



Concrete Sleepers

# Engineering Certificate (2000mm Long)

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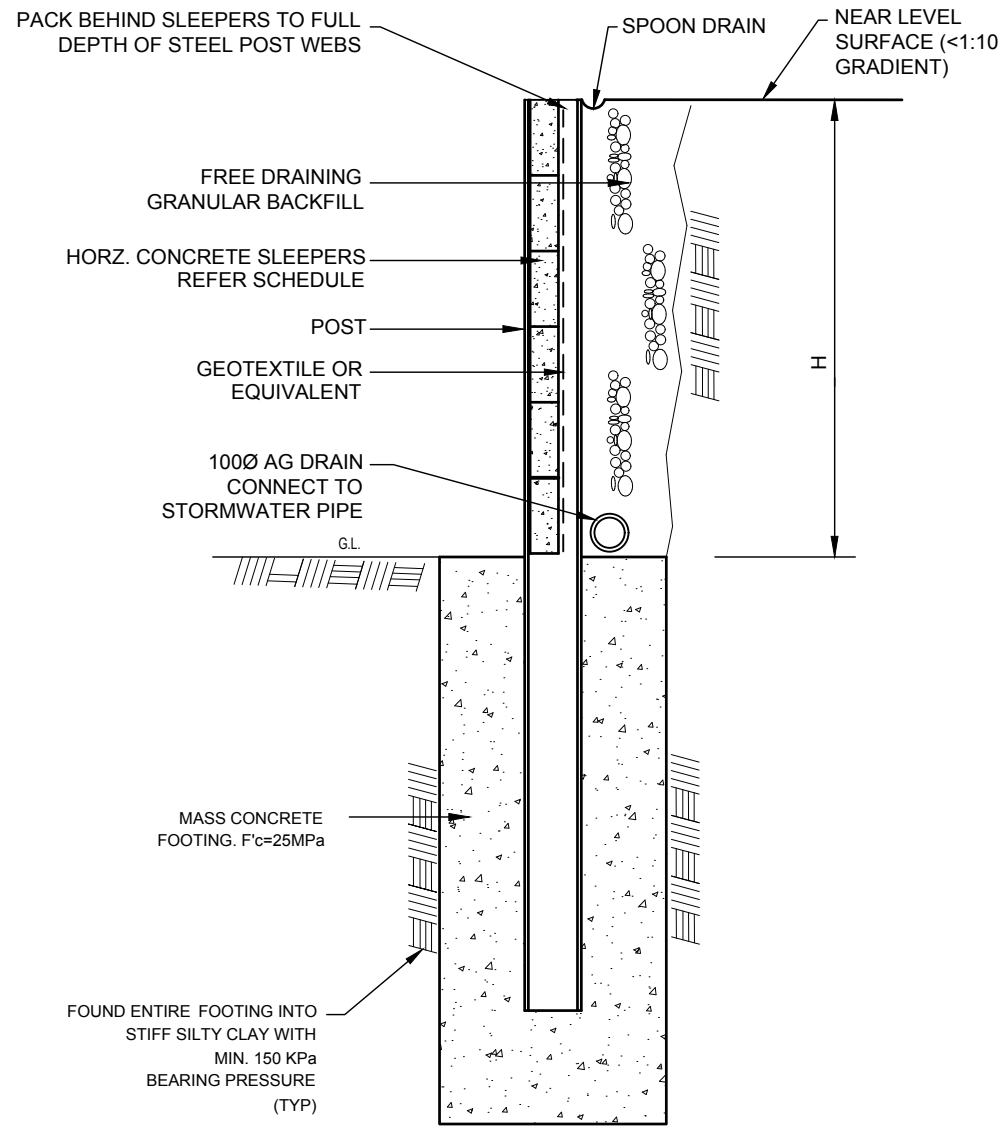
ABN 23 646 746 027

72 Officer S Rd,  
Officer VIC 3809

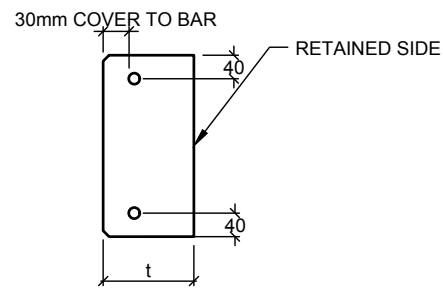
+61 410 818 242

[info@sunsetsleepers.com.au](mailto:info@sunsetsleepers.com.au)

