SECTION 04 40 00

STONE ASSEMBLIES, STONE CLADDING, AND LANDSCAPE STONE

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* Krukowski Stone Co., Inc.; Architectural and Landscape Stone.  
This section is based on the products of Krukowski Stone Co., Inc., which is located at:  
162445 County Road C.  
Mosinee, WI 54455  
Toll Free Tel: 800-628-0314  
Tel: 715-693-6300  
Fax: 715-693-7223  
Email: [request info (JoanieW@Krukowskistone.com)](https://arcat.com/rfi?action=email&company=Krukowski%252BStone%252BCo.%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(04400ksc)%253A%2520&coid=42114&spec=04400ksc&rep=&fax=715-693-7223)  
Web: <https://www.krukowskistone.com>   
 [ [Click Here](https://arcat.com/company/krukowski-stone-co-inc-42114) ] for additional information.  
Krukowski Stone Company, Inc. has been quarriers and fabricators of natural Wisconsin stone since 1978. Since then, new product lines and new fabrication techniques have developed. Years of hard work, expansions of facilities, quarries, equipment and employees has resulted in Krukowski Stone Company's continued success and growth.  
The corporate office, beautiful showroom, and manufacturing facilities are all located at 162445 County Road C, Mosinee WI. The office and showrooms feature a full array of natural architectural and landscaping stones. Our showroom is filled with many inspiring ideas for all your stone dreams. Whether it be for your house, or your yard, Krukowski Stone has the perfect product for you.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Architectural Stone.
    2. Stone Cladding Panels.
    3. Custom Cut and Accessory Stone.
    4. Landscape Stone.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 04 20 00 - Unit Masonry.
    2. Section 04 43 00 - Stone Masonry.
    3. Section 09 75 00 - Stone Facing.
    4. Section 32 00 00 - Exterior Improvements.
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM):
       1. ASTM C67 - Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
       2. ASTM C97 - Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone.
       3. ASTM C99 - Standard Test Method for Modulus of Rupture of Dimension Stone.
       4. ASTM C170 - Standard Test Method for Compressive Strength of Dimension Stone.
       5. ASTM C241 - Standard Test Method for Abrasion Resistance of Stone Subjected to Foot Traffic.
       6. ASTM C880 - Standard Test Method for Flexural Strength of Dimension Stone.
       7. ASTM C1353 - Standard Test Method for Abrasion Resistance of Dimension Stone Subjected to Foot Traffic Using a Rotary Platform Abraser.
    2. American National Standards Institute (ANSI):
       1. ANSI A326 - Dynamic Coefficient Of Friction (DCOF) Of Hard Surface Flooring Materials.
  1. DEFINITIONS
     1. Brushed: Brushed texture is produced on the polishing line with specially designed diamond bristle brushes. This process removes surface area slightly unevenly, leaving a smooth satin free feel with subtle concave and convex areas that follow the natural mineral and veining of stone.
     2. Hones: A very smooth low sheen, matte surface product. Honed is the same process as polished, minus the reflective surface.
     3. Polished: Transforms dull sawn finish to a high gloss reflective surface. Brings out the fine details and character of natural stone.
     4. Shot-Blast: A stainless steel shot is propelled at high speeds onto the surface of the stone which erodes and dulls the surface providing a slip-resistant surface texture. This process may remove larger areas of the surface if the stone is less dense in certain areas.

\*\* NOTE TO SPECIFIER \*\* The following applies to the Cambrian Cream stone product only. Delete if not required.

* + 1. Thermal (Cambrian Cream only): the thermal texture is created by a specially designed machine that applies a hot flame to the surface of the stone. The flame's heat can reach 1800 degrees F. this heats the crystals in the stone and pops the stone's surface, creating a slightly rough texture with low sheen. This process also enhances the color of the stone while leaving a slip-resistant surface. The thermal process tends to pull from a crimson tint from the magnesium minerals within the stone.
    2. Natural: Our natural bed faces texture is yielded from the stratified layers of had, dense, quartz-cemented sandstone. The natural seams or layers of stone are pealed apart from the solid quarry walls where no two pieces are alike. Color variations of light tans and browns, natural texture with unique undulation.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00.
     2. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
    2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of five years documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.

\*\* NOTE TO SPECIFIER \*\* Delete mock-up layout not required.

* + - 1. Build mock-ups of typical exterior wall area not less than 72 inches (1829 mm) long by 48 inches (1219 mm) high.
      2. Build mock-ups of typical exterior wall area not less than \_\_\_\_ inches long by \_\_\_\_ inches high.
      3. Build mock-up at approved job condition, see drawings for location.
      4. See drawings for custom mock-up layout.
      5. The intent of a mock-up is to demonstrate quality of workmanship and visual appearance.
      6. If the mock-up is not acceptable, rebuild the mock-up until satisfactory results are achieved.
      7. Retain mock-up during construction as a standard for comparison with completed work.
      8. Do not alter or remove mock-up until work is completed or removal is authorized.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  3. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  4. WARRANTY
     1. Manufacturer's standard limited warranty unless indicated otherwise.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Krukowski Stone Co., Inc., which is located at:  
         162445 County Road C.  
         Mosinee, WI 54455  
         Toll Free Tel: 800-628-0314  
         Tel: 715-693-6300  
         Fax: 715-693-7223  
         Email: [request info (JoanieW@Krukowskistone.com)](https://arcat.com/rfi?action=email&company=Krukowski%252BStone%252BCo.%252C%252BInc.&message=RE%253A%2520Spec%2520Question%2520(04400ksc)%253A%2520&coid=42114&spec=04400ksc&rep=&fax=715-693-7223);Web: <https://www.krukowskistone.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00.
  1. PERFORMANCE AND DESIGN REQUIREMENTS
     1. A very hard, dense, quartzitic-cemented sandstone and hornblende gneiss stone.
     2. Natural quarried building stone.
     3. A large variety of colors, textures, shapes, and styles in full-depth veneer stone and thin veneer stone.
     4. Full Depth Veneer: 3 to 5+ inches (76 to 127+ mm). Thin Veneer: 3/4 to 1-1/2 inch (19 to 38 mm).
     5. ASTM Testing Data:
        1. Testing Data Results: For reference only. Values are averages representative of recent tests. Stone is a natural product and variations can occur.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required.

* + - 1. Quartzite Sandstone Products: Cambrian Cream, Sandy Creek, Highland Brown, Chestnut, and Glacier Bay.
         1. Quartzite Sandstone: ASTM Testing Results.

ASTM C97- Dry Density: 159.2 lbs. per cu. ft.

ASTM C97- Bulk Specific Gravity: 2.55.

ASTM C97- Absorption: 0.48 percent.

ASTM C99 - Modulus of Rupture: 1,850 psi.

ASTM C170 - Compressive Strength: 17,700 psi.

ASTM C67 - Freeze-Thaw Weight Loss: Less than 0.5 percent.

ASTM C1353 - Abrasion Resistance: 227.

ANSI A326.3 - Coefficient of Friction:

Finish Type: Wet.

Thermal: 0.72.

Shot-Blast: 0.91.

ASTM C880 - Flexural Strength Perpendicular to Bedding Rift:

Dry: 1,960. Wet: 1,700.

* + - * 1. Mohs Hardness: 6 to 7.
        2. Average Thin Veneer Weight: 11 to 14 lbs per sq ft.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required.

* + - 1. Hornblende Gneiss/Amphibolite: Aqua Grantique, Aqua Blue.
         1. Hornblende Gneiss/Amphibolite: ASTM Testing Results.

ASTM C97 - Dry Density: 189.3 lbs. per cu. ft.

