



Prime Concrete Developments

"The Experts in Concrete Sleepers for Retaining Walls"



(07) 3293 0350
146 Potassium Street Narangba QLD 4504
www.primeconcretedevelopments.com.au

About Us

Prime Concrete Developments (PCD) was established on the 30th of November 2017. With over 40 years' experience within the concrete sleeper manufacturing industry. PCD sleepers are manufactured to the highest Australian standards and engineering specifications.

Our world class manufacturing processes, specifically designed concrete mix ensures that PCD surpass all necessary specifications required within the concrete sleeper industry.

Based in Narangba Brisbane Queensland, our highly structured processes along with our precisely designed moulds are engineered to improve product quality by minimising hair line fractures, increasing concrete strength which results in an outstanding finish with colour consistency in every concrete sleeper manufactured.

Embrace our commitment to industry revolution, establishing a new benchmark for the success of your projects.



PCD are the official major sponsor for the Maroochydore Swans Under 19's Men's rugby league team for 2024

Our Concrete Sleepers



Colour and size consistency

Manufacturing, supplying and installing Civil Development projects throughout Southeast Queensland with the highest quality concrete sleepers throughout the market today, with outstanding colour consistency, maximum concrete strength and minimisation of hairline fractures. Prime Concrete Developments has found the answers to the problems that have been plaguing the concrete sleeper industry for decades.



Structural strength and integrity of your retaining wall project

Deeply researched and cutting-edge manufacturing process gleaned from over 40 years of industry experience insight, our concrete sleepers surpass all specifications within the industry. Extensive quality assurance processes teamed with the highest standard product currently available on today's market results in a product that gives you and your client an unprecedented outcome that was previously unattainable.



Largest manufacturing facility in Australia

Our purpose-built facility ensures that our products are manufactured, stored and cured inside a temperature-controlled environment where we can produce up to 4,000 sleepers per day. PCD concrete sleepers are manufactured with the highest grade locally sourced raw materials. Our custom concrete mix designs reach 55-60 MPa, surpassing all Australian standards and maximizing strength with a 60-year design life.

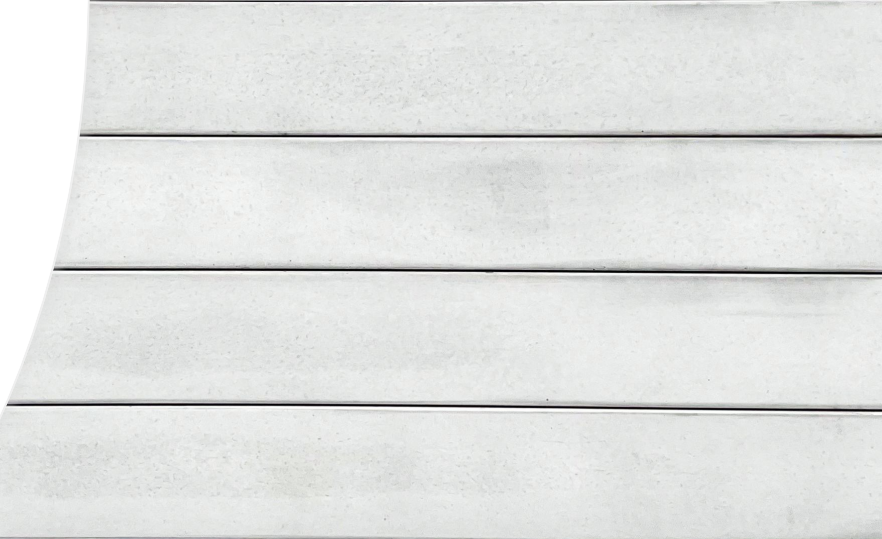
Grey Plain Smooth

Experience our most sought-after concrete sleeper. Ideal for projects of any size, its versatility ensures quality without compromise, setting it apart as a trusted option while not compromising on budget.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg

2.0m: 1991mm L x 200mm H x 75mm W – 70 kg

2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



Charcoal Plain Smooth

A sleek choice designed to highlight your project's coloring against a dark charcoal grey backdrop. This concrete sleeper effortlessly brings out the vibrancy of your space, ensuring a modern and captivating landscape design.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg
2.0m: 1991mm L x 200mm H x 75mm W – 70 kg
2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



