

natural stone

CATALOG V.2

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CHARLEVOIX LOCATION

16188 Heise Rd, Charlevoix, MI 49720

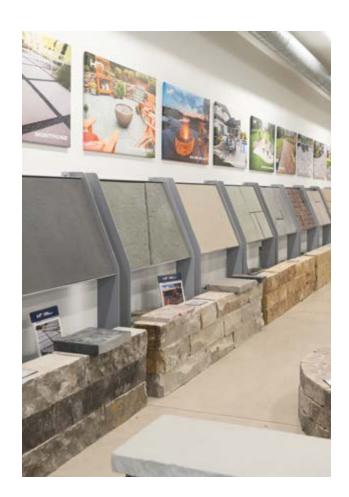
TRAVERSE CITY LOCATION

1423 Sawyer Rd, Traverse City, MI 49685

MANTHEISUPPLY.COM 231-547-6595 sales@mantheisupply.com

two locations, endless options

FULLY STOCKED YARDS DESIGN CENTER EXPERIENCED TEAM NATURAL STONE HIGH FORMAT® UNILOCK® MULCH, GRAVEL & MORE!







working with us

WHAT WE CAN DO FOR YOU

Manthei Supply's two full-service locations aim to give you a wide variety of relevant resources to help you design the perfect landscape project. We proudly service homeowners, landscape architects, contractors, masons and builders. Our large indoor and outdoor display spaces were installed for you to browse, touch and experience our unique selection of beautiful natural stone and manufactured hardscape materials. Expert staff can answer your questions about colors, shapes and textures. And we're eager to help you locate and reserve the perfect supplies for your outdoor oasis.

OUR PARTNERSHIPS - YOUR BENEFIT

We strive to provide you with the highest quality natural stone materials available anywhere. Strategic partnerships have been formed with the best stone quarries in the United States and around the world. These relationships ensure that you get the most beautiful and durable stone for your landscapes. When possible, we personally and regularly visit our partnering quarries to identify and purchase the most premium wall, step and patio materials. Many of our materials are co-developed with the quarries themselves, and are available exclusively to Manthei Supply. This helps us provide you materials with tighter control over dimensional tolerances, compressive strengths, absorption rates and slip coefficients.

BETTER TOGETHER

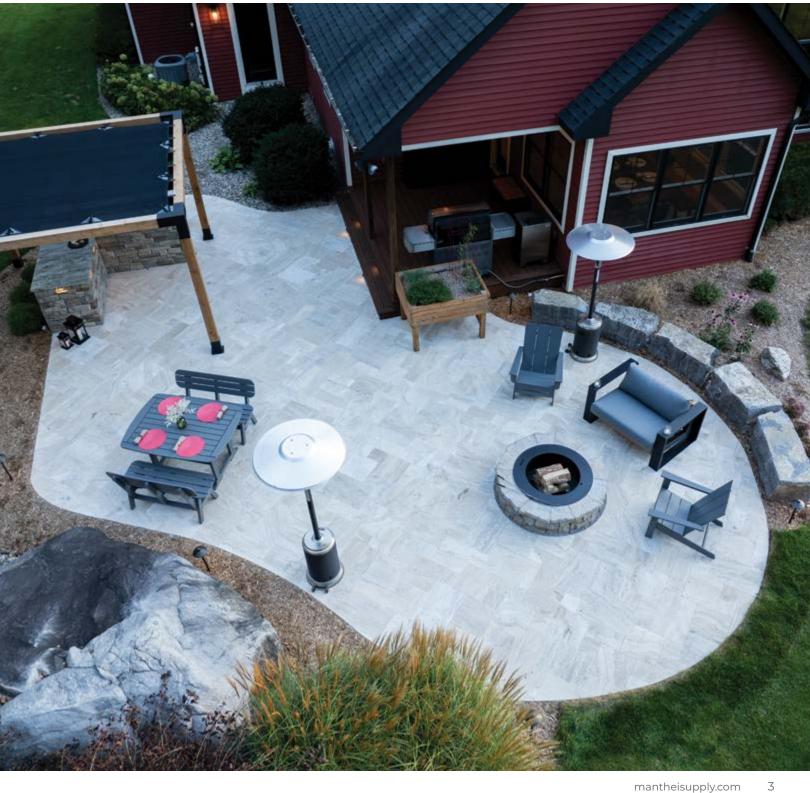
Manthei Supply is a proud part of the Manthei Group companies. We're a third generation family business with deep Northern Michigan roots. The group brings decades of service and expertise to the landscape industry, including a quarter-century of manufacturing and sales of retaining walls, steps and patio slabs on a global scale; in addition we are a local source for sand and aggregates. It's been our honor to serve Northern Michigan; and we humbly look forward to continuing to serve your needs for years to come.



GLACIER FRENCH PATTERN PAVER, Sandblasted Marble **GLACIER EASED EDGE COPING,** Sandblasted Marble