ASTM C97 - Bulk Specific Gravity: 3.03.

ASTM C97 - Absorption: 0.00 percent.

ASTM C99 - Modulus of Rupture: 2,910 psi.

ASTM C170 - Compressive Strength: 22,710 psi.

ASTM C67 - Freeze-Thaw Weight Loss: Less than 0.5 percent.

ASTM C1353 - Abrasion Resistance: 195.6.

ANSI A326 - Coefficient of Friction:

Finish Type: Wet. Shot-Blast: 0.84.

ASTM C880:

Flexural Strength Perpendicular to Bedding Rift:

Dry: 4,405. Wet: 4,665.

Flexural Strength Parallel to Bedding Rift:

Dry: 2,730. Wet: 3,385.

* + - * 1. Mohs Hardness: 7.
        2. Average Thin Veneer Weight: 11 to 18+ lbs per sq ft. Additional support may be needed.
      1. Granite: Klassic Granite, Wisconsin Granite Cobbles, Wisconsin Split Fieldstone.
         1. Granite: ASTM Test Results.

ASTM C97 - Dry Density: 168.2 lbs. per cu. ft.

ASTM C97 - Absorption: 0.14 percent.

ASTM C99 - Modulus of Rupture: 1,890 psi.

ASTM C170 - Compressive Strength: 23,380 psi.

ASTM C880: Flexural Strength:

Perpendicular to Bedding Rift: Dry: 4,930. Wet: 3,890.

Parallel to Bedding Rift: Dry: 5,210. Wet: 4,840.

* + - * 1. Average Thin Veneer Weight: 13 to 15 Pounds per Square Foot.

\*\* NOTE TO SPECIFIER \*\* Krukowski Stone Company is a quarry and fabrication operation. We do not specialize in installation or provide installation. The installer should consult with a professional, experienced mason for detailed questions regarding installation. Delete article not required.

* 1. ARCHITECTURAL STONE

\*\* NOTE TO SPECIFIER \*\* Please plan ample time for production as lead times can be extensive. The thin veneer version does not vary much in depth and will not have the variation to protrude like the full veneer can. Also, a dark mortar looks best. Delete stone type options not required.

* + 1. Stone Type:

\*\* NOTE TO SPECIFIER \*\* Delete stone type options not required. If picking a blend, leave The "Architectural Stone" Article. A stone type for blend's standard components.

* + - 1. Apple Creek: Split-Face from natural top and bottom slabs; Moderate to significant horizontal veining consisting of buff, mauve, and crimson colorations.
      2. Aqua Blue Boulder: Irregular shapes, Fractured and Rustic Surface, dark slate-blue with areas of white quartz, olive green and rust veining.
      3. Aqua Grantique: Split-Face from sawn top and bottom slabs; dark slate and dusty blue with areas of white quartz, olive green and rust veining.
      4. Aqua Grantique Sawn 6 Sides: Sawn Face; dusty blue with areas of white quartz, olive green and rust veining.
      5. Aqua Grantique Tumbled: Softened Split-Face from sawn top and bottom slabs; dark slate and dusty blue with areas of white quartz, olive green and rust veining.
      6. Cambrian Cream: Split-Face from sawn top and bottom slabs; shades of tan and buff, may contain little to strong rose gold veining.
      7. Cambrian Cream Thermal Sawn 6-Sides: Sawn Face with Thermal finish; shades of and buff, may contain little to strong rose gold veining and crimson color.
      8. Chestnut Ashlar: Split random strips from fieldstone boulders; weathered edge or bed-face; medium to dark brown, chocolate and coffee tones.
      9. Chestnut Cobble/Boulder: Irregular shapes; weathered edge or bed-face; medium to dark brown, chocolate and coffee tones.
      10. Glacier Bay: Tumbled Sandy Creek and Highland Brown; softened antiqued texture with cream and brown tones; tan, auburn, and cedar.
      11. Highland Brown: Weathered edge, seam-face and/or bed-face; brown tones; tan, auburn, and cedar.
      12. Klassic Granite: Split-Face from sawn top and bottom slabs; reds, pinks, grays, blues, blacks, and peppered. Large and tight grained configuration.
      13. Klassic Granite Tumbled: Softened Split Face; reds, pinks, grays, blues, blacks, and peppered, large and tight grained configuration.
      14. Sandy Creek: Split-Face from natural top and bottom slabs; shades of tan and buff, may contain little to strong rose gold veining.
      15. Wisconsin Granite Cobbles: Reds, pinks, grays, blues, blacks, and peppered - large and tight grained configuration. Whole round stone.
      16. Wisconsin Split Fieldstone: Split-Face from cobbles; reds, pinks, grays, blues, blacks, and peppered. Large and tight grained configuration.
      17. Wisconsin Split Fieldstone: Round Outs (Full Veneer Only): Split cobbles laying round face out; reds, pinks, grays, blues, blacks, and peppered - large and tight grained configuration.
    1. Stone Type: Blends. (Full Veneer Blends are not typically blended, mason to blend on site.)

\*\* NOTE TO SPECIFIER \*\* Delete stone type options not required.

* + - 1. Autumn Sunburst: 60 percent Highland Brown, 40 percent Chestnut Boulder.
      2. Autumn Sunburst Ashlar: 60 percent Highland Brown, 40 percent Chestnut Ashlar.
      3. Autumn Sunburst Ledgerock: 60 percent Highland Brown Ledgerock, 40 percent Chestnut Ledgerock.
      4. Birch: 85 percent Sandy Creek, 15 percent Chestnut Ashlar.
      5. Cambrian Blend: 40 percent Sandy Creek, 40 percent Highland Brown, and 20 percent Chestnut Boulder.
      6. Cambrian Blend Ashlar: 40 percent Sandy Creek, 40 percent Highland Brown, and 20 percent Chestnut Ashlar.
      7. Church Blend: 50 percent Sandy Creek, 50 percent Apple Creek.
      8. Desert Blend: 50 percent Sandy Creek, 50 percent Highland Brown.
      9. Desert Sunset: 50 percent Apple Creek, 50 percent Highland Brown Bed-Face.
      10. Kanyon Blend: 60 percent Sandy Creek, 25 percent Highland Brown Bed-Face, and 15 percent Chestnut Ashlar.
      11. Prairie House: 70 percent Sandy Creek, 30 percent Highland Brown - Irregular Edges.
      12. Tuskan: 50 percent Chestnut Cobbles/Boulder, 50 percent Glacier Bay Fieldstone.
      13. Walnut Creek: 50 percent Highland Brown Bed-Face, 40 percent Highland Brown Webwall, 10 percent Chestnut Boulder.
      14. Custom Blend: \_\_\_ percent \_\_\_\_\_\_\_\_\_, \_\_\_ percent \_\_\_\_\_\_\_\_\_, \_\_\_ percent \_\_\_\_\_\_\_\_\_, \_\_\_ percent \_\_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete collections not required. Typical thin veneer max length listed as 22+ inches, this is due to our handy packs interior dimension of 22 inches. If products are packaged in crates or on pallets, longer pieces may be included.

* + 1. Thin Veneer Collection: Ashlar/Random Ashlar.

\*\* NOTE TO SPECIFIER \*\* Delete stone types and size options not required.

