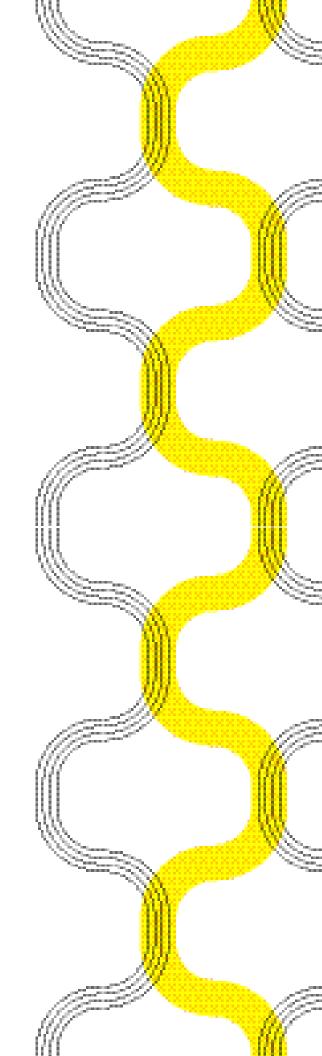


# Installation Guide



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# Riccobene CobbleSystems



#### STRAIGHT MAT

**Straight Mat:** With its straightforward, clean lines, the Straight Mat offers a contemporary paving solution that emphasizes functionality and sleek design. Suitable for areas requiring solid footing and high traffic endurance, such as driveways or garden paths, it provides a modern touch while ensuring practicality and ease of installation.



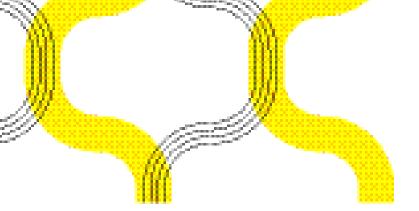
#### **COBBLE MAT**

**Cobble Mat:** Echoing the charm of old-world streets, the Cobble Mat combines the robustness of traditional cobblestone with modern flexibility. Perfect for driveways, patios, or walkways, it adds a timeless elegance to any outdoor space, inviting a sense of history and durability that stands the test of time.



#### TERRA SHELL MAT

**Terra Shell Mat:** Crafted for the nature enthusiast, the Terra Shell Mat features a unique, shell-like design that beautifully mimics the organic patterns found in natural landscapes. Ideal for creating pathways or accent areas that blend seamlessly with the outdoors, it brings a piece of the wilderness to your backyard.



# About Riccobene

Welcome to the world of effortless elegance and practical beauty with Riccobene's range of innovative matted products. In this guide, we are excited to introduce you to our collection, which includes the Straight mat, Cobble Mat and Terra Shell. Designed with both aesthetics and functionality in mind, our products promise to transform your outdoor spaces into areas of beauty and tranquility. Whether you're planning to create an inviting walkway, a serene patio, or decorative borders that blend seamlessly with nature, our mats provide the perfect solution. Beyond their visual appeal, these mats are engineered for ease of installation, making it possible for DIY enthusiasts and professionals alike to achieve stunning results without the need for specialized tools or extensive experience. Through simple, step-by-step instructions, we'll guide you through the entire process—from preparation to the finishing touches—empowering you to bring your outdoor visions to life with confidence and ease. Dive into the pages ahead to discover how Riccobene mats can enhance your environment, save you money, and leave a lasting impression on your home.

# Terra Shell



# Terra Shell (Slate Grey ONLY)

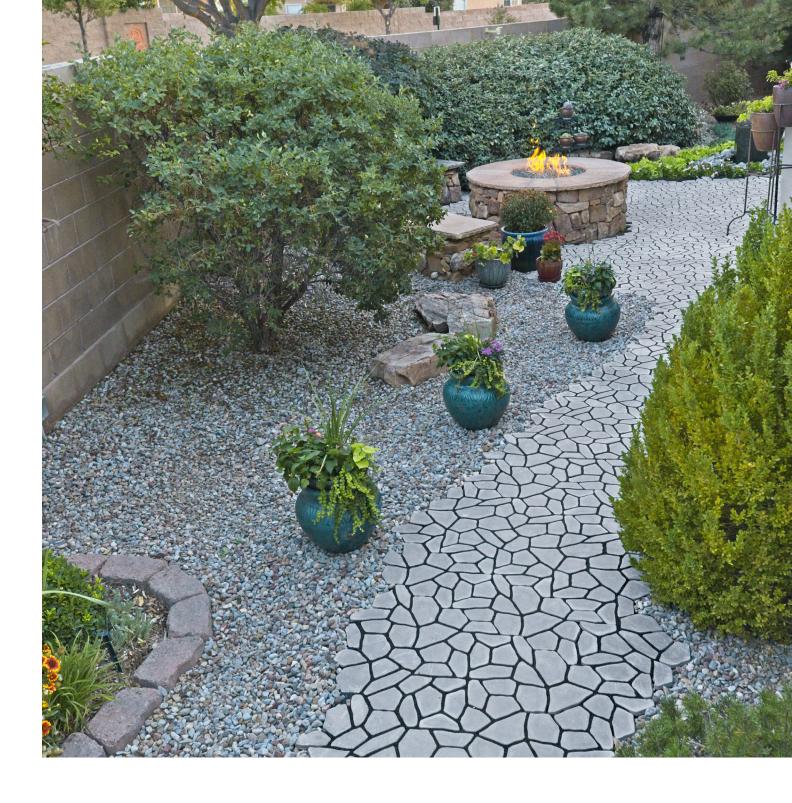
**For Foot Traffic Only** 

Nominal dimensions: 12.25"x23.5"x1"

