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H A R D S C A P E P R O D U C T S

“Thank you to all of our Dealers, Contractors, and Customers who contributed in any way to this brochure and the continued success of our business.”

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Each project is unique in some way. Bauer’s comprehensive product lines address various wall heights, site layouts, and architectural goals to ensure that you will have the right product for your specific project. Retaining walls enhance the landscape and add structural definition and lasting beauty to your home.

**Durability** — All Keystone products manufactured by Bauer are made of non-corrosive, high compressive strength concrete, and have low water absorption meeting A.S.T.M. C1372 requirements for retaining walls, ensuring long term durability.

**Ease of installation** — Dry stacked units with pinned or lipped connections, do not require any mortar. This allows for fast installation.

**Cost effective** — Mass production in our state-of-the-art facility ensures competitive costs while maintaining a high level of quality control.

Bauer’s full line of products all have distinct features and benefits. Combined with their high strength, low absorption concrete, they provide permanent, environmentally safe walls that are virtually maintenance free, ensuring long term beauty and strength.

Keystone Garden Wall and Legacy Stone
Keystone’s Garden Wall and Legacy Stone Systems are lightweight, easy to handle and have a natural look of quarried stone. Rear Lip Systems are appropriate for most retaining or terrace walls up to three-feet high. See pages 16-17 for additional details.

Keystone, Compac III and Verazzo Stone
Keystone’s Pinned System units are appropriate for a variety of applications, including low height landscape walls, and taller structural walls which require reinforcement. See pages 18-23 for additional details.

Country Manor & Stonegate
Keystone’s Country Manor and Stonegate walls evoke the Old World charm of a mason-crafted wall and are appropriate for free standing walls and retaining walls. See pages 24-29 for additional details.

Colonial Wall
Bauer’s Colonial Wall is a light weight single size unit, that is ideal for small border or accent walls, but is ideally suited for creating outdoor kitchens, fireplaces, and columns. See pages 30-31 for additional details.

Nicolock Paving Stones
Nicolock’s diverse product line adds style and function to your next project. As you create your dream landscape, a backyard patio, elegant driveway or private pathway through your garden. See page 40-47 for additional details.

Hardscape Products
Bauer carries a wide variety of accessory products that can be integrated into your projects. These include water features, accent lighting, specialty tools and cut stone to finish off your project. See page 32-48 for additional details.

Bauer products can be used for a wide variety of applications from flower beds and borders, to large hills and slopes. Keystone is the most trusted and recognized brand name in the retaining wall industry. From small planter walls to major commercial projects, Keystone’s products offer the variety, features, and benefits for your specific needs.
STONEGATE COUNTRY MANOR with VERAZZO accent banding.

COLONIAL WALL — Note: Custom fabricated steel plate is used to support the arch.

COLONIAL WALL Bar & Fireplace

STONEGATE COUNTRY MANOR with VERAZZO accent banding
GARDEN WALL & LEGACY STONE

Keystone Rear Lip products are ideal for smaller residential walls, and can be used to create a raised bed for planting a flower garden. They create the perfect accent for tree rings, and with multiple colors and finishes, the lighter weight of these units make them ideal for homeowners to handle.

Keystone’s Rear Lip products consist of the Legacy Stone and the Garden Wall. These units are lightweight and easy to handle, and they require no pins or mortar making them perfect for the homeowner to use on residential projects. The sculpted rock face provides for a natural appearance that subtly changes with the lighting of the day.

The Rear Lip System is available in two sizes—the Garden Wall and Legacy Stone, both are versatile for walls less than three feet high. The Garden Wall can be used for flower beds or tree rings and the Legacy Stone fits the contours of a yard to define property borders and edge a garden.

PRODUCT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Garden Wall</th>
<th>Legacy Stone</th>
<th>Legacy Stone</th>
<th>Universal Cup Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three Plane Face</td>
<td>Three Plane Face</td>
<td>Straight Face</td>
<td></td>
</tr>
<tr>
<td>9&quot; D, 4&quot; H, 12&quot; W</td>
<td>10 3/8&quot; D, 4&quot; H, 16&quot; W</td>
<td>10 3/8&quot; D, 4&quot; H, 16&quot; W</td>
<td>12&quot; D, 3&quot; H, 16&quot; W</td>
</tr>
<tr>
<td>Weight: 28 lbs</td>
<td>Weight: 59 lbs</td>
<td>Weight: 61 lbs</td>
<td>Weight: 45 lbs</td>
</tr>
<tr>
<td>*Total SFF x 3</td>
<td>*Total SFF x 1.5</td>
<td>*Total SFF x 1.5</td>
<td>*Total Wall Length ÷ 1.33</td>
</tr>
</tbody>
</table>

Note: All Legacy Stone products may not be in stock at all times and may require additional production times of 2-3 weeks. Contact Bauer or your local Authorized Dealer for current availability.

COLOR SAMPLE CHART

Brown
Gray
Golden Buff/Charcoal Blend
Charcoal
Red
Sandstone/Brown Blend
Sandstone
Sandstone/Charcoal Blend

Building Curves Into Your Wall

The interlocking lip on the Legacy Stone and Garden Wall products can easily accommodate curves while maintaining consistent set-backs. When building a tight convex curve, you can remove part of the outside edges of the lip with a hammer as needed to maintain the proper set-back angle. If building a concave curve, remove the middle of the lip to maintain proper set-back. If binding or gapping occurs, you may remove additional sections of the lip. Curves as small as 2'-2" in radius can be built with Garden Wall. Legacy Stone curves can be built with a radius as small as 3'-6". Minimum is at top of wall. Take into account the set-back on prior courses.

Setback Walls

Both the Garden Wall and Legacy Stone units can be designed to incorporate consistent set-backs.

