

## Introduction

This installation manual was created to assist professional hardscape contractors who already have the necessary skills and experience to install stone pavers.

On the following pages, you'll find three options for installing porcelain pavers: sand set over compacted road base (pedestrian foot traffic); mortar set on concrete (light vehicle traffic); and stepping stones on grass (pedestrian foot traffic).

## Required & Suggested Tools

- A wet cut tile saw equipped with a diamond blade manufactured for wet cutting porcelain. The saw should be designed to safely cut a 24" long porcelain paver.
- For mortar set installations: Trowels and grout float (based on recommendations from grout manufacturers.)
- Paver clamps may be used to install and remove porcelain pavers.
- We highly recommend using gloves while handling and installing porcelain pavers.

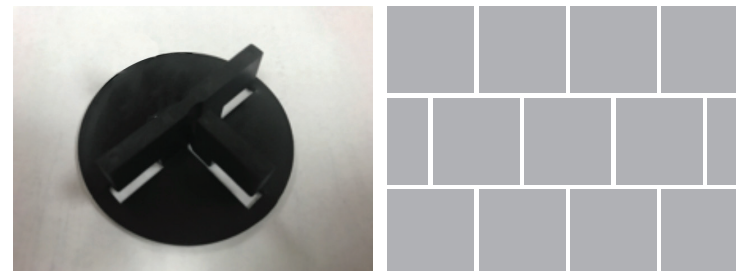
## Do's and Don'ts

- **IMPORTANT:** Always pre-compact and strike off your sand leveling course before installing your porcelain pavers in sand set installations. (Porcelain pavers are not compacted and therefore, the sand layer requires pre-compaction.)
- Porcelain pavers cannot be compacted with a plate compactor, therefore the sand layer requires pre-compaction.
- Only wet cut porcelain pavers with a tile saw equipped with a wet cut porcelain blade.
- Make sure you've accounted for overages of spacers: A 200 square foot project uses approximately 68 spacers.
- Don't ever compact porcelain pavers with a plate compactor.
- Don't ever install porcelain pavers without the required 4mm spacing between them. Plastic 4mm spacers (shown in photos below) should be used on sand set installations. The photo on the left illustrates the spacer installed in a perspective to support and space four paver corners. The photo on the right illustrates the installed spacer snapped apart—by design—to form a "T".

### 4 Joint Spacer and Corner Diagram



### 3 Joint Spacer and Corner Diagram



## Joint Filling Instructions

Use polymeric sand to fill in joints. Make sure the sand is fine-grained enough to pass through and fill 4mm joints. Sweep sand into open joints until they are completely full. Remove all excess sand and dust from the surface. After the joints are full and the surface is clean, mist the pavement with water to activate the polymer and cure the mixture. When using polymeric sand, it's important to follow the manufacturer's instructions to avoid surface staining. Polymeric sand locks in the pavers and limits movement.

## Snow Removal

Use a plastic or plastic-edged shovel to ensure that the edges of the pavers are not accidentally caught; metal shovels may cause chips to the corners of the surface. If you're using a snow blower, adjust the impeller to ¼ inch (or more) above the surface to prevent damage.

