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CENTENARY LANDSCAPING SUPPLIES

Do it Yourself Landscape Guide

How to Lay Pavers

This guide has been written and compiled for the home handyperson. Following these instructions will help you achieve an excellent result that you will be proud of. However, if you really want a professional finish, then we suggest you contract a professional paver layer or landscaper to do your job for you. The method followed in

this guide is used by the majority of professional landscapers. However, they would have their own small individual variations. So this really is a professional method and one you can be confident with. But please understand there are other methods, like "wet lay", which we suggest you leave to a professional.

Step 1 Choosing the Pavers and Areas to be Paved.

Pavers can be used in all those places around your home when you want a hard stand finish like driveways, paths, steps, drying areas, and pergolas. A visit to Centenary Landscaping Supplies will help you choose from the 153 different style of pavers. You will get helpful advice and see for yourself what pavers look like laid, and on large display boards, along with the interesting landscape features.

When you buy your pavers from us, you will receive our famous

PAVING BONUS PACK

When you purchase 20m² or more of pavers you'll receive..

- 1 * A DELIVERY GIFT VOUCHER for delivery of your Road Base and Bedding Sand only. (Not for paver deliveries).
 - 1st Quality Pavers - \$21 Voucher
 - 2nd Quality Pavers - \$17 Voucher
- 2 * With 30m² of 1st Pavers - FREE Bag of Gap Sand
 - With 20m² of 2^{nds} Pavers - FREE Bag of Joint Filling Sand
- 3 * DISCOUNT per m³ on Retail price of Bedding Sand & Road Base.
 - 1st Quality Pavers - 15% Discount
 - 2nd Quality Pavers - 10% Discount
- 4 * NO PALLET DEPOSIT TO PAY because we know it takes some time to get your money back. When you have empty pallets, a quick call to us will arrange their removal.



The One Stop Paving Shop Display



PGH Rustic Gold in your Pergola

Step 2 CALCULATING AREAS FOR PAVING

Most areas are one or another (or a combination) of three basic shapes: rectangles (including squares), triangles and circles.

The area of a rectangle (or a square) = length x width.
For example: an area 10m long and 5m wide = 10 x 5m = 50m² (square metres)

The area of a triangle is half the width of the base x height.
For example: a triangle with a base 20m wide and a height of 8m = 10m x 8m = 80m².

The area of a circle = πr² OR multiply the radius by itself and multiply the result by 3.14. (The radius is half the diameter).
For example: a circle with a diameter of 10m (and therefore, a radius of 5m) = 5 x 5 x 3.14 = 78.5m².

IMPORTANT: Because it is very expensive to return unused pavers, be careful to measure accurately.

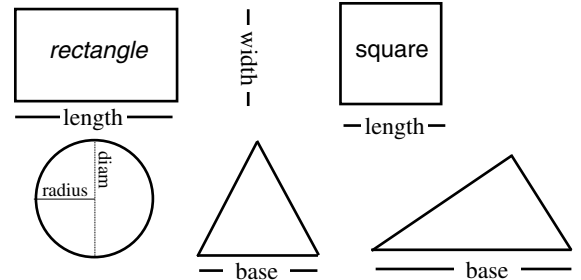
Step 3 HOW MUCH MATERIAL WILL YOU NEED and THE TOOLS

MATERIALS

- Road Base Area m² x .1 = Vol. m³ and add extra so the compacted road base is wider than the area to be paved by approx. 100mm.
- Bedding Sand Area m² x .05 = Vol m³ to nearest 1/2m³ for wastage.
- Concrete Blend 1m³ will build approx. 200m of restraint.
 - _____m x .005 = _____m³ of Concrete Blend (length of restraint)
- Paver Joint Fill Sand (Standard) - 1 40kg bag per 12m² of area
- Gap Fill Sand with silicone - 1 30kg bag per 10m² of area
- Cement 1 or 2 bags for restraining edge
 - _____m³ x 6 = _____ Bags of Cement (concrete blend)

TOOLS

- 2 Screed Rails 40mm x 25mm x 3m long.
- Screed Board (hire).
- Spirit Level.
- Rubber mallet.
- Piece of timber 100mm x 75mm x 500mm.
- Strong line level.
- Broom
- Club Hammer
- Cutting equipment - brick bolster/paver splitter/masonry saw.
- Plate vibrator/compacter
- String line and 8 pegs
- Edge restraints either concrete or timber.
- Wheel barrow.
- Shovel.
- Rake.
- Wooden float.
- Carton XXXX or a bottle of wine. and an Iced Vo Vo.