STERLING FRENCH PATTERN PAVER, Antiqued Travertine



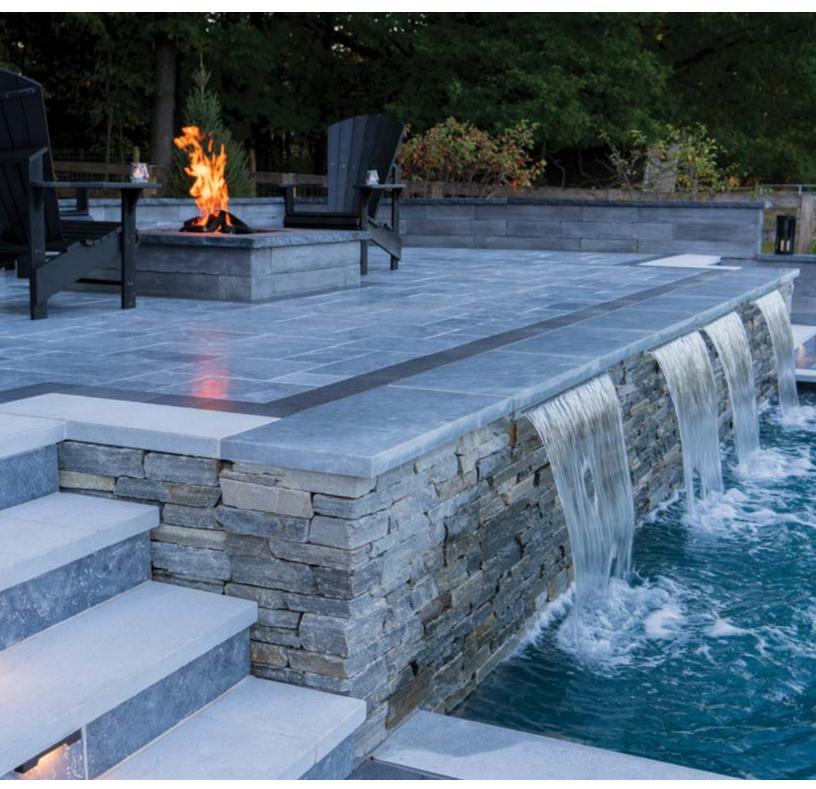
FOND DU LAC FLAGSTONE, Natural Cleft Limestone NORTHPORT IRREGULAR STEPS, Natural Cleft Limestone

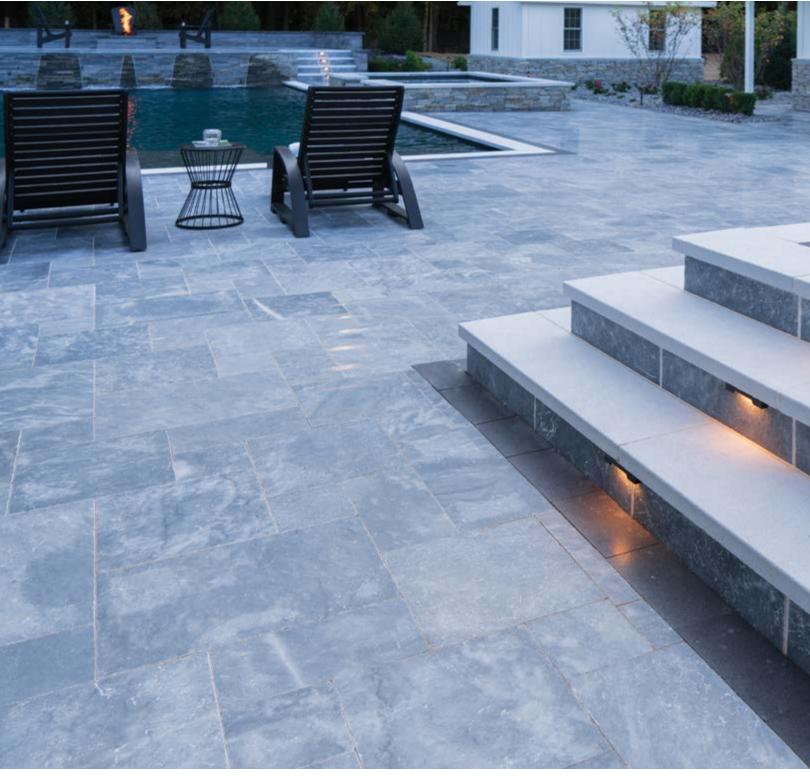


DEVON FRENCH PATTERN PAVER, Antiqued Travertine



AZURE FRENCH PATTERN PAVER, Antiqued Marble AZURE EASED EDGE COPING, Sandblasted & Antiqued Marble SILVERDALE LEDGESTONE, Building Stone Veneer





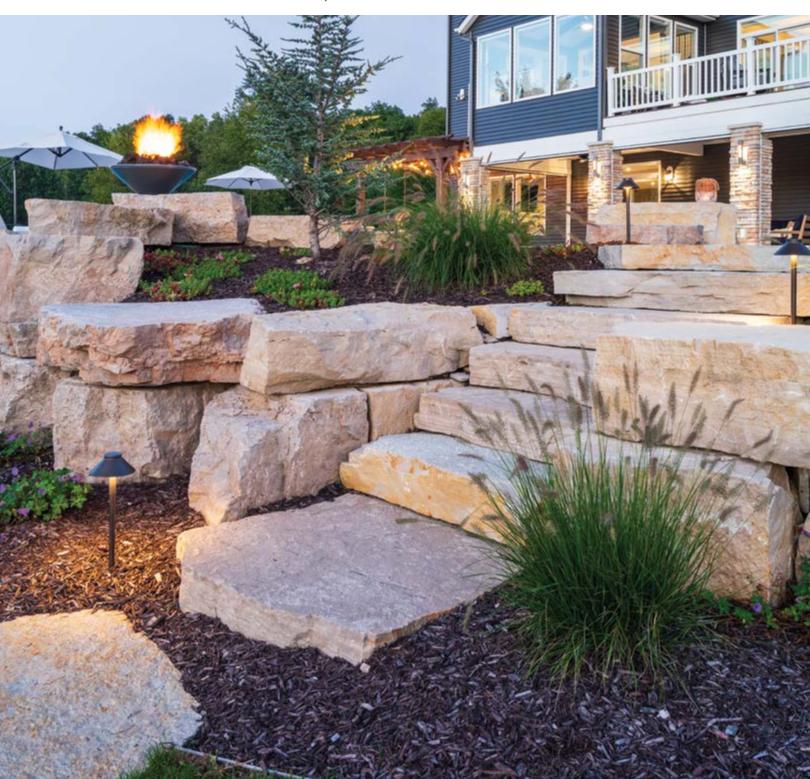
PEWTER PATTERN PAVER, Natural Cleft Sandstone