Keystone Rear Lip products are ideal for smaller residential walls, and can be used to create a raised bed for planting a flower garden. They create the perfect accent for tree rings, and with multiple colors and finishes, the lighter weight of these units make them ideal for homeowners to handle.

Note: To assist in leveling, the rear lip on the bottom of a LEGACY STONE or GARDEN WALL unit may be removed for the first course.
COMPAC III

A properly designed retaining wall will be a long-lasting and valuable addition to your property. The Keystone Pinned System combines strength and beauty for both gravity and reinforced walls.

The Keystone Compac III is the perfect choice and an installer’s favorite. It also offers three distinct face finishes; Three Plane Split, Straight Face, and Victorian finish. (see page 20 for finishes).

The Pinned System is easy to install through a patented fiberglass connector pin providing additional shear strength. And because the Pinned System can be used with reinforcement, it is appropriate for tall walls, short walls, critical and non-critical structures.
COMPAC III

Pinned products can be used for all wall heights, but perform well when a project requires a structural wall to handle large changes in grade or to support loads like a driveway or steep slope. Most structural projects should be reviewed by a qualified engineer to ensure long term stability.

Compac III Victorian Stone features a unique chamfer around the outside edges. Ideally suited for both landscape and structural walls it’s unique defined lines will make your project stand out creating a bold attractive appearance.

Compac III Regency & Regency Scored Units can be combined together to create the illusion of multiple size units within the wall face. The suggested ratio is 2/3 Regency and 1/3 Regency Scored units, however you can experiment to achieve the desired look you want. You can also use either unit by itself to create different looks. Regency has a hard split face and vertical chamfers with an antiqued finish.

To estimate the amount of product needed for your wall, complete the Estimating section (page 49) and apply the calculations to the equation for the desired product. For example: 55 SFF x 2 = 110 Mini Pinned Units needed.

Pinned System Capping Options
Keystone Retaining Walls are not complete without caps. They are available in three and four-inch high units.

**PRODUCT SPECIFICATIONS**

**COMPAC VICTORIAN**

<table>
<thead>
<tr>
<th>Size</th>
<th>Wall Height</th>
<th>Weight</th>
<th>SFF Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>12” D, 8” H, 18” W</td>
<td>9”</td>
<td>74 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>12” D, 8” H, 18” W</td>
<td>8” Corner</td>
<td>74 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>12” D, 6” H, 18” W</td>
<td>9”</td>
<td>77 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>12” D, 6” H, 18” W</td>
<td>8” Corner</td>
<td>77 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>9” D, 8” H, 18” W</td>
<td>9”</td>
<td>100 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>9” D, 8” H, 18” W</td>
<td>8” Corner</td>
<td>100 lbs</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**COMPAC REGENCY**

<table>
<thead>
<tr>
<th>Size</th>
<th>Wall Height</th>
<th>Weight</th>
<th>SFF Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>12” D, 8” H, 18” W</td>
<td>9”</td>
<td>77 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>12” D, 8” H, 18” W</td>
<td>8” Corner</td>
<td>77 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>12” D, 6” H, 18” W</td>
<td>9”</td>
<td>77 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>12” D, 6” H, 18” W</td>
<td>8” Corner</td>
<td>77 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>9” D, 8” H, 18” W</td>
<td>9”</td>
<td>100 lbs</td>
<td>1.5</td>
</tr>
<tr>
<td>9” D, 8” H, 18” W</td>
<td>8” Corner</td>
<td>100 lbs</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**COLOR SAMPLE CHART**

Fiberglass Pins
Keystone’s patented Pinned System features high-strength fiberglass pins that provide a shear connector, securely holding Geo-grid reinforcement and aligning units. Pins fit all size units (except Country Manor which uses a shouldered pin). Two pins are needed for each unit.

Pinned System Capping Options
Keystone Retaining Walls are not complete without caps. They are available in three and four-inch high units.
**VERAZZO STONE™**

Keystone Verazzo Stone™ adds another option for structural walls where a smaller unit profile is desired. The addition of a two sided unit, allows Verazzo Stone Double Split to be used for free standing walls, and raised patios walls to define outdoor living space.

When a structural wall is required, the 8” profile of a Keystone Compac unit is too large. Verazzo Stone™ is just right with it’s 6 inch height, it can be used for structural walls up to 10 feet high. Verazzo Stone™ comes in two styles either single split for traditional retaining use, or double split for free standing and parapet walls, or they can both be used together as they both use Keystone’s proven pinned method for unmatched strength.

As an alternative double split Verazzo Stone™ can be used in a retaining wall application with every other unit turned to create two unique sizes within the wall face.

Keystone Verazzo Stone™ is easy to install and allows for tight fitting straight walls and with it’s tapered sides it also provides for graceful curves and radius walls. Each unit has multiple pin positions which allow either positive, vertical, or setback options.

---

**PRODUCT SPECIFICATIONS**

**Verazzo Stone™ Single Split**

- 12” D x 6” H x 16” W
- Weight: 76 lbs
- Total SFF x 1.5

**Verazzo Stone™ Double Split**

- 18” D x 6” H x 16” W
- Weight: 87 lbs
- Total SFF x 1.5

**Verazzo Stone™ 6” Corner Unit**

- 12” D x 3” H x 16” W
- Weight: 44 lbs
- Total Wall Length x 1.33

---

**COLOR SAMPLE CHART**

- **Oyster/Toffee**
- **Baby/Onyx**
- **Sandstone/Brown**
- **Onyx/Natural**

**Alignment Pins**

Verazzo Stone’s alignment pins provide a shear connector, securely holding Geo-grid reinforcement and aligning units. Two pins are needed for each unit.

