

Build It Yourself

KEYSTONE *Verazzo Stone*™

Pocket Installation Guide



*Unmatched Design
Flexibility*

Handsome and rugged good looks combine with unparalleled strength and stability.

UNMATCHED NATURAL BEAUTY

- Finished on two sides, allowing both 1- and 2-sided project designs.
- Features a natural stone look without the natural stone price.
- Enhances any outdoor décor with natural colors and textures.

UNPARALLELED SIMPLICITY

- Easy to install, single-unit system.
- Random-pattern aesthetics without a mixed pallet or multiple pieces.
- Keystone's proven pin connection system makes aligning units effortless.

EXCEPTIONALLY VERSATILE AND FLEXIBLE

- Angled on both sides, providing different face lengths for tight fitting straight-line walls and radii at curves.
- Can be used in multiple positions within the wall, and can also be used for 2-sided applications.
- Multiple pin positions allow for near vertical, positive and negative setbacks.



KEYSTONE VERAZZO STONE UNITS



Large Unit

6" h x 10¼" d x 16/13¾" w
68 lbs



Medium Unit

6" h x 10¼" d x 10/7¾" w
35 lbs



Small Unit

6" h x 10¼" d x 6/3¾" w
27 lbs



- 2 ⅜" (60 mm) total length
- 1" (26 mm) shoulder length

NOTE: Unit colors, dimensions, weight, and availability may vary by manufacturer.

BASIC TOOLS



Safety glasses



Safety goggles



Gloves



Layout stakes and line



Torpedo level



Stone cutting chisel



4' Level



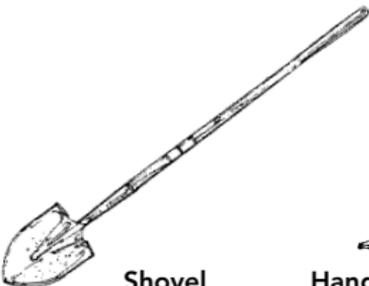
Caulking gun



Hammer



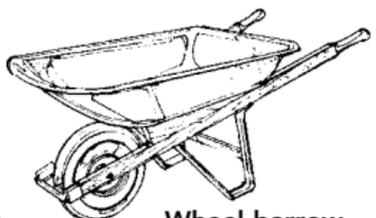
Mallet



Shovel



Hand compactor



Wheel barrow

Note: Power equipment (i.e. small walk-behind vibrating plate compactors and small skid loaders) can be used based on the installer's experience.

INSTALLATION INSTRUCTIONS

STEP 1 | Excavate Base Trench



Determine wall location and dig base trench after removal of surface vegetation. Minimum trench dimensions should be 16" wide x 8" deep. This depth allows for the first course of Verazzo Stone™ units to be partially buried plus 4" of leveling pad material. Use granular fill, road base or smaller dimension crushed stone ($\frac{3}{8}$ " +/-) for the leveling pad. Compact base soil and leveling pad with hand or power equipment to a dense, non-compressive state.

Do not use pea gravel for the leveling pad.

STEP 2 | Set and Align Base Course



Place and level the first course with the unit channel facing downward, making sure that they touch end to end. Level each unit front to back, side to side, and block to block as you place them. Always start the base course at the lowest elevation of the wall. Complete base course before proceeding. If grade elevation rises over length of wall, step up the leveling pad at locations where more than (2) base course units would be buried. Repeat (STEP 1) at area of raised leveling pad. **Note: Use of a torpedo level and/or rubber mallet will be helpful with this step.**

STEP 3 | Insert the Alignment Pins



Place alignment pins in holes provided in the Verazzo Stone® units. Each unit has one or two sets of holes (three holes to a set). Place only one pin per set of holes. Selecting the center hole position will create a vertical wall. If either of the outboard holes (right or left of center) are selected, a setback will be achieved. **Note:** Each unit has a minimum of two textured faces which can be used as the outer face of the wall. Pin placement per unit should be determined for the correct setback or vertical alignment of the wall.