1.75sq.ft.per mat/ 175 sq.ft.per pallet

100 units per pallet/ 1,485 lbs. per pallet

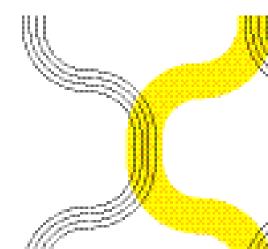




### **QUICK INSTALL**

### **EQUIPMENT AND PREP CHECKLIST**

- Clear and level the groundScreed board or rake to level the ground
- Tamper to compact base layer
- Snippers for cutting interconnecting mat





#### **GROUND PREP**

- 1. Clear the Area: Remove any debris, rocks, or vegetation.
- 2. **Level and Slope:** Ensure the ground is level. Incorporate a slight slope for water drainage if applicable (typically away from home or structure).
- 3. **Compact Base:** Use a tamper to compact the base layer for stability added stability if needed.
- 4. **Final Leveling:** After compaction, recheck the leveling for any needed adjustments.



#### **LAYING**

- Starting Point: Begin at a chosen origin point, preferably on the outer edge of your project working from one side to the other. If building with a preexisting structure begin from its edge.
- Pattern Selection: Decide on your laying pattern if desired.
   This can vary based on the mat type and the your projects aesthetic.
- 3. **Expansion:** Lay mats from the starting point outward, maintaining consistent spacing for uniform grout lines.



#### **NOTE: MAINTAIN SPACING**

- Customization: If your design requires mats to fit specific shapes or sizes, use snippers to cut the mats to your desired dimensions. Mats can be cut alowing it to addapt to your design. This step is crucial for fitting mats around corners, curves, or going around obstacles in your landscaping project.
- Measurement and Marking: Before cutting, measure and mark the areas on the mat where adjustments are needed to ensure accuracy and minimize waste. Removed stones can be saved and reused.



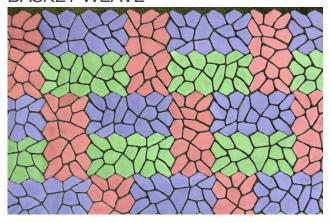
#### **FILL**

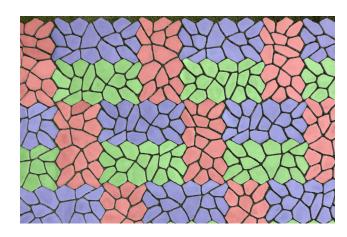
- 1. Choose a Filling Medium: We recommend polymeric sand or Eco Grout for optimal bonding between the mats although any natural joint fill will work.
- Application is easy just sweep the chosen medium into the joints.
- 3. **Set and Compact:** Wet the area to assist in compaction. Follow specific manufacture directions if using polymeric sand or Eco Grout.

The Terra Shell is celebrated for its versatile design, able to be laid easily into any space without an intended pattern. Terra Shell Mat can also be laid in traditional patterns such as basket weave, herringbone, and running bond as seen below.

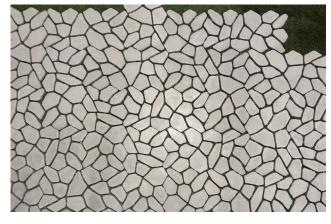
#### DIFFERENT PATTERNS TO TRY

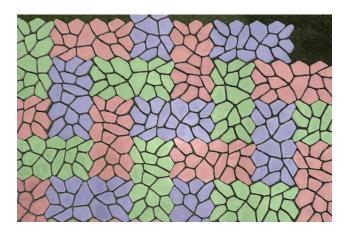
#### **BASKET WEAVE**



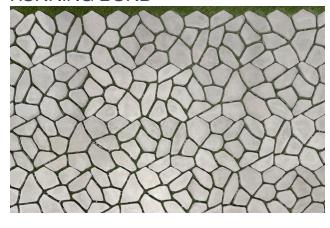


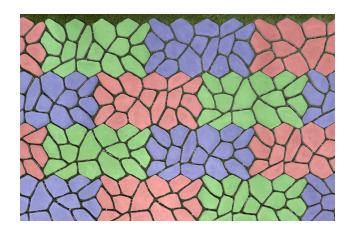
#### **HERRINGBONE**





#### **RUNNING BOND**





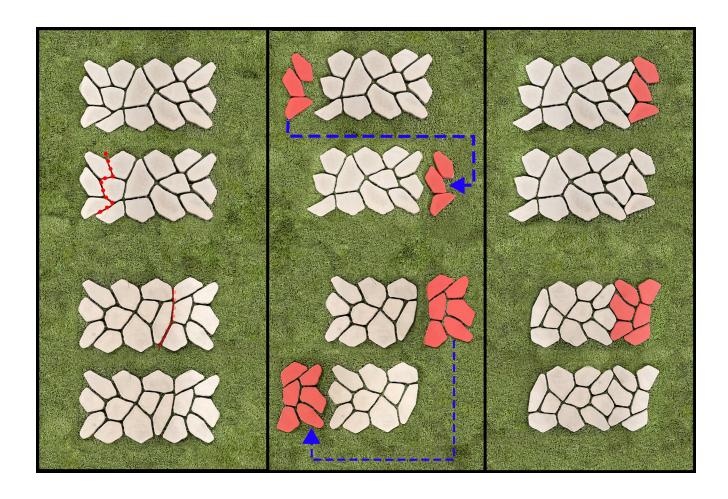
#### TERRA FOR IRREGULAR BORDERS

Terra Shell is greate to border your outdoor space. With easy removal of stones or full mats yoy can easily change your space as desired