---

**Keystone Verazzo Stone™ adds another option for structural walls where a smaller unit profile is desired. The addition of a two sided unit, allows Verazzo Stone Double Split to be used for free standing walls, and raised patios walls to define outdoor living space.

When a structural wall is required, the 8” profile of a Keystone Compac unit is too large. Verazzo Stone™ is just right with it’s 6 inch height, it can be used for structural walls up to 10 feet high. Verazzo Stone™ comes in two styles either single split for traditional retaining use, or double split for free standing and parapet walls, or they can both be used together as they both use Keystone’s proven pinned method for unmatched strength.

As an alternative double split Verazzo Stone™ can be used in a retaining wall application with every other unit turned to create two unique sizes within the wall face.

Keystone Verazzo Stone™ is easy to install and allows for tight fitting straight walls and with it’s tapered sides it also provides for graceful curves and radius walls. Each unit has multiple pin positions which allow either positive, vertical, or setback options.
This dry-stacked, yet mechanically connected wall evokes the Old World charm of a mason-crafted wall. In a castle or home, these graceful curves, monumental columns and free-standing walls are all part of the charm of Country Manor from Keystone.

Wall Variety
For a creative design option, units may occasionally be placed vertically in the wall to provide a break of horizontal lines. To span two, six-inch high courses, use the unit with the 12-inch length. Because the fiberglass pins do not interlock in this position, use adhesive to fasten this unit in place. Be sure the unit above the 12-inch vertical unit spans beyond the six-inch width of the vertical unit, so each end of the vertical unit is covered with a horizontal unit.

Curves
Curving walls add texture to a landscape, creating a circular center patio and separating it from planting areas. Convex (outward) and concave (inward) curves can be built in both the near-vertical and the one-inch setback walls. Because the units are finished on both sides, Country Manor can be used for free standing walls, and columns. However, these should always be built in a vertical position, as well as, each course should be adhered to each other using adhesive.

Keystone Stonegate Country Manor features a unique smooth face which allows for a more refined appearance. Like traditional Country Manor, Stonegate is produced in colors that enhance the natural stone like appearance of this multi-sized product.

Note: Country Manor and Country Manor Stonegate may require the use of Geo-grid even on low height walls under 3 ft. depending on application.
**COUNTRY MANOR & STONEGATE**

Country Manor and Stonegate Country Manor each have three different sized units that provide up to six different face dimensions to achieve a wide range of flexibility for wall layout. Country Manor units are sold by the layer with six of each shape per layer. 18 units total per layer. Country Manor is also sold by the pallet, with four layers per pallet.

**Country Manor**

Product Information

The Country Manor units can be oriented in two different positions when building. For retaining walls, the open or closed positions will work. (When using the open positions, be sure to fill in the gap with drainage aggregate). For free-standing structures, use the closed alignment position.

For installation of Geo-grid with pinned systems refer to Geo-grid Installation on pages 52-53.

**Country Manor Pins**

Keystone’s Country Manor “shouldered” Pinned System features high strength fiberglass pins that provide a shear connector, securely holding Geo-grid reinforcement and aligning units. Pins fit all three size units. Thirty pins are needed for each layer.

---

**Product Specifications**

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Color</th>
<th>Dims (in)</th>
<th>H (in)</th>
<th>W (in)</th>
<th>Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Unit</td>
<td>Sahara</td>
<td>10” D, 6” H, 14”-16” W</td>
<td>6”</td>
<td>14”-16”</td>
<td>60</td>
</tr>
<tr>
<td>Medium Unit</td>
<td>Onyx/Natural</td>
<td>9” D, 4” H, 12”-14” W</td>
<td>4”</td>
<td>12”-14”</td>
<td>40</td>
</tr>
<tr>
<td>Small Unit</td>
<td>Toffee Sandstone/Brown</td>
<td>8” D, 3” H, 10”-12” W</td>
<td>3”</td>
<td>10”-12”</td>
<td>25</td>
</tr>
<tr>
<td>Cap Unit</td>
<td>Sahara/Brown</td>
<td>12” D, 3” H, 14”-16” W</td>
<td>3”</td>
<td>14”-16”</td>
<td>18</td>
</tr>
</tbody>
</table>

For larger, medium and small units, divide total SFF by 8.46 for an “open” alignment or 7.74 for a “closed” alignment to yield the average number of layers needed. 8.46 is the maximum yield per layer depending on the orientation of the units. (i.e. closed or open alignment). For example: 55 total wall length x 1.1 = 60 cap units (on average).

---

**Country Manor Cap Unit**

For the Country Manor Cap Unit, multiply the total wall length by 1.1 to yield the average number of Cap Units needed. (On average, two cap units are needed for every 22 inches of wall length).

---

**Stonegate Country Manor**

Typical Second and/or Odd Numbered Courses

Typical Second and/or Even Numbered Courses

**Country Manor & Stonegate Color Sample Chart**

For installation of Geo-grid with pinned systems refer to Geo-grid Installation on pages 52-53.
Colonial Wall’s highly versatile one unit design can help you create distinguished outdoor living space in your backyard.

Bauer’s Colonial Wall has an aged weathered appearance that gives it the charm and character of costly natural stone products without the high price. Here are just some of the infinite number of landscape design ideas you can imagine with Colonial Wall:

- Outdoor Kitchens & Grill Areas
- Outdoor Bars & Counters
- Outdoor Fireplaces
- Sitting Walls
- Stately Columns
- Mailbox Columns
- Landscape Edging
- Low Height Retaining Walls
- Fence Piers
- Steps

**PRODUCT SPECIFICATIONS**

**COLONIAL WALL**

8” D x 4” H x 12” W
Weight: 29 lbs

*To estimate the amount of product needed for your wall calculate the total SFF* and multiply by 3. This equals the total number of units required.

