

barkman™

# stackstone® romanstack®

retaining wall installation guide



Congratulations on purchasing one of the finest concrete retaining wall systems available. Easy to install, StackStone and RomanStack retaining walls were created with the do-it-yourself landscaper in mind. These wall systems produce a zero set back wall with textured, natural-looking surfaces at the front and back. Zero set back means that if you ensure that you have no cutting on your first layer, you will have no cutting on subsequent layers.

### Step-by-Step Installation

The directions in this guide are for the installation of a typical barkman StackStone or RomanStack retaining wall measuring 2 feet in height and under. Use the diagrams and pattern layouts in this guide to plan and design your project. Ask your dealer or contractor for further information.

### Equipment Needed

- Standard carpenter's level, gloves, knee pads, trowel, rake, shovels, wheelbarrow, broom, 2 to 3 lb. hammer, chisel and safety glasses
- Wooden stakes or metal pegs
- Hand tamper
- Concrete saw with a diamond blade (available at rental stores)

## construction details

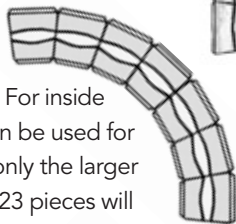
### Solid Wall

To construct a solid wall, the larger faces of adjacent units should be aligned on opposite sides of the wall. This creates a straight wall with continuous stone face on both sides.



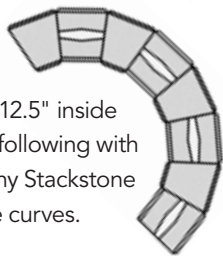
### Curves

The minimum radius for a curve using StackStone is 29" outside and 21" inside. For inside curves either the larger or smaller face can be used for the face of the wall. For outside curves, only the larger face can be used for the face of the wall (23 pieces will make a 42" Inside diameter circle).



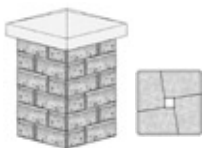
### TR (Tight Radius)

The minimum radius for a curve using TR (Tight Radius) Stackstone is 20.5" outside/12.5" inside when using every other piece as a TR and following with a standard piece. The TR can be used in any Stackstone wall to construct tighter inside and outside curves.



## Pillars

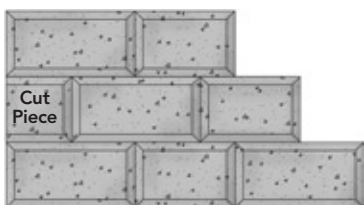
To construct a pillar, use four Advanced Corners to make an 18" square pillar. (Note: Add additional standard units to increase width of pillar.) For additional strength, it is recommended to use masonry glue for each layer.



## Working with Advanced Corners, Standard, TR and Coping Units:

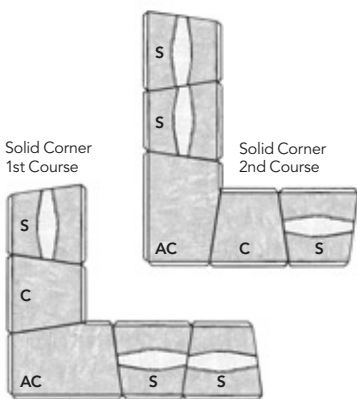
### As a Starter Unit and for Curve Transition

Stagger the joints on each layer. Cut one piece in half and use it on every second layer.



### As a Corner Unit

Corners are made using Advanced Corner (AC) units. Arrange these units as shown in the diagrams to the right, making sure to alternate patterns of Standard (S) and Coping (C) units with odd and even courses. Use adhesive to secure the units together.



## Units Needed

				number of units
$\left( \frac{\text{length (in feet)}}{1.72} \right)$	X	$\left( \frac{\text{height (in inches)} - 4}{4} \right)$	=	standard
length (in feet)	X	1.72	=	coping
number of layers	X	number of corners	=	advanced corner

For a solid wall, determine the length and height of your wall. To determine the number of pieces required for a solid wall, multiply the length of the wall by 1.72. This will give you the number of pieces required per layer (each layer is 4" high.) Note: You will require one Advanced Corner per layer times the number of corners in your wall construction. Next, multiply by the number of layers you wish to have and you will be able to determine the number of pieces you will require. Remember, coping units will be required for the top layer.



# 1

## Plan

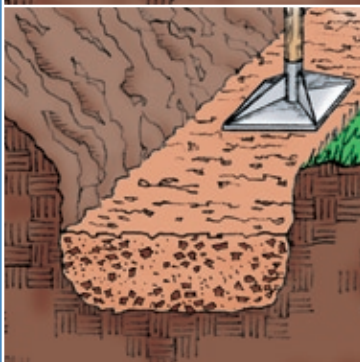
Mark a line on the ground where the front of the wall will be. Measure lengths and heights of each section and use these to calculate (using the estimating formula) the number and type of stones required. Important: Before digging, contact utilities to determine if it is safe to excavate.



# 2

## Excavate

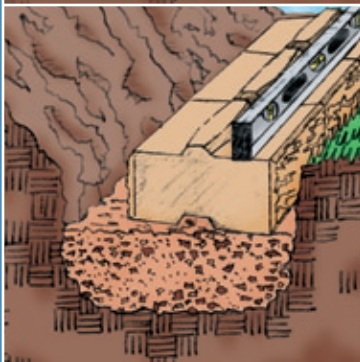
Remove soil to create a trench 8" deep and 16" wide. Shape slope to allow for 6" of drainage material behind the wall.



# 3

## Prepare Base

Place filter cloth under the base and up to the exposed face of the excavation. Compact base soil and ensure native soil is stable. Fill trench with well-graded  $\frac{3}{4}$ " down granular fill and compact to a depth of 2" below ground level.



# 4

## First Course

Position a level string line to mark the location of the first course. Place the first course of units on the prepared base, ensuring each unit is level front to back and side to side. Remember that the bottom row should be approximately 2" below grade.



## 5

### Stack Units

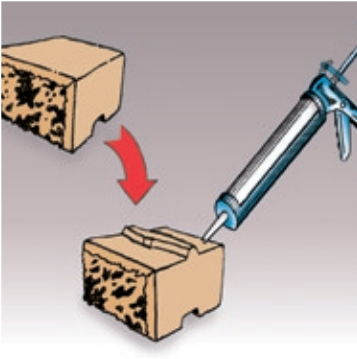
Sweep the first course clean. Place next course on top with the center of each block above the joint between two blocks on the lower course. Repeat for each course.



## 6

### Backfill

Fill behind the wall with  $\frac{3}{4}$ " free draining rock, compacting the fill after every 4" is added. Note: It is recommended to separate draining rock from fill with filter cloth. Place soil in front of the wall to ensure that the base course is completely buried. Stack more units and backfill until the desired height is achieved.



## 7

### Secure Coping

On the last course of wall units place a line of adhesive on both sides of the tongue. Place the Coping unit on top and apply pressure to secure.



## 8

### Finish Grading

After backfilling to about 6" below the top of the wall, pull the filter cloth towards the wall. Backfill the remaining area with top soil. Remember to slope the soil above and below the wall to ensure water will flow away, and not accumulate near the wall. Finish off by pulling the filter cloth towards the wall and place 6" of soil on top.

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Caution: Before any digging, always consult your local utility companies for the location and depth of pipes, cables and conduits. Dry sawing or grinding of concrete products may result in the release of respirable crystalline quartz. Prolonged exposure to respirable crystalline quartz may cause delayed (chronic) lung injury (silicosis). The use of a NIOSH-approved respirator and tight fitting goggles is recommended when sawing or grinding operations are in progress.

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