* + - 1. Apple Creek:
         1. Height: 2 to 6 inches (51 to 152 mm).
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inches (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
      2. Church Blend, Desert Sunset, Prairie House:
         1. Height: 2 to 8 inches (51 to 203 mm).
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inches (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
      3. Autumn Sunburst Ashlar, Birch, Cambrian Blend Ashlar, Chestnut Ashlar, Desert Blend, Highland Brown, Highland Brown Bed-Face, Kanyon Blend, and Sandy Creek:
         1. Height: 3 to 8+ inches (76 to 203 mm).
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
      4. Glacier Bay Ashlar:
         1. Height: 3 to 8 inches (76 to 203 mm).
         2. Lengths: 5 to 20+ inches (127 to 508+ mm).
         3. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
      5. Highland Brown Jumpers, Sandy Creek Jumpers:
         1. Height: 8 to 14 inches (203 to 356 mm).
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
    1. Thin Veneer Collection: Ledgerock Natural Heights.

\*\* NOTE TO SPECIFIER \*\* Delete stone types and size options not required.

* + - 1. Apple Creek Ledgerock:
         1. Height: 1-1/2 to 4 inches (38 to 102 mm).
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inches (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
      2. Church Blend Ledgerock:
         1. Height: 1 to 4 inches (25 to 102 mm).
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inches (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
      3. Sandy Creek Ledgerock:
         1. Height: 1 to 3 inches (25 to 76 mm).
         2. Lengths: 8 to 20+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inches (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
    1. Thin Veneer Collection: Ledgerock Sawn Heights.

\*\* NOTE TO SPECIFIER \*\* Delete stone types, size options, and material not required.

* + - 1. Aqua Grantique Ledgerock, Cambrian Cream Ledgerock, Desert Blend.
         1. Height: 1-3/16 inch (30 mm) +/- 1/4 inch (6 mm). (Not in Desert Blend).
         2. Height: 2 1/4 inches (57 mm) +/- 1/4 inch (57 mm).
         3. Lengths: 6 to 22+ inches (152 to 559+ mm).
         4. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         5. Material: Hornblende Gneiss/Amphibolite; Aqua Grantique.
         6. Material: Quartzitic Sandstone; All excluding Aqua Grantique.
      2. Autumn Sunburst Ledgerock, Chestnut Ledgerock, and Highland Brown Ledgerock:
         1. Height: 15 percent 1 inch (25 mm), 35 percent 2 inches (51 mm), 50 percent 3 inches (76 mm); +/- 1/4 inch (6 mm).
         2. Height: 2 1/4 inches (57 mm) +/- 1/4 inch (6 mm).
         3. Lengths: 6 to 22+ inches (152 to 559+ mm).
         4. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         5. Material: Quartzitic Sandstone.
    1. Thin Veneer Collection: Sawn Heights.

\*\* NOTE TO SPECIFIER \*\* Delete stone types, size options, and material not required.

* + - 1. Aqua Grantique Sawn Heights, Cambrian Cream Sawn Heights, Desert Blend Sawn Heights, and Highland Brown Sawn Heights:
         1. Height: 3 1/2 inch (89 mm) +/- 1/2 inch (13 mm).
         2. Height: 7 1/2 inch (191 mm) +/- 1/2 inch (13 mm).
         3. Height: 11-1/2 inch (292 mm) +/- 1/2 inch (13 mm). Limited/low percent of project square footage.
         4. Lengths: 6 to 22+ inches (152 to 559+ mm).
         5. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         6. Material: Hornblende Gneiss/Amphibolite (Aqua Grantique).
         7. Material: Quartzitic Sandstone (All excluding Aqua Grantique).
      2. Aqua Grantique Tumbled Sawn Heights, Glacier Bay Sawn Heights:
         1. Height: 3 1/2 inch (89 mm) +/- 1/2 inch (13 mm).
         2. Height: 7 1/2 inch (191 mm) +/- 1/2 inch (13 mm).
         3. Lengths: 5 to 20+ inches (127 to 508+ mm).
         4. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         5. Material: Hornblende Gneiss/Amphibolite (Aqua Grantique).
         6. Material: Quartzitic Sandstone (All excluding Aqua Grantique).
      3. Klassic Granite Sawn Height:
         1. Height: 6 inch (152 mm) +/- 1/2 inch (13 mm).
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Granite.
      4. Klassic Granite Tumbled Sawn Height:
         1. Height: 6 inch (152 mm) +/- 1/2 inch (13 mm).
         2. Lengths: 5 to 20+ inches (127 to 508+ mm).
         3. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Granite.
    1. Thin Veneer Collection: Sawn 6 Sides.

\*\* NOTE TO SPECIFIER \*\* Delete stone types, size options, and material not required.

* + - 1. Aqua Grantique Sawn 6 Sides, Cambrian Cream Thermal Sawn 6-Sides:
         1. Height: 1-3/16 inches (30 mm) +/- 1/4 inch (6 mm).
         2. Height: 2-1/4 inches (57 mm) +/- 1/4 inch (6 mm).
         3. Height: 3-1/2 inches (89 mm) +/- 1/2 inch (13 mm).
         4. Height: 6-1/4 inches (159 mm) +/- 1/2 inch (13 mm).
         5. Height: 7-1/2 inches (191 mm) +/- 1/2 inch (13 mm).
         6. Height: 11-1/2 inches (292 mm) +/- 1/2 inch (13 mm).
         7. Lengths: 6 to 22+ inches (152 to 559+ mm).
         8. Thickness: 1 to 1-1/2 inch (25 to 38 mm).
         9. Material: Hornblende Gneiss/Amphibolite.
    1. Thin Veneer Collection: Palace Blends; Specific Heights.

\*\* NOTE TO SPECIFIER \*\* Delete stone types not required.

* + - 1. Autumn Sunburst, Chestnut, and Highland Brown:
         1. Height: 15 percent 4 inches (102 mm), 35 percent 6 inches (152 mm), 35 percent 8 inches (203 mm), 15 percent 12 inches (305 mm); +/- 1/2 inch (13 mm) all heights.
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
    1. Thin Veneer Collection: Palace Blends - Random Heights.

\*\* NOTE TO SPECIFIER \*\* Delete stone types not required.

* + - 1. Autumn Sunburst, Chestnut, Glacier Bay, and Highland Brown:
         1. Height: 4 to 14 inches (102 to 356 mm).
         2. Lengths: 6 to 22+ inches (152 to 559+ mm).
         3. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
    1. Thin Veneer Collection: Mosaics, Webwalls, Boulders, and Collection Blends.

\*\* NOTE TO SPECIFIER \*\* Delete stone types, size options, and material not required.

* + - 1. Aqua Blue Boulder:
         1. Diameters: 5 to 16 inches (127 to 406 mm).
         2. Depths: 3/4 to 1-1/2 inches (19 to 38 mm).
         3. Average Weight: 12 to 15 lbs per sq ft (574 to 718 Pa).
         4. Material: Hornblende Gneiss/Amphibolite.
      2. Autumn Sunburst, Cambrian Blend, and Chestnut Boulder/Ashlar:
         1. Diameters: 6 to 18 inches (152 to 457 mm).
         2. Height: 3 to 8+ inches (76 to 203+ mm).
         3. Lengths: 6 to 22+ inches (152 to 559+ mm).
         4. Thickness: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         5. Material: Quartzitic Sandstone.
      3. Chestnut Boulder, Highland Brown Webwall, and Northridge Blend:
         1. Diameters: 6 to 18 inches (152 to 457 mm).
         2. Depths: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         3. Average Weight: 11 to 14 lbs per sq ft (527 to 718 Pa).
         4. Material: Quartzitic Sandstone.
      4. Glacier Bay Fieldstone, Tuskan:
         1. Diameters: 4 to 16+ inches (102 to 406+ mm).
         2. Depths: 3/4 to 1-1/2 inches (19 to 38 mm) +/- 1/2 inch (13 mm).
         3. Material: Quartzitic Sandstone.
      5. Walnut Creek:
         1. Diameters: 4 to 18+ inches (102 to 406+ mm).
         2. Height: 3 to 8+ inches (76 to 203+ mm).
         3. Depths: 3/4 to 1-1/2 inches (19 to 38 mm) +/- 1/2 inch (13 mm).
         4. Material: Quartzitic Sandstone.
      6. Wisconsin Granite Cobbles:
         1. Diameters: 4 to 12 inches (102 to 305 mm).
         2. Depths: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         3. Material: Granite.
      7. Wisconsin Split Fieldstone:
         1. Diameters: 4 to 16+ inches (102 to 381 mm).
         2. Depths: 3/4 to 1-1/2 inch (19 to 38 mm) +/- 1/2 inch (13 mm).
         3. Material: Granite.
    1. Full Veneer Collection: Ashlar/Random Ashlar.