Step 4 SITE PREPARATION

Time spent in preparing the site will be well rewarded in the long run. Your paving will be only as good as its foundation. The base must be firm. Hollow and low areas must be filled and compacted using a plate compactor. Excavate the area to be paved to the depth of the paver plus approximately 30mm to 50mm for bedding sand. Be sure to allow a fall for draining. Set all string lines first to establish a level starting point, then adjust for drainage falls as shown below. It's a good idea to get a 'bobcat' in (approx. \$65/hr) to prepare the site for you, particularly if it is a driveway or large pergola.

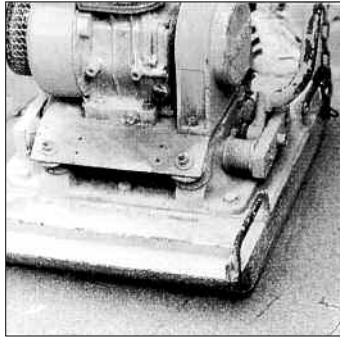
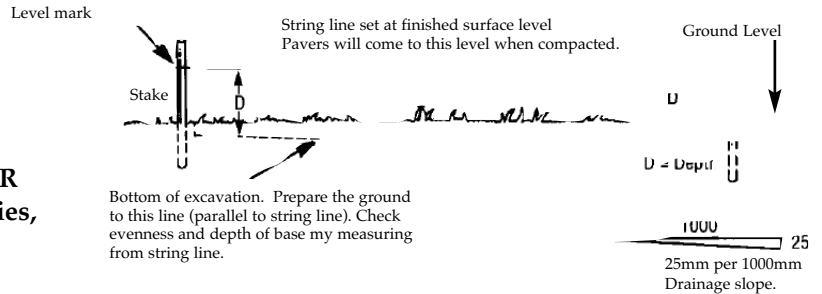


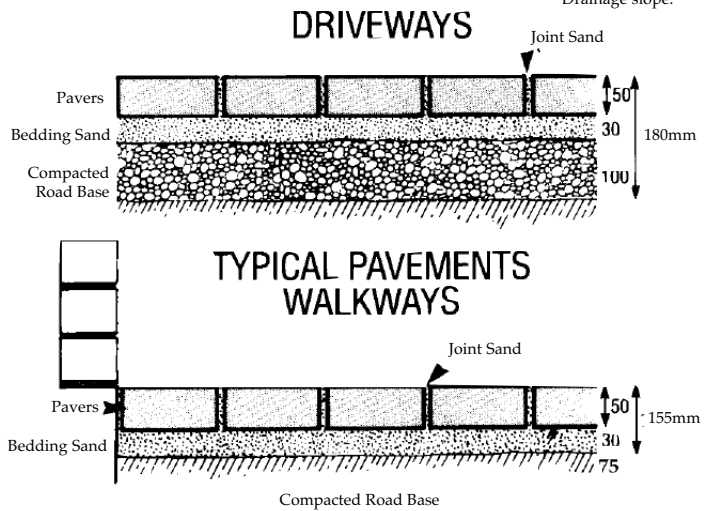
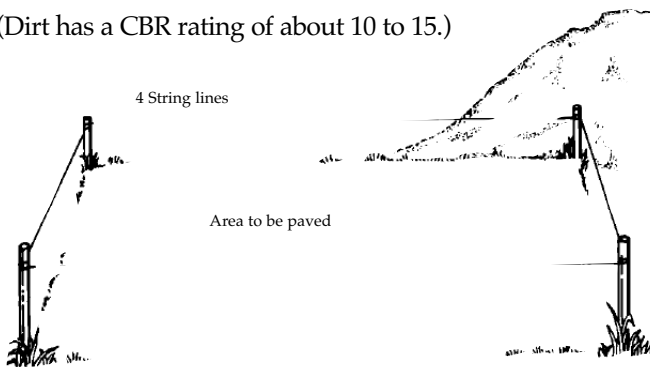
Plate compactor

Slope paving away from house of building and allow for final paving surface to be below any damp-proof course.



