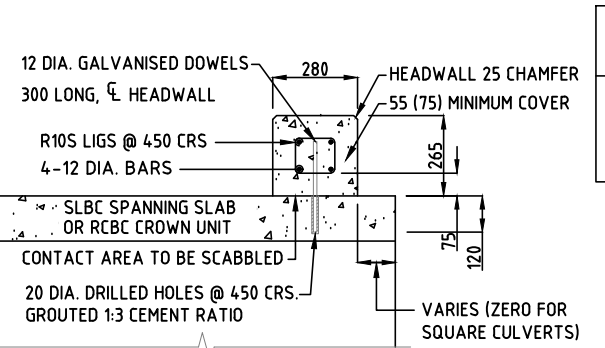


DETAIL A NOT TO SCALE

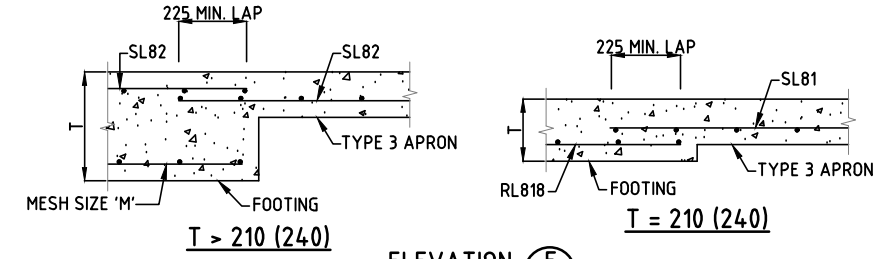
DETAIL B NOT TO SCALE



SECTION 2 HEADWALL NOT TO SCALE

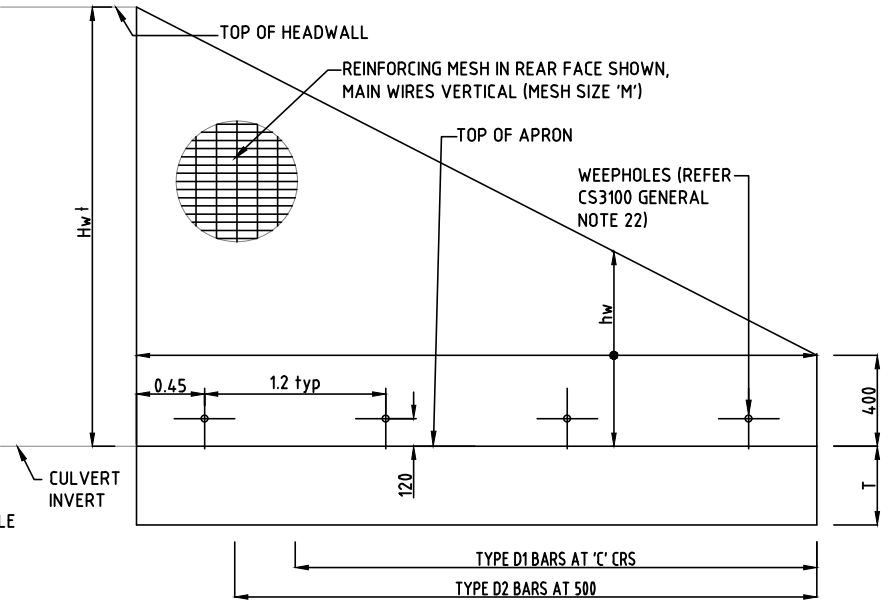


SECTION 3 HEADWALL NOT TO SCALE



ELEVATION E NOT TO SCALE

WING WALL FOOTING - TYPE 3 APRON REINFORCEMENT  
DETAILS REFER TO CS3100 FOR APRON TYPES 1, 2 AND 3



ELEVATION D NOT TO SCALE

WING DIMENSIONS

UP TO Hw	F	T	
		WINGWALL THICKNESS	WINGWALL FOOTING THICKNESS
1000	0.75 Hw	250	(240)
1500		250	(240)
2000		250	(290)
2500		310	(340)
3000		310	(340)

Hw = H + tc + ts + 250 HEIGHT OF OPENING, H, THICKNESS OF CULVERT, tc, THICKNESS OF SLAB, ts

MINIMUM REINFORCEMENT REQUIREMENTS

hw	M	TYPE D1 BARS			12 DIA. TYPE D2 BARS	
		DIA.	A	B	C	E
400 - 1000	RL 818	12	550	400	200	450
1001 - 1500	RL 818	12	550	400	200	550
1501 - 2000	RL 1018	12	600	400	100	600
2001 - 2500	RL 1018	12	650	400	100	650
2501 - 3000	RL 1218	20	750	400	100	650

hw = HEIGHT OF WINGWALL HERE hw VARIES FROM Hw AT HEADWALL TO 400 AT WINGWALL END

NOTES:

- REFER TO STANDARD DRAWING CS3100 FOR GENERAL NOTES.
- FOR HEADWALL AND WINGWALL REFER TO CS3107 AND CS3108.
- FOR CULVERT BASES AND APRONS REFER TO CS3111 AND CS3112.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- REFER TO CS3109 FOR SHEET 1, CS3111, CS3112 AND CS3113 FOR SHEET 3 TO SHEET 5

THIS DRAWING IS DERIVED FROM QUEENSLAND MAIN ROADS STANDARD DRAWING 1303 AND ADOPTED FOR THE NT CONDITIONS.

No.	DESCRIPTION	DATE	NAME	DEPT/COMPANY
0	ISSUED AS A STANDARD DRAWING	SEPT 2017	J. LEESON	EES/DIPL
AMENDMENTS				

**WARNING**  
BEWARE OF UNDERGROUND SERVICES. THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DRAWN A.R. DATE DEC 2012	CHECKED L.Mc DATE DEC 2012
DESIGNED QLD	CHECKED QLD
DATE	DATE
DESIGN LEADER S.HATZI	DESIGN DIRECTOR S.JACKSON
DATE 1/09/2017	DATE 1/09/2017



STANDARD DRAWINGS DRAINAGE				
RCBC AND LINK SLAB REINFORCED WING & HEADWALLS				
FILE No.	ASSET No.	SHEET No.	DRAWING No.	AMEND.
-	-	2 OF 5	CS3110	0
				SHEET SIZE A1