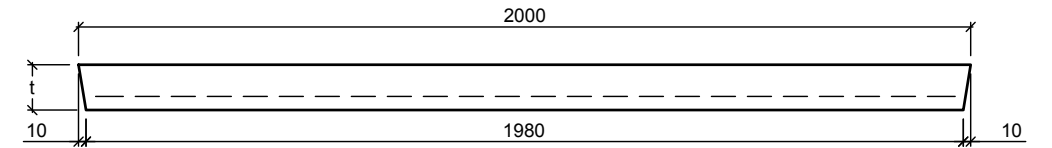
[www.SunsetSleepers.com.au](http://www.SunsetSleepers.com.au)



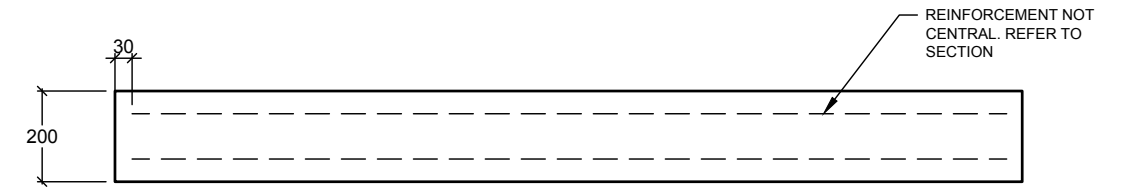
**TYPICAL SLEEPER RETAINING WALL DETAIL**



**SECTION VIEW**



**PLAN VIEW**



**ELEVATION VIEW**

REINFORCEMENT TYPES	
TYPE A	EITHER: 2/N12, 3N10, 2/12mm GFRP (60GPa) OR ALSO 2/N10 USING 60MPa CONCRETE
TYPE B	EITHER: 2/N10, 2/10mm GFRP (60GPa)

SLEEPER SIZE = 2000 LONG X 200mm DEEP				
WALL TYPE	THICKNESS (t)	REINFORCEMENT	SOIL RETAINED (H) 5KPa	SOIL RETAINED (H) 10KPa
2000-77-A	77mm	TYPE A	2.4m	2.2m
2000-100-A	100mm	TYPE A	3.5m	3.3m
2000-120-A	120mm	TYPE A	4.5m	4.3m
2000-77-B	77mm	TYPE B	1.6m	1.4m
2000-100-B	100mm	TYPE B	2.5m	2.3m
2000-120-B	120mm	TYPE B	3.5m	3.3m

ASSUMED SOIL PROPERTIES	
SOIL DENSITY (kN/m <sup>3</sup> )	18
Ka	0.35
INTERNAL FRICTION ANGLE	30 DEGREE

**SPECIFICATIONS:**

- SLEEPER CONCRETE GRADE TO BE N40. CASTING EACH SLEEPER REQUIRES RIGID FORMWORK AND CONCRETE COMPACTION IN ACCORDANCE WITH AS3600
- THESE SLEEPER WALLS SPECIFICATIONS ARE ONLY SUITABLE FOR USE WITH RETAINING WALLS WHICH SATISFY THE FOLLOWING CONDITIONS:
  - THE WALL IS NOT SUBJECT TO HEAVY SURCHARGE LOADS, THE SURCHARGE LOADS THAT INCLUDED IN THIS CALCULATION IS 5kPa or 10 kPa
  - THE FINAL SURFACE GRADIENT ABOVE THE WALL IS LEVEL OR ONLY SLIGHT (LESS THAN 1 VERTICAL RISE IN 10 HORIZONTAL)
  - THE WALLS BACKFILL IS FREE DRAINING CONSISTING OF SAND &/OR GRAVEL
  - ALL SUB-SURFACE WATER IS DRAINED BY MEANS OF AN AGRICULTURAL DRAIN, OR OTHER SUITABLE METHOD.
  - SLEEPERS ARE HANDLED WITH DUE CARE DURING TRANSPORTATION AND ERECTION
  - SLEEPER MINIMUM END BEARING LENGTH SHALL NOT BE LESS THAN 25mm EACH END

For more information visit  
**[sunsetsleepers.com.au](http://sunsetsleepers.com.au)**

72 Officer S Rd,  
OFFICER VIC 3809

Phone	0410 818 242
Email	<a href="mailto:info@sunsetsleepers.com.au">info@sunsetsleepers.com.au</a>
Facebook	<a href="https://facebook.com/sunsetsleepers">facebook.com/sunsetsleepers</a>
Web	<a href="http://www.sunsetsleepers.com.au">www.sunsetsleepers.com.au</a>

