

HOW TO BUILD A RETAINING WALL

STEP
BY STEP
GUIDE
No. **14**

HOW TO BUILD A RETAINING WALL

14

EASY
TO FOLLOW
STEP BY STEP
GUIDE

COMPLETE
MATERIALS
CHECK
LIST

LIST
OF ALL
TOOLS
REQUIRED



REFER TO COUPON
ON BACK PAGE FOR
MORE INFORMATION
REGARDING THIS
AND OTHER
BOWENS PROJECTS

MATERIALS CHECK LIST

- Support Posts 125 to 150 mm diam. logs
90 x 90 mm H4 treated pine
200 x 75 mm sawn treated pine
- Horizontal 'wallers' 125 to 150 mm diam. logs
125 to 150 mm split logs
200 x 75 mm treated pine sleepers
- Fixing 'wallers' to posts 150 mm galvanised nails
200 mm spikes
- Concrete Dry concrete available in 40 kg bags

SIZES
QUOTED
TO BE USED
AS A GUIDE
ONLY

TOOLS REQUIRED

- Shovel
- Crow bar
- Level
- Hammer
- Power drill and bits
- Spirit level
- Measuring tape
- Hand saw
- Power saw
- String line

FOR SAFETY USE GOGGLES,
GLOVES AND DUST MASK.



Bowens THE BUILDERS CHOICE

- | | | | | |
|--|--|---|---|--|
| Croydon
352 Dorset Rd
Ph 9723 0394 | Hastings
Graydens Rd
Ph 5979 1267 | North Melbourne
135-173 Macaulay Rd
Ph 9328 1041 | Rowville
963 Stud Rd
Ph 9763 7522 | Prefabrication Plants |
| Epping
13 Scanlon Drive
Ph 9408 6566 | Laverton
163 Cherry Lane
Ph 9353 7700 | Oakleigh South
717 Warrigal Rd
Ph 9579 1188 | Shepparton
7 Wheeler St
Ph 5822 2364 | Dandenong
267 Hammond Rd
Ph 9792 2888 |
| Hallam
48-50 Hallam Sth Rd
Ph 9796 3088 | Mt Evelyn
26 York Rd
Ph 9736 2588 | Phillip Island
83-85 Settlement Rd
Ph 5952 5633 | Taylors Lakes
45 Melton Hwy
Ph 9390 8899 | Hastings
Graydens Road
Ph 5979 2223 |
| | | | | Morwell
8 Jones Road
Ph 5135 6781 |

Proprietor: BOWEN & POMEROY Pty Ltd ABN 78 004 174 887 Reg. Office: 48-50 Hallam South Road, HALLAM 3803

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feedback@bowens.com.au

CALL TOLL FREE
1 800 333 162
OR RETURN THIS COUPON TO:
**BOWENS TIMBER AND
BUILDING SUPPLIES**
P.O. BOX 1377, VESPER DRIVE,
NARRE WARREN 3805

14 NAME:
ADDRESS:
POSTCODE: PHONE:

PLEASE SEND ME THE INFORMATION I HAVE MARKED HERE

<input type="checkbox"/> 1 Timber Deck	<input type="checkbox"/> 8 Work Bench
<input type="checkbox"/> 2 Pergola	<input type="checkbox"/> 9 Timber Steps
<input type="checkbox"/> 3 Timber Fence	<input type="checkbox"/> 10 Timber Shelving
<input type="checkbox"/> 4 Feature Wall	<input type="checkbox"/> 11 Timber Gates
<input type="checkbox"/> 5 Carport	<input type="checkbox"/> 12 Handrail
<input type="checkbox"/> 6 Gazebo	<input type="checkbox"/> 13 Privacy Fence
<input type="checkbox"/> 7 Cubby House	<input type="checkbox"/> 14 Retaining Wall

IMPORTANT: This project sheet has been produced to give basic information and our helpful staff are available to answer any questions you may have. However, the use of this information is on the understanding that Bowens (including it's author, servants and owners) disclaim all and any liability for any damages or other amounts found to be recoverable in relation to such information, even when given negligently or attributable directly or consequentially upon any act or omission by or on behalf of Bowens. The user is advised to contract a qualified tradesman, when expert information or services are required.
WARNING: Always check with your council authority regarding by-laws or regulations which may be applicable to this project.

Bowens THE BUILDERS CHOICE

HELPING YOU BUILD IT BETTER! HELPING YOU BUILD IT BETTER!

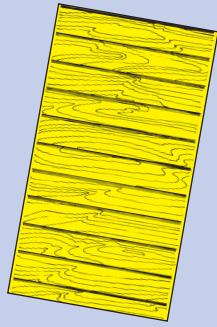
HOW TO BUILD TREATED PINE RETAINING WALL

USING THESE EASY TO UNDERSTAND BOWENS PROJECT INSTRUCTIONS

HOW TO BUILD A DECORATIVE GARDEN WALL

Important Notice:

This brochure provides guidelines for building decorative **non-structural** walls only.