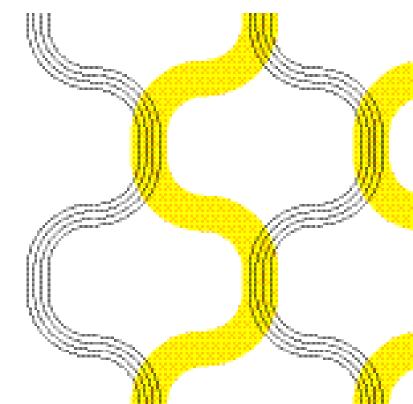




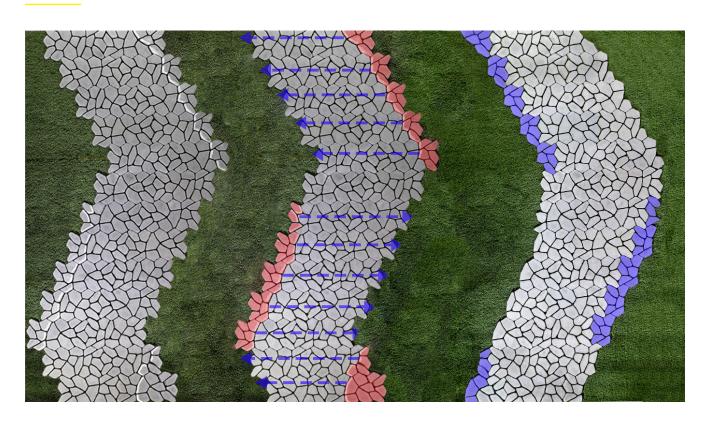


#### **GLIDING TERRA**

To Glide Terra Shell for repositioning, start by snipping the mat at any connection point (indicated by the red line in the example). Once the pieces are separated, glide the removed pieces to the opposite side. These pieces will fit back into the mat, ensuring a seamless transition and maintaining the integrity of the design. This technique allows for easy adjustments and alignment during installation.



# GLIDE TO CREATE CURVED PATHS WITH TERRA SHELL



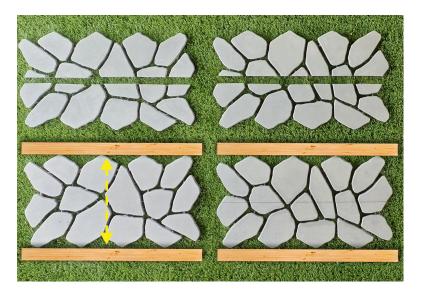


### MAKING A CURVED PATH

Start by marking the curve on your path using a material that can easily be erased; chalk is used as shown in the left image. Once your curve is outlined, begin to cut away the marked pieces. Next, slide the cut away pieces (highlighted in red) across to the opposite side of your path (indicated by the blue arrows). The relocated pieces are highlighted in blue in the image below.

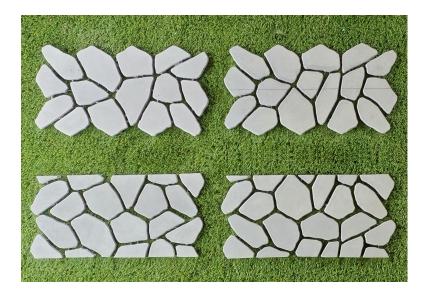
### TERRA MAT ADVANCED

#### **CUTTING TERRA FOR BORDERS AND CORNERS**



#### **CENTERLINE CUT**

When cutting the Terra Shell to create a border, it is recommended to start with a centerline cut. First, measure the mat at its widest point using a straight edge on each side. Typically, the average width of a mat is 12.5 inches, resulting in an average centerline of 6.25 inches from the outer edge. This method ensures your cuts are centered and symmetrical, enhancing the aesthetic alignment of your border installation.

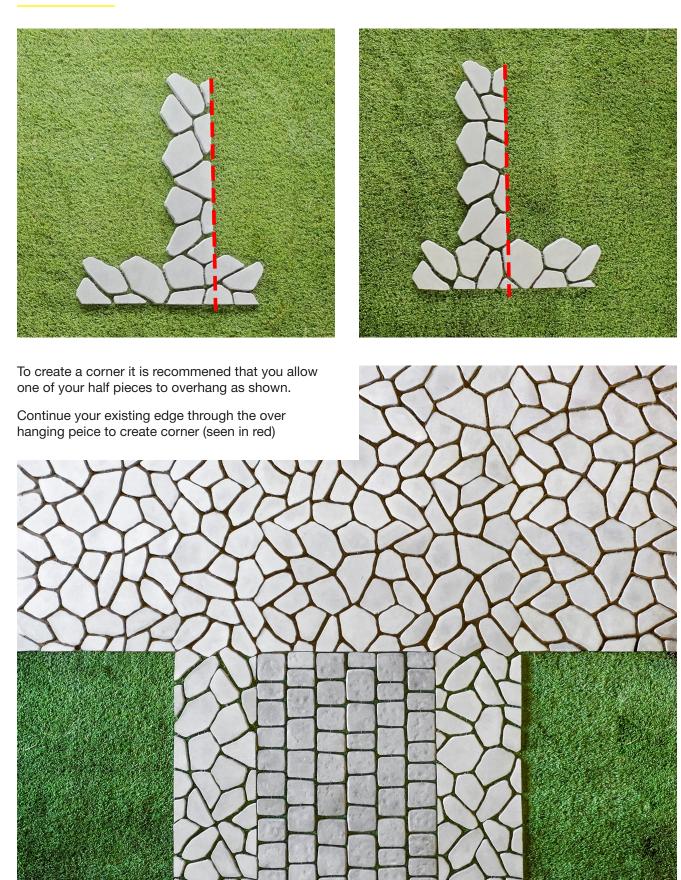


#### **CREATING A BORDER**

For creating a border cut one piece in half. Place the two halves together with the iregular edges on the inside.