IMPORTANT Use a quality Road Base with a CBR rating of 35+, from Centenary Landscaping Supplies, in all paved areas. You don't want your pavers to move so compact road base to a depth of at least 100mm in driveways and 50mm to 75mm in walkways using a plate compactor.

(Dirt has a CBR rating of about 10 to 15.)

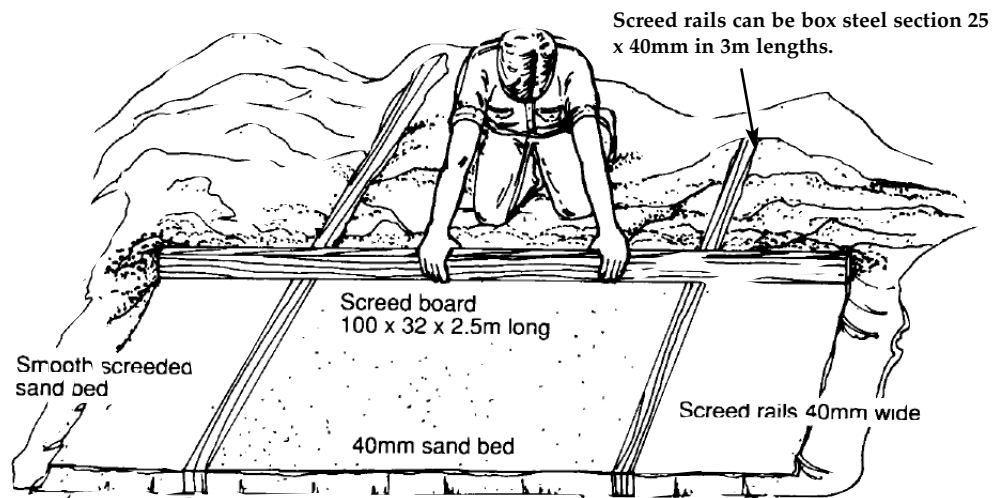


Step 5 SPREAD BEDDING SAND

Place bedding sand and spread evenly over area to be paved to a depth of 50mm allowing 8mm for settlement on compaction. Spread with a rake. Don't try to compact the sand as it does not compact in a loose state.. Compaction comes later. Set string lines to desired levels and set screed rails accordingly.



Using a screed board, spread the bedding sand to required levels.



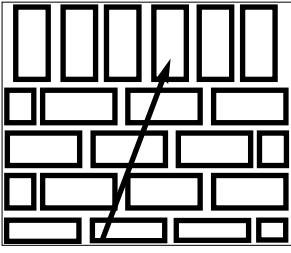
2 screed rails - box steel about 3m long and 2 to 3m apart, depending on length of screed board

Compacted Road Base goes out at least 100mm beyond paved area.

To be taken out after screeding and fill with sand. Use a wooden float to level sand again

Step 6 LAYING THE PAVERS

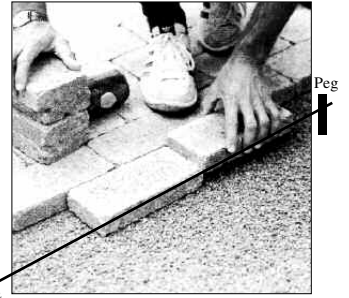
Work to the pattern you have chosen (see back page) by building it forward in rows. As you lay each paver, do it carefully so the even bed of sand is not disturbed. Lower each paver against the face of its neighbour. This is called butt-jointing but will actually leave a small gap between the pavers. This gap will be needed as you will see later.



Header course

As you work you can stand or sit on the pavers you have already laid. But avoid putting any weight on the leading row of pavers as they can tilt or slip and ruin your even bed of sand. It's also a good idea to walk on a few pieces of 3ply board measuring approx. 500mm ².