Charcoal Timber Rustic

If you are after a natural contrast for your retaining wall, look no further than this concrete sleeper. Its textures and character tell a story of natural beauty, infusing your space with raw elegance of rustic charm.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg
2.0m: 1991mm L x 200mm H x 75mm W – 70 kg
2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



Charcoal Block Pattern

Elevate your space with sleek sophistication. Our Charcoal Block Pattern sleeper introduces a modern edge, combining a rich charcoal tone for any project, a truly refined outdoor experience.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg
2.0m: 1991mm L x 200mm H x 75mm W – 70 kg
2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



Sandstone Block Pattern

Drawing inspiration from the subtle tones of natural sandstone, this sleeper has a hypnotising eye-catching design that will transform your space and lift your landscaping colour scheme.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg
2.0m: 1991mm L x 200mm H x 75mm W – 70 kg
2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



Optimum Sealed Onyx Block Pattern

Our Optimum Sealed finish adds modern flair and a stunning dark character with an elegant shine, elevating your space while enriching and complimenting landscape surroundings.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg
2.0m: 1991mm L x 200mm H x 75mm W – 70 kg
2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



Optimum Sealed Onyx Timber Rustic

PCD have crafted a masterpiece with a dark Onyx allure, an Optimum Sealed sunlit shine, and a classic timber rustic pattern that redefines and embraces its natural surroundings.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg
2.0m: 1991mm L x 200mm H x 75mm W – 70 kg
2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



Optimum Sealed Heritage Timber Rustic

A delicate grey with glimpses of rich timber tones with a radiant Optimum Sealed shine. This stunning concrete sleeper will enhance your retaining wall project to the next level.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg
2.0m: 1991mm L x 200mm H x 75mm W – 70 kg
2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



Optimum Sealed Oakey Brown Timber Rustic

Immerse your space in the timber rustic rich brown, this Optimum Sealed concrete sleeper is for anyone looking for that natural but fresh look.

1.6m: 1591mm L x 200mm H x 75mm W – 60 kg
2.0m: 1991mm L x 200mm H x 75mm W – 70 kg
2.4m: 2391mm L x 200mm H x 75mm W – 80 kg



C Post PFC100

Available in full lengths starting from 800mm up to 3.6m.

Galvanised steel posts are used to hold concrete sleepers upright into position. C posts are used for the ends of the retaining wall or 2 x C posts are used to create a corner post.



H Post UC100

Available in full lengths starting from 800mm up to 3.6m.

Galvanised steel posts are used to hold concrete sleepers upright into position. H posts are used for straight joins to connect a sleeper on both sides of the retaining wall.



Fence Brackets

Includes nuts/bolts

3mm – used for colourbond fences

6mm – used for timber fences

Galvanised fence brackets are bolted onto our galvanized steel posts, this will allow your fence to attach directly on top of your retaining wall.



C Post PFC 150 H Post UC 150 H Post UB 200, 250

All PCD steel posts are sold to meet Australian Certified Standards.

Our posts are all full length and hot dipped galvanized. These large posts are used for engineered projects.



UV Retaining Wall Caps

C Section

H Section

Left 90 Degree Corner

Right 90 Degree Corner

*UV Stabilised caps are suited to
100mm steel posts*



Spray Paints

Dy-Mark

Blue Spray & Mark 350g

Ideal for concrete, bitumen, steel and timber

Metal Pro Silver Gal 350g

Ideal for steel touch ups and iron

Metal Pro Etch Primer Grey 325g

Etches and bonds to metals – used prior to changing post colours



Concrete Sleeper Retaining Wall Wedges

100 in each pack

Our heavy-duty wedges have been specially designed for concrete sleepers.

Place a wedge behind each concrete sleeper on both sides to push them forward for that ultra flush finish to your retaining wall.



Geo textile fabric

1m x 50m roll

2m x 50m roll

Ideally suited to subsoil drainage systems used to remove water from damp areas behind retaining walls.



Agi Drain Coil Pipe (slotted)

20m x 100mm socked

50m x 100mm unsocked

Agi pipes are used behind retaining walls. One of the biggest causes of retaining wall failure is poor, inadequate and clogged drainage systems.