INSTALLATION INSTRUCTIONS

STEP 4 | Backfill and Compact



After stacking each course, backfill behind the wall with granular (free-draining) fill. Compact this material to a dense, non-compressing state.

Do not use pea gravel for drainage fill or backfill.

STEP 5 | Install Additional Courses



Starting at a wall end or straight wall area, begin stacking the second course of the wall. Place the channel from the upper unit over the pins in the course below, spanning the joint between the two lower units. Crossing over the joint by an upper unit should be followed as a general "rule of thumb". **Select appropriate unit face length (short or long) to maximize wall's random appearance, connect to pins, and avoid stacking of joints.** Note: Repeat Steps 3 through 5 until desired wall height is achieved.

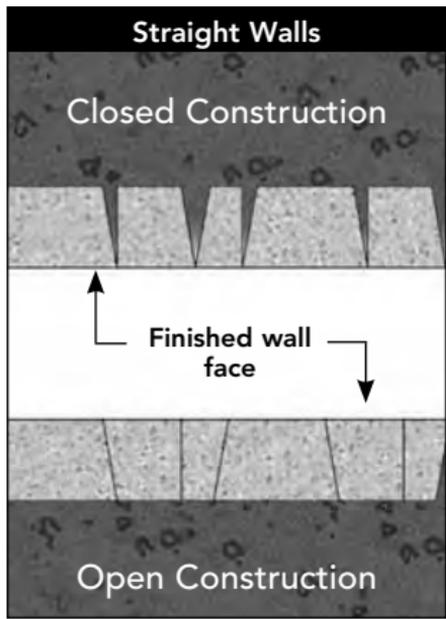
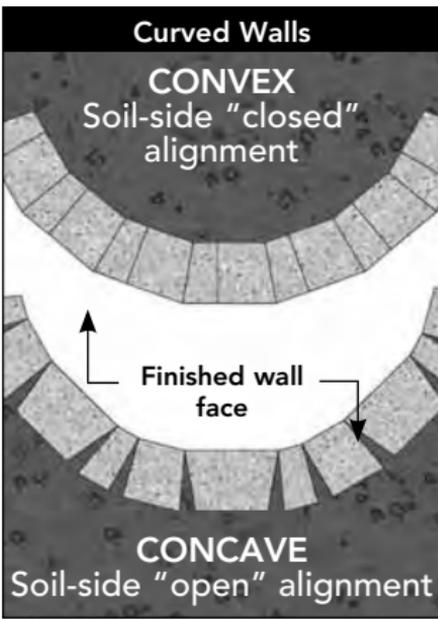
STEP 6 | Capping the Wall



With top row units clean and dry, apply construction adhesive (i.e. Keystone Kapseal adhesive) using a caulking gun. Limit application of adhesive to avoid squeezing out on the wall face. Some cap units may require field adjustment (cutting or breaking) to achieve a correct fit. Using appropriate safety equipment (goggles, gloves, etc.), cut units with a masonry saw or wheel grinder for a smooth edge finish, or crack units using a "guillotine style" paver break to achieve a split textured surface (i.e. 90° corners or columns).