\*\* NOTE TO SPECIFIER \*\* Delete stone types and size options not required.

* + - 1. Apple Creek:
         1. Height: 2 to 6 inches (51 to 152 mm).
         2. Lengths: 6 to 30+ inches (152 to 762+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 45 sq ft (4.18 sq m) per ton.

* + - 1. Church Blend, Desert Sunset, Prairie House:
         1. Height: 2 to 8 inches (51 to 203 mm).
         2. Lengths: 6 to 30+ inches (152 to 762+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Autumn Sunburst Ashlar, Birch, Cambrian Blend Ashlar, Chestnut Ashlar, Desert Blend, Highland Brown, Highland Brown Bed-Face, Kanyon Blend, and Sandy Creek:
         1. Height: 3 to 8+ inches (76 to 203+ mm).
         2. Lengths: 6 to 30+ inches (152 to 762+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Glacier Bay Ashlar:
         1. Height: 3 to 8 inches (76 to 203 mm).
         2. Lengths: 5 to 20+ inches (127 to 508+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Highland Brown Jumpers, and Sandy Creek Jumpers:
         1. Height: 8 to 14 inches (203 to 356 mm).
         2. Lengths: 6 to 30+ inches (152 to 762+ mm).
         3. Thickness: 3 to 6 inches (76 to 152 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Highland Brown Kings Blend, and Sandy Creek Kings Blend:
         1. Height: 3 to 8 inches (76 to 203 mm).
         2. Lengths: 18 to 30+ inches (457 to 762+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + 1. Full Veneer Collection: Ledgerock Natural Heights.

\*\* NOTE TO SPECIFIER \*\* Delete stone types and size options not required.

* + - 1. Apple Creek Ledgerock:
         1. Height: 1-1/2 to 4 inches (38 to 102 mm).
         2. Lengths: 6 to 24+ inches (152 to 610+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 45 sq ft (4.18 sq m) per ton.

* + - 1. Church Blend Ledgerock:
         1. Height: 1 to 4 inches (25 to 102 mm).
         2. Lengths: 6 to 24+ inches (152 to 610+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Sandy Creek Ledgerock:
         1. Height: 1 inch to 3 inches (25 to 76 mm).
         2. Lengths: 8 to 20+ inches (203 to 508+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + 1. Full Veneer Collection: Ledgerock Sawn Heights.

\*\* NOTE TO SPECIFIER \*\* Delete stone types, size options, and material not required.

* + - 1. Aqua Grantique Ledgerock, and Cambrian Cream Ledgerock:
         1. Height: 1-3/16 inch (30 mm) +/- 1/4 inch (6 mm).
         2. Height: 2 1/4 inches (57 mm) +/- 1/4 inch (6 mm).
         3. Lengths: 6 to 24+ inches (152 to 610+ mm).
         4. Thickness: 3 to 5 inches (76 to 127 mm).
         5. Material: Hornblende Gneiss/Amphibolite (Aqua Grantique).

Coverage: 30 to 32 sq ft (2.79 to 2.97 sq m) per ton.

* + - * 1. Material: Quartzitic Sandstone (All excluding Aqua Grantique).

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Autumn Sunburst Ledgerock, Chestnut Ledgerock, and Highland Brown Ledgerock:
         1. Height: 15 percent 1 inch (25 mm), 35 percent 2 inches (51 mm), 50 percent 3 inches (76 mm); +/- 1/4 inch (6 mm).
         2. Height: 2 1/4 inches (57 mm) +/- 1/4 inch (6 mm).
         3. Lengths: 6 to 24+ inches (152 to 762+ mm).
         4. Thickness: 3 to 5 inches (76 to 127 mm).
         5. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + 1. FULL VENEER COLLECTION: Sawn Heights.

\*\* NOTE TO SPECIFIER \*\* Delete stone types, size options, and material not required.

* + - 1. Aqua Grantique Sawn Heights, Cambrian Cream Sawn Heights, Desert Blend Sawn Heights, and Highland Brown Sawn Heights.:
         1. Height: 3 1/2 inch (89 mm) +/- 1/2 inch (13 mm).
         2. Height: 7 1/2 inch (191 mm) +/- 1/2 inch (13 mm).
         3. Height: 11 1/2 inch (292 mm) +/- 1/2 inch (13 mm) (limited/low percent of project square footage).
         4. Lengths: 6 to 30+ inch (152 to 762+ mm).
         5. Thickness: 3 to 5 inches (76 to 127 mm).
         6. Material: Hornblende Gneiss/Amphibolite (Aqua Grantique).

Coverage: 30 to 32 sq ft (2.79 to 2.97 sq m) per ton.

* + - * 1. Material: Quartzitic Sandstone (All excluding Aqua Grantique).

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Aqua Grantique Tumbled Sawn Heights, and Glacier Bay Sawn Heights:
         1. Height: 3 1/2 inch (89 mm) +/- 1/2 inch (13 mm).
         2. Height: 7 1/2 inch (191 mm) +/- 1/2 inch (13 mm).
         3. Lengths: 5 to 30+ inches (127 to 508+ mm).
         4. Thickness: 3 to 5 inches (76 to 127 mm).
         5. Material: Hornblende Gneiss/Amphibolite (Aqua Grantique).

Coverage: 30 to 32 sq ft (2.79 to 2.97 sq m) per ton.

* + - * 1. Material: Quartzitic Sandstone (All excluding Aqua Grantique).

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Klassic Granite Sawn Height:
         1. Height: 6 inch (152 mm) +/- 1/2 inch (13 mm).
         2. Lengths: 6 to 24+ inches (152 to 610+ mm).
         3. Thickness: 3 to 6 inches (76 to 152 mm).
         4. Material: Granite.

Coverage: 35 sq ft (3.25 sq m) per ton.

* + - 1. Klassic Granite Tumbled Sawn Height:
         1. Height: 6 inch (152 mm) +/- 1/2 inch (13 mm).
         2. Lengths: 5 to 20+ inches (127 to 508+ mm).
         3. Thickness: 3 to 6 inches (76 to 152 mm).
         4. Material: Granite.

Coverage: 35 sq ft (3.25 sq m) per ton.

* + 1. FULL VENEER COLLECTION: Sawn 6 Sides.

\*\* NOTE TO SPECIFIER \*\* Delete stone types, size options, and material not required.