This is the time to include the header or soldier course in the design of your pavers. We think it is important, as it both looks professional and helps you start with a good straight line. Running a string line for every metre of pavers laid will help you keep your job nice and straight. The idea is to adjust the pavers each metre to prevent bows from developing.



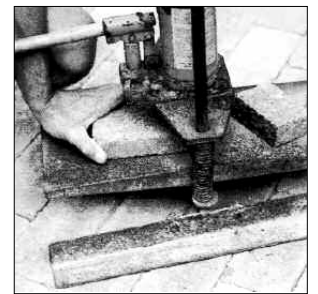
Laying the pavers and string line

Step 7 CUTTING PAVERS

As you work you will find you will have spaces too small for a whole paver. To fill these holes you'll need to cut a paver to size. Just measure and make the required cuts on the paver itself. Then you can make the required cuts by using a brick bolster, paver splitter or masonry saw. These can be hired for the afternoon from your local hire store. The cut piece should fit neatly, leaving a small gap all around just like the full paving units.

Remember to wear safety glasses.

See Back page for use of bolster and club hammer.



Using a hydraulic paver splitter

(Centenary Hire, Darra have a cutting service available. Please phone 3375 5068 for details.

Step 8 PLACING EDGE RESTRAINTS (see back page)

The edge restraint locks in the pavers at the edge. Without a restraint these edge pavers could loosen and slip out of position. Of the several different ways to build an edge restraint, one of the simplest is the hidden concrete kerb.

Dig a trench along the paving edge. It must be deeper than the bedding sand into the road-base. Concrete is then shovelled in place and formed against the pavers allowing sufficient space for soil and turf. When it dries, you will be able to cover this kerb with soil and plant grass right up to the paving edge. Make sure the concrete **does not** go under the pavers as it will prevent compaction in the next step. Be careful not to get concrete on the surface of your pavers as it is almost impossible to remove. If you do, sponge off quickly.

Also leave the edge restraint to go hard overnight before compacting.



Concrete edge restraint using wooden float

Step 9 JOINT FILLING & COMPACTING

The best way to lock the paving in place is with a plate vibrator or compacter machine which compacts the bedding sand. However for small areas, manual compacting using a rubber mallet, a good piece of hardwood and a bit of sweat will achieve the desired results.



For small areas

Before you start compacting, spread some joint filling sand or gap sand over the pavers. This helps the plate slide easily and minimises any scratching. You'll actually be doing 3 things. First you're compacting the sand into a firm bed for your pavers and secondly, the vibration forces sand up into the gaps between the pavers, locking them in so they won't shift. Thirdly, the gap or joint filling sand will go down in between the pavers to further block them up. This also achieves the gap between pavers required by the manufacturers.



Plate compactor with rubber mat attached.

Step 10 FINAL SWEEPING OF JOINT FILL SAND

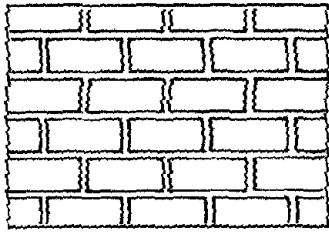
With the compaction completed, sweep some more joint filling sand or gap sand across the paving and work it into the gaps as you go. Then finally sweep the excess sand off the paved area. You may now want to give it a light hosing down.

Sweeping in joint filling sand

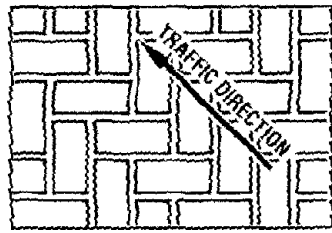


SOME HELPFUL ADVICE AND ISSUES

PATTERN

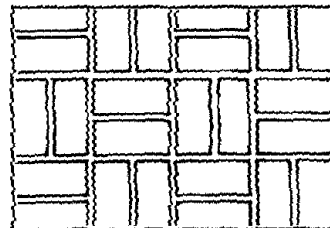


Stretcher Bond

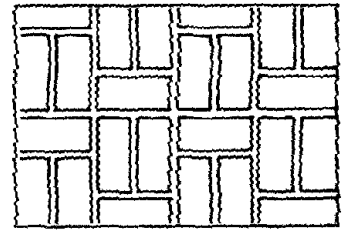


Herringbone

(Best suited to Driveways)



