

10-Step Guide to Installing Pavers

Whether you plan to install brick, concrete or stone pavers, the following paver installation steps should help. Even if you plan to have your pavers professionally installed it is a good idea to be familiar with the process.

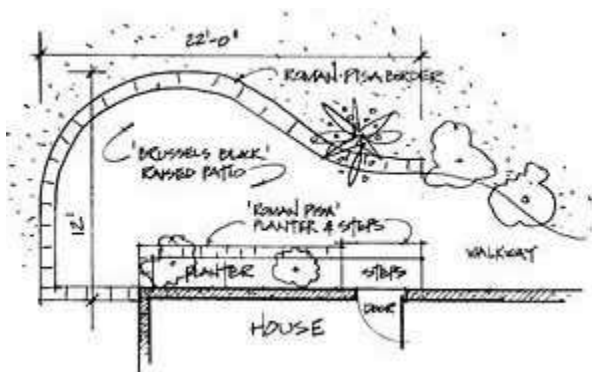
The following 10-steps will each be discussed in detail:

1. Planning and Layout
2. Calculating Amount of Pavers Needed
3. Excavation
4. Base Material
5. Edge Restraints
6. Sand Bedding
7. Laying Pavers
8. Sand Joints
9. Sealing
10. Maintenance

1. Planning and Layout

Planning the area to be paved is your first step. Decide where your pavers will go and determine if there is enough space for them. Your plan can be drawn out and measured using graph paper.

Lay out your planned area using a hose or some wood to form the outline of your paved area. Next, mark or spray paint the outline, approximately eight inches outside that outline.



Remember that the area needs to have gradient or slope, so water can run off the pavers to prevent pooling or ponding that can damage the pavement over the long term.

2. Calculating Amount of Pavers Needed

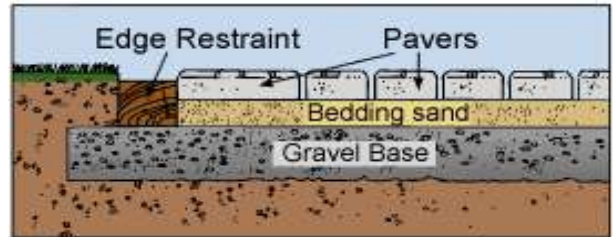
First measure the width and the length of the area to be paved. Then multiply the width by the length. The result gives you the square footage of the area to be paved.

You should always add 5% to this figure, to allow for the pavers that will be cut to fit curves and odd spaces. If you know that you will be cutting a lot of pavers, you should add 10%.

The square footage of the area to be paved should then be multiplied by the paver coverage rate which can be obtained from your supplier. This rate varies with the size and shape of the paver to be used

3. Excavation

Establish the height that the pavers should reach and not exceed.



Remember: the slab should slope downwards away from the house, to allow water drainage. Every 4 feet, you should slope down one inch.

Place stakes around the parameter and mark stakes with the slope decline.

Place a string tightly on the stakes, to indicate the height level to follow.

Calculate the total depth of excavation needed. Do this by adding together the inches required for the base (4 to 6 inches) the sand bedding (1 inch) and the paver's thickness. This gives you the total depth needed to excavate. Dig out to the indicated depth, level and compact the ground with a compacting machine.

Once excavation is completed it is recommended to establish a temporary boarder for rectangular areas with 2 x materials set at the correct height and slope.

4. Base Material

Once the excavation is complete, the next step is the laying of the base material.

The base material usually consists of crushed rock, such as 3/4 minus gravel. The crushed rock has varying sized stones with sharp edges. The sharp edges and size variance makes for easy compaction. Using crushed gravel that has a little moisture in it, makes compacting much easier.



The base material should be laid to a thickness suitable for the planned use which depends on the sub-base material and the weight to be placed upon the paved area. If your sub-base is soft clay, then a thicker layer will be required. If the pavers are to be driven on, a

thicker layer will be needed than that for a patio. Check with your supplier for recommendations.

Spread the crushed gravel over the area in an even layer. It is suggested that you divide it into three smaller layers, and compact in between each layer, for best results. Once it's spread evenly, use a plate compactor to go over the area several times. Make sure the compacted gravel is level, sloped and to grade with your established height.

5. Edge Restraints

Edging is essential in the maintenance of your paved area. If edge restraints are not installed, your pavers will move and separate. Harsh weather and high traffic usage, along with no edge restraints, will ruin your paved surface. Edge restraints can be made of plastic, pre-cast concrete, metal or wood.



6. Sand Bedding

Before laying the pavers, a layer of bedding sand is placed over the compacted base material. This layer provides a bed into which the pavers are set. The sand bedding also helps to protect the sand joints from being eroded away.

Lay down one inch diameter PVC pipe across the base material. Next spread a layer of sand between one and one and a half inches thick. Now, use a 2 x 4 to screed across the sand so the PVC piping is visible. Carefully remove the PVC pipe. This process ensures a uniform layer of sand one inch thick.



Your material supplier can provide advice on the appropriate type of sand that should be used for bedding purposes.

7. Laying Pavers

Lay the pavers in the pattern and design of that you have planned for. Lay them close together. Some pavers have space bumps incorporated into the paver design. If pavers need to be cut to size, use a diamond saw, masonry chisel or mechanical splitter and safety glasses.



After all the pavers are laid, use a mechanical plate compactor to help set the pavers into the sand bedding.

8. Sand Joints

This step involves sweeping sand over the surface which fills up the joints locks the pavers into place.



It is important to use fine-grained sand rather than a coarse one. Sifted and bagged play sand works well as does that labeled as "paver sand". The reason for this is that fine sand will compact much better and fill up joints quicker. The sand and paver area must be dry to complete this step.

9. Sealing

First, clean and sweep the newly paved area, in order to remove all materials and debris.

Seal the area with a sand binding sealant, this will ensure that the joint sand will not disappear. This will also prevent the growth of vegetation between the joints.

Sealing your pavers helps prevent stains from oil, grease, grime, rust, moss, algae, tire markings and day-to-day spills. The sealant allows you to clean off such stains with greater ease.

10. Maintenance

Maintenance is usually not an issue when it comes to pavers, if they have been laid properly. The overall function and use of your paved surfaces should be stable.



Re-sealing your pavers may be necessary on a regular basis to maintain color and appearance. It also helps protect the pavers against stains, algae and loss of joint sand.

Regular cleaning and sweeping of the pavers is recommended. This is particularly needed if your pavers are in shaded or damp areas, where they are prone to efflorescence (chalky salt deposits) and moss build-up.



Power washing is generally not recommended because it will dislodge the joint sand. If power-washed, Steps # 8 and #9 should be repeated.

There are many cleaning products available on the market which can be used for various types of situations.