* + - 1. Aqua Grantique Sawn 6 Sides, Cambrian Cream Thermal Sawn 6-Sides:
         1. Height: 1-3/16 inches (30 mm) +/- 1/4 inch (6 mm).
         2. Height: 2-1/4 inches (57 mm) +/- 1/4 inch (6 mm).
         3. Height: 3-1/2 inches (89 mm) +/- 1/2 inch (13 mm).
         4. Height: 6-1/4 inches (159 mm) +/- 1/2 inch (13 mm).
         5. Height: 7-1/2 inches (191 mm) +/- 1/2 inch (13 mm).
         6. Height: 11-1/2 inches (292 mm) +/- 1/2 inch (13 mm).
         7. Lengths: 6 to 40+ inches (152 to 1016 mm).
         8. Thickness: 3 to 4 inches (76 to 102 mm).
         9. Material: Hornblende Gneiss/Amphibolite.

Coverage: 34 sq ft (3.16 sq m) per ton.

* + 1. FULL VENEER COLLECTION: Palace Blends; Specific Heights (100 percent Bed-Face).

\*\* NOTE TO SPECIFIER \*\* Delete stone types not required.

* + - 1. Autumn Sunburst, Chestnut, Highland Brown:
         1. Height: 15 percent 4 inches (102 mm), 35 percent 6 inches (152 mm), 35 percent 8 inches (203 mm), 15 percent 12 inches (305 mm); +/- 1/2 inch (13 mm) All heights.
         2. Height: 40 percent 6 inches (152 mm), 30 percent 8 inches (203 mm), 20 percent 12 inches (305 mm), 10 percent 18 inches (457 mm); +/- 1/2 inch (13 mm) All heights.
         3. Height: 100 percent 18 inches (457 mm); +/- 1/2 inch (13 mm) height.
         4. Lengths: 6 to 30+ inches (152 to 762+ mm).
         5. Thickness: 3 to 5 inches (76 to 127 mm).
         6. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + 1. FULL VENEER COLLECTION: Palace Blends; Random Heights (100 percent Bed-Face).

\*\* NOTE TO SPECIFIER \*\* Delete stone types not required.

* + - 1. Autumn Sunburst, Chestnut, Glacier Bay, and Highland Brown:
         1. Height: 4 to 14 inches (102 to 356 mm).
         2. Lengths: 6 to 30+ inches (152 to 762+ mm).
         3. Thickness: 3 to 5 inches (76 to 127 mm).
         4. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + 1. FULL VENEER COLLECTION: Mosaics, Webwalls, and Boulders.

\*\* NOTE TO SPECIFIER \*\* Delete stone types, size options, and material not required.

* + - 1. Aqua Blue Boulder:
         1. Diameters: 7 to 20+ inches (178 to 508 mm).
         2. Depths: 4 to 6 inches (102 to 152 mm).
         3. Material: Hornblende Gneiss/Amphibolite (Aqua Grantique).

Coverage: 30 to 35 sq ft (2.79 to 3.25 sq m) per ton.

* + - 1. Autumn Sunburst, Cambrian Blend, and Chestnut Boulder/Ashlar:
         1. Diameters: 6 to 24+ inches (152 to 457+ mm).
         2. Height: 3 to 8+ inches (76 to 203+ mm).
         3. Lengths: 6 to 22+ inches (152 to 559+ mm).
         4. Depths: 3 to 5 inches (76 to 127 mm).
         5. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Chestnut Boulder:
         1. Diameters: 6 to 24 inches (152 to 610 mm).
         2. Depths: 3 to 5 inches (76 to 127 mm).
         3. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Chestnut Cobble:
         1. Diameters: 3 to 8 inches (76 to 203 mm).
         2. Depths: 3 to 5 inches (76.2 to 127 mm).
         3. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Glacier Bay Fieldstone:
         1. Diameters: 6 to 20+ inches (152 to 508+ mm).
         2. Depths: 3 to 6 inches (76 to 152 mm).
         3. Material: Quartzitic Sandstone.

Coverage: 45 to 50 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Highland Brown Webwall, Northridge Blend:
         1. Diameters: 6 to 36+ inches (152 to 914+ mm).
         2. Depths: 3 to 6 inches (76 to 152 mm).
         3. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Tuskan:
         1. Diameters: 4 to 16+ inches (102 to 406+ mm).
         2. Depths: 3 to 5 inches (76 to 127 mm).
         3. Material: Quartzitic Sandstone.

Coverage: 40 to 45 sq ft (3.72 to 4.18 sq m) per ton.

* + - 1. Wisconsin Granite Cobbles:
         1. Diameters: 3 to 9 inches (76 to 229 mm).
         2. Diameters: 6 to 15 inches (152 to 381 mm).
         3. Material: Granite.

Coverage (3 to 9 inches): 30 to 35 sq ft (2.79 to 3.25 sq m) per ton.

Coverage (6 to 15 inches): 25 to 30 sq ft (2.32 to 2.79 sq m) per ton.

* + - 1. Wisconsin Split Fieldstone:
         1. Diameters: 6 to 18+ inches (152 to 381 mm).
         2. Depths: 3 to 6 inches (76 to 178 mm).
         3. Material: Granite.

Coverage: 30 to 35 sq ft (2.79 to 3.25 sq m) per ton.

* + - 1. Wisconsin Split Fieldstone; Round Outs:
         1. Diameters: 8 to 18+
         2. inches (203 to 457 mm).
         3. Depths: 3 to 7 inches (76 to 178 mm).
         4. Material: Granite.

Coverage: 30 to 35 sq ft (2.79 to 3.25 sq m) per ton.

* 1. STONE CLADDING PANELS
     1. General:
        1. It is the responsibility of the architect or installation contractor to specify how the stone will be anchored and installed.
        2. Specification of type, size, quantity, placement, and spacing of anchoring system and any unique edge details of anchoring size must be provided by the customer.
        3. Anchoring Options: Linear kerf, dowel holes, or slots.
        4. The contractor is accountable for obtaining field verification and architect approval of shop drawings for production.
        5. If required by the authority having jurisdiction, the installer is responsible for submitting calculations that bear the seal of a professional engineer licensed in the state where the project is located for the adequacy of stone and anchoring system.

\*\* NOTE TO SPECIFIER \*\* Delete stone type, surface texture and thickness options not required.

* + 1. Aqua Grantique: Black to dusty blue with areas of white quartz, olive green and rust veining. Material weighs about 190 lbs. per cu. ft.
       1. Surface Texture: Brushed.
       2. Surface Texture: Honed.
       3. Surface Texture: Polished.
       4. Surface Texture: Shot-blast.
       5. Thicknesses: 1-3/16 inches (30 mm).
       6. Thicknesses: 2-1/4 inch (57 mm) +/-1/8 inch (3 mm).
       7. Thicknesses: 3-1/2 inch (89 mm) +/-1/4 inch (6 mm).
       8. Sizes: As indicated on the drawings.
    2. Cambrian Cream: Shades of tan and buff may contain little to strong rose gold veining.
       1. Surface Texture: Brushed.
       2. Surface Texture: Honed.
       3. Surface Texture: Polished.
       4. Surface Texture: Shot-blast.
       5. Surface Texture: Thermal. Can pull a crimson color from the magnesium within.
       6. Thicknesses: 1-3/16 inches (30 mm).
       7. Thicknesses: 2-1/4 inch (57 mm) +/-1/8 inch (3 mm).
       8. Thicknesses: 3-1/2 inch (89 mm) +/- 1/4 inch (6 mm).
       9. Sizes: As indicated on the drawings.
    3. Natural Highland Brown Bed-face: Brown tones; tan, auburn, and tawny.
       1. Natural top and bottom layers of stone.
       2. Thicknesses: 3 to 6+ inch (76 to 152+ mm).
       3. Sizes: As indicated on the drawings.
  1. CUSTOM CUT AND ACCESSORY STONE: Caps, Coping, Hearths, Mantels, Risers, and Sills.