HURON GRAY OUTCROPPING, Guillotined Limestone **FULL COLOR BLUESTONE FLAGSTONE,** Natural Cleft Sandstone



FOND DU LAC OUTCROPPING, Irregular Limestone FOND DU LAC IRREGULAR STEPS, Natural Cleft Limestone

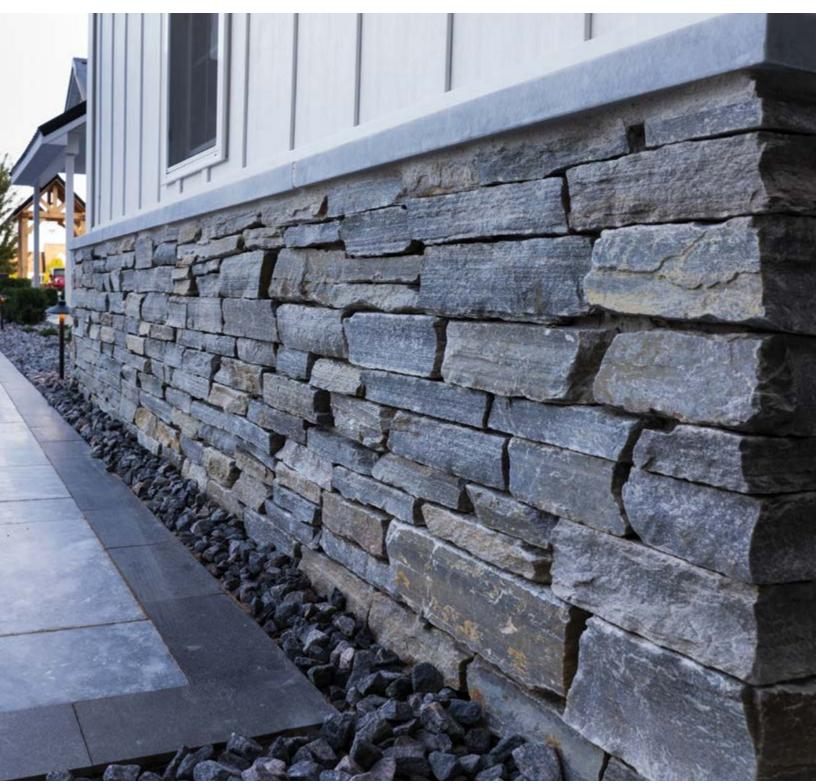


LARAMIE BROWN LEDGESTONE, Linear Sandstone **CHARCOAL FLAGSTONE,** Natural Cleft Quartz



VENEER | BUILDING STONE

SILVERDALE, LEDGESTONE COLLECTION, Building Stone Veneer



BUILDING STONE VENEER



Aspen SM | Crestdale Collection Chopped Course Heights: 2"-6" Product Percentage: 100% Seamface



Silverdale | Ledgestone Collection Chopped Ledgestone Course Heights: 1.5"-6" Product Percentage: 80% Splitface / 20% Seamface



Concord M | Aurora Collection Mosaic Course Heights: Face size is 1/4 sq ft to 2 sq ft Product Percentage: 90% Splitface / 10% Bedface



Bluebell SF | Crestdale Collection Chopped Course Heights: 2"-4" or 4"-7" Rubble Product Percentage: 100% Splitface



Prescott | Brookline Collection Sawn Course Heights: 4", 6", 8" Product Percentage: 100% Bedface



Cheyenne | Highland Collection Chopped Course Heights: 4"-8" Product Percentage: 100% Bedface



Leland SM Blend Tumbled | Springfield Collection Chopped Course Heights: 3"-6" Product Percentage: 75% Splitface / 25% Seamface



Mapleton | Avalon Collection Sawn Course Heights: 4", 6", 8" Product Percentage: 80% Splitface / 20% Bedface

SLABS | PAVERS

CEDAR BLEND PATTERN PAVER, Tumbled Natural Cleft Limestone



SQUARES & RECTANGLES



Silverek | French Pattern Paver Antiqued Travertine 1.25" nominal thickness with tight joints 176 s.f. / crate



Fossil | French Pattern Paver Antiqued Travertine 1.25" nominal thickness with tight joints 176 s.f. / crate



Sterling | French Pattern Paver Antiqued Travertine 1.25" nominal thickness with tight joints 176 s.f. / crate



Sahara | French Pattern Paver Antiqued Travertine 1.25" nominal thickness with tight joints 176 s.f. / crate



Champagne | French Pattern Paver Antiqued Travertine 1.25" nominal thickness with tight joints 176 s.f. / crate



Devon | French Pattern Paver Antiqued Travertine 1.25" nominal thickness with tight joints 176 s.f. / crate



Azure | French Pattern Paver Antiqued Marble 1.25" nominal thickness with tight joints 176 s.f. / crate



Glacier | French Pattern Paver Antiqued Marble 1.25" nominal thickness with tight joints 176 s.f. / crate

SQUARES & RECTANGLES



Onyx | Pattern Paver Tumbled Thermal Granite 1"± thickness with tight joints 165 s.f. / pallet



