

The base is the most important step in your patio and walkway projects.

## STEP 1

### PREPARING YOUR PROJECT AREA

Most commonly this is removing a grass area that is around your current concrete patio. You will incorporate this area into your new larger outdoor patio design. You will need to excavate about 1" deep from the surface of your current concrete slab for the area of your extended patio.



### MATERIAL REMOVAL GUIDE

**Tim's Tip:**

The total project area will be approx. the thickness of your thickest Natural Flagstone paving stone + 1".

How deep you need to dig is determined by adding the thickness of the following components:

EXAMPLE	Thickness
Leveling Sand	1/2 Inch
Stone Thickness*	+ 1 3/4 Inches
Leveling Sand	1/2 Inch
Brock PaverBase	+ Approx. 3/4 Inch
Dig out this many inches below your current level	= Approx. 3 1/2 Inches

\*will depend on the paver you select.

## STEP 2

### LEVEL AND COMPACT THE BASE

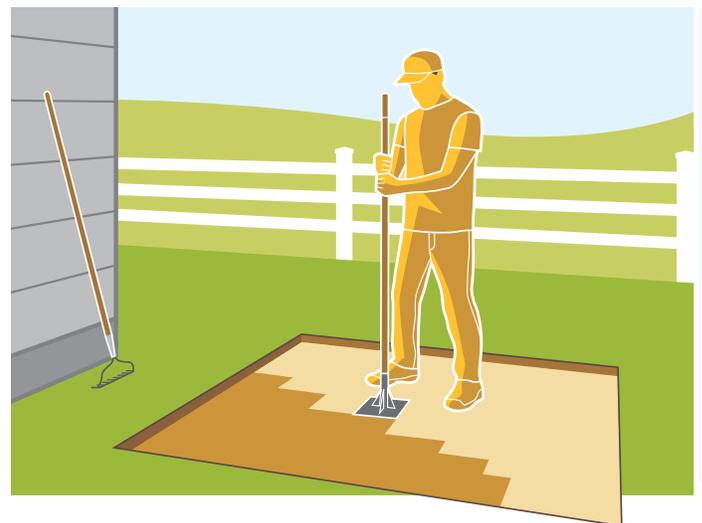
If you are building a patio close to or attached to the house, use a hard rake and/or shovel, compact and level the area with appropriate slope. The base material (most commonly the ground) should be tightly compacted using a hand tamper or plate compactor. The slope of a patio should be about 1/4" per one foot of distance in order to let water flow off the surface but keep furniture stable and level. It is helpful to pull a string line so you can check your slope.

To run a string line, put two landscape stakes in the ground. Tie a piece of string to one of them, and then pull it tight to the other. Use a level and ruler to create the desired slope. For example, the patio should slope 2.5" over a 10 foot distance. This will ensure that rainfall flows off the patio.

**Tim's Tip:**

Use along straight edge or side of a 2 x 4 (from high end to low end of you project) to fix the high and low spots.

The area should be properly compacted and as smooth as possible, making sure to get rid of high and low spots to within +/- 1/4". This is now your compacted base. Congratulations, the hard part is over!



Natural Flagstone Patio

**BROCK**  
**PaverBase**  
For all Patios and Walkways

**HOW TO INSTALL  
PATIOS AND WALKWAYS**

Natural Flagstone – (different thickness stones)

The base is the most important step in your patio and walkway projects.

**STEP 3**

**ADD A LONG LASTING LANDSCAPE FABRIC**

Next install long lasting landscape fabric (15, 20, 30 years, Lifetime) over the excavated and compacted area. Overlap the edges of the fabric by 4-6".

**Tim's Tip:**

Lay extra fabric on the sides. After you lay the panel or panels and paving stones, fold the fabric up then place edge restraints. This will ensure sand cannot leech out.



LANDSCAPE WEED FABRIC (BARRIER)

NOTE: Fabric holds in the sand, not for weeds.