Wall length x wall height = SFF

Notes:
1. Colonial Wall units must be glazed using a quality masonry construction adhesive.
2. Maximum wall height is 2 feet, column height 3 feet. Walls or columns exceeding maximum height should be reviewed by a qualified engineer. Surcharges loads, or slopes will put additional pressure on the wall, and should be considered in the overall wall height and construction.
3. Cutting of some units may be required on curves, or to create dimensional patterns.

BACKFILL AS YOU CONTINUE UP WITH ADDITIONAL COURSES USING 1/2 TO 3/4 INCHES CLEAN ANGULAR STONE TO PROVIDE DRAINAGE. AS AN OPTION A 4 INCH PERFORATED PIPE MAY BE INSTALLED BEHIND THE COLONIAL WALL UNITS AT THE BASE OF THE WALL.

**INSTALLATION GUIDE**

**Step 1:** Determine wall location and dig a shallow trench for wall base approximately 8 inches deep and 14 inches wide. Place granular leveling pad material 4 to 6 inches thick in trench. Compact and level the granular material. If there are any grade changes along base of wall, create stepped leveling pad as required. Always start wall at lowest elevations, working to highest elevation.

**Step 2:** Place and level the first unit, leveling it front to back and side to side. Facing the wall front, base units should be installed with the unit 4 inches high by 8 inches wide by 12 inches deep, if wall is retaining soil. Continue to level each additional unit to each adjacent unit. Complete the base course before proceeding to add courses.

**Step 3:** Due to the dimensional nature of the Colonial Wall units, the second and subsequent courses can be stacked in different directions creating varying patterns within the wall face. As an alternative, units can be stacked in a running bond pattern, meaning each additional course of units will sit on one half of each of the units below it. Because this is a gravity wall, height should be limited to a maximum of 2 feet, and all units should be glued to each other with an approved masonry construction adhesive. If this wall is acting as a retaining wall then the wall should be 12 inches front to back. Cutting of some units may be required on curves, or to create dimensional patterns. Backfill as you continue up with additional courses using 1/2 to 3/4 inches clean angular stone to provide drainage. As an option a 4 inch perforated pipe may be installed behind the Colonial Wall units at the base of the wall.

**COLOR SAMPLE CHART**

**Notes:** Colonial Wall is also available in Oynx for banding and accents as shown in the photo below.
Bringing the Indoors Outside...
where one space ends another begins.

The outdoor living concept can include many different aspects, from fire pits, bars and seating areas, to grill stations, and custom built fireplaces like those pictured on the next few pages. These fireplaces can be built using Country Manor, Stonegate, or Colonial Wall. We also have high quality drop in stainless steel inserts available simplifying construction using your choice of product. As an option custom mortared fire brick boxes can be constructed if you prefer a larger opening.
HARDSCAPE PRODUCTS—FIREPLACES

If you’re looking to add a functional and dramatic element to your outdoor room, then consider an outdoor fireplace using Innovative Hearth Products (IHP) stainless steel insert from Bauer.

America is moving outdoors, and IHP’s fireplace insert is the perfect complement to any outdoor living area. This outdoor fireplace insert can be used with Colonial Wall, Keystone Country Manor, or Keystone Country Manor Stonegate to create a stunning addition to your project. The IHP insert features a clean, one piece brushed stainless steel face with no exposed seams or screws, stainless steel spark screens, and even a solid stainless steel log grate. These units also feature a realistic textured refractory brick liner in natural white.

The IHP insert is available in both a 36” or 42” unit, and is wood burning ready, or as an option it can easily be adapted for gas log usage.

Note: When constructing the fireplace, a solid piece of steel angle needs to be installed above the insert opening to carry the load of the retaining wall units installed above the opening.
HARDSCAPE PRODUCTS—FIRE PITS

Bauer offers an easy to construct Fire Pit that you can build yourself in an afternoon and enjoy that evening.

Enjoy your patio on a cool summer evening with the warmth and atmosphere an outdoor fire pit can bring. Whether it’s an evening for two or your entertaining the neighbors, this easy to construct fire pit will provide years of outdoor enjoyment. Bauer’s outdoor fire pit is constructed using the Keystone Country Manor or Stonegate Country Manor Caps. It features a steel insert that slips into the opening, protecting the block from excessive heat. It is available as a standard steel ring with an optional cooking grate. The fire pit is designed to be wood burning, however if you prefer you can have a professional install a gas log insert.

The interior width of the fire pit opening is 27” in diameter. The overall width of the fire pit is 51” in diameter. The Bauer fire pit can be constructed directly on a paver patio as shown, or as an option it can be built in the backyard on a minimum 6” compacted stone base.

We also offer a square fire pit insert. This insert is designed to be used along with our Colonial Wall and Country Manor products to create an attractive and functional outdoor living element sure to enhance any backyard entertainment area. Available with or without cooking grate. The inside dimension is 27” x 27” and the outside dimension of the square fire pit is 44” x 44”.

INSTALLATION GUIDE

Cross section of a typical fire pit installation on patio.

| 1S-027/8 Standard Steel Ring shown with optional IA-Grate kit. Grate size: 12” x 21” |

| COLONIAL WALL Square Fire Pit with optional cooking grate |

| VERAZZO STONE seating walls with custom sandstone cap and COUNTRY MANOR Fire Pit |

| COUNTRY MANOR & STONEGATE Fire Pit |

| COUNTRY MANOR Fire Pit |

| COLONIAL WALL Square Fire Pit with optional cooking grate |

| COUNTRY MANOR Fire Pit |

| COUNTRY MANOR Fire Pit |

| COUNTRY MANOR Fire Pit |
INTEGRAL LIGHTING

Integral Lighting offers a unique and innovative solution to hardscape lighting. Lighting can be used to illuminate a walkway or to highlight steps, walls and columns.