#### **CUTTING CORNER PIECE**





# Cobble Mat (Slate Grey ONLY)

**For Foot Traffic Only** 

Nominal dimensions: 11.75"x23.5"x1"

1.75sq.ft.per mat/ 175 sq.ft.per pallet

100 units per pallet/ 1,485 lbs. per pallet

The Cobble Mat Ideal for residential settings, this mat is perfect for constructing borders, patios, walkways and more. The mat's unique construction allows it to articulate, accommodating natural ground contours and simplifying the installation process. Its robust composition ensures longevity and stands up well to foot traffic. Additionally, the Cobble Mat can be easily cut to fit custom shapes, enabling creative layouts and seamless integration with existing landscaping features.



### **QUICK INSTALL**

### **EQUIPMENT AND PREP CHECKLIST**

- Clear and level the groundScreed board or rake to level the ground
- Tamper to compact base layer
- Snippers for cutting interconnecting mat



#### **GROUND PREP**

- 1. Clear the Area: Remove any debris, rocks, or vegetation.
- 2. **Level and Slope:** Ensure the ground is level. Incorporate a slight slope for water drainage if applicable (typically away from home or structure).
- 3. **Compact Base:** Use a tamper to compact the base layer for stability added stability if needed.
- 4. **Final Leveling:** After compaction, recheck the leveling for any needed adjustments.



#### **LAYING**

- Starting Point: Begin at a chosen origin point, preferably on the outer edge of your project working from one side to the other. If building with a preexisting structure begin from its edge.
- 2. **Pattern Selection:** Decide on your laying pattern if desired. This can vary based on the mat type and the your projects aesthetic.
- 3. **Expansion:** Lay mats from the starting point outward, maintaining consistent spacing for uniform grout lines.



#### **DESIGN**

- Customization: If your design requires mats to fit specific shapes or sizes, use snippers to cut the mats to your desired dimensions. Mats can be cut in to strip to allow curving. This step is crucial for fitting mats around corners, curves, or going around obstacles in your landscaping project.
- Measurement and Marking: Before cutting, measure and mark the areas on the mat where adjustments are needed to ensure accuracy and minimize waste. Removed stones can be saved and reused.



#### **FILL**

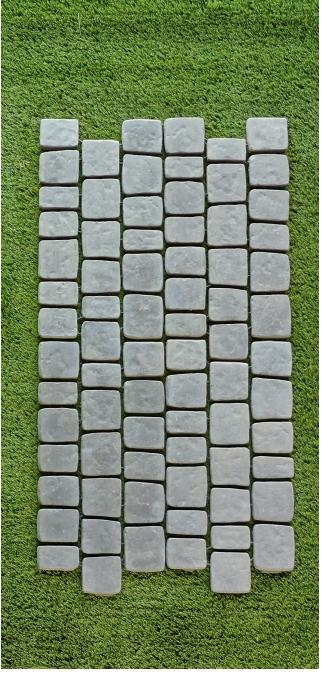
- 1. Choose a Filling Medium: We recommend polymeric sand or Eco Grout for optimal bonding between the mats although any natural joint fill will work.
- Application is easy just sweep the chosen medium into the joints.
- 3. **Set and Compact:** Wet the area to assist in compaction. Follow specific manufacture directions if using polymeric sand or Eco Grout.

#### **ADDITIONAL TIPS**

#### TIPS AND TRICKS

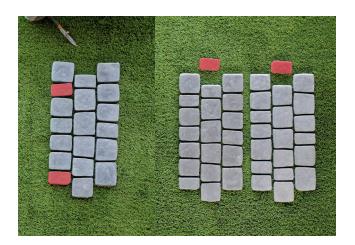
- Periodically step back and review your work from a distance to ensure lines and patterns are aligning as desired.
- The Straight Mat can support vehicle traffic, making it suitable for drivable paths on grass.
- Mats can be laid over grass to allow for natural growth through the joints if left unfilled, or to prevent digging while maintaining permeability.
- All mats can be stained in various colors to match any landscape design, offering further customization.



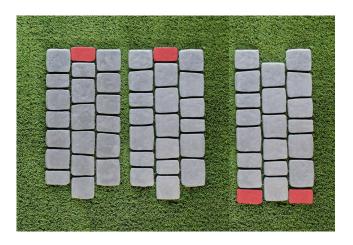


#### SNIPPING COBBLE MATS FOR FLAT ENDS

If you need to achive a flat end with the Cobble mat insted of an inter lock you will start by cutting the small blocks away from the mat.