Basalt | Pattern Paver Tumbled Thermal Basalt 1"± thickness with tight joints 165 s.f. / pallet



Midnight Slate | Pattern Paver Natural Cleft Slate 1.25"± thickness (nominal dimensions) 150 s.f. / pallet



Cedar Blend | Pattern Paver Tumbled Natural Cleft Limestone 1"± thickness with tight joints 165 s.f. / pallet



Bellaire Blue | Pattern Paver Tumbled Natural Cleft Limestone 1"± thickness with tight joints 165 s.f. / pallet



Huron Gray | Pattern Paver Flamed Limestone 1.25"± thickness (nominal dimensions) 100 s.f. / pallet



Pewter | Pattern Paver Tumbled Natural Cleft Sandstone 1"± thickness with tight joints 165 s.f. / pallet



Pewter | Pattern Paver Tumbled Sandblasted Sandstone 1"± thickness with tight joints 165 s.f. / pallet

SQUARES & RECTANGLES





Full Color Bluestone | Flagstone Pattern Paver Natural Cleft Sandstone 1.5"± thickness (nominal dimensions) 200 s.f. / pallet





Full Color Bluestone | Flagstone Pattern Paver Thermal Sandstone 1.5"± thickness (nominal dimensions) 200 s.f. / pallet





Select Bluestone | Flagstone Pattern Paver Natural Cleft Sandstone 1.5"± thickness (nominal dimensions) 200 s.f. / pallet





Select Bluestone | Flagstone Pattern Paver Thermal Sandstone 1.5"± thickness (nominal dimensions) 200 s.f. / pallet

LAYDOWN FLAGSTONE

Note: Coverage is an estimate and will vary by density and thickness.





Laramie Gray Select | Laydown Flagstone Natural Cleft Sandstone Irregular, 1"-2"± thickness 100 s.f. / ton (approximate coverage) Sold by the ton Also available in 2"-3"; 3'-4", or 3"+ thickness





Laramie Brown | Laydown Flagstone Natural Cleft Sandstone Irregular, 2"-3"± thickness 65 s.f. / ton (approximate coverage) Sold by the ton





Fond Du Lac Select | Large Laydown Flagstone Natural Cleft Limestone Irregular, 1.25"-2"± thickness 95 s.f. / ton (approximate coverage) Sold by the ton Also available in 2"-2½" thickness

STANDUP FLAGSTONE

Note: Coverage is an estimate and will vary by density and thickness





Full Color Bluestone | Standup Flagstone Natural Cleft Sandstone Irregular, 1.5"± thickness 100 s.f. / ton (approximate coverage) Sold by the ton





Full Color Bluestone | Standup Flagstone Thermal Sandstone Irregular, 1.5"± thickness 100 s.f. / ton (approximate coverage) Sold by the ton





Select Bluestone | Standup Flagstone Natural Cleft Sandstone Irregular, 1.5"± thickness 100 s.f. / ton (approximate coverage) Sold by the ton





Laramie Gray Select | Standup Flagstone Natural Cleft Sandstone Irregular, 1"-2"± thickness 100 s.f. / ton (approximate coverage) Sold by the ton









Charcoal | Standup Flagstone Silver | Standup Flagstone Natural Cleft Quartz Irregular, 1.5"-2"± thickness Natural Cleft Quartz Irregular, 1.5"-2"± thickness 88 s.f. / ton (approximate coverage) 88 s.f. / ton (approximate coverage) Sold by the ton



Sold by the ton



Gold | Standup Flagstone Natural Cleft Quartz Irregular, 1.5"-2"± thickness 88 s.f. / ton (approximate coverage)





Chilton | Standup Flagstone Natural Cleft Limestone Irregular, 2"-2.5" ± thickness 70 s.f. / ton (approximate coverage) Sold by the ton

Sold by the ton

FLAGSTONE STEPPERS

Note: Coverage is an estimate and will vary by density and thickness.





Full Color Bluestone | Flagstone Steppers Natural Cleft Sandstone Irregular, 1.5"± thickness 100 s.f. / ton (approximate coverage) Sold by the ton





Fond Du Lac Select | Flagstone Steppers Natural Cleft Limestone Irregular, 1"-2"± thickness 100 s.f. / ton (approximate coverage) Sold by the ton





Laramie Gray Select | Flagstone Steppers Natural Cleft Sandstone Irregular, 1"-1.75"± thickness 100 s.f./ton (approximate coverage) Sold by the ton





Laramie Brown | Flagstone Steppers Natural Cleft Sandstone Irregular, 1"-1.75"± thickness 100 s.f./ton (approximate coverage) Sold by the ton







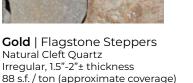


Silver | Flagstone Steppers Natural Cleft Quartz Irregular, 1.5"-2"± thickness 88 s.f. / ton (approximate coverage) Sold by the ton

Charcoal | Flagstone Steppers Natural Cleft Quartz Irregular, 1.5"-2"± thickness 88 s.f. / ton (approximate coverage) Sold by the ton



Sold by the ton







Chilton | Flagstone Steppers Natural Cleft Limestone Irregular, 2"-2.5" ± thickness 70 s.f. / ton (approximate coverage) Sold by the ton

