

DIY Patio Stone Installation

Call 811, Common Ground Alliance, to have utilities marked before starting your project.

Read all instructions prior to installation.

Fig. 1



1. Stake Out Project and Excavate. Lay out project by marking area with tape measure, string line and stakes. With a shovel, excavate the area 6 inches larger on all sides than the finished project size (Fig. 1). Excavate 6 or 8 inches deep: 6 inches for well-draining soil conditions and 8 inches for poorly-draining soil conditions.

Fig. 2



2. Create Leveling Pad. Base material can be paver base or an equivalent to 3/4-inch minus (with fines) aggregate. Add paver base in 2-inch increments to excavated area and thoroughly compact with a plate compactor (Fig. 2). Repeat as needed. To achieve the desired finished patio height, finished compacted base should leave enough room above for patio stone height and leveling sand. The final grade should slope away from the house or structure, dropping 1/4-inch per foot, for drainage.

Fig. 3



3. Screed Sand. Temporarily lay two 1-inch diameter pipes parallel on base, several feet apart. Spread 1 inch of paver sand over compacted base between pipes. Level sand by pulling a straight 2x4 across the pipes several times until sand is smooth (Fig. 3). Remove pipes and fill voids with sand, using a trowel to level sand. Repeat until project area is covered with sand.

Fig. 4



4. Lay Patio Stones. Lay patio stones in the desired installation pattern (Fig. 4), preferably starting at a 90-degree corner (nearest house or structure, if applicable). If the desired installation pattern requires cutting, cut the patio stones with a circular saw or tub saw using a diamond blade designed for cutting concrete pavers.

Always wear eye protection when sawing blocks.

Fig. 5



5. Install Edge Restraint and Fill Joints. Place edge restraint around entire project on top of base (Fig. 5). Use trowel to remove sand from edge of patio stones. Push edge restraint up tight to the patio stones and install according to the manufacturer's instructions. Sweep paver sand into joints until all joints are filled.

Do not use plate compactor on patio stones. Simply sweep sand into joints until all joints are full.

6. Backfill Around Project. Finish project by backfilling and firmly compacting dirt in the area outside edge restraint.

Installation materials and tools needed (reference images on last page):

- Gloves
- Tape measure
- String line
- Stakes
- Shovel
- Paver base or an equivalent to 3/4-inch minus (with fines) aggregate
- Plate compactor
- Two 1-inch outside diameter pipes
- 2x4 board
- Paver sand
- Trowel
- Edge restraint
- Circular saw or tub saw
- Diamond blade designed for cutting concrete pavers
- Safety glasses
- Carpenter's level



DIY Patio Stone Installation for Stepping Stones

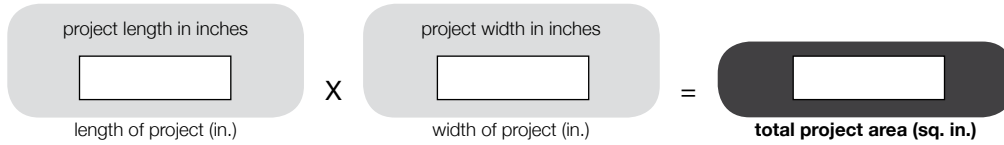
1. Lay Out Project. Figure out quantity of patio stones needed. Place patio stones onto existing surface (grass, mulch or rock). Consider your path, direction and distance covered when placing the patio stones. Once you have them laid out, walk through the stepping stone path to make sure you're happy with the location of the patio stones.

2. Install.

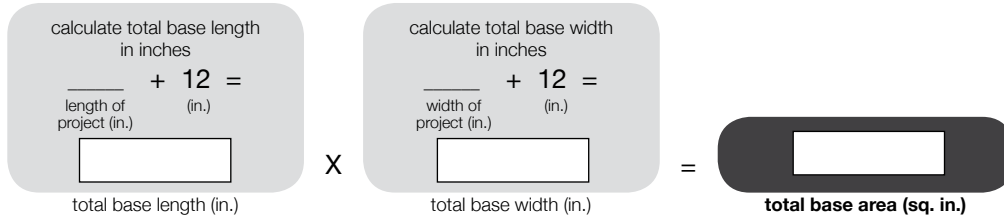
- *If installing on grass*, cut around outside edge of the patio stones with a knife. Remove stepping stone and with a shovel, excavate grass. Some soil may need to be removed and contoured to fit desired height of patio stone; paver sand can also be used to adjust height. Replace patio stone and tamp with a rubber mallet to adjust into desired position. Continue process until all patio stones are installed.
- *If installing on mulch or rock*, mark around outside edge of the patio stones with a trowel. Remove stepping stone and excavate mulch or rock with a shovel. Some soil may need to be removed and contoured to fit desired height of patio stone; paver sand can also be used to adjust height. Replace patio stone and tamp with a rubber mallet to adjust into desired position. Continue process until all patio stones are installed.