Planning

Bowens can help you plan and build decorative walls and garden beds that are not only natural and good looking, but tough and long-lasting as well.

It is a good idea to sit down and plan exactly how you want your garden to look before starting to build retaining walls and garden beds. If possible, draw up a plan of the area, and use this to mark out the number, location and size of the walls you intend to build. For example, it may well give a better effect to build a series of low terraces rather than one large wall; (it may also cost less).

Bowens can help you with information on local council requirements and assist you to work out the materials required.

Bowens recommends that you contact your local council authority before commencing your project.

Selection of Materials

The full range of Perma-Log, logs and formed logs are suitable for the construction of decorative garden walls.



LOG



SPLIT



SAWN SECTION

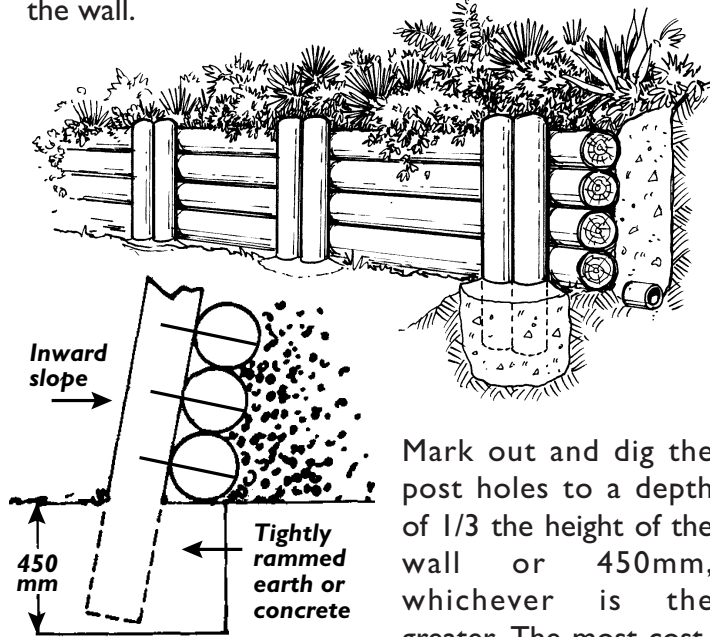
In addition to full rounds the wall can be built with a range of different rails.

For a cantilever wall, it is well worth considering the use of sawn sections; their uniform thickness and flat sides make them easy to use, and gives the wall an even, level appearance.

For palisade walls, the use of sawn sections may well be worthwhile for the same reasons. For those who desire a more traditional look, double-peeled logs and splits will give this effect.

Cantilever Walls

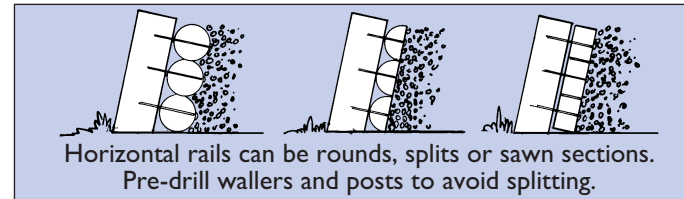
Construction of a cantilever wall involves the embedment of a series of posts in the ground: these are then backfilled with concrete or tightly rammed earth ready to act as supports for the horizontal members (known as 'wallers') which form the face of the wall.



Mark out and dig the post holes to a depth of 1/3 the height of the wall or 450mm, whichever is the greater. The most cost-effective wall is one based on 2.4m post spacings; if this does not fit in with the overall length of your wall, place shorter panels at either end, where they are less conspicuous.

Stand the posts with uncut end at bottom (for non structural walls, 100 x 100mm sawn treated pine slabs or 125-150mm diameter logs are sufficient), and backfill with concrete or tightly rammed earth. Seal all cut ends with 'Endseal' or similar sealing compound. It is a good idea to set the posts with a 2-3 degree inward slope to allow for any movement when the fill is placed behind the wall. If sawn sections are used as wallers, simply start at the bottom, placing sawn sections in position, and adding fill as you go: the fill will hold the sawn sections in place. If double peeled logs are used, they may need fixing to the posts to stop them rolling away until the fill is added. For very low walls or gardens, it is possible to place the wallers outside the posts, but in this case all wallers will need fixing to the posts. It is also possible to use splits or sawn sections as posts and wallers in very small walls or garden beds.

When you have decided where you want to place your wall or garden bed, check to make sure that it won't interfere with existing plumbing, drainage or electrical



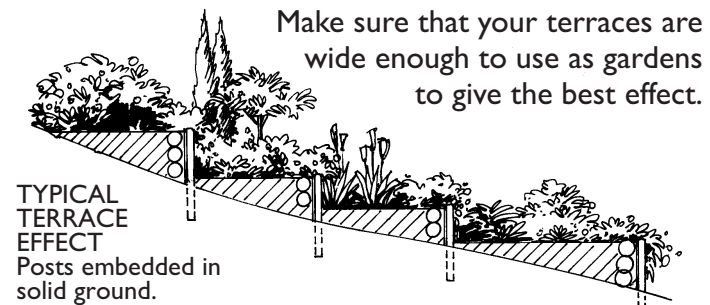
Horizontal rails can be rounds, splits or sawn sections. Pre-drill wallers and posts to avoid splitting.