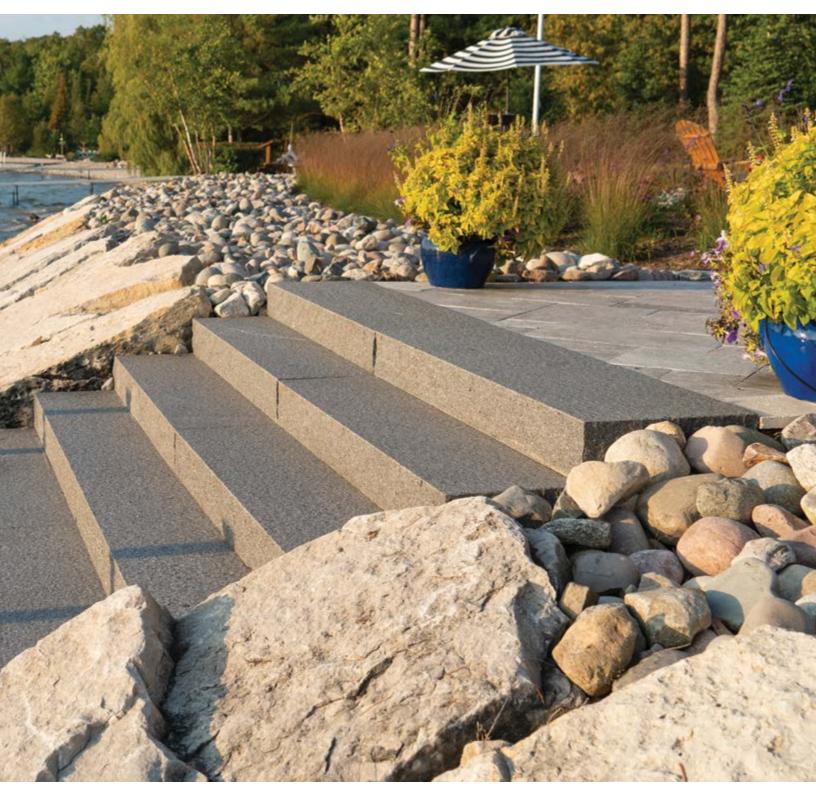


TOP PICKS

This catalog shows a small sampling of what we have to offer. Please inquire for additional options.

STEPS

ONYX DIMENSIONAL STEPS, Thermal Granite



IRREGULAR STEPS





Full Color Bluestone | Irregular Step Natural Cleft Sandstone 4"-8" thick (nominal size) Sold by the ton





Fond Du Lac Select | Irregular Step Natural Cleft Limestone 5"-7" thick, 2'-5' long (nominal size) Sold by the ton





Laramie Gray Select | Irregular Step Natural Cleft Sandstone 5"-7" thick (nominal size) Sold by the ton





Laramie Brown Select | Irregular Step Natural Cleft Sandstone 5"-8" thick (nominal size) Sold by the ton





Sold by the ton







Canyon Gray | Irregular Step Natural Cleft Limestone 3'-4', 7" thickness 4'-5', 7" thickness 5'-6', 7" thickness Dimensions are approximate, sold by the ton





Superior | Irregular Step Natural Cleft Limestone 4'-5' long, 18"-20" depth, 5"-6" thick (nominal size) Sold by the ton

DIMENSIONAL STEPS





Full Color Bluestone Live Edge | Dimensional Step Thermal Top and Two Sides, One Long Live Edge Sandstone 48" x 18" x 6" 500± lbs/piece Call for additional sizes Sold by the piece





Select Bluestone | Dimensional Step Thermal Top and Three Sides Sandstone 48" x 18" x 6" 500± lbs/piece Call for additional sizes Sold by the piece









Huron Gray | Dimensional Step
Thermal Top, Rockfaced on Three Sides Limestone
48" x 18" x 6" 500± lbs/piece
60" x 18" x 6" 625± lbs/piece
72" x 18" x 6" 750± lbs/piece
Sold by the piece





Pewter | Dimensional Step
Natural Cleft Top, Rockfaced on Three Sides Sandstone
48" x 18" x 6" 504± lbs/piece
72" x 18" x 6" 756± lbs/piece
96" x 18" x 6" 1008± lbs/piece
Sold by the piece





Platinum | Dimensional Step Sawn Top, Snapped on Four Sides Limestone 48"x 18"x 6" 525± lbs/piece 60"x 18"x 6" 825± lbs/piece Sold by the piece





Chilton | Dimensional Step
Natural Cleft Top, Snapped on Four Sides Limestone
36" x 18" x 6" 440± lbs/piece
48" x 18" x 6" 560± lbs/piece
60" x 18" x 6" 650± lbs/piece

Sold by the piece





Bayport | Dimensional Step Sawn Top, Snapped on Four Sides Limestone 48"x 16"x 6" 455± lbs/piece Sold by the piece

DIMENSIONAL STEPS





Onyx | Dimensional Step Thermal Top, Snapped Four Sides Granite

36" x 18" x 6" 405± lbs/piece 48" x 18" x 6" 540± lbs/piece 60" x 18" x 6" 675± lbs/piece 72" x 18" x 6" 810± lbs/piece

Sold by the piece





Basalt | Dimensional Step Thermal Top, Rockfaced on Three Sides Basalt

48" x 18" x 6" 555± lbs/piece 72" x 18" x 6" 830± lbs/piece 96" x 18" x 6" 1,110± lbs/piece Sold by the piece or pallet





Onyx | Dimensional Step Thermal Top, One Long Edge and Two Short Sides Granite 36" x 18" x 6" 405± lbs/piece

36" x 18" x 6" 405± lbs/piece 48" x 18" x 6" 540± lbs/piece 60" x 18" x 6" 675± lbs/piece Sold by the piece