## Sand Set Over Compacted Road Base Installation – Pedestrian Foot Traffic

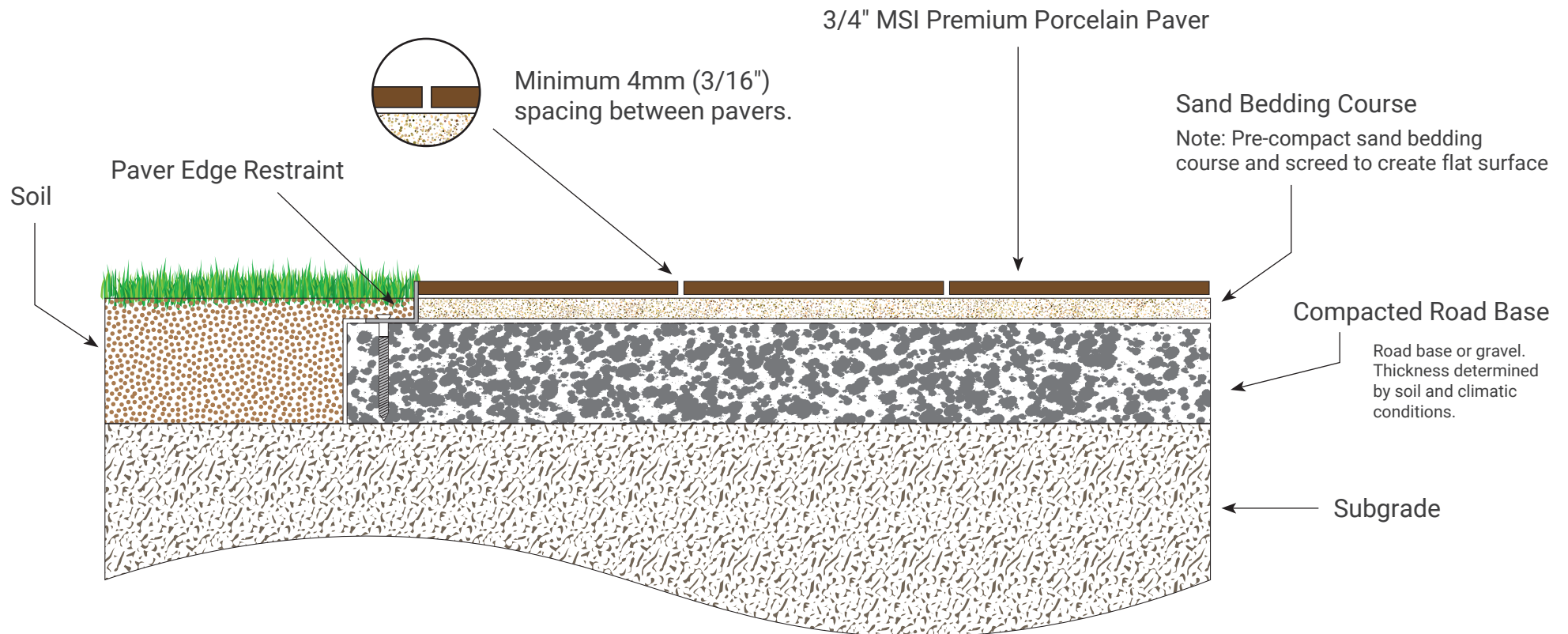
### INSTALLATION NOTES

1. Review detailed drawing on following page.
2. When excavating, consider the thickness of the 3/4" paver, the compacted sand, and the road base. (The required road base thickness is determined by soil and climatic conditions.)
3. Compact the soil ensuring a slope away from buildings and foundations.
4. After excavating and compacting the subgrade lay geotextile. (Geotextile is a filter fabric that allows water to pass without disturbing the particles underneath. It separates the base from the soil and limits weed growth.)
5. Install the base and ensure it is well compacted.
6. Install bedding sand, compact and screed to ensure layer is flat. This helps support pavers and prevents lippage.
7. Lay pavers. Use spacers to ensure 4mm joint space between pavers. Tamp them slightly to make sure they are level. Use a level to determine any high or low spots. (Note: Make sure pavers are sloped away from buildings and foundations.)
8. Install an edge restraint, or mortar-set pavers along the edge.
9. Fill joints with polymeric sand. Clean out the joints and then sweep sand into open joints until they are completely full. Remove all excess sand and dust from the surface. After the joints are full and the surface is clean, mist the pavement with water to activate the polymer and cure the mixture.

Caution: Don't saturate the surface with a hose. It will wash the polymer binder out of the sand mixture and remove sand from joints. Misting keeps the polymer suspended in the sand mixture so it binds together properly.



## Sand Set Over Compacted Road Base Installation Diagram – Pedestrian Foot Traffic



- To avoid chipping the porcelain paver, only use a tile saw that has a wet cut porcelain blade.
- Spacers are necessary when installing porcelain pavers.
- **CAUTION:** Do not compact the porcelain pavers with a plate compactor.