Integral Lighting’s full line of low voltage hardscape lighting products are now available at Bauer. These lights are easy to install in new or existing construction and can light up stairs and pathways or highlight columns. Lights are available in multiple finishes to accent most retaining wall products, and are available in both halogen and L.E.D. style fixtures.

Contact Bauer or your Authorized Dealer for more detailed information.

Below and Right: COLONIAL WALL

COLORFALLS

Enjoy the sights and sounds of a soothing lighted falls in your next landscape project. Available in multiple colors, Colorfalls is an easy, virtually maintenance free way to add a water feature to your patio or backyard.

The Colorfalls system is specifically designed for use with hardscape materials, and is a perfect fit for incorporating into formal backyard patios and retaining walls. Colorfalls can add a breathtaking new dimension by introducing the element of water to your outdoor entertainment area. Colorfalls is available in several different colors to accent your project while bringing the relaxing sound of a waterfall creating your own backyard oasis, and it’s lighted so you can enjoy it both day and night.

The 24" Colorfalls Kit comes with everything required to easily install it into your next hardscape project. Water is recirculating and is virtually maintenance free. The kit includes a pump, power supply, pipe and fittings, basin, and L.E.D. lighted falls head. Colorfalls is also available as a 12" or 36" kit by special order. Contact Bauer or your local Authorized Dealer for more information.

Below and Right: COLONIAL WALL
Raven Bauer offers Nicolock’s full line of paving stones to create dramatic patio areas, stately driveways and inviting walkways. Nicolock’s products can complement any hardscape project with multiple colors, styles and finishes.

Nicolock produces a complete line of interlocking concrete paving stones in 20 different colors, which consist of both solid and multi color blends. With an extensive product line and large color selection, Bauer can provide you with infinite possibilities for your landscape projects. Although they are new to the Pittsburgh market, the Nicolock organization, a division of Nicolock Concrete Products, is backed by over 50 years of experience in the production and supply of quality concrete products. Based out of Lindenhurst, NY, with locations in North Haven, CT, and Frederick, MD, Nicolock operates a high-tech, multi-plant manufacturing facility and services the regional Northeast and Mid Atlantic Region.

Options include everything from traditional products such as Holland and Cobblestone, to multi-size tumbled products like Country, and Village Pavers. These products provide a weathered look reminiscent of old world stone products and compliment such Bauer Products as Country Manor and Colonial Wall.

We at Bauer are very excited to be able to offer this premier line of interlocking paving stones in the Tri-State Area. Contact Bauer for a complete brochure, or stop by your local Bauer Authorized Dealer today!

PAVING STONE PRODUCTS

HOLLAND STONE

Color Sample Chart

PRODUCT SPECIFICATIONS

Bauerblock.com | 41
COLONIAL COBBLE COMBO

COLOR SAMPLE CHART

- Adobe Blend
- Golden Brown Blend
- Granite City Blend
- Fire Island Blend
- Autumn Blend®
- Bayberry Blend®
- Crab Orchard Blend®
- Oyster Blend®

*denotes premium color

PRODUCT SPECIFICATIONS

Multi-size rectangular shapes • Flat surface • Chamfered edges

- Golden Brown Blend
- Granite City Blend
- Fire Island Blend
- Autumn Blend®
- Bayberry Blend®
- Crab Orchard Blend®
- Oyster Blend®

**Charcoal**

Sizes not sold separately.

- CC NORMAL AND CC 1.5N in the “I” Pattern (Granite City Blend “Sunk-In”)
STONE RIDGE XL

Color Sample Chart

Adobe Blend
Golden Brown Blend
Granite City Blend
Lilac Blend

RIDGE BRICK

Color Sample Chart

Adobe Blend
Brown/Chocolate
Granite City Blend
Winchester Blend

PRODUCT SPECIFICATIONS

Over-sized brick shape
Tinted stone surface
Slightly chamfered edges

STONE RIDGE XL: Oyster Blend (Random)
Border: RIDGE BRICK: Granite City Blend (Soldier)

COUNTRY COMBO

Color Sample Chart

Adobe Blend
Golden Brown Blend
Granite City Blend
Oyster Blend*

PRODUCT SPECIFICATIONS

Multi-size rectangular shape
Slightly natural stone surface
Slightly chamfered edges
Can be combined with STONE RIDGE

STONE RIDGE XL: Oyster Blend (Random)
Border: RIDGE BRICK: Granite City Blend (Soldier)

PRODUCT SPECIFICATIONS

Color Sample Chart

Adobe Blend
Golden Brown Blend
Granite City Blend
Oyster Blend*

COUNTRY 6 X 6 AND 6 X 9

PRODUCT SPECIFICATIONS

D" width "length "thickness pcs./s.f. s.f./pallet pcs./pallet lbs./pallet
A 3" 6" 2-3/8" 4 120 480 3,360
B 6" 6" 2-3/8" 4 180 720 4,320
C 6" 9" 2-3/8" .93 50 - 50
D 9" 9" 2-3/8" 2.7 113 452 3,464

PRODUCT SPECIFICATIONS

Adobe Blend
Golden Brown Blend
Granite City Blend
Oyster Blend*

PRODUCT SPECIFICATIONS

Color Sample Chart

Adobe Blend
Golden Brown Blend
Granite City Blend
Oyster Blend*

PRODUCT SPECIFICATIONS

Color Sample Chart

Adobe Blend
Golden Brown Blend
Granite City Blend
Oyster Blend*

PRODUCT SPECIFICATIONS

Adobe Blend
Golden Brown Blend
Granite City Blend
Oyster Blend*

PRODUCT SPECIFICATIONS

Adobe Blend
Golden Brown Blend
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PRODUCT SPECIFICATIONS