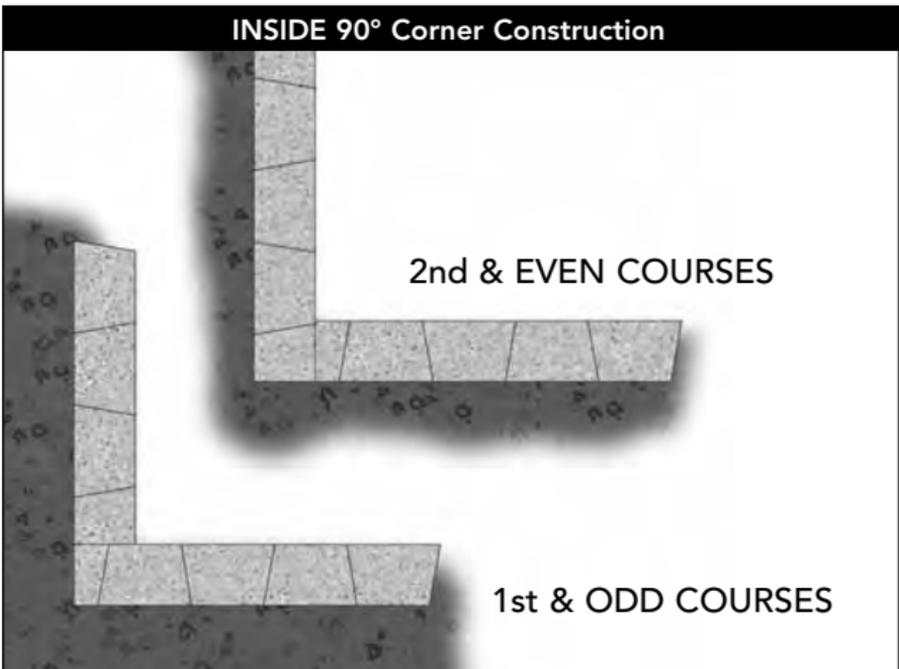
CONSTRUCTION CONSIDERATIONS

OPEN & CLOSED UNIT LAYOUTS



Use the closed construction layout when building freestanding walls to reduce potential for daylight visibility through wall. This will also minimize the flow of fines through the wall face due to rain.

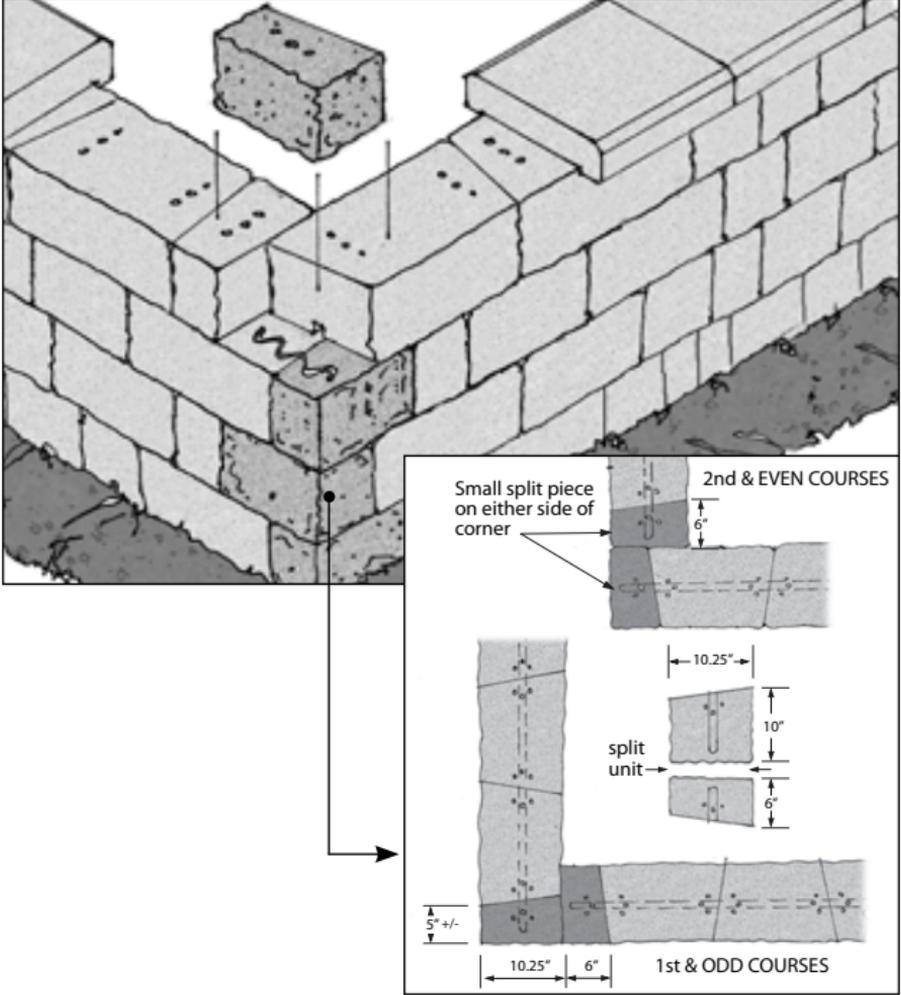
To maximize square footage coverage in the wall, always use the longest parallel side of each unit. Use the open unit layout on walls where one side is buried. With open construction, it is important that non-fine crushed stone is used as a drainage zone, sized to not flow out of wall joints.