Concrete Sleeper Grabber

Grip range 0-105mm

Lifting capacity – 750 kgs

Dimensions – 630 x 398 x 180

Weight – 25kgs

Auto locks and unlocks

Vulcanised rubber pads



Accessories

Elevate your construction experience with retaining wall accessories from Prime Concrete Developments. From Agi slotted drain coil pipes to fence brackets for colour bond or timber fencing, our Concrete Sleeper Accessories ensure durability for residential, commercial, or civil retaining wall projects of all sizes.



Our steel posts are hot-dipped galvanised and are sold in full lengths, offering versatility we stock both C (PFC 100) and H (UC 100) posts. Our steel posts are compliant to the Australian Standards ensuring your project is not compromised in strength and durability. Our 100UC and 100PFC starting size at 800mm and convenient 400mm increments up to 3.6 metre, they provide unmatched convenience flexibility for your construction projects. We also stock larger posts starting from 3.6 metre to 5.8 metre in 150mm, 200mm, 250mm dimensions.



Frequently asked questions

1. How heavy are PCD concrete sleepers?

1.6m – 60kgs; 2.0m – 70kgs; 2.4m – 80kgs

2. What spacing should be used for setting steel posts?

1.6 metre sleepers are 1.6 metre spacing. 2.0 metre sleepers are 2.0 metre spacing. 2.4 metre sleepers are 2.4 metre spacing. If you are placing a colour-bond or timber fence on top of the retaining wall you will need an extra 10mm on each side to allow space for the fence bracket, M12 hex nut and bolt.

3. What size post length should I use for a retaining wall over 1 metre high?

For all walls over 1 metre you must engage a Structural Engineer and organize development approval from your local council. In some cases, you may require approval from a Structural Engineer for retaining walls under 1 metre high pending on what the wall is retaining.

4. Other Regulations?

Additional regulations may also need to be considered, such as; Minimum distance to a neighbouring property; Planning scheme overlays (heritage, flood, acid sulphate soil etc) Water must diversion water to a neighbouring property; Minimum distance to easements, sewerage pipes and water mains; Minimum distances to bodies of water such as lakes, dams, creeks and rivers. In some cases, a retaining wall may be needed instead of a fence between properties. It is the responsibility of both homeowners to build the retaining wall according to Australian Standards.

5. How do I create a corner or angle post for a retaining wall?

You can use 2 x C posts to create corners and angles by placing them back-to-back, clamping them together and removing the clamp after the concrete has set.

In some cases, the corners will need to be tack welded depending on the weight of the retaining wall.

6. How long will the Optimum Seal last and what can I use to touch up concrete sleepers?

PCD Optimum Seal will last up to 5 years if they are looked after, to touch up the concrete sleepers you can purchase a clear solvent based acrylic sealer from your local hardware store or directly from PCD. Apply this sealer using a paint roller to roll over the top of your concrete sleepers.

7. What does 40MPa stand for?

MPa stands for megapascal which measure the compressive strength of the concrete. MPa is measured to understand how much pressure can be applied to the concrete without it cracking or failing. Simplified, MPa tells us the overall strength of the concrete. All PCD concrete sleepers reach 55-60 MPa which surpasses Australian standard of 40MPa.

8. What are reo bars?

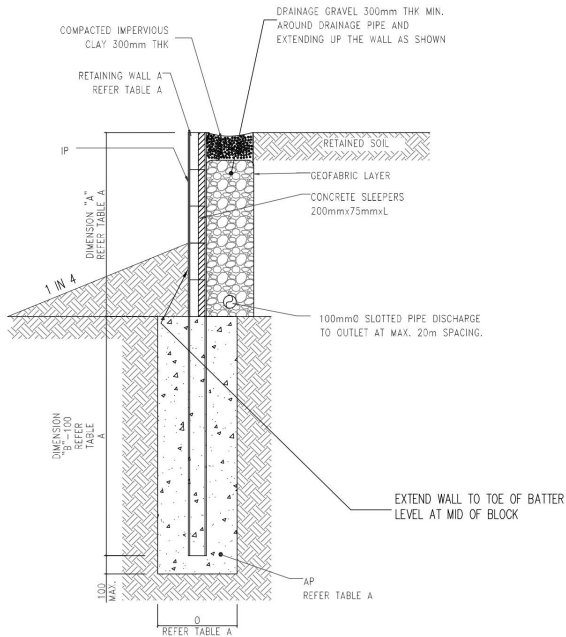
Reinforcement bars are placed inside each individual concrete sleeper for strength and flexibility. The Australian Standard is 2 x N12 reo bars inside of each sleeper. You will only require 3 reo bars if a Structural Engineer advises you to do so in their report.

