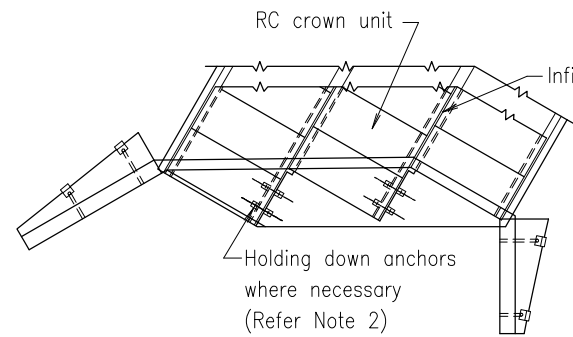
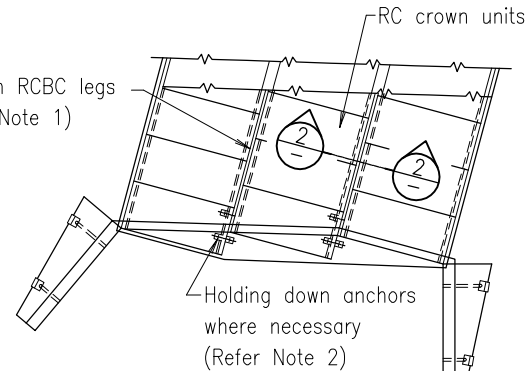


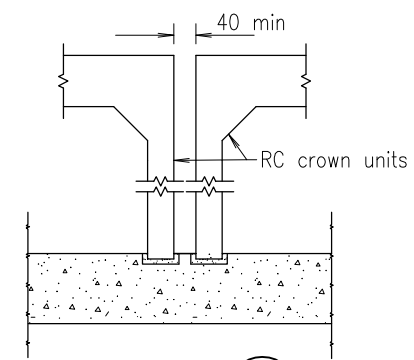
PLAN - Square Culvert



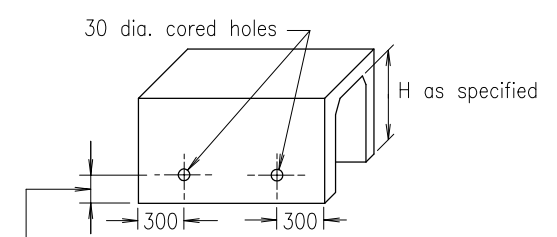
PLAN - Typical Multiple Skew RCBC



PLAN - Typical Multiple Skew RCBC

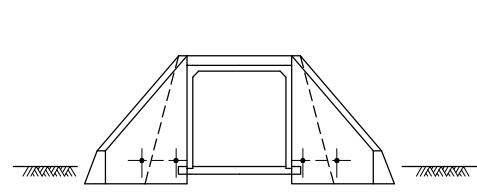


SECTION 2  
Not to Scale  
Unit Spacing

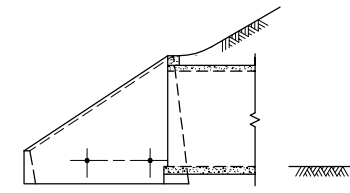


130 when used with cast in situ base slabs without recesses  
150 when  $H < 1500$   
170 when  $H \geq 1500$

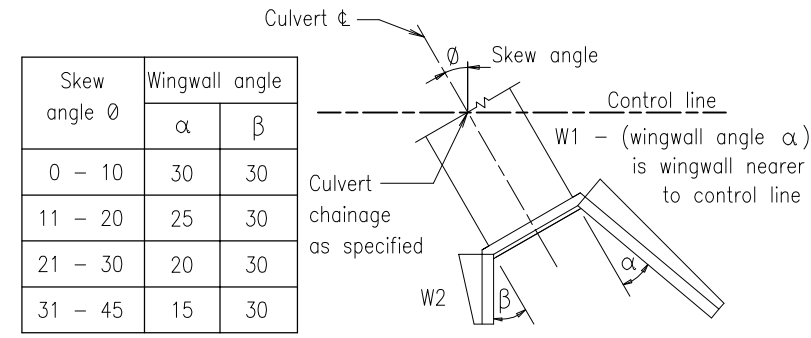
CORED HOLES IN CROWN UNITS FOR HOLDING DOWN ANCHORS  
Not to Scale