Basket Weave

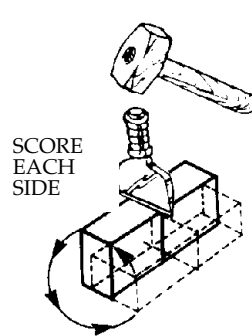


Variation of Basket Weave

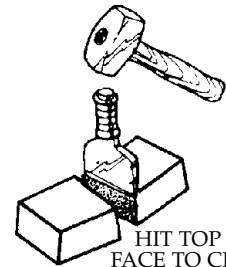
CUTTING WITH BOLSTER AND CLUB HAMMER

Use a sharp bolster and a heavy club hammer. Some very hard clay and concrete pavers will not cut readily using this method.

- Mark the cut line with a felt pen or pencil.
- Place the paver on a thick pad of sand.
- Line up bolster on the top face of the paver and hit it with the club hammer to score the face.
- Repeat this for the other three sides.
- Place the bolster over the score mark on the top face of the paver and hit it firmly with the bolster to crack the paver.
- Clean up the cut face by using coarse sandpaper or a masonry disk on your drill.
- This process may have to be repeated a number of times to get the final piece you want.



SCORE EACH SIDE



HIT TOP FACE TO CRACK AND CLEAN UP. BEST SIDE, WITH COARSE SANDPAPER OR A MASONRY DISK ON YOUR DRILL.

MORTARING BETWEEN PAVERS

If you require a mortar joint between your pavers then we suggest you leave this process to a professional. The reason is that once you start spreading mortar over the pavers and between them, it is highly likely the cement will suck into the surface of the pavers thus destroying your total investment. It really is soul destroying if this happens.

Please be careful listening to friends who tell you to simply spread a dry mortar mix over the surface of your pavers and wash it in hosing at a sharp angle. By using this process you are not producing any effective mortar and you are very likely to once again stain the pavers with the cement powder.

If ants and weeds are a concern to you then we simply suggest you now use the silicone based Gap Sand. It gets quite hard between the pavers preventing weeds and ants.

MOISTURE UNDER PAVERS

It is important that you use surface and subsurface drains to ensure that there can be no moisture build-up under the pavers. Moisture and subsurface seepage can weaken even the best road base and cause subsidence.

CLEANING PAVERS

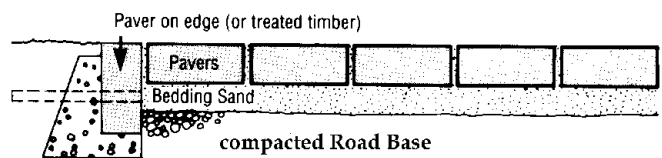
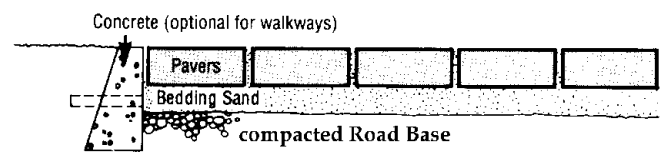
Avoid using acids on the pavement as this could result in unsightly staining and affect the stability of cementitious material used in the pavement. If efflorescence (a white powder) appears on the surface of your pavers, just brush or mop it off, as hosing will only aggravate the situation as

the salts dissolve and go back into the paver only to reappear the next day. It will eventually disappear anyway over time. Any other problems, please contact us or the paver manufacturer.

DRIVEWAYS

This method of laying pavers is designed for light vehicular use. Avoid heavy vehicles such as tipper, removal or concrete trucks travelling over your pavers. (Note: Heavy vehicular use is subject to special design.)

Model of Edge Restraints



DISCLAIMER

The contents of this publication are intended for general guidance only. Specifications are subject to change without notice. Centenary Landscaping Supplies cannot accept any liability whatsoever in respect to the content of this publication or the work performed using these methods. If you are unsure always seek the advise of a professional.



When you want it today and on time!

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Sun & Pub Hols 8am - 4.30pm

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