9. What is the life span of PCD concrete sleepers?

PCD concrete sleepers have an approved 60-year design life if handled and correctly installed.

10. For drainage gravel, geo textile fabric and agi drain coil application. Please refer to our retaining wall installation guide.

Installation Guide

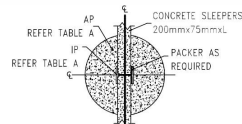


1 RETAINING WALL TYPE A TYP. SECTION
SCALE: NTS

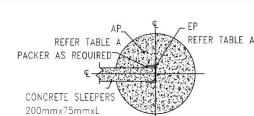
TABLE A							
POST/WALL HEIGHT 'A'	LENGTH OF SLEEPERS 'L'	INTERMEDIATE POST 'IP'	END POST 'EP' (FULL LENGTH)	POST C/C SPACING (MAX.)	POST EMBEDMENT DEPTH (MIN.)	AUGERED PIER 'AP' DIAMETER 'Ø'	PIER DEPTH 'B'
RETAINED SOIL-CLAY-INTERNAL FRICTION ANGLE (ϕ)=26°, COHESION(c')=2Kpa FOUNDATION SOIL-SANDY CLAY-INTERNAL FRICTION ANGLE (ϕ)=28° UNDRAINED COHESION(c_u)>75Kpa							
A-1. INTERMEDIATE POSTS(IP)							
3.40m	1.591m	250UB37.3	150PFC	1620mm	—	600mm	3.80m
3.20m	1.591m	250UB31.4	150PFC	1620mm	—	600mm	3.60m
3.00m	1.591m	250UB31.4	150PFC	1620mm	—	600mm	3.40m
2.80m	1.591m	200UB25.4	150PFC	1620mm	—	450mm	3.20m
2.60m	1.591m	200UB25.4	150PFC	1620mm	—	450mm	3.00m
2.40m	1.991m	150UC23.4	150PFC	2020mm	—	450mm	2.80m
2.20m	1.991m	150UC23.4	150PFC	2020mm	—	450mm	2.60m
2.00m	1.991m	150UC23.4	150PFC	2020mm	—	450mm	2.40m
1.80m	1.991m	150UC23.4	150PFC	2020mm	—	450mm	2.20m
1.60m	1.991m	100UC14.8	100PFC	2020mm	—	450mm	2.00m
1.40m	1.991m	100UC14.8	100PFC	2020mm	—	450mm	1.80m
1.20m	1.991m	100UC14.8	100PFC	2020mm	—	450mm	1.60m
1.00m	1.991m	100UC14.8	100PFC	2020mm	—	450mm	1.40m
0.80m	1.991m	100UC14.8	100PFC	2020mm	—	450mm	1.20m
0.60m	1.991m	100UC14.8	100PFC	2020mm	—	450mm	1.00m
0.40m	1.991m	100UC14.8	100PFC	2020mm	—	450mm	1.00m

NOTE:

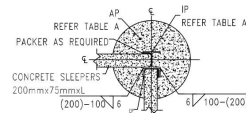
1. THE PIER DEPTH SHALL BE THE FIGURE IN THE TABLE ABOVE PLUS VERTICAL DROP WITHIN WALL HEIGHT DISTANCE IF THERE IS A BATTER AT THE TOE OF THE WALL.
2. THE PIER DEPTH SHALL BE WALL HEIGHT PLUS THE SERVICE PIPE DEPTH IF THERE IS SERVICES PIPES RUNNING AT THE TOE OF THE WALL WITHIN WALL HEIGHT DISTANCE.
3. PCD ADVISES THAT YOU SEEK ENGINEERING ADVICE PRIOR TO CONSTRUCTING ANY RETAINING WALL TYPE.



2 TYP. INTERMEDIATE POST DETAIL
SCALE: NTS



3 TYP. END POST DETAIL
SCALE: NTS



4 TYP. CORNER POST DETAIL
SCALE: NTS



5 CONCRETE SLEEPER DETAIL
SCALE: NTS