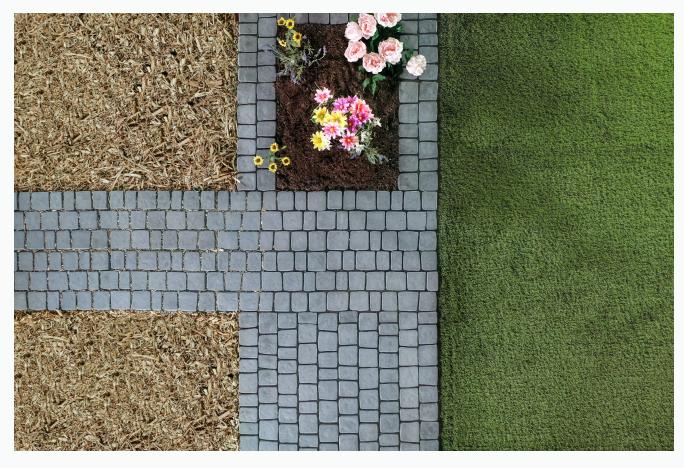
The small blocks that where removed can be inserted to create flat edges on your other Cobblestone mat.

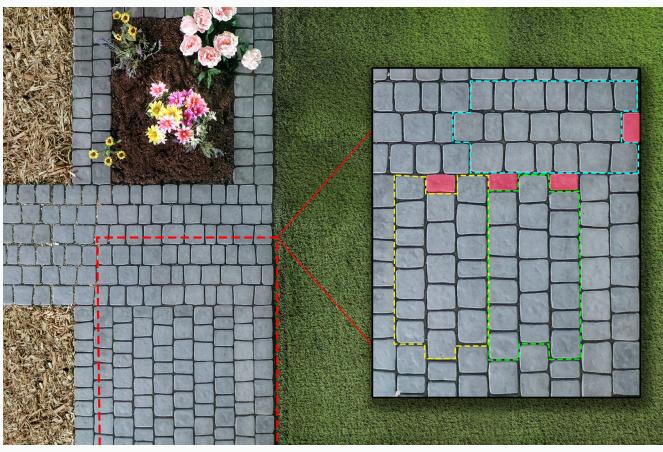


When working against a flat edge be sure to maintain spacing from your starting edge. We recommend 1/2" or 3/8th inch.

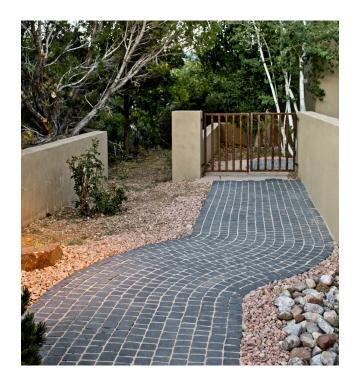








#### SNIPPING MATS FOR CURVES AND BENDS





The Cobble Mat is designed for versatility, allowing it to be easily cut into strips to accommodate the unique contours of curved pathways. This feature makes it ideal for creating winding walkways and circular designs around garden features or through landscaped areas.









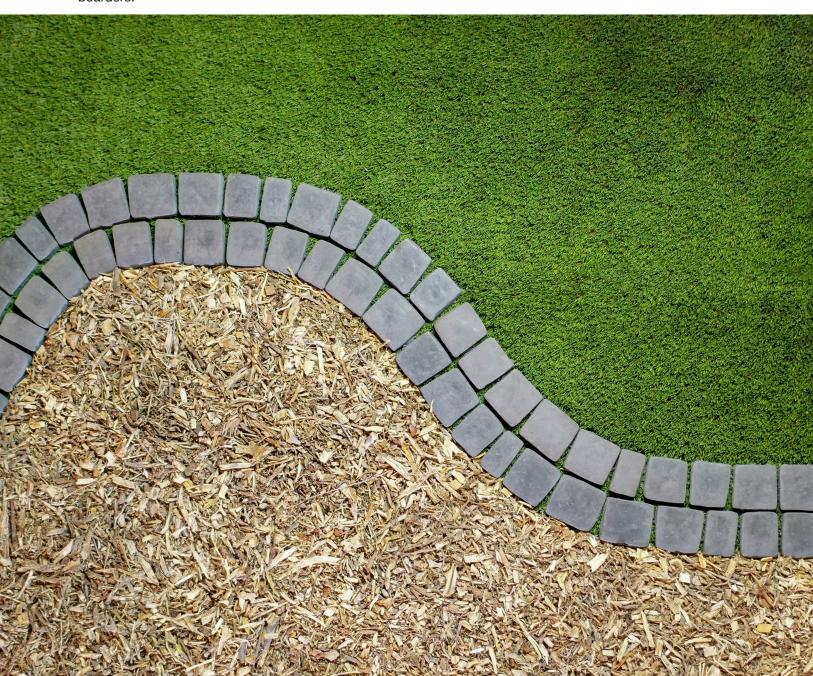
#### **SNIPPING MAT**

The mat is comprised of nineteen cobblestone pavers held together by an internal grid. This grid can be cut easily with a pair of clippers. Each cobble mat can be cut into three strips as shown.

#### NOTING THE STRIPS ARE ANISOTROPIC



After creating strips take note that each strip is unique in the degree it can bend. This will help when working on projects that have varying tightness of curves. When using multiple mats noting the strips that can achieve a tighter radius can be used together to create tight turns, navigate around obstacles or create curved boarders.





# MAKING CIRCLES

After cutting the Cobble Mat into strips, you can form circular designs. For optimal results, it is recommended to maintaining a minimum diameter of 31 inches for circles you create. This size allows the cobbles to bend appropriately without excessively widening of the joints, ensuring the integrity and beauty of your design. If you desire a tighter circle, you have the flexibility to cut the strips into individual cobbles, allowing for even greater adaptability and precision in your installation. This method offers a customizable approach to meet the specific design needs of your project.