Terracing

The most effective terracing is simply a series of small cantilever walls designed to transform a slope into a series of steps or terraces. It may well be that this method will create a more pleasing effect than building one large wall at the bottom of the slope to create a single flat area. It will certainly be easier to construct, and may well also be less expensive.

Decide on the number and position of the terraces you require (the steeper the slope, the closer together the terraces will be.)

Then proceed on to follow the same procedure as outlined for cantilever walls making sure that the posts are always embedded in solid ground (not fill).

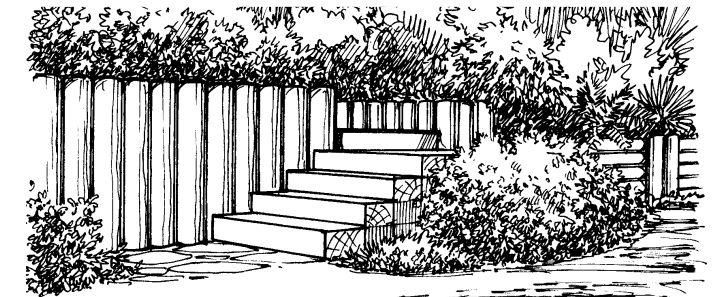


TYPICAL TERRACE EFFECT
Posts embedded in solid ground.

Make sure that your terraces are wide enough to use as gardens to give the best effect.

Palisade Walls

Ideal for curving walls and free-form garden beds, the palisade wall simply involves digging a relatively shallow trench in which to stand a row of logs (splits or sawn sections will do as well); the trench is then backfilled with concrete or tightly rammed earth and the job is complete.



For best results install the palisade with an inward slope of 2 to 3 degrees.

For a normal garden bed, dig the trench about 200mm wide, and to a depth of about 1/3 the above-ground height of the wall. Make bends gradual to avoid the possibility of gaps in the wall.



Tops of the palisade can be cut off at varying heights if desired.

Perma-Log™ range of treated products are produced from a renewable resource... Plantation Pine, grown in well managed forests on a sustainable yield basis. The preservative treatment provides long-term protection against termite and fungal attack. Treated Pine is treated for specific applications as indicated in table below ...

The 'H' level	The Use	The Hazard
H1	flooring, moulding, furniture, framing, lining	BORERS (inside use)
H2	flooring, framing	BORERS TERMITES (inside use)
H3	cladding, fence rails, outdoor furniture, pailings, decking, external joinery	BORERS TERMITES MODERATE DECAY (outside above ground)
H4	stakes, posts, marker pegs landscaping materials pergola frames in ground retaining walls	BORERS TERMITES HIGH DECAY (outside in/on the ground, non-critical end use, low replacement cost)
H5	poles, building foundations, land piles, plywood foundations	BORERS TERMITES HIGH DECAY (outside in/on the ground, non-critical end use, high replacement cost)
H6	marine piles, oysters stakes, fresh water piles, cooling tower fill	MARINE BORERS VERY HIGH DECAY (in contact with water)

Additional information is listed in the Safety Data Sheet for this product.

CSR Softwoods (ACN 007 541 460) Level 6, 9 Help Street, Chatswood, NSW 2067. Ph: 02 372 5777

WARNING

AUSTRALIAN PLANTATION PINE PRESSURE TREATED WITH COPPER CHROME ARSENATE (CCA)

- Risk:** Exposure to the dust from this product is irritating to the eyes, skin and respiratory system. May cause sensitisation by inhalation (asthma) and skin contact (allergic dermatitis).
Repeated inhalation of the dust may cause cancer.
- Safety:** Avoid repeated or prolonged contact with skin.
Avoid contact with eyes.
Avoid breathing dust. Work areas should be kept clean.
Sawing, sanding and routing equipment should be fitted with dust extractors such that dust levels are kept low as practicable and at least below standards laid down by Worksafe Australia for wood dust, copper, chrome and arsenic. Clean up by vacuum cleaning (not by sweeping or compressed air).
Wear suitable protective clothing including eye (AS/NZS 1337) and respiratory (AS 2161) and protective clothing (AS 3765.1) when handling freshly treated timber or machining treated timber.
Wash hands thoroughly with mild soap and water after handling treated timber. Wash work clothes regularly and separately from other clothes.
- First Aid:** Irrigate eyes with plenty of water.
Wash skin with soap and water.
- Disposal:** Follow above safety instructions, and note that disposal of CCA treated timber and its dust and shavings should be by burial. Collect in containers for disposal as trade waste in accordance with local authority guidelines. DO NOT BURN IT.
- Fire:** Wood dust can form an explosive mixture in air.
Earth all exhaust equipment and prevent high dust concentrations in confined spaces.



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