Adobe Blend
Golden Brown Blend
Granite City Blend
Oyster Blend*
6 X 12 FULLNOSE COPING

Color Sample Chart

- Adobe Blend
- Chosen
- Charcoal
- Fire Island Blend
- Golden Brown Blend
- Granite City Blend
- Terra Cotta Blend
- Winchester Blend
- Chocolate
- * denotes premium color

PRODUCT SPECIFICATIONS

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<tr>
<th>Color</th>
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OLDE TOWNE FLAGSTONE

Color Sample Chart

- Autumn Cotswold
- Bluestone
- York Brown
- Mocha
- Gironde*

* denotes premium color

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HARDSCAPE ACCESSORIES & TOOLS

Bauer offers a comprehensive line of tools and accessory products. Using the right tools will add to the ease of installation and can improve your overall project. Check with an Authorized Dealer in your area for availability.

SUREBOND

SUREBOND—A complete line of cleaners and sealers to clean, protect and preserve your hardscape project.

SLEEVE-IT

SLEEVE-IT™—Don’t wait until the retaining wall is built to consider fence requirements. The Sleeve-IT System works within any new wall construction, providing easy code compliant fence installation perfectly in every way.

MK Diamond

MK Diamond—a full line of concrete accessories including diamond blades for cutting and diamond cup wheels for grinding.

SNAP EDGE

Snap Edge—The premier edging for installation of paving stones. Snap Edge can be used for both curves and straight areas eliminating the need for multiple edging types.

SANDSTONE TOP

Sandstone Top—We now offer a custom 40” round sandstone table top that has a highly polished surface ideal for your backyard patio project. The base can be built at table or bar height from either Country Manor or Colonial Wall. This table is built with Colonial Wall. See your local authorized dealer for more information. (See Photo’s to Right)

Batter offers a comprehensive line of tools and accessory products. Using the right tools will add to the ease of installation and can improve your overall project. Check with an Authorized Dealer in your area for availability.

Natural Limestone and Sandstone—Bauer offers natural limestone and sandstone caps sized to finish off columns made from our products. In addition to these standard sizes, custom sizes can be special ordered.

MK Diamond—A full line of concrete accessories including diamond blades for cutting and diamond cup wheels for grinding.

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INSTALLATION

To the right are four photos depicting specific installation steps which are typical of the beginning steps in constructing ALL Keystone Retaining Wall products.

Step 1: Prepare the base leveling pad. Excavate the base trench to the desired width and depth. Compact the base trench soils prior to placing any stone in the trench. Start the leveling pad at the lowest elevation of the wall. Level the prepared base with a minimum six inches of well-compact ed angular granular fill. Keystone recommends additional trench depth for below grade placement of Keystone units on a ratio of one inch below grade for each eight inches of wall height above grade (to a maximum of three units buried.) This lowers the base course below grade locking the wall in place and also helps prevent erosion and scouring at the base of the wall. The base trench should be wide enough to allow for the unit and drainage zone. Walls built to a level condition on a sloping grade require a stepped base. It is best to work out the stepped base as the wall steps up in elevation.

Step 2: Install the base course. When installing the first course, be sure the pinholes are face up. Place units end-to-end with corners/edges touching and be sure each unit is level—side to side and front to back. Use a string line across the back edge of the units to ensure that the wall is straight. Place a 4” perforated drainage pipe behind 1st course. To the right are four photos depicting the cap placement. The Country Manor Cap is a three inch high concrete unit that has two textured sides, allowing the unit to have either side as a finished face for straight and curved wall applications. The 12-inch depth from face to face of the Universal Cap allows for a one-inch overhang or “shadow” effect over each side of the wall. This shadow effect can be eliminated on retaining walls by pushing the cap flush with the wall plane. Use adhesive to fasten caps in place.)

Step 3: Insert the fiberglass pieces. Place two pins in each unit. With the “pinned” system, it is easy to build a near-vertical wall, a set-back. When constructing curved walls, use the front pin position for best results. This will minimize any gapping or binding on curves.
Step 4: Install drainage fill, backfill and compaction. Once the pins have been installed, fill in all voids—in and between Keystone units—using 1/2 to 3/4 inch clean angular crushed stone. Place drain zones and 4” perforated pipe behind the units as required to achieve a minimum two foot depth of drain-age zone from unit face. Compact material in unit cavities appropriately to eliminate settling. When clay or poor soils are present we recommend that the entire Geo-grid zone be backfilled with clean angular crushed stone.
Step 5: Install additional courses starting at the straight wall areas. Place units over pins and center over joint of units below. When stacking the units, pull them toward the face of the wall until it makes full contact with both pins. If pins do not connect with channel but align in open core of upper unit, place drainage fill in core to provide unit interlock with pin. Additionally adhesive may be used to secure small units or any other areas that may not align with pin.
Step 6: Capping options. Install Keystone caps. The Country Manor Cap is a three inch high concrete unit that has two textured sides, allowing the unit to have either side as a finished face for straight and curved wall applications. The 12-inch depth from face to face of the Universal Cap allows for a one-inch overhang or “shadow” effect over each side of the wall. This shadow effect can be eliminated on retaining walls by pushing the cap flush with the wall plane. Use adhesive to fasten caps in place.)

Building Terraces

Terraces are a pleasing way to build a taller retaining wall. Chubby spaced terraces need to be reviewed by a qualified engineer to determine overall stability. Terraced walls should be analyzed as a complete wall system versus an individual wall, unless they are spread greater than twice the wall height of the lower or first wall and the soils are free draining and granular in nature.