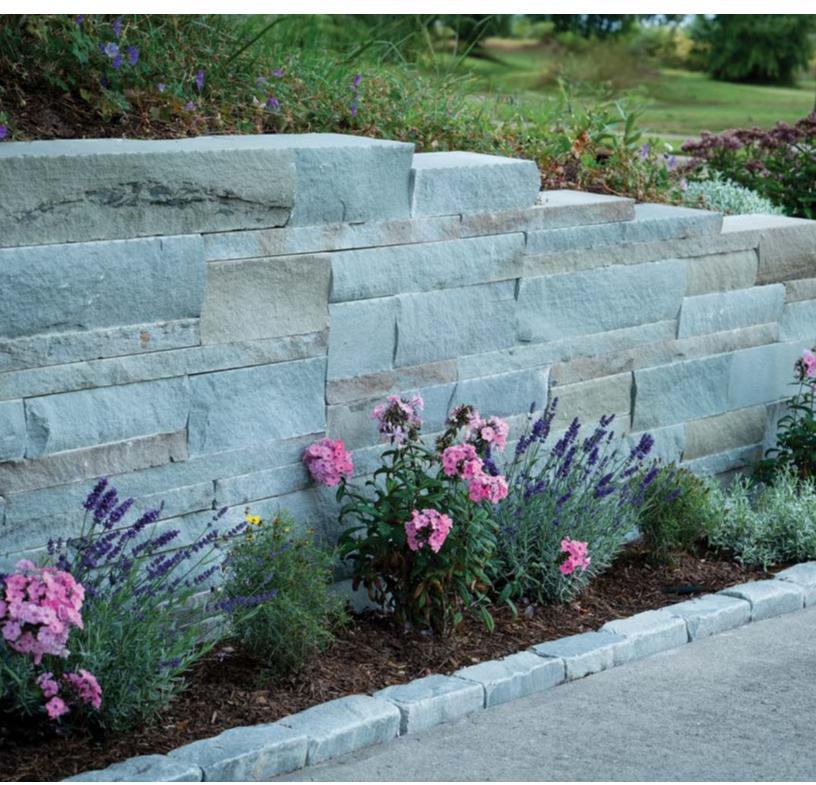
Fond Du Lac Select | Dimensional Step Natural Cleft Top, Snapped Four Sides Limestone 48" x 18", 5"-7" thick 500± lbs/piece Sold by the piece

TOP PICKS

This catalog shows a small sampling of what we have to offer. Please inquire for additional options.

WALLS

FULL COLOR BLUESTONE SAWN WALL, Snapped Sandstone



SAWN WALLS

Note: Coverage is an estimate and will vary by density and thickness.





Full Color Bluestone | 2"/4"/6" Sawn Wall Snapped Sandstone 2"/4"/6" high x 8" deep x random lengths 18-20 face feet/ ton (approximate coverage) Sold by the ton





Full Color Bluestone | 6" Sawn Wall Snapped Sandstone 6" high x 8" deep x random lengths 18-20 face feet/ ton (approximate coverage) Sold by the ton





Huron Gray | 3" Sawn Wall Snapped Limestone 3" high \times 8" deep \times random lengths 18-20 face feet/ ton (approx.) 3" high \times 10" deep \times random lengths 14-16 face feet/ ton (approx.) Sold by the ton





Huron Gray | 6" Sawn Wall Snapped Limestone 6" high x 8" deep x random lengths 18-20 face feet/ ton (approximate coverage) Sold by the ton





Huron Gray | 6" Tumbled Sawn Wall Snapped Limestone 6" high x 8" deep x random lengths 18-20 face feet/ ton (approximate coverage) Sold by the ton





Huron Blend | 6" Sawn Wall Snapped Limestone 6" high x 8" deep x random lengths 18-20 face feet/ ton (approximate coverage) Sold by the ton





Hartford | 6" Sawn Wall Snapped Limestone 6" high x 8" deep x random lengths 18-20 face feet/ton (approximate coverage) Sold by the ton





Ashton | 6" Sawn Wall Snapped Limestone 6" high x 8" deep x random lengths 18-20 face feet/ton (approximate coverage) Sold by the ton

SAWN WALLS





Onyx | 4" Sawn Wall Snapped Granite 4" high x 8" deep x random lengths 16-18 face feet/ ton (approximate coverage) Sold by the ton





Onyx | 6" Sawn Wall Snapped Granite 6" high x 8" deep x random lengths 16-18 face feet/ ton (approximate coverage) Sold by the ton





Platinum | 6" Sawn Wall Snapped Limestone 6" high x 8" deep x random lengths 18-20 face feet/ ton (approximate coverage) Sold by the ton

NATURAL BED WALLS





Fond Du Lac Silver | 3"-4" Wall Natural Cleft Top, Snapped Limestone 3"-4" high x 8" deep x random lengths 18-20 face feet/ ton (approximate coverage) Sold by the ton





Chilton | 3"-4" Wall Natural Cleft Top, Snapped Limestone 3"-4" high x 8" deep x random lengths 18-20 face feet/ ton (approximate coverage) Sold by the ton

LARGE NATURAL BED WALLS





Bayport | Sawn Wall Bedface Limestone Available in 6", 12" or 24" high 13-14" deep x 3'-8' long 7.5 face feet/ ton (approximate coverage) Sold by the ton





Huron Gray | Sawn Wall Bedface Limestone Available in 6", 12" or 24" high 10-12" deep x 3'-8' long 12 face feet/ ton (approximate coverage) Sold by the ton (Note: color based on orientation of stone)

LEDGE WALLS





Laramie Brown | Ledgestone Linear Sandstone 14" high x 14"-30" deep x 4'-10' long 6-8 face feet/ ton (approximate coverage) Sold by the ton





Laramie Brown | Ledgestone Linear Sandstone 9" high x 12"-18" deep x 3'-7' long 8-12 face feet/ ton (approximate coverage) Sold by the ton