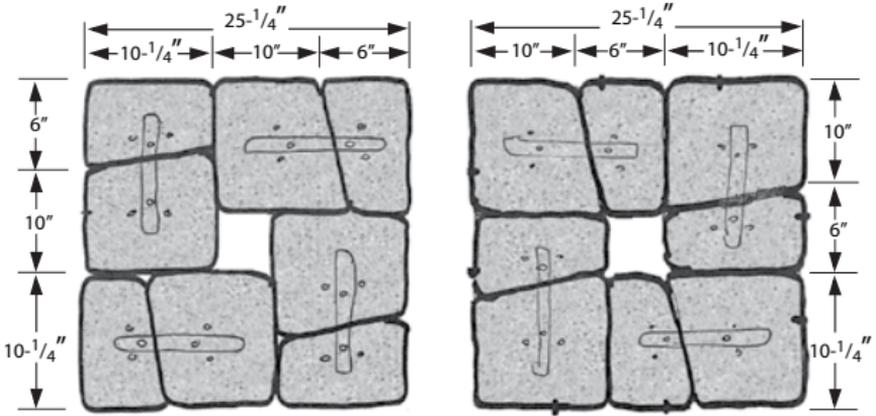
Creating 90° corners is a natural feature of the Keystone Verazzo Stone system. The large Verazzo Stone unit, when split, is capable of being used to create the 90° corner pieces. Note: Use score line to locate split for corner piece.

CONSTRUCTION CONSIDERATIONS

OUTSIDE 90° Corner Construction

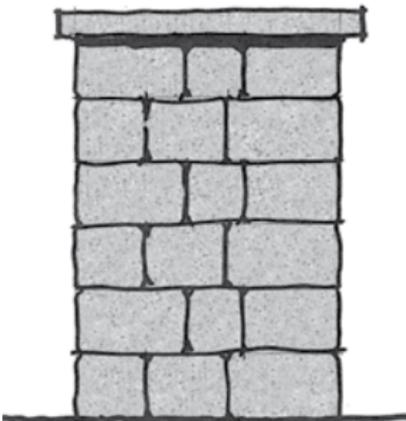


COLUMN Construction



1st & ODD COURSES

2nd & EVEN COURSES



As shown in the above layout, using the large Keystone Verazzo Stone unit, a 25" x 25" column can be built.