\*\* NOTE TO SPECIFIER \*\* Delete stone type option not required and delete surface texture edge profile and heights options not required.

* + 1. Sawn Top and Bottom Material: Aqua Grantique, Cambrian Cream.

\*\* NOTE TO SPECIFIER \*\* Due to the natural seams and fissures on Aqua Grantique, we no longer thermal the surface. Rock-facing is not applicable because the Aqua Grantique material fractures erratically during the facing process.

* + - 1. Material Thickness: 1-3/16 inches (30 mm) +/- 1/4 inch (6 mm).
      2. Material Thickness: 2-1/4 inches (57 mm) +/- 1/4 inch (6 mm).
      3. Material Thickness: 3-1/2 inches (89 mm) +/- 1/2 inch (13 mm).
      4. Material Thickness: 7-1/2 inches (191 mm) +/- 1/2 inch (13 mm). Shot-Blast, Tapestry, or Thermal only.
      5. Custom Washed Top Contour Available After Review.
         1. 1 percent minimum slope.
         2. 1/8 inch per lineal foot slope minimum.
      6. Top Surface Texture: Brushed.
      7. Top Surface Texture: Honed.
      8. Top Surface Texture: Polished.
      9. Top Surface Texture: Shot-Blast.
      10. Top Surface Texture: Tapestry; Sand-blasted.
      11. Top Surface Texture: Thermal; Cambrian Cream Only.
      12. Top Surface Texture: Hand Brushed, Honed, or Polished Available After Review.
      13. Edge Profile: Modified Square.
      14. Edge Profile: 1/8 inches Hand Eased top and bottom edge.
      15. Edge Profile: Hand Rock-Faced; No edge finish, Cambrian Cream Only.
      16. Edge Finish: Brushed.
      17. Edge Finish: Bush-hammer.
      18. Edge Finish: Honed.
      19. Edge Finish: Polished.
      20. Edge Finish: Tapestry.
      21. Custom Radius Shapes Available After Review.

\*\* NOTE TO SPECIFIER \*\* Size Limitations May Occur. Contact Krukowski Stone for current Maximum Standard Sizes.

* + - 1. Dimensions (LxD): \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
      2. Dimensions: As detailed on the Drawings.
    1. Natural Height Slabs: Highland Brown, Sandy Creek.
       1. Material Thickness: 2-1/2 to 6 inches (64 to 152 mm) allow +/- 1/2 inch (13 mm) for chosen slab thickness range.
          1. Thickness: \_\_\_\_ inches (\_\_\_\_ mm) +/- 1/2 inch (13 mm).
          2. Top Finish: Natural.
          3. Bottom Finish: Natural.
          4. Bottom Finish: Sawn.
          5. Edge Finish: Natural one edge (Highland Brown), Machine Split, Sawn.

\*\* NOTE TO SPECIFIER \*\* Size Limitations May Occur. Contact Krukowski Stone for current Maximum Standard Sizes.

* + - * 1. Dimensions (LxD): \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
        2. Dimensions: As detailed on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. LANDSCAPE STONE

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete stone type options not required. Custom depths up to 12 inches are available in Sandy Creek and Highland Brown. 6 inches available in Sandy Creek

* + 1. 6 inch Drywall: Split 6 inches (152 mm) +/- 1 inch (25 mm) front to the back of the stone. Split, sawn, broken, irregular ends; typically stacked dry (without mortar).
       1. Sandy Creek: Split-face; shades of buff, cream, and light tan, may contain little to strong tan or crimson veining.

\*\* NOTE TO SPECIFIER \*\* Delete sorted thickness options not required.

* + - * 1. Thickness: 2 to 3 inch (51 to 76 mm).
        2. Thickness: 3 to 5 inch (76 to 127 mm).
        3. Lengths: 8 to 24+ inches (203 to 610+ mm).
        4. Depths: Custom Depths Available Up to 12 inches (305 mm).
        5. Coverage: 36 sq. ft. (3.34 sq m) per ton.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph options not required.

* + 1. 8 inch Drywall: Split 8 inches (203 mm) +/- 1 inch (25 mm) front to the back of the stone; typically stacked dry (without mortar).
       1. Apple Creek: Split-face; moderate to significant horizontal veining consisting of buff, mauve, and crimson colorations; split, sawn, broken, irregular ends.
          1. Thickness: 2 to 4 inches (51 to 102 mm).
          2. Lengths: 12 to 24+ inches (305 to 610+ mm).
          3. Coverage: 24 sq ft (2.23 sq m) per ton.
       2. Aqua Grantique: Split-Face from sawn top and bottom slabs; dark slate and dusty blue with areas of white quartz, olive green and rust veining; split, sawn, broken, irregular ends.

\*\* NOTE TO SPECIFIER \*\* Delete sawn height option not required.

* + - * 1. Sawn Height: 3-1/2 inch (89 mm) +/- 1/2 inch (13 mm).
        2. Sawn Height: 7-1/2 inch (191 mm) +/- 1/2 inch (13 mm).
        3. Lengths: 10 to 30+ inches (254 to 762+ mm).
        4. Coverage: 14 to 16 sq ft (1.30 to 1.49 sq m) per ton.
      1. Aqua Grantique Tumbled: Softened Split-Face from sawn top and bottom slabs; dark slate and dusty blue with areas of white quartz, olive green and rust veining; split, sawn, broken, irregular ends.

\*\* NOTE TO SPECIFIER \*\* Delete sawn height option not required.

* + - * 1. Sawn Height: 3-1/2 inch (89 mm) +/- 1/2 inch (13 mm).
        2. Sawn Height: 7-1/2 inch (191 mm) +/- 1/2 inch (13 mm).
        3. Lengths: 8 to 30+ inches (203 to 762+ mm).
        4. Coverage: 14 to 16 sq ft (1.30 to 1.49 sq m) per ton.
      1. Cambrian Cream: Split front and back; shades of buff, tan, and variations of brown; split and sawn end.

\*\* NOTE TO SPECIFIER \*\* Delete thickness option not required.

* + - * 1. Sawn Height: 3-1/2 inch (89 mm) +/- 1/2 inch (13 mm).
        2. Sawn Height: 7-1/2 inch (191 mm) +/- 1/2 inch (13 mm).
        3. Lengths: 10 to 30+ inches (254 to 762+ mm).
        4. Coverage: 22 to 24 sq ft (2.04 to 2.23 sq m) per ton.
      1. Highland Brown: Weathered seam-face; natural or split top and bottoms; brown tones; tan, auburn, and tawny; split, sawn, broken, irregular ends.

\*\* NOTE TO SPECIFIER \*\* Delete thickness options not required.

* + - * 1. Thickness: 2 to 3 inches (51 to 763 mm).
        2. Thickness: 3 to 4 inches (76 to 102 mm).
        3. Thickness: 4 to 5 inches (102 to 127 mm).
        4. Thickness: 5 to 6 inches (127 to 152 mm).
        5. Thickness: 6 to 8 inches (152 to 203 mm).
        6. Lengths: 8 to 24+ inches (203 to 610+ mm).
        7. Depths: Custom Depths Available.
        8. Coverage: 22 to 24 sq ft (2.04 to 2.23 sq m) per ton.
        9. Installation Orientation: Face weathered edge face out. The split face back to be placed into the wall/retained material behind.
      1. Chestnut: Weathered edge face; medium to dark brown, chocolate, and coffee tones; split, sawn, broken, irregular ends.
         1. Thickness: 3 to 6 inches (76 to 152 mm).
         2. Lengths: 8 to 24+ inches (203 to 610+ mm).
         3. Coverage: 22 to 24 sq ft (2.04 to 2.23 sq m) per ton.
         4. Installation Orientation: Face weathered edge face out. The split face back to be placed into the wall/retained material behind.
      2. Glacier Bay: Antique/Softened texture with shades of buff, tan, and variations of brown; Tumbled Sandy Creek and/or Highland Brown; split, sawn, broken, irregular ends.