ELEVATION

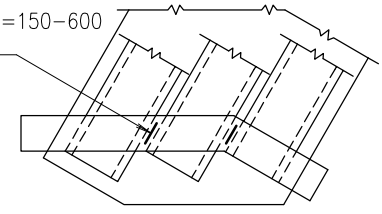


SECTION 1

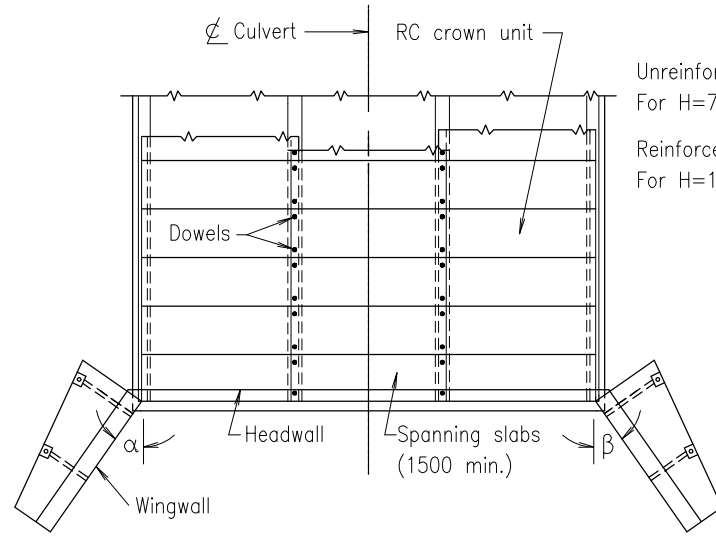


WINGWALL ANGLES - SKEW CULVERT  
Not to scale

Headwall anchor bars for  $H=150-600$   
refer Drawing 1174

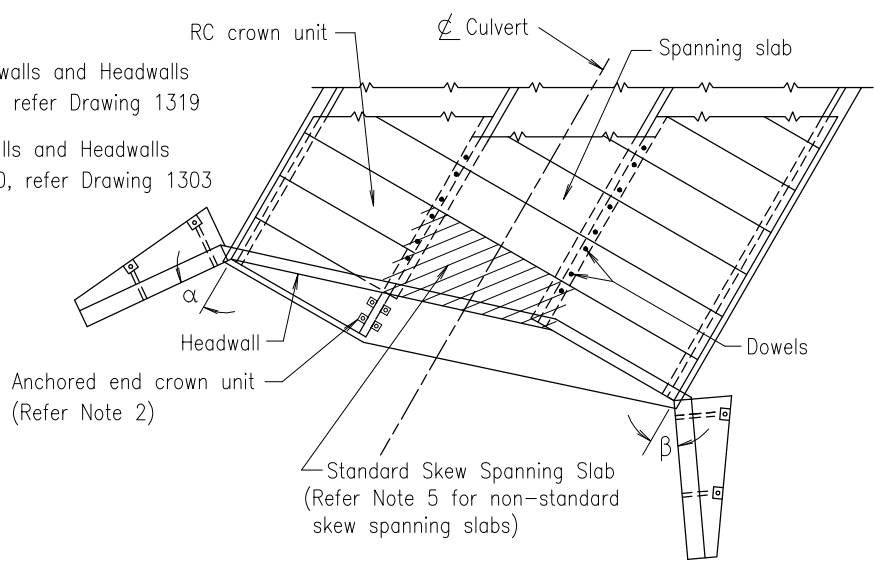


DETAIL - Headwall Anchoring Provisions



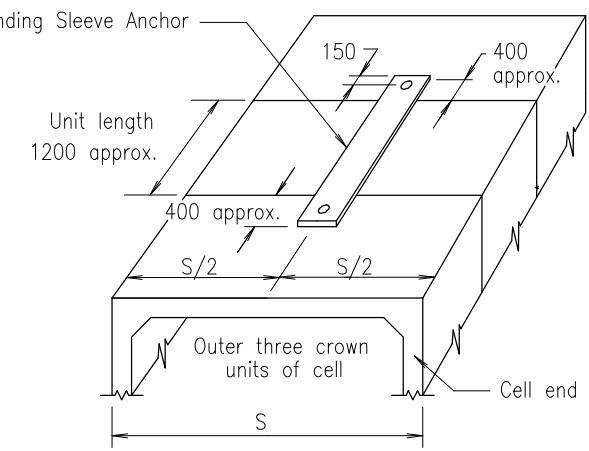
PLAN - Typical Square SLBC  
(Base with recesses)

Unreinforced Wingwalls and Headwalls  
For  $H=750-2400$ , refer Drawing 1319  
Reinforced Wingwalls and Headwalls  
For  $H=1000-4350$ , refer Drawing 1303



PLAN - Typical Skew SLBC  
(Base with nibs)

2000 x 65 x 6 galvanised steel plate with  
2 x 18 dia. holes fixed with 2 x M12 x 58  
Expanding Sleeve Anchor