Avoid stack bond situations with ALL Keystone products. To the right are four photos depicting the cap placement. The Country Manor Cap is a three inch high concrete unit that has two textured sides, allowing the unit to have either side as a finished face for straight and curved wall applications. The 12-inch depth from face to face of the Universal Cap allows for a one-inch overhang or “shadow” effect over each side of the wall. This shadow effect can be eliminated on retaining walls by pushing the cap flush with the wall plane. Use adhesive to fasten caps in place.)

Assessing Wall Performance

Descending slopes, as illustrated at bottom right, are a critical condition, and should be reviewed by a qualified engineer prior to construction.

Contact Your Local Authorized Dealer

After you have completed your sketch, and selected a product type, take your measurements to your local Authorized Dealer. They can assist you in preparing a final product estimate for your project. Additionally most Authorized Dealers have displays at their yard to assist you with product and color selection. To locate an Authorized Dealer near you call 1-800-419-WALL or visit our web site at www.bauerblock.com and click on Where to Buy.
Geo-grid is used to reinforce and stabilize the backfill area behind a wall. Additionally, through its connection with the Keystone fiberglass pins, the Geo-grid acts as a tieback to maintain the position of the wall face. Retaining walls 3 feet or higher may require Geo-grid.

Bauer distributes the Stratagrid line of polyester Geo-grids through our Authorized Dealers. Stratagrid Geo-grids reinforce soil with their high molecular weight and high tenacity polyester yarns. The yarns are precision knitted, dimensionally stable and coated with a black UV stabilized material which provides both mechanical and chemical durability. Stratagrid is produced in multiple strengths in order to provide the most efficient design possible for your retaining wall project. Stratagrid has been proven in the lab and by its installation in literally thousands of applications over the past decade.

**Step 1:** Excavate reinforced soil area. Remove existing soils in the reinforced soil area to the maximum embedment length of the Geo-grid design. Provide a generally level soil condition behind the wall units for the placement of each Geo-grid layer.

**Step 2:** Cut Geo-grid. Cut sections from Geo-grid roll to the specified length (embedment depth). Geo-grid roll direction is from the wall toward the embankment (check manufacturer’s criteria). In most cases correct orientation is to roll the Geo-grid perpendicular to the wall face.

**Step 3:** Install Geo-grid. Hook Geo-grid over the fiberglass pins to ensure a positive mechanical connection between the unit and Geo-grid.

**Step 4:** Secure Geo-grid. Pull the pinned Geo-grid taut to eliminate loose folds. Stake or secure back edge of Geo-grid before and during backfill and compaction. Remove stakes, if desired, once backfill is placed. Place additional sections of Geo-grid, abutting each other, for continuous coverage at each layer.

**Step 5:** Install next course of Keystone units. Check for level with each new course.

**Step 6:** Place compacted backfill over Geo-grid in 6 to 8 inch lifts. Provide a minimum of six inches reinforced fill coverage prior to driving equipment over the Geo-grid with wheeled or tracked equipment. Avoid driving or turning equipment directly on Geo-grid to avoid excessive damage.

The advantages of Geo-grid reinforced structure include:

- Construct walls faster; the wall structure and backfill are constructed at the same time
- Eliminates the need for deep structural footing and excavation due to flexible system design
- Provides durability; long term performance, resists effects of water, micro-organisms, alkali or acidic soils
- Allows a structural wall to be built with an architectural finish

**Properties of Geo-grid**

- High tensile strength
- Long-term creep resistance
- Open geometry for interlock
- Non-degradable
- “off-the-shelf” availability

Bauer carries common roll sizes which are 6’ W x 150’ L, or 6’ W x 300’ L depending on the product. We also have smaller rolls ideal for residential applications which are 4’ W x 50’ L. Additionally we carry the Stratagrid woven geotextile fabric and the Sleeve-it product. Contact your local Authorized Dealer for more information and availability of these products.

Note: In critical situations Geo-grid may be required in walls under 3 ft. Review your project with a qualified engineer to determine requirements.
DO-IT-YOURSELF

FREQUENTLY ASKED QUESTIONS

DO-IT-YOURSELF FREQUENTLY ASKED QUESTIONS

Why do some walls need reinforcement?

Geo-grid creates a stable mass that allows walls to be designed and constructed to much greater heights than simple gravity walls because it stabilizes the soil behind the wall.

Geo-grid is used to impart tensile strength into soil structures, allowing such structures to be built taller and steeper than the soil alone would allow, or for building down a hillside, with bearing capacities sufficient for supporting a proposed structure. Geo-grid can be thought of as performing in the soil in much the same way that reinforcing steel bars perform in the concrete.

The amount of Geo-grid required in a retaining wall structure, and of the layers of Geo-grid in the retaining wall structure, must all be determined by the specific project considerations (wall height, surcharge loadings, soil, etc.) of the individual project (see Reinforcement notes on pages 52-53).

How high can walls be built without the use of Geo-grid?

The various Keystone retaining wall systems can be constructed between two-feet and four-feet high (in ideal conditions) depending on the soil conditions, amount of batter used and surcharge on top of wall. Due to the nature of clay soils in our region most walls will require some reinforcement. Contact Bauer to determine if your project can be built without the need for Geo-grid.

Are concrete footings ever necessary or required?

In most cases, Keystone walls can be built directly on six to eight inches of well-compacted granular base. However, there may be instances to consider the use of a concrete leveling pad. Examples of these are: applications near water, a taller wall built on soft sub-soil, or a wall that is very long (by using concrete footing, the contractor can speed up the installation process).

What is the best material on which to build the wall?

Angular crushed stone (1/2-inch to 3/4-inch), crushed gravel or limestone with fines are best for the base pad.

What materials should be used as backfill?