\*\* NOTE TO SPECIFIER \*\* Delete thickness option not required.

* + - * 1. Thickness: 4 to 5 inches (102 to 127 mm).
        2. Thickness: 5 to 6 inches (127 to 152 mm).
        3. Thickness: 6 to 8 inches (152 to 203 mm).
        4. Lengths: 8 to 20+ inches (203 to 508+ mm).
        5. Coverage: 22 to 24 sq ft (2.04 to 2.23 sq m) per ton.
      1. Klassic Granite: Split-face; red, black, blue, grey, pink, peppered with large and tight grained configuration; sawn and split ends.
         1. Sawn Height 6 inches (152 mm) +/- 1/2 inch (13 mm).
         2. Lengths: 6 to 24+ inch (152 to 610+ mm).
         3. Coverage: 14 to 16 sq ft (1.30 to 1.49 sq m) per ton.
      2. Klassic Granite Tumbled: Softened split-face; red, black, blue, grey, pink, peppered with large and tight grained configuration; split, sawn, broken, irregular ends.
         1. Sawn Height 6 inches (152 mm) +/- 1/2 inch (13 mm).
         2. Lengths: 6 to 24+ inch (152 to 610+ mm).
         3. Coverage: 14 to 16 sq ft (1.30 to 1.49 sq m) per ton.

\*\* NOTE TO SPECIFIER \*\* Additional depths from 6 to 12 inches are available.

* + - 1. Sandy Creek: Split-face; shades of buff, cream, and light tan, may contain little to strong tan or crimson veining; split, sawn, broken, irregular ends.

\*\* NOTE TO SPECIFIER \*\* Delete sorted thickness options not required.

* + - * 1. Thickness: 2 to 3 inch (51 to 76 mm).
        2. Thickness: 3 to 4 inch (76 to 102 mm).
        3. Thickness: 4 to 5 inch (102 to 127 mm).
        4. Thickness: 5 to 6 inch (127 to 152 mm).
        5. Thickness: 6 to 8 inch (152 to 203 mm).
        6. Lengths: 8 to 24+ inches (203 to 610+ mm).
        7. Depths: Custom Depths Available Up to 12 inches (305 mm).
        8. Coverage: 22 to 24 sq ft (2.04 to 2.23 sq m) per ton.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph options not required.

* + 1. 18 inch Outcropping Drywall: Split 18 inches (457 mm) +/- 2 inch (51 mm) front to the back of the stone. Natural top and bottom.

\*\* NOTE TO SPECIFIER \*\* The Chestnut material is a fieldstone boulder located in the topsoil where it pulls its rich coloring. The Chestnut was tumbled and turned with the glacier giving them a smooth exterior texture. Some of the coloring in the Chestnut can cross-over into the Highland Brown color and vice-versa. Delete stone type options not required, then delete height and thickness options not required.

* + - 1. Chestnut: Weathered edge fieldstone boulders; medium to dark brown chocolate and coffee tones; split, broken, and natural ends.
         1. Thickness: 6 to 12+ inches (542 to 305+ mm).
         2. Lengths: 18 to 60+ inches (457 to 1524+ mm).
         3. Coverage: 8 to 10 sq ft (0.74 to 0.93. sq m) per ton.
      2. Highland Brown: Weathered seam-face; natural or split top and bottoms; brown tones - tan, auburn, and tawny; quarry split, broken, and natural ends.

\*\* NOTE TO SPECIFIER \*\* Delete thickness option not required.

* + - * 1. Thickness: 8 to 12 inches (203 to 305 mm).
        2. Thickness: 12 to 16 inches (305 to 406 mm).
        3. Lengths: 18 to 60+ inches (457 to 1524+ mm).
        4. Coverage: 8 to 10 sq ft (0.74 to 0.93. sq m) per ton.
        5. Installation Orientation: Make sure to face Highland Brown weathered edge face out as the back (split side) is the Sandy Creek face.
      1. Sandy Creek: Split-face; shades of buff, cream, and light tan may contain little to strong tan or crimson veining; natural, split, and broken ends.

\*\* NOTE TO SPECIFIER \*\* Delete thickness option not required.

* + - * 1. Thickness: 8 to 12 inches (203 to 305 mm).
        2. Thickness: 12 to 16 inches (305 to 406 mm).
        3. Lengths: 18 to 60+ inches (457 to 1524+ mm).
        4. Coverage: 8 to 10 sq ft (0.74 to 0.93. sq m) per ton.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required, or delete stone type, thickness, and length options not required.

* + 1. Outcropping
       1. Aqua Grantique: Sawn top and bottom slabs from Aqua Blue Boulders; Natural, sawn, and broken ends. Dark slate-blue with areas of white quartz, olive green and rust coloration.

\*\* NOTE TO SPECIFIER \*\* Delete diameter option not required.

* + - * 1. Thickness: 7-1/2 inches (191 mm) +/- 1/2 inch (13 mm).
        2. Diameter: 12 to 30+ inches (305 to 762+ mm).
        3. Diameter: 30 to 60+ inches (762 to 1524+ mm).
      1. Chestnut. Weathered edge fieldstone boulders; Medium to dark brown chocolate and coffee tones.

\*\* NOTE TO SPECIFIER \*\* Delete thickness option not required.

* + - * 1. Thickness: 4 to 8 inches (102 to 203 mm).
        2. Thickness: 8 to 16+ inches (203 to 406+ mm).
        3. Depth: 16 to 36+ inches (406 to 914+ mm).
        4. Lengths: 18 to 48+ inches (610 to 1524+ mm).
        5. Coverage: 4 to 6 sq ft (0.37 to 0.55 sq m) per ton,
      1. Desert Blend. Quarry split-face and seam-face material; buff, cream, brown tones, tan, auburn, and cedar; Blend of Sandy Creek and Highland Brown; natural, quarry split, and irregular broken ends.

\*\* NOTE TO SPECIFIER \*\* Delete thickness option not required.

* + - * 1. Thickness: 5 to 8 inches (127 to 203 mm).
        2. Thickness: 8 to 12 inches (203 to 305 mm).
        3. Thickness: 10 to 16 inches (254 to 406 mm).
        4. Thickness: 14 to 24 inches (356 to 610 mm).
        5. Depth Range: 16 to 36+ inches (406 to 914+ mm).
        6. Length Range: 18 to 72+ inches (457 to 1829+ mm).
        7. Coverage: 4 to 6 sq ft (0.37 to 0.55 sq m) per ton.
      1. Highland Brown. Weathered seam-face; brown tones; tan, auburn, and tawny; natural, quarry split, and irregular broken ends.

\*\* NOTE TO SPECIFIER \*\* Delete thickness option not required.

* + - * 1. Thickness: 5 to 8 inches (127 to 203 mm).
        2. Thickness: 8 to 12 inches (203 to 305 mm).
        3. Thickness: 10 to 16 inches (254 to 406 mm).
        4. Thickness: 14 to 24 inches (356 to 610 mm).
        5. Depth Range: 16 to 36+ inches (406 to 914+ mm).
        6. Length Range: 18 to 72+ inches (457 to 1829+ mm).
        7. Coverage: 4 to 6 sq ft (0.37 to 0.55 sq m) per ton.
      1. 1-2 or 2-3 Man: Weathered seam-face and quarry split; buff, cream, brown tones, tan, auburn, and cedar, and tawny; Blend of Sandy Creek and Highland Brown; irregular shapes.