Straight Mat

# Straight Mat (Slate Grey ONLY)

For Drive ways, Patios & walkways

Nominal dimensions:

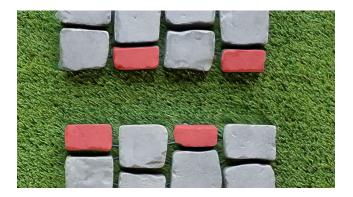
16"x48"x 1-5/8"

5.33 sq.ft.per mat/ 160 sq.ft.per pallet

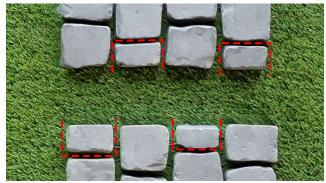
30 units per pallet/2,050 lbs. per pallet



#### UNDERSTANDING SHAPE AND USE



If you are joining two mats together vertically. First remover small end piece get straight mats to interlock Piece for removel are highlighted red and can be removed with a stong pair of snippers cutting away attaching grid.

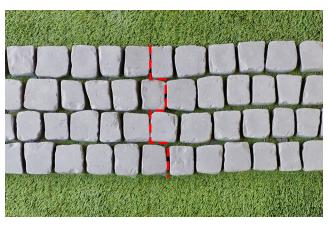


### **INSTALLATION**

# EQUIPMENT AND PREP CHECKLIST

- 1. Plate Compactor (>5000lb force, 75-100 hz
- 2. Sheet of Plywood, cut into thirds
- 3. Garden Snips
- 4. Brick Splitter or Masonry Saw (Optional)
- 5. Large Flathead Screwdriver
- 6. 1/4"-3/4" thick spacing joints
- 7. Straight 8' 2x4





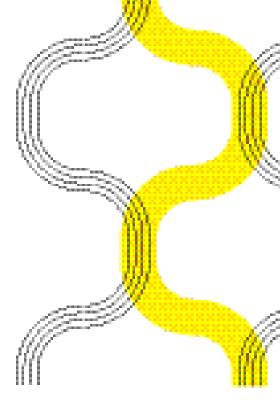




#### **EQUIPMENT AND SUPPLIES**

Before starting installation, go through this checklist in order to make sure you are ready

- All adjacent hardscape, pacing, and mow curbs/strips required have been completed
- The installed Pavement will be able to be protected against damage while work is in progress (barriers highly reccomended).
- Subgrade filled and compacted in approriate layers and specified depths
- Utilities such as electric conduit or drainage pipes have been installed and the subgrade has been throughorughly compacted once installed
- Riccobene Mats are placed for easy access during installation
- Subbase is filled to a height that allows the Riccobene Mats to rest at least 1/2" above the adjactent curb (the mats will be compacted down to be flush during installation).





#### **INSTALLATION GUIDE**

#### Note: A 2 man team is recommended for installation

Remove small stones at the end of the mats with heavy duty snips when joining another mat. If installing against a straight curb or border leave stones in place. Make any special cuts with a brick splitter or masonry saw.



At the area of placement, have one team member lower their end of the mat into place first. Use joint spacing sticks against any curbs to achieve correct joint width.



Once first end is in place, second member can lower their end.



**Important:** if installing a mat adjacent to another in a new row, use spacing sticks to space the joint correctly. Frequently check your work, making sure all rows are aligned and joints uniform.



Periodically, use a straight 2x4 along the length of a row and use it to align the cobbles.



Once the section of CobbleSystem mats has been installed, verify all your joints and mats are uniformly spaced. If any cobbles are out of alignment, you can make small adjustments by inserting a flathead screwdriver into the joint and rotating the cobble.



Sweep or spray surface clean before compacting, making sure there are no concrete chips or rocks on the surface. These can damage the surface when the plate compactor is used.



Place a sheet of plywood between the mats and plate compactor. This spreads the load and prevents any damage to the mat.



Compact the surface, not allowing the compactor to stay in one location. Keep moving the compactor, bringing the bedding flush with an adjacent edge. Note: Chipping may occur, this is normal and will be masked by joint fill.

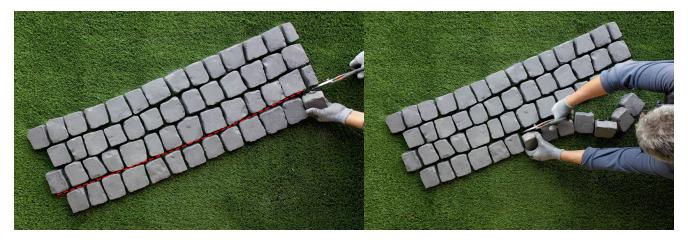


#### MAKING STRIPS FOR CURVED PATHS/DRIVEWAYS





The Straight Mat is comprised cobblestone pavers held together by a bottom grid. This grid can be cut with a pair of clippers. Each Straight Mat can be cut into three strips as show below.



#### NOTING THE STRIPS ARE ANISOTROPIC

After creating strips take note that each strip is unique in the degree it can bend. This will help when working on projects that have varying tightness of curves. When using multiple mats noting the strips that can achieve a tighter radius can be used together to create tight turns, navigate around obstacles or create curved boarders.



### MAKING CIRCLES

After cutting the Straight Mat into strips, you can easily form circular designs to enhance your landscaping. For optimal results, we recommend maintaining a minimum diameter of 140 inches for any circle you create (smaller diameters can be achieved). This size allows the cobbles to bend appropriately without excessively widening the joints, ensuring the integrity and beauty of your design. If you desire a tighter circle, you have the flexibility to cut the strips into individual cobbles, allowing for even greater adaptability and precision in your installation. This method offers a customizable approach to meet the specific design needs of your project.





