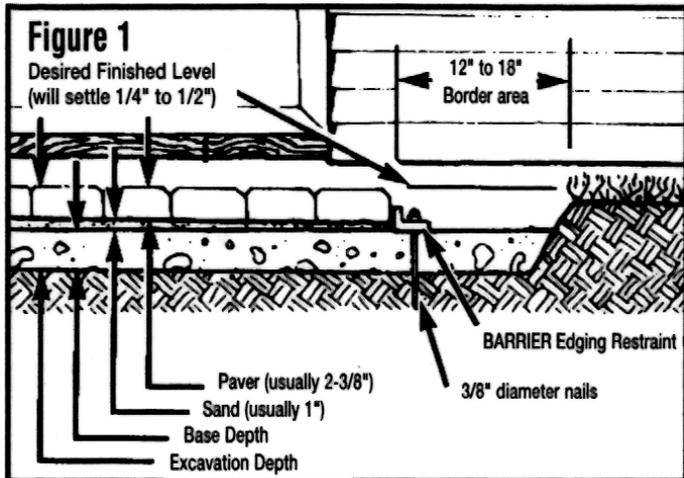
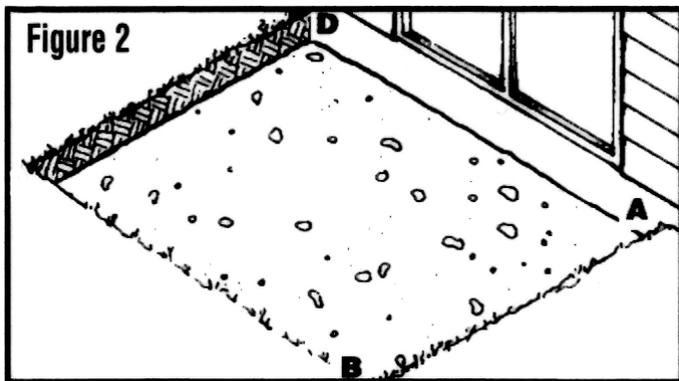


HOW TO USE BARRIER™ AS A PAVER EDGING



Excavation – Figures 1 & 2

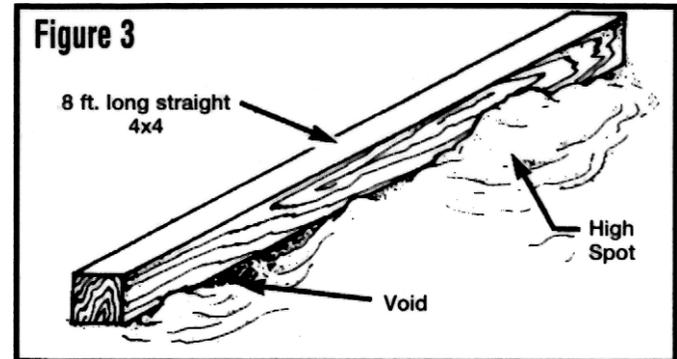
Excavate 12" to 18" beyond the actual area to be covered by pavers, in this case a rectangular patio. This 12" to 18" border area allows for drainage and proper installation of BARRIER™ paver restraint edging. Excavation depth depends on your project and soil conditions. For a patio or walkway, a 2" base depth is acceptable assuming stable soil with good drainage. A depth of 4" or more may be required for poor soil or drainage area.



The actual excavation depth is determined by the following factors; base depth, paver thickness, sand depth, and desired finish level (see figure 1). Figure 2 shows the patio area after excavation. Locate points A, B, C & D with 3/8" diam. nails. Check that $AD=BC$ and $BA=CD$ at the same time $AC=DB$. This ensures a true rectangular patio that is perpendicular to your house. A string run from A to B to C to D can serve as a visual guide.