## Mortar Set On Concrete Base Installation – Light Vehicle Traffic

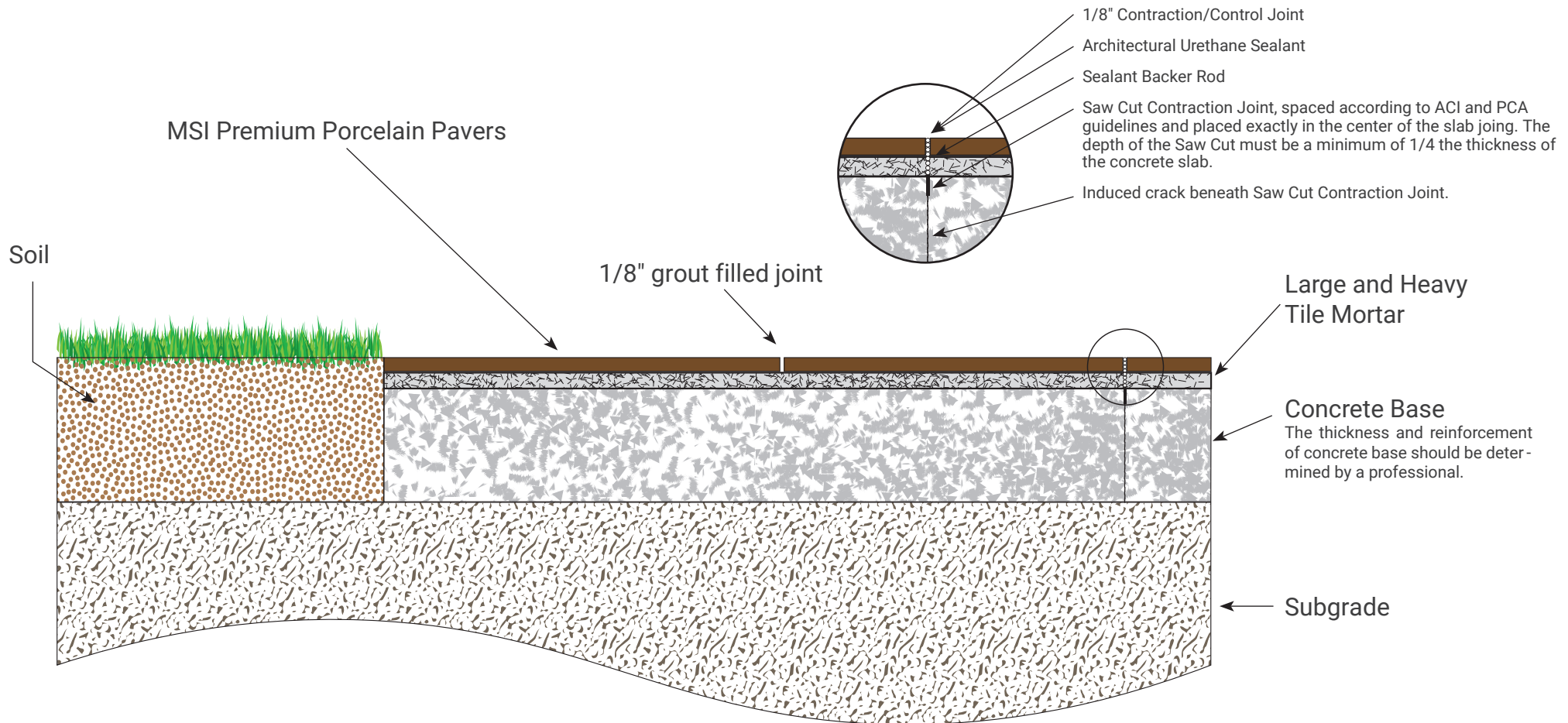
### INSTALLATION NOTES

1. Review the detailed illustration on the following page.
2. Make sure pavement is constructed with a 2-degree pitch, angled away from any building.
3. Use a large and heavy tile mortar such as Custom Building Products ProLite<sup>®</sup> Premium Large Format Tile Mortar or MegaLite<sup>®</sup> Ultimate Crack Prevention Large Format Tile Mortar.
4. Use grout approved for exterior use.
5. For cementitious adhesive and grout installation, refer to the adhesive and grout manufacturer's outdoor installation instructions.
6. For concrete foundation slabs that are not large enough to require contraction/control joints, a minimum 4mm (1/8" to 3/16 ") grout joint is acceptable, but for larger concrete foundation slabs that do require contraction/control joints, the joint width should be 3/8". It's absolutely imperative that all contraction/control joints are located on the joint line.\*

### CAUTION:

\*If a porcelain paver is installed over a control joint, the paver will reflectively crack along the contraction/control joint underneath it.

