



CAMBRIDGE NATURAL STONE

INDUSTRY INSTALLATION METHODS

Cambridge Pavers Inc. gathered the following information from Industry suppliers and contractors. **Please read disclaimer found on second page.*

Cambridge Natural Stone is ideal for either one of the two most common installation techniques as described below.

“Dry-Lay” Installation:

Dry-lay installation refers to the laying of stone on a bed of quarry process and sand. It is typically the most economical installation technique, but if not done correctly, stones can move over time. To avoid any movement, we recommend that a patio or walkway base be a minimum of 8” deep (preferably 12” if possible). A finished surface of a natural stone installation is only as good as the base, therefore, an extra 2” - 4” of excavation will prove an excellent investment. With a properly compacted base of 8” - 12” deep, our 1” and 1 ¼” natural stone and Travertine is well suited for a dry-lay application and will pose little to no risk of movement over the life of the installation. Edge restraints from Cambridge concrete products or Alliance Gator Edging must be used.

A Typical Dry-Lay Installation:

- Excavate 8” - 12” and Compact Excavated sub-grade.
- Cover area with geo-textile cloth.
- Backfill entire area with 5 ½” - 9 ½” of crushed stone (¾” & down quarry process or state approved recycled concrete) ensuring to compact every 2”.
- Add 1” of coarse bedding sand, known as C-33, class A washed concrete sand.
- Screed to level entire area.
- Lay Cambridge Natural Stone or Travertine in your preferred pattern.

NOTE:

A. Large size natural stone should be strategically placed at doorway entrances or at the bottom of steps to ensure stability in heavy-traffic areas. The same applies to pool decks where pool cover mechanisms may be anchored into the stone. Once Cambridge Natural Stone is placed, joints can be filled with C-33, concrete sand or Alliance Gator Maxx Polymeric Sand. Travertine is laid without a joint.

B. Natural Stone or Travertine should never be plate compacted. Stones should be tapped down with a rubber mallet to level.

C. Travertine – To eliminate potential damage due to ice collecting in the holes, openings in the surface are filled by many contractors in the Northeast. We recommend you speak with experienced contractors as to the various methods.

“Wet-Lay” or Mortar Installation:

Wet-lay or mortar installation is the direct opposite of dry-lay installations. Natural stone and Travertine is applied with wet mortar directly on a sub-base of compacted gravel and sand, or to a new/existing concrete slab. Once laid, joints are typically filled with additional mortar, colored grout, or Alliance Gator Maxx Polymeric Sand. Travertine is laid without a joint.

A Typical Wet-Lay Installation:

- Excavate - To a depth of 12” below finished grade, making sure the sub-grade slopes away from the home or structure. Ensure any pockets of organic material are removed, and sub-grade is solid and stable. Compact excavated sub-grade.
- Crushed Stone Base - Add 6” of granular base (¾” crushed stone, granular “A” or ¾” clean stone) and compact every 2” with a mechanical tamper.
- Reinforced Concrete Pad - Pour enough concrete to establish a concrete pad of 4” - 5” in depth. Prior to the pour, lay reinforcing mesh throughout. As concrete is poured, mesh must be elevated off of the granular surface so it is contained within the lower half of the concrete. Concrete should be finished off to ensure proper slope is achieved. Within 1-2 days, concrete may be cut every 8’ - 10’ to help prevent cracking.
- Cambridge Natural Stone and Travertine installation - Masonry cement (typically type S) is mixed with sand and water as per manufacturer’s instructions. With a trowel, add approximately 1” of mortar onto the concrete pad. To increase adhesion, we recommend the use of a bonding agent (including polymer modified cement as used with veneer stone, in addition to some latex and polymeric products) applied directly to the concrete slab or mixed into the mortar itself.
- Mortar Joint - Cambridge Natural Stone is designed to be installed with a 1/2” or 3/8” joint. Travertine is laid without a joint. When stone has set, joints should be filled with mortar, colored grout or Alliance Gator Maxx. We recommend the use of a grout bag as it lends to a much easier clean up. Joints should then be cleaned as soon as possible with a damp sponge (rinsing often) before the mortar has time to dry on the surface of the stone. Very important: if mortar has fully dried on the surface of the stone, DO NOT use muriatic acid. Use Alliance Efflorescence Cleaner at a 4 to 1 ratio as per manufacturer’s recommendation.

***Cambridge does not validate nor warrant that these installation methods will assure a natural stone project free from any potential negative issues. Cambridge does not accept any liability regarding these methods of installation and have published them as a reference for contractors. We recommend all contractors or end users speak with experienced natural stone contractors for additional recommendations.**



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