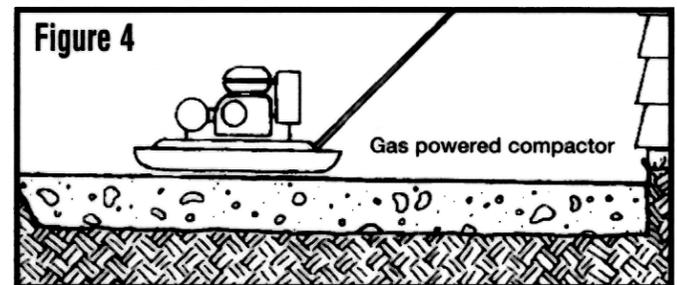
Base Installation – Figures 3, 4, 5, 6

A base consists of a layer of 3/4" crushed gravel material (including fines). Proper base installation consists of smoothing, compacting, levelling, and pitching. It is normal to repeat these four steps several times in order to obtain a good base. The levelling and pitching steps can also be used in the excavation process in order to achieve a flat bottom surface.



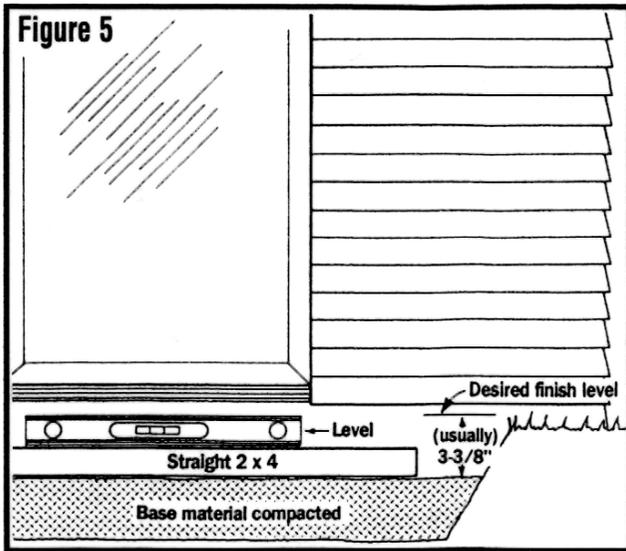
Smoothing – Figure 3

Drag a long straight 2 x 4 or 4 x 4 over the area until voids and high spots are corrected.



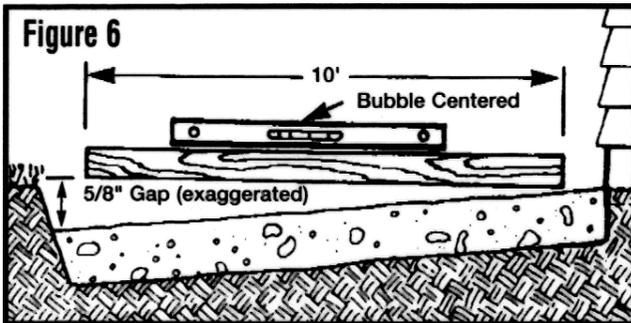
Compacting – Figure 4

A rented vibrating gas powered plate compactor is passed over the entire base area. First, the compactor is used over the entire area with north/south passes; then east/west passes. The idea is to vary the pattern. After final compaction, check the entire area for proper pitch and level conditions.



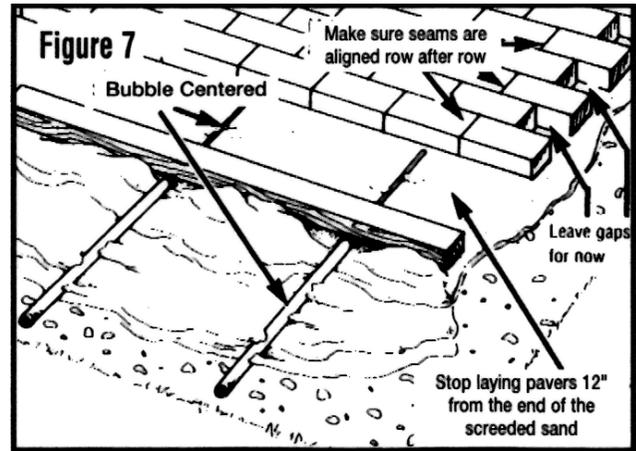
Levelling – Figure 5

A straight 2 x 4 and level are placed parallel to the house. Using the desired finish level as a guide, the base is checked to be sure it is level. Starting at the house, the level condition of the base is checked every 6" or so, until the entire area is complete. All checks are made with the 2 x 4 parallel to the house.