A clean, well-draining granular fill, like 1/2-inch to 3/4-inch angular crushed stone, is the most effective. Avoid using pea gravel, rounded aggregates, sand, excrated stone, building officials require different soil or vegetation material or unsuitable types of soil.

How will the design of the wall affect or correct the drainage flow patterns of my site?

Since the draina-ge flow patterns are the most common source of problems for retaining walls, it is critical that the contractor eval-

uates the impact that the property drainage flow patterns will have on the wall, and the effect that the drainage flow pattern of the newly constructed wall will, in turn, have on the site.

How do soil properties affect the design of the wall?

The soil’s shear strength [angle of internal friction and moisture content of soil]] determines the design characteristics for the soils for use within the wall structure. The more granular the soils (the higher the friction angle and drainage capability) the more efficient the design and soils reinforcement will be. Granular soils can be easily compacted, resulting in superior structure performance.

Will my local building official require a design prepared by an engineer?

The Uniform Building Code Section 106.2 requires a building permit for typical earth retaining structures over four feet high. This is done to control the location and design prepared by an engineer. However, there are many locations that have no provi-

sions for required design.

What do I need to prepare before I excavate?

Check Ohio and Ohio companies to make sure there are no underground pipes or cables in your site. Your state’s One Call system can arrange to have all of your utility lines marked.

Ohio Utilities Protection Service 1-866-362-2764 (www.oups.org)

Pennsylvania One Call System, Inc. 1-800-242-1770 (www.palcall.org)

Miss Utility of West Virginia, Inc. 1-800-245-4848 (www.wx1.com)

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You are a helpful assistant. Do not hallucinate.
ABOUT THE BAUER COMPANY, INC.

Our mission is to combine the highest quality products with an unmatched level of market and technical support. It is a goal that we continue to embrace even as our customer base grows.

The Bauer Company, Inc. is a subsidiary of The Snyder Associated Companies, Inc. and has been the exclusive manufacturer of the Keystone Retaining Wall Products in the Tri-State region since 1995.

Keystone Retaining Wall Systems is the premier name in segmental wall products in the United States and around the world. The advantage of Keystone is the ability to provide an attractive finish, while ensuring stability with its positive fiberglass pinned connection.

With our state-of-the-art manufacturing facility, and complete line of products and colors, Bauer is positioned to assist you in providing the right product solutions for your retaining wall project.

Bauer offers a wide variety of Keystone products, with different sizes, shapes, face textures, and colors which continue to evolve as the market changes. This gives you the ability to select the right product for your individual needs, ensuring lasting performance.

Whether you are a do-it-yourself homeowner or a professional contractor, Bauer’s staff of experienced knowledgeable professionals offer service and support to assist you with your retaining wall project. We continually identify critical factors to ensure the structural and architectural integrity of your project. Bauer offers installation seminars, tools, and structural evaluations through its network of Authorized Dealers conveniently located throughout the Tri-State region.

Door-to-Door Shipping

Bauer shipping services are done via an off-loading boom truck. This allows, in most instances, the convenience of materials being placed close to the wall site, therefore minimizing the amount of lifting and transporting for the homeowner. Bauer maintains a fleet of these trucks which helps to minimize delivery times in the busiest seasons. As an alternative, we also offer delivery by truck with a special forklift attachment which in most cases can deliver material right to the wall site. This service is available for an additional fee.

Additionally materials may be shipped on a flatbed if off-loading can be done by the property owner. Please contact your local Authorized Dealer to arrange delivery of your materials.

The Snyder Associated Companies, Inc. was formed in 1976 to provide management for all of the Snyder subsidiaries, which include retail, manufacturing, and service industries. Among these are Allegheny Mineral Corporation, Armstrong Cement and Supply, and Glacial Sand and Gravel. These three companies supply the raw materials required to manufacture Bauer retaining wall products. This relationship allows Bauer to maintain the consistency and quality of our retaining wall products to the marketplace.

PRODUCT WARRANTY

Each retaining wall unit manufactured by The Bauer Company, Inc. comes with a residential Limited Lifetime Warranty to the original purchaser. All dry cast retaining wall products meet or exceed ASTM C-1372 specifications. If a product installed according to the manufacturers recommendations deteriorates due to natural causes, The Bauer Company, Inc. will replace such units without cost to the original purchaser providing proof of purchase (original receipt and pallet ID tag) due to natural weathering of concrete products color matching of any replacement material cannot be guaranteed. The Bauer Company, Inc. disclaims any warranty with regard to color, color consistency, or surface composition due to natural variations in raw materials. Efflorescence, a common whitish deposit found on many concrete products occurs naturally and no warranty or liability is expressed or implied for this condition.

The exposed face of retaining wall units can become stained due to mold, dirt or mineral deposits in the backfill soil. Cleaners and sealers are available to address these conditions.

This warranty shall not apply to any units that are damaged, defective, or fail to meet the warranty standard due to improper installation, chemical contact, structural design, or excessive and unforeseen site conditions beyond The Bauer Company, Inc. control. The Bauer Company, Inc. responsibility is limited to its products only, any installation costs or freight associated with replacement material is not covered by this warranty and is the responsibility of the property owner.

The above warranty is the exclusive limited product warranty. All other warranties, expressed or implied, including warranties of merchantability or fitness for a particular application, are disclaimed. Please see www.nicolock.com for Nicolock product warranty.

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RESOURCES


The Bauer Company, Inc. Web Site: www.bauerblock.com
Email: bauerco@snydercos.com

Keystone
Additional Construction Manual

Nicolock Paving Stones

Country Manor Design
and Construction Manual

Country Manor
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Integral Lighting
Hardscape Lighting Solutions

VICTORIAN CUMAR
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Annie Vanasse
Vice President with BRATTEN 

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