## Mortar Set On Concrete Base Diagram – Light Vehicle Traffic



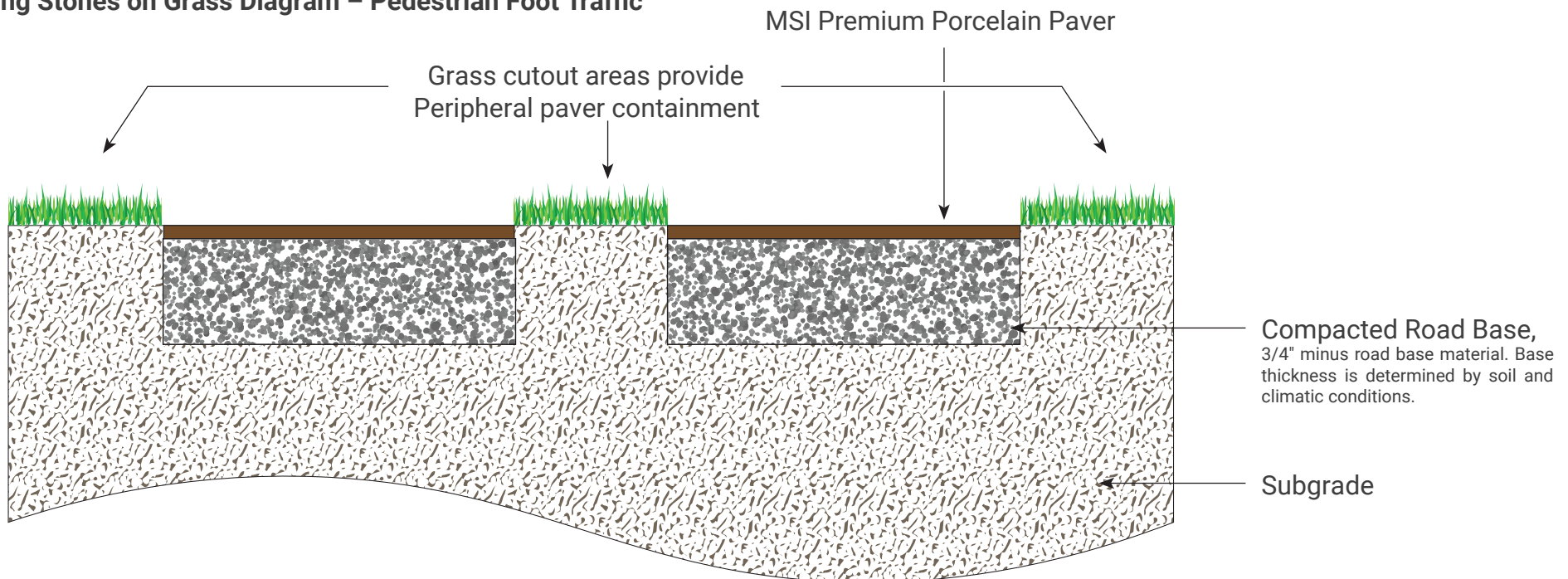
- To avoid chipping the porcelain paver, only use a tile saw that has a wet cut porcelain blade.
- Spacers are necessary when installing porcelain pavers.
- **CAUTION:** Do not compact the porcelain pavers with a plate compactor.

## Stepping Stones on Grass – Pedestrian Foot Traffic

### INSTALLATION NOTES

1. Remove grass and plantings from each area on the patio or walkway where you want to place the pavers.
2. Excavate enough to take into consideration your base and the size of porcelain pavers. You may lay the pavers directly on the grass. However, we suggest setting each paver on top of gravel or road base to increase walkway stability.
3. Compact and level base so the surface under each paver is as smooth as possible.
4. Lay porcelain pavers directly on the base.

### Stepping Stones on Grass Diagram – Pedestrian Foot Traffic



- To avoid chipping the porcelain paver, only use a tile saw that has a wet cut porcelain blade.
- Spacers are necessary when installing porcelain pavers.
- CAUTION: Do not compact the porcelain pavers with a plate compactor.