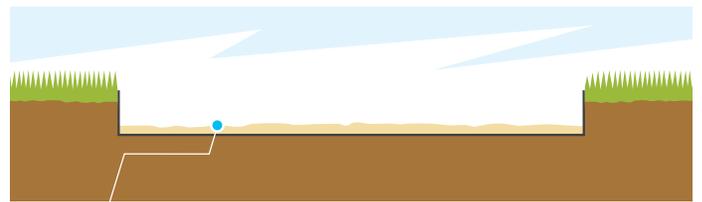
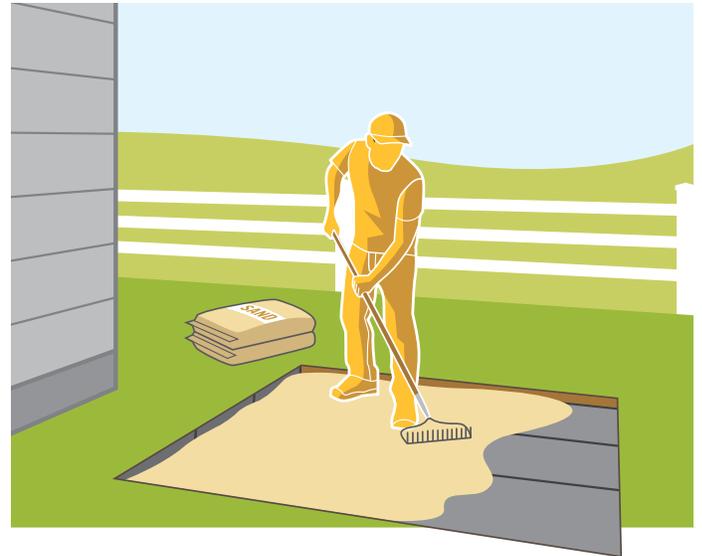


Natural Flagstone Walkway

**STEP 4**

**SPREAD A 1/2" LAYER OF LEVELING SAND**

Lay two 1/2" pipes (or rebar) on top of the fabric over the ground in the same direction as your slope, high to low end. Spread an even layer of sand over the pipes in your project area.



1/2" ALL PURPOSE LEVELING PAVER SAND



Natural Flagstone Rounded Patio

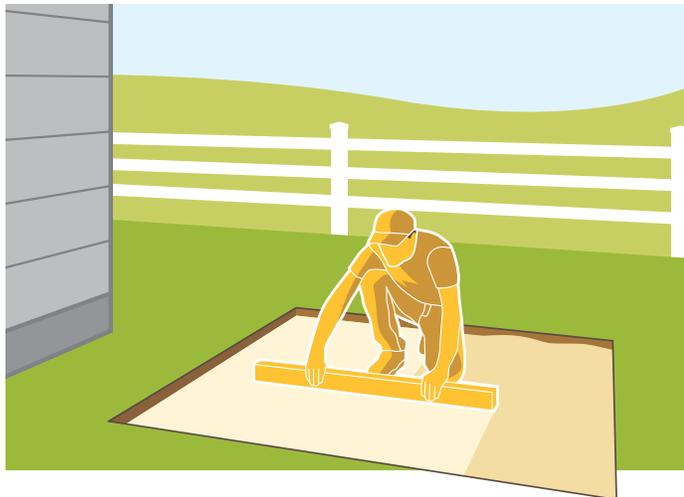
The base is the most important step in your patio and walkway projects.

**STEP 5  
 SCREED THE SAND USING A BOARD**

Using a standard 2x4 that is 6 feet long, screed the sand using the board along the pipe or rebar, maintaining your slope so watch your string line. Make sure the board you use is straight and true! Hand tamp the sand and recheck to make sure you do not have any high or low spots. Do not use a plate compactor to compact the sand.

