



## TYPICAL CONCRETE SLEEPER WALL SECTION

1:30

### DESIGN 2: DOUBLE TIERED CONCRETE SLEEPER RETAINING WALL (TOP TIER)

DESIGN

Dead load,  $g = \text{nil}$

SOIL PARAMETERS: Characteristic retained internal friction angle,  $\Phi_i = 28$  degrees

LOADS:

Live load,  $q = 5 \text{ kPa}$

Retained soil density,  $\gamma^*i = 18 \text{ kN/m}^3$

Wind pressure to 1.8m high fence = 0.73 kPa

Characteristic foundation internal friction angle,  $\Phi_f = 28$  degrees

Characteristic cohesion (for foundation),  $c = 2 \text{ kPa}$

Foundation soil density,  $\gamma^*f = 18 \text{ kN/m}^3$

Pier diameter = 450mm (uno)

Design Height 'H' (mm)	Crest Slope (maximum)	2400 SLEEPER LENGTH				2000 SLEEPER LENGTH			Minimum Corner Post Detail~
		Sleeper designation* (qty @ thickness in mm)	Steel Post Required	Pier Depth (mm)		Sleeper designation* (qty @ thickness in mm)	Steel Post Required	Pier Depth (mm)	
400	Level	2 @ 80	B-2000	1900		2 @ 80	B-2000	1800	100PFC
600	Level	3 @ 80	B-2600	2000		3 @ 80	B-2600	1900	100PFC
800	Level	4 @ 80	B-2600	2200		4 @ 80	B-2600	2100	100PFC
1000	Level	5 @ 80	B-3200	2400		5 @ 80	B-2900	2300	100PFC
1200	Level	6 @ 80	C-3500	2700		6 @ 80	C-3500	2500	100PFC
1400	Level	7 @ 80	C-3900	2900		7 @ 80	C-3900	2700	100PFC
1600	Level	top 7 @ 80, 1 @ 100 btm	C-4400	3200		8 @ 80	C-4400	3000	100PFC

### DESIGN 7: DOUBLE TIERED CONCRETE SLEEPER RETAINING WALL (BOTTOM TIER) - LOTS 22-24, & 27-29

Design Height 'H' (mm)	Crest Slope (maximum)	2400 SLEEPER LENGTH				2000 SLEEPER LENGTH			Minimum Corner Post Detail~
		Sleeper designation* (qty @ thickness in mm)	Steel Post Required	Pier Depth (mm)		Sleeper designation* (qty @ thickness in mm)	Steel Post Required	Pier Depth (mm)	
400	Level	2 @ 80	B-2000	1600		2 @ 80	B-2000	1500	100PFC
600	Level	3 @ 80	B-2600^	1800		3 @ 80	B-2600^	1800	100PFC
800	Level	4 @ 80	B-2600	2200		4 @ 80	B-2600	2000	100PFC
1000	Level	5 @ 80	B-3200	2600		5 @ 80	B-3200	2400	100PFC
1200	Level	top 5 @ 80, 1 @ 100 btm	C-3900	3000		6 @ 80	C-3500	2800	100PFC

\* THICKER SLEEPERS TO BE INSTALLED AT BOTTOM OF WALL PANEL.

Sleeper thickness designation in table refers to quantity of sleepers @ thickness (mm).

^ denotes steel reinforcement at base of post assembly will need to be trimmed to fit bored pier depth.

~ CORNER POST DETAIL TO BE 2 PFC POSTS AS DESIGNATED OR 1 PFC NESTED IN DESIGNATED UC

" denotes steel assembly upgraded due to overall length and may be adjusted if reo extensions used instead

If sleeper thickness wider than post depth, use 80mm sleeper and install additional 80mm sleeper behind post.

REFER TO SHEET 001 FOR ALL SPECIFICATION NOTES

-			DESIGNED BY	WK
-			DRAWN BY	WK
-			APPROVED BY	
B	04/11/22	DESIGNS UPDATED TO ASCT SOIL REPORT	QUALIFICATIONS	RPEQ 08869
A	28/10/22	LOWER TIER DESIGN ADJUSTED FOR NEIGHBOURING GARDEN BOXING		
No.	DATE	AMENDMENT		

**adbri** MASONRY

Adbri Masonry Pty Ltd  
ABN: 31 009 687 521

P.O. Box 623  
Beenleigh, QLD 4207

Phone: (07) 3382 4100  
Fax: (07) 3382 4185  
Web: www.adbrimasonry.com.au

Fishwick (ACT): (02) 6239 1255  
Coffs Harbour (NSW): (02) 6655 9972  
Moorebank (NSW): (02) 9822 6822  
Newcastle (NSW): (02) 4967 3611  
Nowra (NSW): (02) 4421 3500  
Brisbane (QLD): (07) 3382 4100  
Cairns (QLD): (07) 4051 6944  
Gladstone (QLD): (07) 4979 3355  
Mackay (QLD): (07) 4955 6966  
Maroochydore (QLD): (07) 5477 3300  
Toowoomba (QLD): (07) 4688 9600  
Townsville (QLD): (07) 4774 5155  
Ottaway (SA): (08) 8304 2323  
Bendigo (VIC): (03) 5447 8866  
Combefield (VIC): (03) 9305 0900  
Essendon (VIC): (03) 9375 8500  
Hobart (TAS): (03) 6244 3822  
Ulverstone (TAS): (03) 6425 1899

PROJECT TITLE	
SUNVALE CALAMVALE RECONFIGURE LOT 3 ON SP186470	
148 ALGESTER ROAD CALAMVALE QLD 4116	
DRAWING SCALE	ORIGINAL DRAWING SIZE
1:30	A3

SHEET TITLE	
CONCRETE SLEEPER RETAINING WALLS 2-TIERED DESIGN TABLES LOTS 22-24,27-29	
CLIENT	
DAC CONSTRUCTIONS	
DRAWING No.	ISSUE
CIV-3043-006	B