# **Additional Information**

### **EFFLORESCENCE**

#### WHAT IS EFFLORESCENCE?

A white haze may appear on the surface of the pavers. This is known as efflorescence. It may appear randomly or in certain areas and will be more pronounced on dark colored pavers. The white haze may give the impression that the color of the pavers is fading. When wet, the white disappears and the color of the pavers is enhanced. When they dry, the white haze reappears.

## EFFLORESCENCE IS COMPLETELY NATURAL AND WILL DISAPPEAR WITH TIME

There is no reason to be concerned that your pavers are damaged or defective. The concrete pavers are experiencing a natural process. It is a condition found in all cement base products, as well as in many other paving products, such as brick. In fact, the condition will usually correct itself with time and exposure to the elements.

#### WHEN WILL EFFLORESCENCE STOP?

Efflorescence is completely natural and will disappear with time. There is no reason to be concerned that your pavers are damaged or defective. The concrete pavers are experiencing a natural process. It is a condition found in all cement-based products, as well as in many other paving products, such as brick. In fact, the condition will usually correct itself with time and exposure to the elements. Over time, rainwater can wash and wear it away. In urban areas with acidic rainfall, efflorescence may go away faster than in rural regions. The process may take much longer in drier climates. Typically, efflorescence will stop developing in approximately 18-24 months.

#### THE CHEMISTRY OF EFFLORESCENCE

All concrete products contain cement which produces lime or water-soluble calcium oxide. Lime can also be in the bedding sand, aggregate base materials, or soil. Although concrete pavers are solid, strong, and very dense, they contain millions of microscopic capillaries that run from the interior to the surface. Moisture from rain, sprinkler systems, underground sources, poor site drainage, or dew, enters these microscopic capillaries. Calcium oxide inside the paver reacts with the water in the capillaries and forms calcium hydroxide. This rises to the surface, reacts with the carbon dioxide in the air, and forms a white haze of calcium carbonate. When moisture on the surface evaporates, the white haze of efflorescence becomes visible.

#### ELIMINATING EFFLORESCENCE

Most manufacturers of pavers put chemical additives in the concrete to reduce the likelihood of efflorescence; however, it is impossible to prevent because it is a natural by-product of cured concrete. It will stop when no more calcium hydroxide is available to move to the surface. There are cleaners available that can remove efflorescence. However, it is important to follow manufacturer's instructions carefully to avoid any detrimental results. Efflorescence cleaners are acid based and will remove a micro layer of the paver surface each time they are used. Repeated use will expose aggregate and affect the overall appearance of the pavers. Be sure to follow all label directions and environmental directions on cleaners. Careless or improper cleaning can result in injury, damage and/or discoloration to the surface of the concrete pavers. Always conduct a test in a small inconspicuous area before applying any cleaner to the entire area of the concrete pavers. After cleaning, the pavers should be completely dry and free from efflorescence prior to applying any sealers.

### "ADA REQUIREMENTS & RESULTS (COBBLE SYSTEMS, NOW KNOWN AS PLAZA MPP)"

#### 4.5 Ground and Floor Surfaces.

#### 4.5.1\* General.

Ground and floor surfaces along accessible routes and in accessible rooms and spaces including floors, walks, ramps, stairs, and curb ramps, shall be stable, firm, slip-resistant, and shall comply with 4.5. Appendix Note

#### 4.5.2 Changes in Level.

Changes in level up to 1/4 in (6 mm) may be vertical and without edge treatment (see Fig. 7(c). Changes in level between 1/4 in and 1/2 in (6 mm and 13 mm) shall be beveled with a slope no greater than 1:2 (see Fig. 7(d). Changes in level greater than 1/2 in (13 mm) shall be accomplished by means of a ramp that complies with 4.7 or 4.8.

#### \*A4.5.1 General.

People who have difficulty walking or maintaining balance or who use crutches, canes, or walkers, and those with restricted gaits are particularly sensitive to slipping and tripping hazards. For such people, a stable and regular surface is necessary for safe walking, particularly on stairs. Wheelchairs can be propelled most easily on surfaces that are hard, stable, and regular. Soft loose surfaces such as shag carpet, loose sand or gravel, wet clay, and irregular surfaces such as cobblestones can significantly impede wheelchair movement.

This would apply to <u>natural</u> cobblestones which are very irregular and rough on the top.

#### Cobble Systems, now known as Plaza MPP products are not that way on the top of the stone.

Slip resistance is based on the frictional force necessary to keep a shoe heel or crutch tip from slipping on a walking surface under conditions likely to be found on the surface. While the dynamic coefficient of friction during walking varies in a complex and non-uniform way, the static coefficient of friction, which can be measured in several ways, provides a close approximation of the slip resistance of a surface. Contrary to popular belief, some slippage is necessary to walking, especially for persons with restricted gaits; a truly "non-slip" surface could not be negotiated.

### Cobble Systems, now known as Plaza MPP products meet slip coefficient testing as noted in test ASTM C 102896

The Occupational Safety and Health Administration recommends that walking surfaces have a static coefficient of friction of 0.5. A research project sponsored by the Architectural and Transportation Barriers Compliance Board (Access Board) conducted tests with persons with disabilities and concluded that a higher coefficient of friction was needed by such persons. A static coefficient of friction of 0.6 is recommended for accessible routes and 0.8 for ramps. It is recognized that the coefficient of friction varies considerably due to the presence of contaminants, water, floor finishes, and other factors not under the control of the designer or builder and not subject to design and construction guidelines and that compliance would be difficult to measure on the building site. Nevertheless, many common building materials suitable for flooring are now labeled with information on the static coefficient of friction. While it may not be possible to compare one product directly with another, or to guarantee a constant measure, builders and designers are encouraged to specify materials with appropriate values. As more products include information on slip resistance, improved uniformity in measurement and specification is likely. The Access Board's advisory guidelines on Slip Resistant Surfaces provides additional information on this subject.