**Tim's Tips:**

- Use long straight edge or side of 2 x 4 same (as step 2) after you hand tamp the sand.
- Remove the screed pipes before laying your paving stones



1/2" LEVELING SAND SCREED

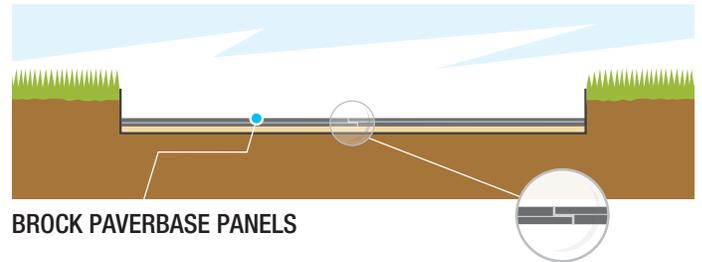
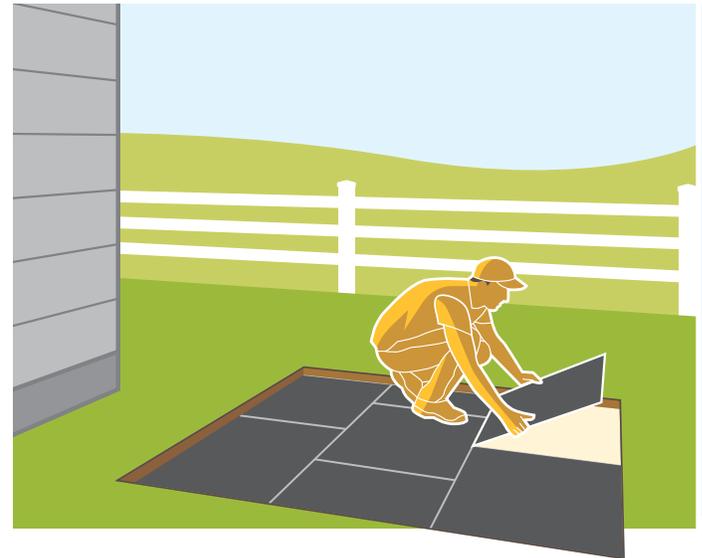


Natural Flagstone Walkway and Steps

**STEP 6  
 INSTALL BROCK PAVERBASE  
 PANELS**

Starting against a straight edge of the patio, lay the Brock panels, ensuring that the side flanges overlap. Ideally, lay them in a "brick-like" pattern (illustration below). This will ensure stability of the panels when you lay the pavers. To off set the panels (for the second row), cut a panel in half, using a utility knife, and start with the cut panel edge on the outside (where the edge restraint will be) so the panel flange/lips (tongue and groove) can be used. Use the bottom half panel to finish the end of the next row.

Trim any curves or along edges using a utility knife. Place any extra scrap pieces of Brock PaverBase in your recycling bin.



BROCK PAVERBASE PANELS



Natural Flagstone Walkway Courtyard

The base is the most important step in your patio and walkway projects.

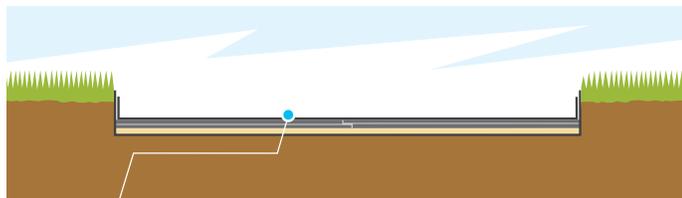
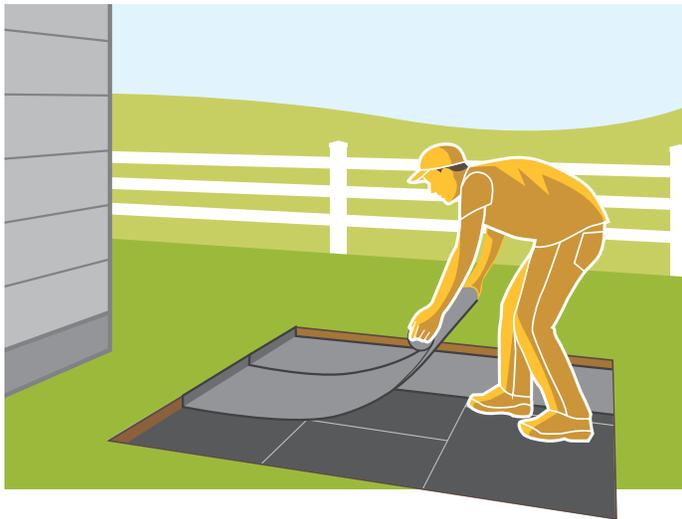
**STEP 7**

**ADD 2ND LAYER OF LONG LASTING LANDSCAPE FABRIC**

Once the Brock PaverBase is installed, place a second layer of weed barrier fabric on top of the panels to stop any sand migration. Yes you can walk on the panels. Overlap the edges of the fabric by 4-6".