Laramie Gray | Ledgestone Linear Sandstone 9" high x 12"-18" deep x 3'-7' long 8-12 face feet/ ton (approximate coverage) Sold by the ton

GUILLOTINED WALLS





Bayport | 14" Guillotined Wall Snapped Limestone 14"± milled thickness, 18"-24" deep, 3'-8' long 6-8 face feet/ ton (approximate coverage) Sold by the ton





Superior | 10"-12" Guillotined Wall Snapped Limestone 10"-12" thick, 12" deep, 3'-5' deep 12 face feet/ ton (approximate coverage) Sold by the ton





Huron Gray | 10"-12" Guillotined Wall Snapped Limestone 10"-12" thick, 12" deep, 3'-5' deep 12 face feet/ ton (approximate coverage) Sold by the ton

OUTCROPPING WALLS

Note: Coverage is an estimate and will vary by density and thickness





Fond Du Lac Silver | Outcropping Irregular Limestone Available in 5"-8" high or 8"-12" high (approximate) 4-6 face feet/ton (approximate coverage) Sold by the ton





Chilton | Outcropping Irregular, Weather Edge Limestone Available in 5"-8" high or 8"-12" high (approximate) 4-6 face feet/ton (approximate coverage) Sold by the ton





Canyon Gray | Outcropping Irregular Limestone Available in 7", 9", 11" or 25" high (approximate) 4-6 face feet/ton (approximate coverage) Sold by the ton





Ironton Gray | Outcropping Irregular Limestone 8"-10" or 26"-28" high (approximate) 4-6 face feet/ton (approximate coverage) Sold by the ton





Superior | Outcropping Irregular Limestone Available in 10"-12", 15"-16" or 18"-20" high (approximate) 4-6 face feet/ton (approximate coverage) Sold by the ton





Huron Gray | Outcropping Irregular Limestone Available in 10", 12" or 16" high (approximate) 4-6 face feet/ton (approximate coverage) Sold by the ton





Laramie Gray Select | Outcropping Irregular Sandstone Call for currently available thickness ranges 4-6 face feet/ton (approximate coverage) Sold by the ton





Fieldstone Moss | Boulder Sold by the ton

COPING & TREADS



Onyx | Eased Edge Coping Thermal Top, Eased Edge on Two Sides Tumbled Granite 12" x 24" x 2"



Onyx | Rockfaced Coping Thermal Top, Rockfaced on Two Sides Tumbled Granite 12" x 24" x 2"



Basalt | Eased Edge Coping Thermal Top, Eased Edge on Two Sides Tumbled Basalt 12" x 24" x 2"



Basalt | Rockfaced Coping Thermal Top, Rockfaced on Two Sides Tumbled Basalt 12" x 24" x 2"



Basalt | Rockfaced Coping Thermal Top, Rockfaced on Two Sides Basalt 12" x 48" x 2" 12" x 72" x 2"



Pewter | Eased Edge Coping Natural Cleft Top, Eased Edge on Two Sides Tumbled Sandstone 12" x 24" x 2"



Pewter | Rockfaced Coping Natural Cleft Top, Rockfaced on Two Sides Tumbled Sandstone 12" x 24" x 2"



Pewter | Rockfaced Coping Natural Cleft Top, Rockfaced on Two Sides Sandstone 12" x 48" x 2" 12" x 72" x 2"

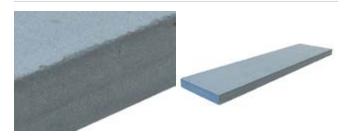
COPING & TREADS



Bellaire Blue | Eased Edge Coping Natural Cleft Top, Eased Edge on Two Sides Tumbled Limestone 12" x 24" x 2"



Bellaire Blue | Rockfaced Coping Natural Cleft Top, Rockfaced on Two Sides Tumbled Limestone 12" x 24" x 2"



Select Bluestone | Eased Edge Coping Thermal Top and One Long Sides Sandstone 48" x 12" x 2"

EDGING



Superior | Edging Linear Limestone 4" x 4" x random 100 linear feet/ ton (approximate coverage)









Laramie Gray | Tumbled Edging Linear Sandstone 4" x 4" x 10" 4" x 4" x random 100 linear feet/ ton (approximate coverage)

STEPPING STONES





Midnight Slate | Stepping Stones Natural Cleft Slate Irregular 18"-24", 1"-1.25" thick Sold by the piece, 50 units per pallet



Basalt | Stepping Stones Thermal Basalt Irregular Random Sizes, 1.25"± thick Sold by the piece

DECORATIVE STONE





Verde | Decorative Stones %"-1 ½" (approximate dimensions) Super Sack





Midnight Slate | Decorative Stone L-5 Slate ¾"-1 ½" L-57 Slate ½"-1" L-8 Slate ¾"-½" L-9 Slate ½"-¾" Slate Sand ½" and Smaller Super Sack



White | Decorative Pebbles 1"-3" (approximate dimensions) 30 lb bag



Black | Decorative Pebbles 1"-3" (approximate dimensions) 30 lb bag



BENEFITS & CARING FOR NATURAL STONE

BENEFITS OF FABRICATED NATURAL STONE

Our team has worked hard to source some of the most beautiful natural stone in the world. The fabricators we have partnered with select dense blocks of stone, saw them to thickness, chop or cut them to size and apply a surface or edge texture if needed. Fabricated stone has tighter tolerances and dimensions, custom surface and edge finishes, less waste and is typically easier to install. Please keep in mind that slight thickness and dimension variations can occur during the fabrication process and should be expected. Below are a few examples of fabricated products we stock. We look forward to helping you incorporate these beautiful products into your next project!