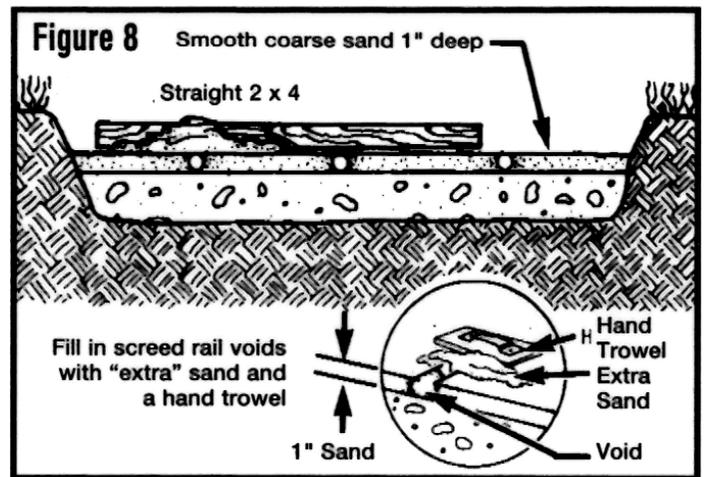
Pitching or Sloping – Figure 6

A straight 2 x 4 and level placed perpendicular to the house is used to check base pitch or slope. Check the pitch or slope in this way every 6" or so, until the entire area is complete. This helps rainwater drain away from the house. Typically, 1/16" pitch per foot of 2 x 4 is enough pitch for average circumstances. Your circumstances may dictate more or less (see figure 6).

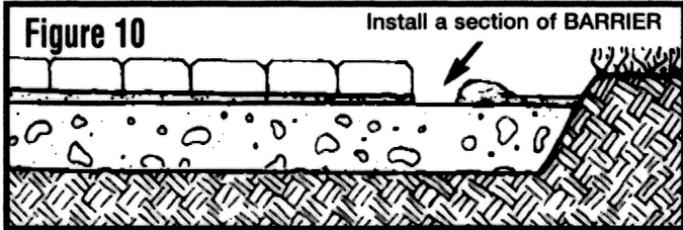
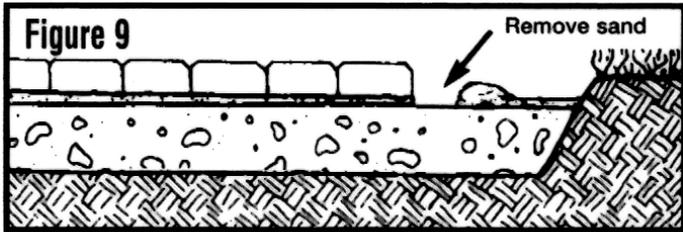


Screeding Sand/Laying Pavers- Figures 7 & 8

Screed coarse sand (figures 7 & 8) using 1" diameter electrical conduit pipes as screed rails. Screed a section 8' to 10' in length. Once you have started screeding sand, the project should be covered if rain is anticipated. Rain will wash out the project. Remember, you must fill in the voids caused by the screed rails. Make sure you can reach the void areas without walking on the smooth screeded sand. You can do this by gently walking over the pavers as they are placed on the sand. Select the paver pattern of your choice (ask your supplier). Lay the pavers gently on the sand, but be sure to place each paver firmly against its neighbours.