CREATIVE SOLUTIONS



Corners



Curved Walls



Planting Areas

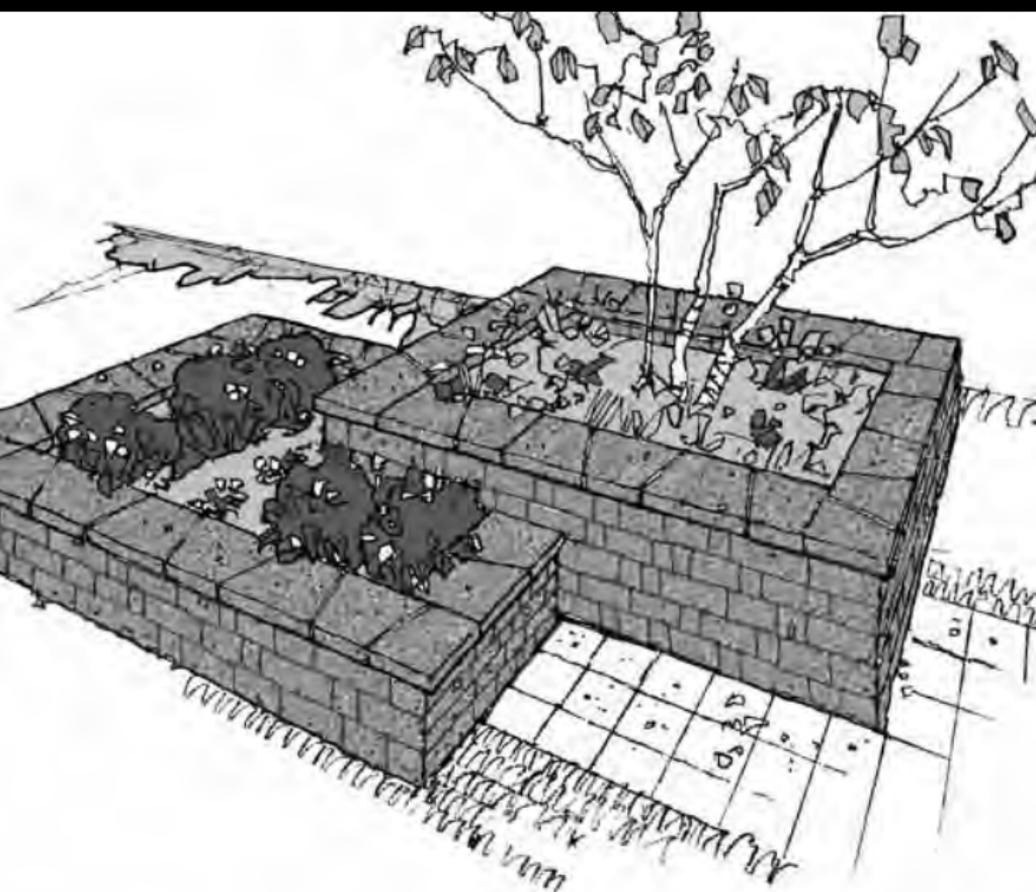


Outdoor Patios



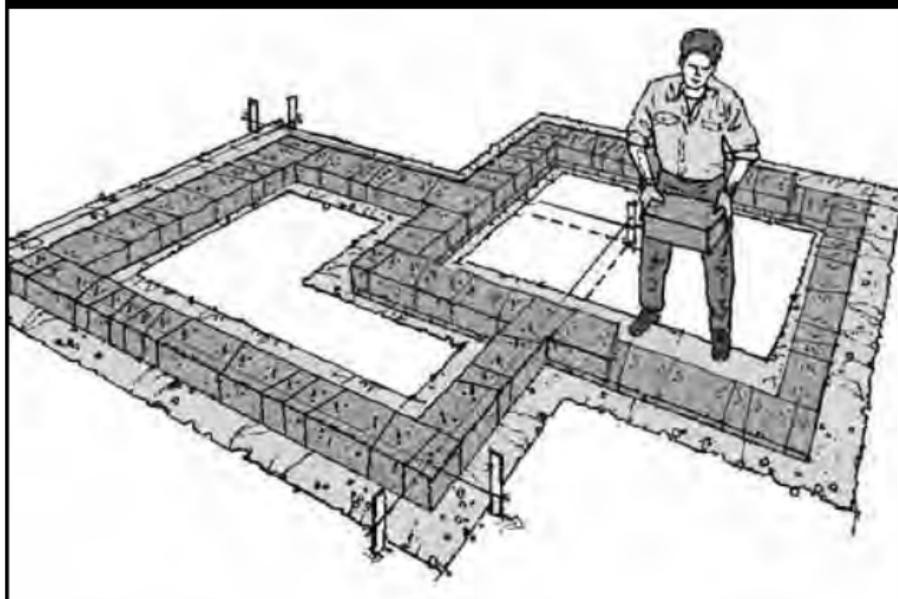
Border Walls and Accents

CONSTRUCTION CONSIDERATIONS



Interlocking planters add beauty and charm to residential and commercial landscapes.