**Tim's Tip:**

Lay extra fabric on the sides. After you lay the panel or panels and paving stones, fold the fabric up then place edge restraints. This will ensure sand cannot leech out.



LANDSCAPE WEED FABRIC (BARRIER)

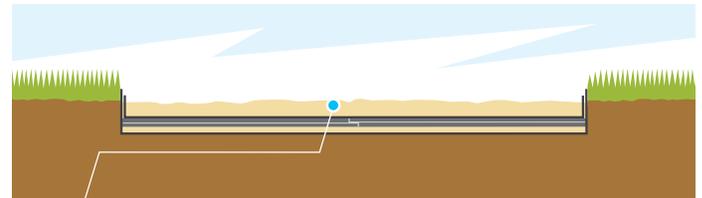
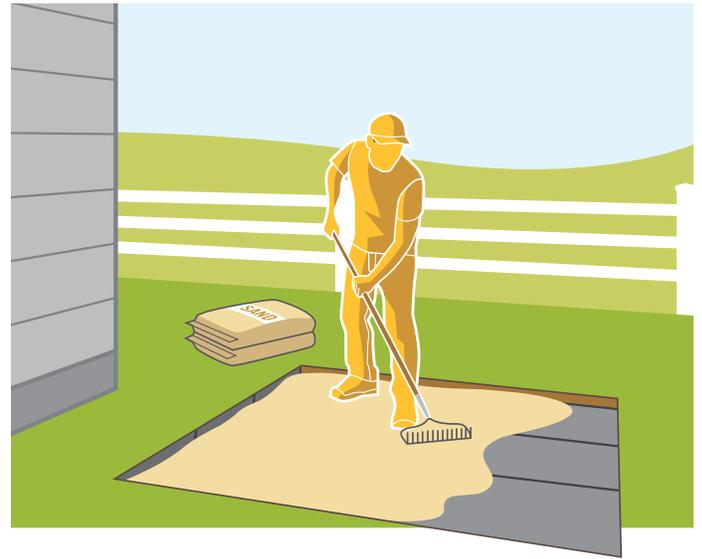


Natural Flagstone Round Patio and Firepit

**STEP 8**

**SPREAD A LAYER OF LEVELING SAND**

Then add a 1/2" thick layer of bedding sand on top of the fabric. This is the layer of sand that will make up any differences in thickness that your stones may have, and allow you to get the stones to sit level, as they may not be perfectly flat on the bottom. More sand will be needed to raise the thinner stones up to the thicker stones.



1/2" ALL PURPOSE LEVELING PAVER SAND



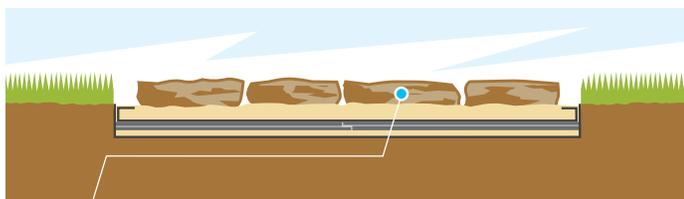
Natural Flagstone Patio Deck

The base is the most important step in your patio and walkway projects.