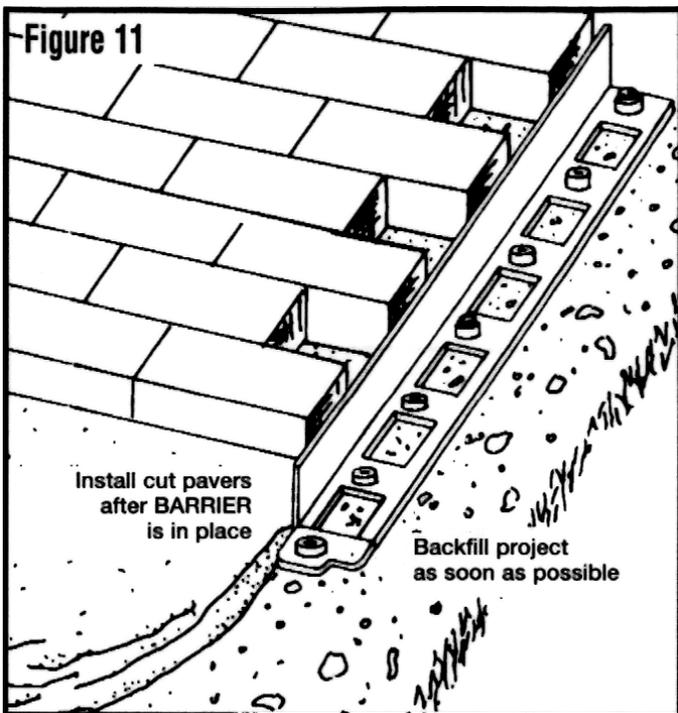


Start laying the pavers from the house out. Complete the laying process with whole pavers only. Alternate between screeding sand and laying pavers until the entire project is complete. As you lay the pavers, make sure the seams are true and square from row to row; or row to every other row, depending on the pattern you have selected.



Installing the Edging – Figures 9, 10 & 11

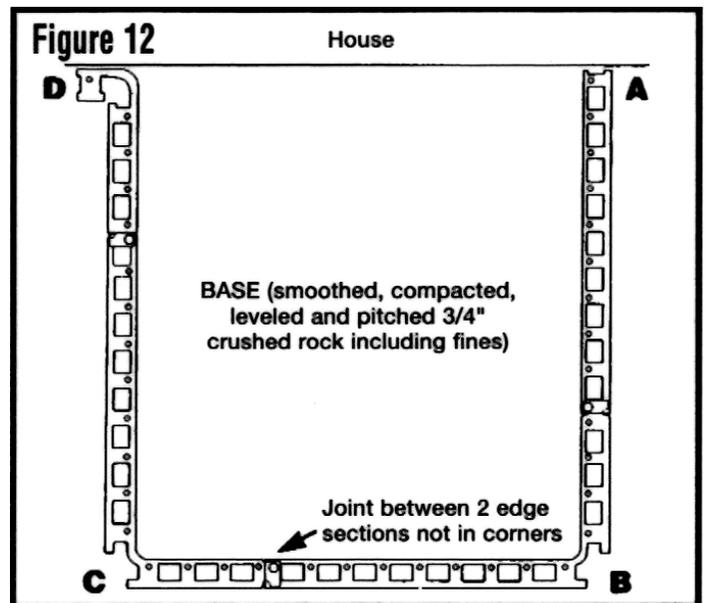
After all the whole pavers are in place, use a hand trowel to carefully remove the screeded sand beyond the paver area (figure 9). Install a section of BARRIER firmly against the pavers using $\frac{3}{8}$ " diameter nails, also called spikes (figure 10). Alternate between removing screeded sand and installing BARRIER sections. Complete the installation of BARRIER sections until the entire project is secured with a BARRIER border.