BASE COURSE



The flexibility of Keystone Verazzo Stone gives you the ability to create a wide variety of impressive projects. One particularly rewarding design option is the interlocking planter system. If built correctly, this straightforward project will produce a unique design element that is as sturdy as it is impressive.

In wall designs with 90° corners, it is recommended that the 90° corner option on the large block be used. This will require a field split of the block at the score lines. The small block should be used directly in the corner, overlapped and interlocked with the units above and below. In addition to providing better stability through greater mass, the large units provide an additional pin position for greater design flexibility.



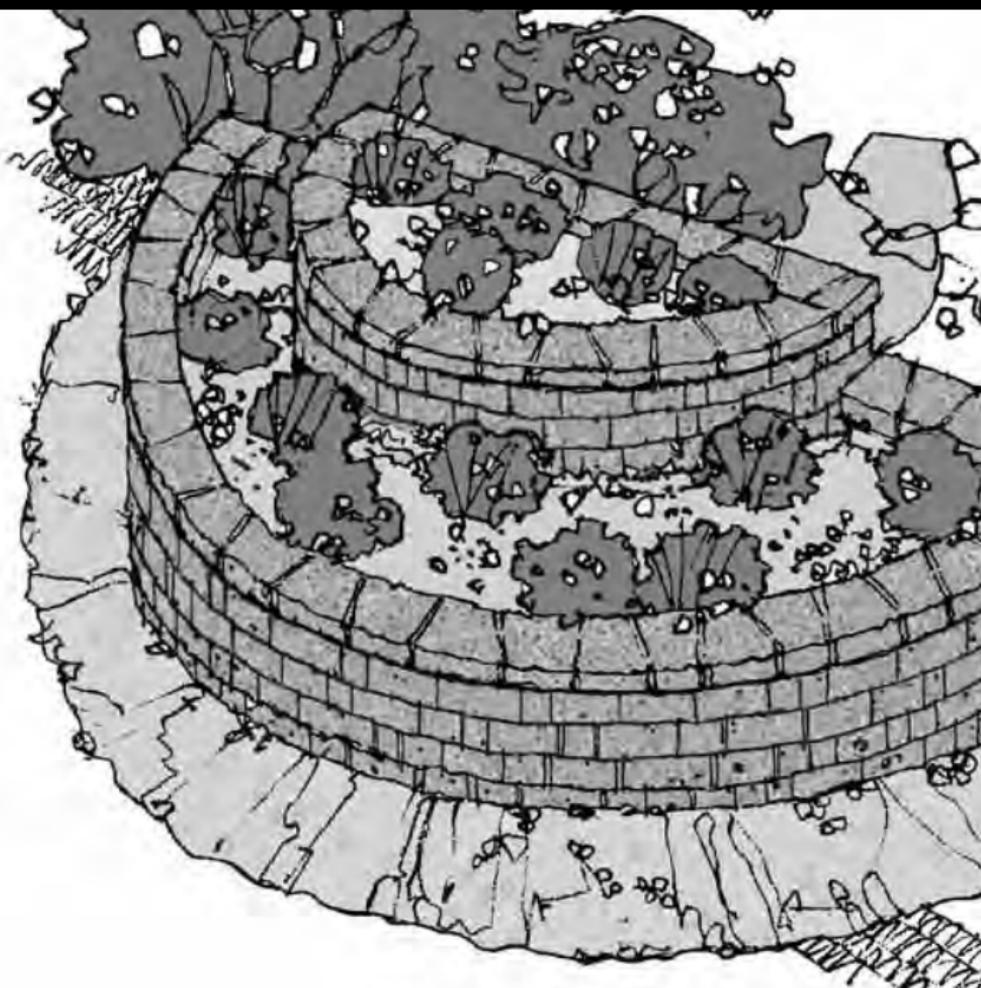
Interlocking planters should be constructed as one cohesive structure, not multiple independent planters. Where planter walls intersect, care should be taken to overlap and interlock the units- not just "butting" the walls up against each other. It is also recommended that planter walls be assembled in the "closed" position (without any gaps along the inside of the wall) when possible.