**STEP 9**

**INSTALL THE NATURAL STONE**

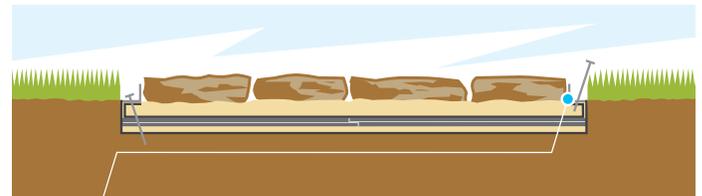
This is the fun part! Laying natural stone is very simple. Before putting the stone onto the project lay them out in the yard and try to find the pieces that fit well together with the size joint you like. There is a slight art to figuring out which stone fits best where, but that is what makes no two patios the same. Once you have an idea of where you want them. Take the ends of the geotextile that you let long and simply fold them over on top of the sand to make the whole system sealed so you are sure nothing will move. Then install the stones into the bedding sand. If you find an area with a stone that is very thin and there is not enough bedding sand, simply add more underneath it until it is level and positioned where you want it. The same holds true for paving stones that have different heights. Simply brush some of the sand away until it lays as you want it. Try to keep the bedding sand on the bottom of the stones and don't let it work to far up between them as we will be filling the joints with a polymeric sand made specifically for extra large gaps later to hold it all together. Make sure to leave 2-3" of exposed sand around the outside of your project to later add edge restraint.



NATURAL STONES OR FLAGSTONES

**INSTALL EDGE RESTRAINT**

Once your stones are installed it is important to hold the perimeter of your project in place. Simply place edge restraint on top of the sand and the geotextile fabric that we folded over earlier. Then install using 8-10" landscape spikes. You may feel free to bend the edge restraint to follow the natural outline of the stones to give your patio a more natural feeling.



EDGE RESTRAINTS AND SPIKES



Natural Flagstone Patio, Fire Pit and Sitting Wall

The base is the most important step in your patio and walkway projects.

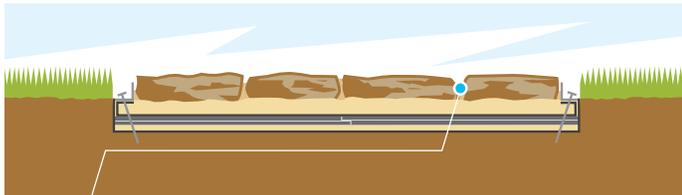
**STEP 10**

**FINISH WITH REGULAR OR POLYMERIC JOINT SAND**

Using a broom, spread sand over the patio and into the gaps between the pavers. Spread over small areas before moving onto the next one. Go back and forth over the gaps until no more sand will fit.

**Tim's Tip:**

Use polymeric sand that exceeds at least double the size of your largest gap. Many polymeric sand are made for smaller paving stone gaps, not large Natural Flagstone gaps.



**POLYMERIC SAND**

**NOTE:**

There are two types of joint sand. Use Polymeric Sand that far exceeds your stones gaps. Polymeric sand will essentially harden like concrete between your paving stones so it is permanent. Polymeric sand has several advantages: It is stable, so the sand won't end up on the top of your pavers; It allows you to power wash your patio without displacing the joint sand; It gives the patio a cleaner, more finished look. Be sure to use a Polymeric sand or even a sandy soil that will allow you to plant ground cover between the stones that is rated for the widest joint on your project. Poly sand is an alternative is traditional joint sand. For the purposes of these instructions we will refer to Polymeric sand since it requires a few extra steps than plain joint sand.



Natural Flagstone Walkway

**STEP 11**

**CLEAN SURFACE OF THE NATURAL STONE**

Once you are done spreading the polymeric sand into the gaps, use a leaf blower to blow the fine dust off the surface of your patio. (You want to make sure you sweep it off well first or you will generate a large dust cloud!)



**NOTE:**

DO NOT WASH IT OFF WITH WATER! THAT COMES LATER. If the natural stone is not free of polymeric sand on the surface, you may see a film/haze on the stones once you follow step the next step.

**PROPER WETTING WHEN USING POLYMERIC SAND.**

Once the surface of the patio is completely clean, follow the instructions for wetting on the packaging of the polymeric sand. This will entail lightly spraying the joint sand with water, which will activate the polymer that hardens the sand.



Natural Flagstone Round Patio

**Now you can enjoy your new project!**

**PROJECT QUESTIONS?**

**CALL TIM NEWTON ANYTIME AT: 813.431.8259**