Finishing The Project

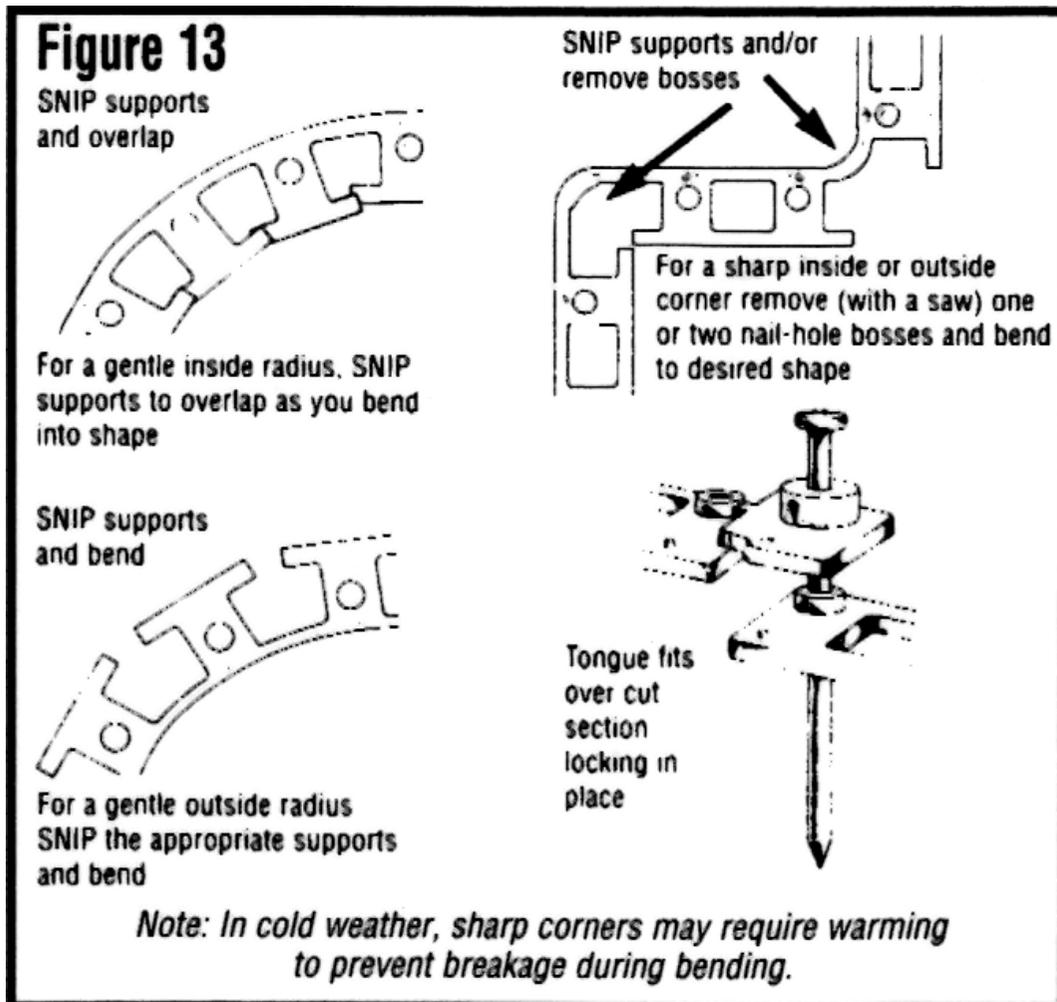
Using a rented Mason diamond saw (you must follow manufacturers instructions), cut the paver pieces required and fill in all gaps in the project.

Sweep the entire project clean. Using a plate compactor, make repeated passes in multiple directions over the entire area. Start compacting around the outer-most boundary. When compacting is completed (i.e. the pavers are level and flat), use a broom to spread dry, coarse sand into joints between pavers. Do so until the joints are filled with sand. Alternate compacting and brooming sand into joints until the joints no longer open up during compacting. Pavers will settle $\frac{1}{4}$ " to $\frac{1}{2}$ " during compacting. Back-fill the border area around the project as soon as possible.



Installation Tips- Figures 12 & 13

1. Joining sections of BARRIER in corners of less than a 12" radius is not advised. If you must join it there, use extra nails for added strength.
2. The end treatments at corners D and A (figure 12) show two ways to terminate BARRIER against the house.
3. Nails may be 8", 10" or 12" long and are spaced 12" to 24" apart. Using 8" nails every foot is better than using longer nails every two feet.
4. If you intend to back-fill BARRIER with grass, a nail spacing of 12" to 24" is normal – use more nails when using a back-fill such as bark.



Finally....

1. Paving stone projects may require deviation from these guidelines and are beyond the scope of this set of instructions. It is always best to seek advice from your paver supplier.
2. Sweeping designs flowing from patio to driveway can be accomplished with a little extra advice from your paver supplier. BARRIER Paver Restraint is used for tree circles and planters. BARRIER holds down landscape fabric so weeds won't grow in planter area. Sprinkler heads are easily installed close to the pavers without cutting BARRIER. Your paving stone supplier can advise you on local conditions and practices.
3. Good safety practices must be followed including the use of safety goggles, safety gloves, steel toed footwear, knee guards, and protective clothing. The operating instructions must be followed for all equipment used. This is very important.
4. Mason diamond saws and plate compactors can be dangerous to operate without proper instruction, improper use or handling of ALL equipment used during paver or BARRIER installation can cause SERIOUS INJURY, BLINDNESS, or even DEATH.

YOU MUST FOLLOW THE MANUFACTURERS INSTRUCTIONS AND SAFETY PRACTICES. IF YOU HAVE ANY DOUBTS ABOUT THE PROJECT, OR YOUR ABILITY TO SAFELY COMPLETE THE PROJECT, HAVE A PROFESSIONAL DO THE WORK FOR YOU.