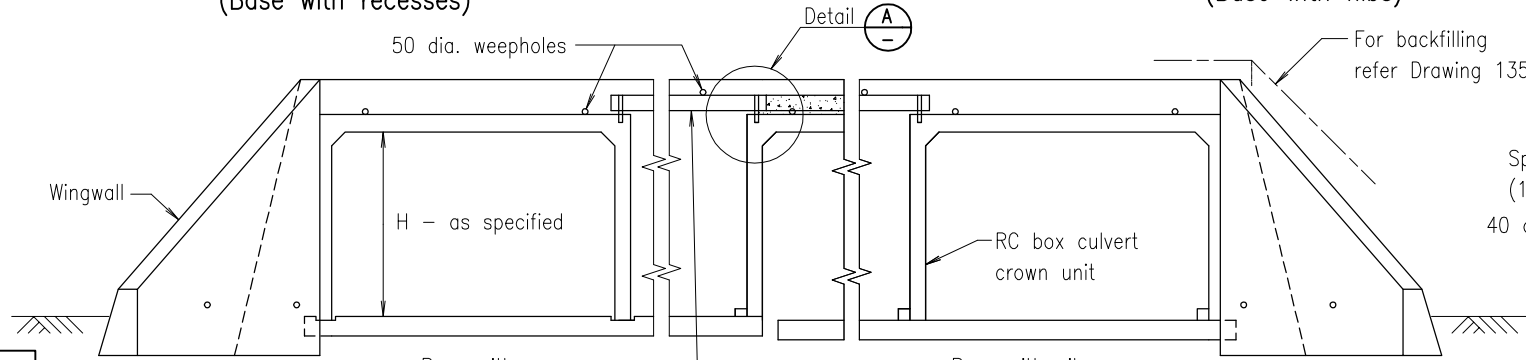
CROWN UNIT RESTRAINING PLATE FOR USE WITH SLBC (1200 UNITS ONLY)  
Not to Scale  
(Refer Note 4)

NOTES :

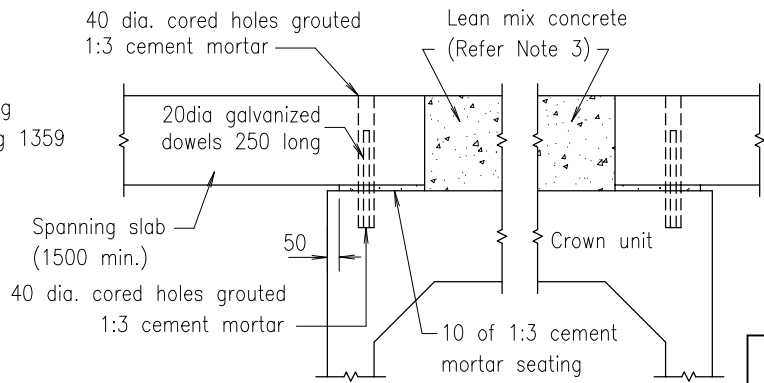
- INFILL between legs of multiple culverts is achieved by placing N20/20 concrete plugs of 250 minimum length at both ends of the structure and infill the remaining gap with 1:10 lean mix having maximum aggregate size of 10mm packed dry. Do not use fluid grout as hydrostatic head will damage culvert legs. (Where headwalls are required for multiple culverts without wingwalls, refer to the 'Headwall Anchoring Provisions' detail.)
- HOLDING DOWN ANCHORS are to be installed where the leg(s) of the crown unit extend more than 300 beyond the outside face of the headwall. Nibs are not required for these crown units. Where nibs are required, they are to extend for the full length of all other units.
- LEAN MIX CONCRETE is only to be placed between spanning slabs on crown unit cells. Lean mix concrete infill is not required on the outermost crown units.
- CROWN UNIT RESTRAINING PLATES are required on the outer 3 of all internal cells when SLBC > 5 cells and crown units  $\geq 1800$  high are used.
- DETAILS TO BE SHOWN ELSEWHERE IN THE DOCUMENTS :  
Wingwall unreinforced concrete type (1, 2 or 3).  
Wingwall reinforced concrete.  
Headwall design (if required).  
Special spanning slab details (if required).
- DOWELS AND RESTRAINING PLATES to be hot dipped galvanised after fabrication to AS/NZS 4680.
- DIMENSIONS are in millimetres unless shown otherwise.

ASSOCIATED DOCUMENTS :  
Department of Main Roads Manual of Standard Drawings Roads  
Department of Main Roads Manual of Standard Specifications Roads

REFERENCED DOCUMENTS :  
Standard Drawings :  
1174 Construction of End Structures  $H = 150 - 600$   
1303 Construction of Reinforced Concrete Wingwalls and Headwalls  
1317 Construction of Bases with Nibs and Aprons  
1318 Construction of Bases with Recesses and Aprons  
1319 Construction of Wingwalls and Headwalls  $H = 750 - 2400$   
1320 Crown Unit Holding Down Anchors  
1359 Installation, Bedding and Filling/Backfilling Against/Over Culverts  
Australian Standards :  
AS/NZS 4680 Hot-dip Galvanized (Zinc) Coatings on Fabricated Ferrous Articles



ELEVATION - Typical SLBC



DETAIL A  
Scale 1:20  
Spanning slab support and lean mix concrete fill

RC BOX CULVERTS & SLAB LINK BOX CULVERTS			
GENERAL ARRANGEMENT AND INSTALLATION OF PRECAST UNITS		Size A3	Drawing No
		as shown	1316
			Date 5/06
		F	G H

1316