To insure proper drainage, stability and appearance, each course needs to be backfilled as the wall progresses. Free draining fill material that compacts well (i.e. ½"-¾" crushed stone) should be placed to a depth of 12" behind wall. (Good drainage will help eliminate the undesirable "wet" look at the front of the planter.)

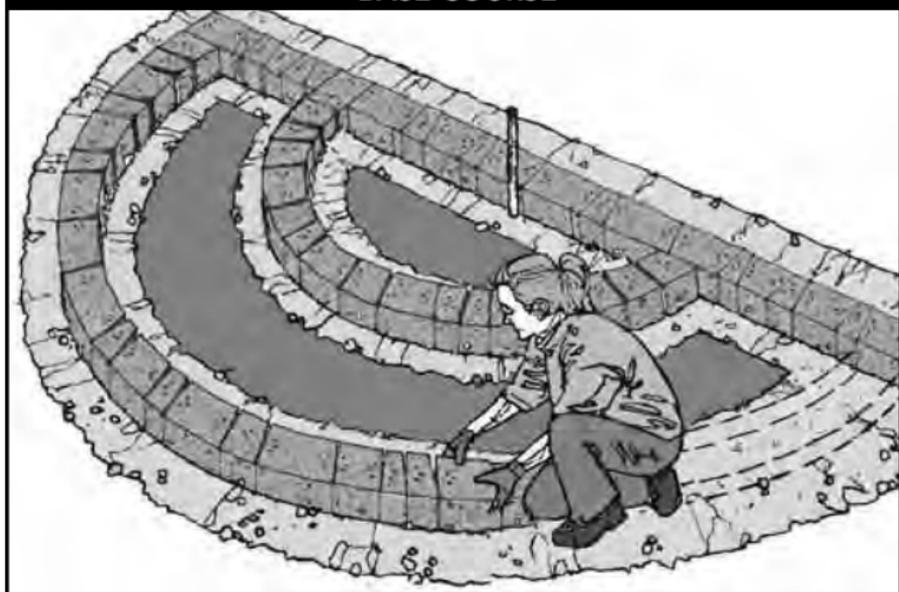


DETAILS | PLANTERS WITH CURVED WALLS



Curved retaining wall planters create a unique landscaping design that compliments the surrounding environment.

BASE COURSE



Keystone Verazzo Stone units make it easy to construct a variety of designs that add depth and beauty to a project. Curved retaining walls blend with the natural contours of any site. Just pick a radius point to mark the "sweep" or base layout of your curved wall. A typical radius range of 3' to 4'-10" can be achieved using various combinations of Keystone Verazzo Stone units. Consult your Keystone sales representative for specific details on radius dimensions.

Curved walls may necessitate “open” orientation or small “V” shaped voids between units on the retained soil side of the planter wall. Just fill these areas with the crushed stone drainage fill.

DESIGN CONSIDERATIONS



Like interlocking planters, raised planters should be constructed as one cohesive structure, not multiple independent planters. Where planter walls intersect, care should be taken to overlap and interlock the units- never “butting” the walls up against each other. When building raised terraces on a level site as shown, the upper terraces should not be built on fill which can be prone to settle, but start the upper terrace at the same grade level as the lower terrace.