Per testing done in 2007 on the products in Florida by Ardaman & Associates, Inc. the forming system provides:

- a dry static Coefficient of Friction of 0.63
- a wet static Coefficient of Friction of 0.77
- slip resistance testing per ASTM C 1028-96
- vertical level changes do not exceed 1/4"
- the joints between the paver stones do not exceed 1/2" in width
- it should be noted that the product is delivered with open joints, but when the joint infill is installed properly, there should not be more than 1/4" of vertical change from the top of the adjacent pavers to the top of the infill.

Beyond the forming system, the paving specifications will address the sub-grade preparation so it is a uniform level and not telegraphing non-uniform surface conditions thru the flexible mats. The specifications would, also, address the level of the joint infill so that it is not recessed to the point of providing problems with ADA requirements, as noted above.

This product meets ADA requirements...

# Notes for Snow Climates

Please keep in mind that this product can move with frost heave in a freeze thaw cycle with no cracking. The product's interconnecting grid is made from an engineered polymer that remains flexible even in low temperature conditions, because of its unique shape, and that it is manufactured using air entrained concrete for cold weather climates. The product also contains polypropylene fiber 3D reinforcement so cracking of the individual mat pads should not be a concern if installed correctly.

When installing CobbleSystems, do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen, wet, or muddy sub-grade. Joint infill materials such as polymeric sand must be installed as per manufactures directions. When CobbleSystems is installed with proper slope and on a properly prepared subgrade, ponding that causes freeze thaw deterioration should not be an issue.

Snow plow operators should be educated as to the type of surface they are plowing over prior to beginning snow removal. Teflon runners placed under the snow plow blade are highly recommended. The snow plow operator should be advised to keep the blade up a bit. A 2" to 3" layer of snow left on the paver mats after plowing will rapidly melt, even in cold conditions, due to earth temperature warmth emitting through the product voids and/or solar radiation. Melting snow will infiltrate and will not result in icy conditions on the mat surface in the event of a refreeze. For sites that will require the use of heavy-duty snowplowing machinery, install concrete curbs and/or strips as a level guide for the snow plow blade prior to installation of CobbleSystems mats. CobbleSystems mats should be depressed ½" below the top of the curb/strip to protect the product from the snow plow blade."

#### Section 32 12 \_\_\_

#### PERMEABLE, FLEXIBLE, ARTICULATING and MATTED CONCRETE PAVEMENT SYSTEM

#### PART 1: GENERAL

#### 1.01 Description

A. Work shall consist of furnishing all material, labor, services and related items to complete the installation of a permeable pavement system using an articulating, matted concrete paver product in accordance with these specifications.

#### 1.02 Related Sections

- A. Section 31 10 00 Site Clearing
- B. Section 31 20 00 Earth moving
- C. Section 32 14 00 Unit Pavers
- D. Section 32 80 00 Irrigation
- E. Section 32 91 13 Soil Preparation
- F. Section 32 92 00 Turf and Grass
- G. Section 03 30 00 Cast in place concrete

#### 1.03 Reference Documents

- A. ASTM D-422 Particle Size Analysis
- B. ASTM D-698 Laboratory Compaction Characteristics of Soil Standard Proctor
- C. ASTM D-1557 Laboratory Compaction Characteristics of Soil Modified Proctor
- D. ASTM C-39/39M Std. Test Method for Compressive Strength of Cylindrical Concrete Specimens
- E. ASTM C-33 Std. Spec. for Concrete Aggregates
- F. ASTM C31/ C31M Standard Practice for Making and Curing Concrete Test Specimens in the Field
- G. ASTM C 150 Std. Spec for Portland Cement
- H. ASTM C94 / C94M Std. Spec. for Ready Mixed Concrete
- I. ASTM C 1157 Std. Performance Specification for Hydraulic Cement
- J. ASTM C595 Std. Spec. for Blended Hydraulic Cement
- K. ASTM C618 Std. Spec. for Coal Fly Ash and Raw or Calcined Natural Pozzolan for use in Concrete
- L. ASTM C1611 / C1611M Std. Test Method for Slump Flow of Self-Consolidating Concrete
- M. ASTM C989 Std. Spec. for Ground Granulated Blast-Furnace Slag for use in Concrete and Mortars
- N. ASTM C979 Std. Spec. for Pigment for Integrally Colored Concrete
- O. ACI 201 American Concrete Institute- Report on Durability
- P. ACI 211 American Concrete Institute- Std. Practice for Selecting Proportions for Normal, Heavy Weight, and Mass Concrete
- Q. Permeability Studies by the University of Central Florida
- R. Coefficient of Friction and ADA Compliance report by Ardaman & Associates, Geotechnical, Environmental and Materials Consultants.

#### 1.04 Submittals/Certification

- A. Procedures: Comply with Section 01 33 00 Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Samples:
  - 1) Submit 12" x 12" Articulating Concrete Mats Articulating Concrete Mats™ sample
  - Contractor to submit sieve analysis for grading of bedding sand and base material based on soil condition, proposed loadings and drainage criteria...permeable or nonpermeable