SLABS/PAVERS

Precise dimensions allow these pavers to fit tight together eliminating the need for joint sand in most cases. Thinner pavers are easier to lift and carry, making them favorable with installers. Available finishes include antiqued, sandblasted, thermal and natural cleft. The unique movement and color of each natural stone piece creates a one-of-a-kind project every time.

SAWN WALLS

Sawn heights allow for a clean look and faster installation with less waste. Snapped depths allow for an average coverage of 18-20 face feet per ton. These versatile wall options are great for seat walls, small retaining walls, grill islands, fire pits, step risers and more.

DIMENSIONAL STEPS

Sawn 6" heights allow for a consistent rise on your next step project. Available sizes range from 3'-8' long and 18" deep. Face textures are available in snapped, rockfaced, thermal and live edge.

THERMAL STANDUP FLAGSTONE

Full Color Bluestone is available in 1.5" or 2" standup flagstone. The consistent thickness makes this much faster to install and the thermal surface is stunning.

CAPS AND COPING

Our fabricated caps and coping are the perfect way to finish your amazing project, and are available in several colors. Edge profiles are available in eased edge, bullnose and splitface. Surface textures are available in antiqued, sandblasted, thermal and natural cleft.

CARE & INSTALLATION

PRODUCT VARIATION

Natural stone is a product of nature. Surface texture and color will vary piece to piece and crate to crate. Our partnering quarries work hard to ship consistent, high quality products, but you should expect variation. Samples are suggested, but will not guarantee color. We highly recommend all material be delivered prior to installation and that available material is blended throughout your project. Each installation will be uniquely different and perfectly created in nature!

NORMAL MAINTENANCE AND CARE

As with any product that is continually exposed to the natural environment, cleaning and care may be desired over time to maintain the appearance of your hardscapes. Generous rinsing with water and light scrubbing with a stiff, plastic bristle brush is generally the best way to remove dirt that has accumulated over time. Cleaners and mild detergent designed to be used on stone products may be used as well. Always follow all manufacturer instructions and test on a small area when using any cleaner. Power washers may cause damage at close range.

WINTER CARE

All metal snow shovels and snow blower blades have the potential to damage stone surfaces. All snowplows, snow blowers and shovels used to clear products of snow should use plastic blades or guards.

POLYMERIC HAZE

Improper installation of ancillary polymeric sand products may result in the presence of polymeric haze. This discoloration can potentially mute the vibrant colors of products. Hazing is not indicative of the quality of the stone product, and should not be considered a source of concern for the product's durability.

MANTHEI SUPPLY RETURN POLICY

Manthei Supply will only accept returns of unopened, full pallets of HIGH FORMAT® and Unilock® products. With the exclusion of HIGH FORMAT® steps, we will no longer accept returns of partial pallets, layers and sections. All special order sales are final. All natural stone sales are final. Returns must be made within 60 days of pick up / delivery. Your copy of our invoice must accompany all returns. We assess a 10% restocking fee. We reserve the right to refuse any return. There will be no cash refunds.

MANTHEI SUPPLY WARRANTY ON MATERIALS

Material warranty details vary based on the specific product being purchased. Warranty information from each manufacturer can be found on their individual websites. Natural stone products do not include a warranty since they are naturally occurring materials and are therefore sold "asis".



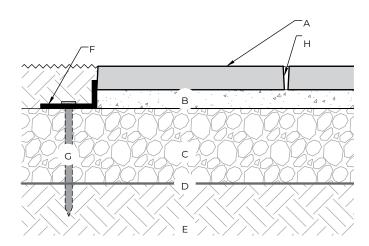
TYPICAL INSTALLATION DETAILS

This page shows typical installations for pavers and steps.

- Drawings are for preliminary reference only (not for final construction).
- Final designs for construction must be prepared by a registered professional engineer using the actual conditions of the proposed site and loads.
- Block size and placement shown are for reference only, individual blocks vary with installation pattern.

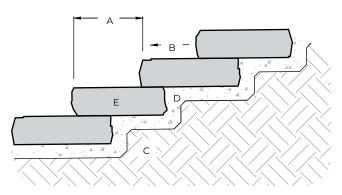
 Section shown is the minimum recommendation for pedestrian loading. Projects with heavier traffic or sites with poor soil conditions may require thicker gravel base, concrete curb edge restraint, and/or sand subbase.
- Provide adequate surface drainage to prevent ponded water.

TYPICAL RESIDENTIAL PEDESTRIAN INSTALLATION



- A. Natural stone pavers, thickness varies
- B. 1" screed clean angular stone, 1/8" to 1/4"
- C. 6" of 3/4" clean stone, compacted in 3-4" lifts
- D. Woven geotextile fabric (recommended)
- E. Compacted subgrade soil
- F. Low profile paver edge restraint
- G. Steel spike
- H. Optional joint sand (ASTM C144)

TYPICAL STEP INSTALLATION DETAIL



- A. Tread width varies (12" or more is desireable)
- B. Slope 1-2% (to allow drainage)
- C. Compact subbase material to a minimum of 95% max. dry density (or as specified by Engineer)
- D. Free-draining grannular material (3" thick minimum compact to a min. of 95% max. dry density)
- E. Step block

supply **STONE YARD & DESIGN SHOWROOM CHARLEVOIX LOCATION** 16188 Heise Rd, Charlevoix, MI 49720 TRAVERSE CITY LOCATION 1423 Sawyer Rd, Traverse City, MI 49685 MANTHEISUPPLY.COM 231-547-6595 sales@mantheisupply.com YOUR SOURCE FOR LANDSCAPE PRODUCTS IN NORTHERN MICHIGA