WALL ASSEMBLY



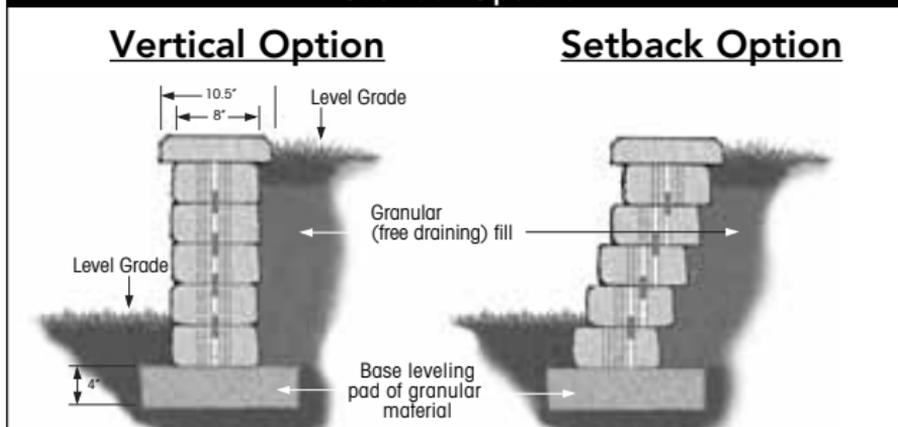
The Keystone Universal Cap unit or other capping units can be cut to fit almost any radius and should be attached to the Keystone Verazzo Stone wall with Keystone Kapseal adhesive or the equivalent. See your local Keystone representative for more details.

CAPPING CONSIDERATIONS



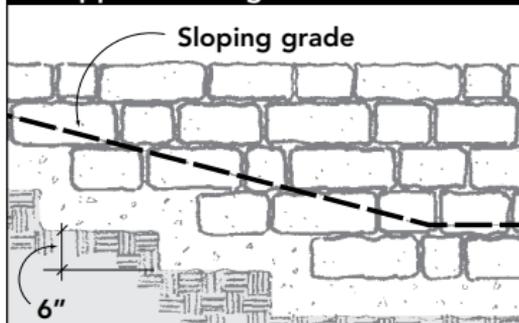
DETAILS | COLUMN CONSTRUCTION

Set Back Options



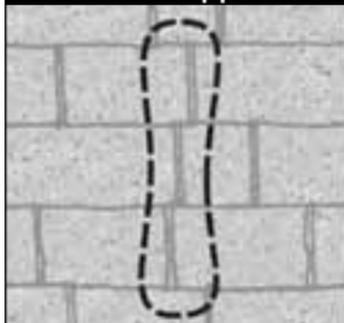
Maximum wall height should not exceed 36". Contact your local Keystone representative for design options to support slopes of top of wall loads when wall exceeds 36" in height.

Stepped Footing and Embedment



Always start building the wall at the lowest elevation of the site where the wall is to be constructed. Build step-ups in the leveling pad to match concrete unit thickness. If using non-reinforced concrete for the leveling pad option, it is critical that the step-ups match the Keystone Verazzo Stone unit thickness!

Pattern and Appearance



Avoid stack bonding of unit joints (vertical joint line between adjoining units) for more than two courses vertically.

Use this guide for estimating the number of Keystone Verazzo Stone units required.

(This estimate is based on equal distribution of each size unit.)

WALL HEIGHT*	WALL LENGTH (measured at wall face including curves)					
	4'	8'	12'	16'	20'	24'
6" (1 course)	4	8	12	16	20	24
12" (2 courses)	8	16	24	32	40	48
18" (3 courses)	12	24	36	48	60	72
24" (4 courses)	16	32	48	64	80	96
30" (5 courses)	20	40	60	80	100	120
36" (6 courses)	24	48	72	96	120	144

Maximum Height Vertical Position
 Maximum Height Setback Position

*Notes:

- Maximum wall height not to exceed 36". The maximum height is based on a level grade, total granular soil, wall built in setback position, and no surcharge. Contact your local Keystone representative for design options on wall heights exceeding 36" or supporting surcharges and backslope.
- Change in color on chart denotes maximum wall height for vertical and setback positions.
- Keystone recommends cap units as the top course and/or caps of freestanding walls secured with Keystone KapSeal™ adhesive.



KEYSTONE Verazzo Stone™



Distributed By:



Keystone Retaining Wall Systems, Inc. • A CONTECH Company
4444 West 78th Street • Minneapolis, MN 55435
(952) 897-1040 • www.keystonewalls.com



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