Patio Stone Project Material Calculators

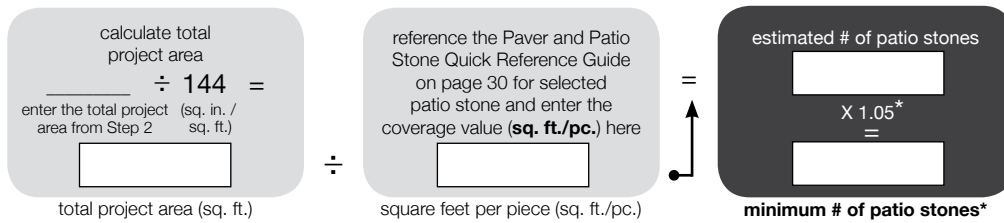
1. Plan the dimensions of the finished project, accurate to nearest inch.
2. Calculate the area (total square inches) of the finished project.



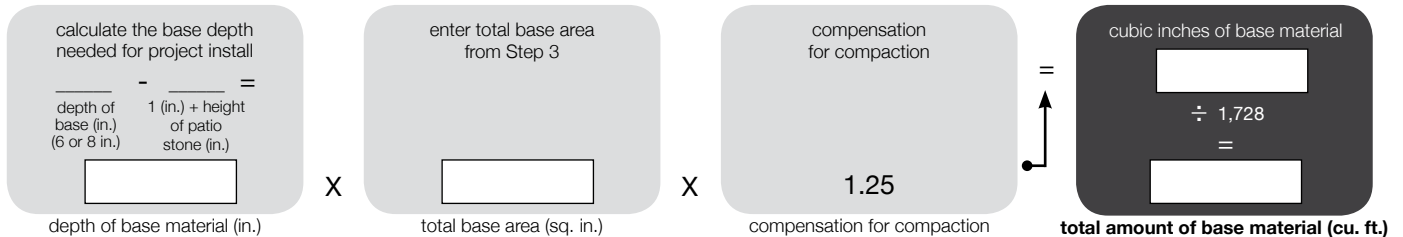
3. Calculate the base area (total square inches) of project.



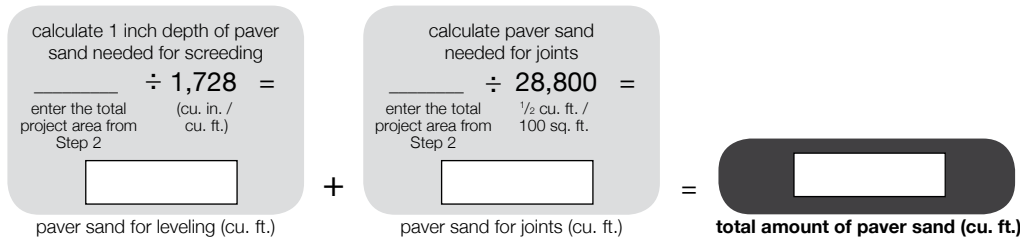
4. Select patio stone and installation pattern, then calculate number of patio stones needed for project or reference chart on page 30 and add 5 percent*.



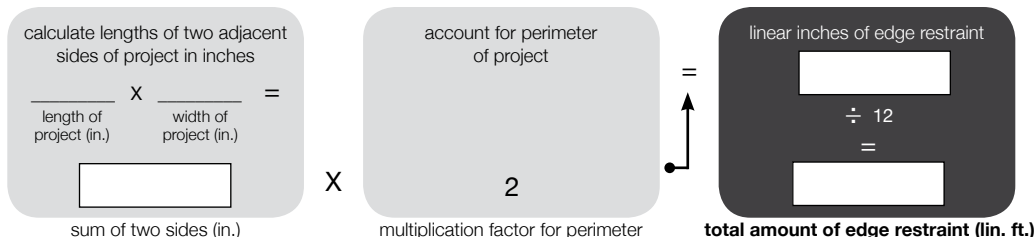
5. Calculate base material (paver base or 3/4-inch minus [with fines] aggregate) needed for project.



6. Calculate paver sand needed for project.



7. Calculate edge restraint needed for project.



Complete installation materials and tools reference images:



Gloves



Safety glasses



Rubber mallet



Hammer and Chisel



Level



Rake



Shovel



Tamper



String

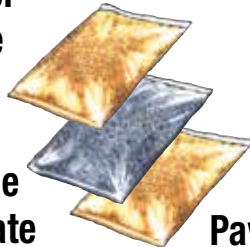


Carpenter's pencil



Circular saw

Paver base



Paver sand

Drainage aggregate



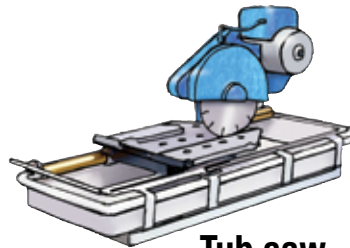
Garden hose



Stakes



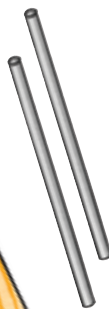
Adhesive



Tub saw



2x4 board



1" Pipes



Spikes



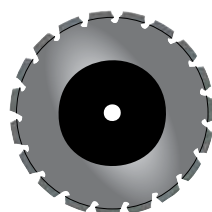
Edge restraint



Plate compactor



Tape measure



Diamond blade



Trowel