\*\* NOTE TO SPECIFIER \*\* Delete type option not required.

* + - * 1. 1-2 Man:

Thickness Range: 3 to 10 inches (76 to 254 mm).

Various Shapes and Sizes: 12 to 48 inches (305 to 1219 mm).

Covers: 10 to 15 sq ft (0.93 to 1.39 sq m) per ton.

* + - * 1. 2-3 Man:

Thickness Range: 5 to 14 inches (127 to 356 mm).

Various Shapes and Sizes: 12 to 48 inches (305 to 1219 mm).

Covers: 8 to 12 sq ft (0.74 to 1.11 sq m) per ton.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete stone type options not required.

* + 1. Stone Landscaping Chips and Sand:

\*\* NOTE TO SPECIFIER \*\* Delete product options not required.

* + - 1. Aqua Blue Chips: Crushed Hornblende Gneiss/Amphibolite

\*\* NOTE TO SPECIFIER \*\* Delete sizes option not required.

* + - * 1. Sizes: 1/4 to 3/4 inches (6 to 19 mm).
        2. Sizes: 3/4 to 1-1/2 inches (19 to 38 mm).
        3. Coverage: Approximately 120 to 125 sq ft (11.15 to 11.61 sq m) per ton when applied 2 inches (51 mm) deep.
      1. Aqua Path Sand: Crushed Hornblende Gneiss/Amphibolite.
         1. 3/8 inch (10 mm) to fines; No Binder.

\*\* NOTE TO SPECIFIER \*\* Delete coverage option not required.

* + - * 1. Coverage: 120 sq ft per ton, 2 inch (51 mm) lightly compacted.
        2. Coverage: 100 sq ft per ton, 2 inch (51 mm) firmly compacted.
      1. Sandstorm: Crushed Quartzite Sandstone.
         1. Sizes: 3/4 to 1-1/2 inches (19 to 38 mm).
      2. Coverage: Product covers 125 sq ft (11.61 sq m) per ton when applied at a 2 inches (51 mm) depth.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required.

* + 1. Flagstone and Steppers:

\*\* NOTE TO SPECIFIER \*\* Delete product options not required.

* + - 1. Aqua Grantique: Shot-blast top surface texture applied for slip resistance; dark slate and dusty blue with areas of white quartz, olive green and rust veining; Irregular shapes with natural, broken, and sawn edges (long and narrow pieces may occur).

\*\* NOTE TO SPECIFIER \*\* Delete type/diameter options not required.

* + - * 1. Stepper Diameters: 8 to 18 inch (203 to 457 mm).
        2. Flagstone Diameters: 18 to 36 inch (457 to 914 mm).
        3. XL Flagstone Diameters: 24 to 60+ inch (610 to 1524+ mm).
        4. Thickness: 1-3/16 inches (30 mm) +/- 1/4 inch (6 mm).
        5. Coverage: 90 to 95 sq ft (8.36 to 8.87 sq m) per ton.
      1. Cambrian Cream: Thermal top surface texture applied for slip resistance; light buff with areas of crimson and gray veining; Irregular shapes with natural, broken, and sawn edges.

\*\* NOTE TO SPECIFIER \*\* Delete type/diameter options not required.

* + - * 1. Stepper Diameters: 8 to 18 inch (203 to 457 mm).
        2. Flagstone Diameters: 18 to 36 inch (457 to 914 mm).
        3. XL Flagstone Diameters: 24 to 60+ inch (610 to 1524+ mm).
        4. Thickness: 1-3/16 inches (30 mm) +/- 1/4 inch (6 mm).
        5. Coverage: 105 to 115 sq ft (9.75 to 10.68 sq m) per ton.
      1. Chestnut: Bed-face; medium to dark brown, chocolate and coffee tones; Irregular shapes.
         1. Stepper Diameters: 8 to 16 inches (203 to 406 mm).

Thickness: 1 to 2-1/2 inches (25 to 64 mm).

Coverage: 90 to 100 sq ft (8.36 to 9.29 sq m) per ton.

* + - 1. Klassic Granite: Shot Blast top surface texture applied for slip resistance; red, black, blue, grey, pink, and peppered with large and tight grained configuration; broken and natural boulder contour.
         1. Flagstone Diameters: 12 to 36+ inch (305 to 914+ mm).
         2. Thickness: 1-3/16 inches (30 mm) +/- 1/4 inch (6 mm).
         3. Coverage: 100 sq ft (9.29 sq m) per ton.
      2. Sandy Creek: Natural bed-faced top and bottom; light to dark brown, tan, auburn, and tawny; natural, irregular broken ends.

\*\* NOTE TO SPECIFIER \*\* Delete type/diameters and thickness option not required.

* + - * 1. Stepper Diameters: 8 to 18 inches (203 to 457 mm).

Thickness: 1 to 2 inches (25 to 51 mm).

Coverage: 100 sq ft (9.29 sq m) per ton.

* + - * 1. Flagstone Diameters: 16 to 36+ inches (406 to 914 mm).

Thickness: 1 to 2 inches (25 to 51 mm).

Coverage: 80 to 90 sq ft (7.43 to 8.36 sq m) per ton.

Thickness: 2 to 3 inches (51 to 76 mm).

Coverage: 60 to 70 sq ft (5.57 to 6.50sq m) per ton.

* + - * 1. XL Flagstone Diameters: 24 to 60+ inches (610 to 1524 mm).

Thickness: 1 to 2+ inches (25 to 51+ mm).

Coverage: 80 to 90 sq ft (7.43 to 8.36 sq m) per ton.

Thickness: 2 to 3+ inches (51 to 76+ mm).

* + - 1. Coverage: 60 to 70 sq ft (5.57 to 6.50sq m) per ton.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete stone type options not required.

* + 1. Steps:
       1. Aqua Grantique Random Steps: Shot-blast top surface texture applied for slip resistance; dark slate and dusty blue with areas of white quartz, olive green and rust veining; irregular boulder shape; natural, sawn, or broken ends.
          1. Sawn Thickness: 7-1/2 inch (191 mm) +/- 1/2 inch (13 mm).
          2. Random Depth: 16 to 36+ inches (406 to 914+ mm).
          3. Random Length: 24 to 84+ inches (610 to 2134+ mm).
          4. Custom sorting is not available in this material.
       2. Aqua Grantique Split Steps: Shot-blast top surface texture applied for slip resistance; dark slate and dusty blue with areas of white quartz, olive green and rust veining; machine split face front and back; sawn ends.
          1. Sawn Thickness: 7-1/2 inch (191 mm) +/- 1/2 inch (13 mm).

\*\* NOTE TO SPECIFIER \*\* Delete step size options not required.

* + - * 1. Step Size: 18 x 36 inches (457 x 914 mm) +/- 2 inches (51 mm).
        2. Step Size: 18 x 48 inches (457 x 1219 mm) +/- 2 inches (51 mm).
        3. Step Size: 18 x 60 inches (457 x 1524 mm) +/- 2 inches (51 mm).
        4. Step Size: 24 x 36 inches (610 x 914 mm) +/- 2 inches (51 mm).
        5. Step Size: 24 x 48 inches (610 x 1219 mm) +/- 2 inches (51 mm).
        6. Step Size: 24 x 60 inches (610 x 1524 mm) +/- 2 inches (51 mm).
      1. Cambrian Cream Split Steps: Shot-blast top surface texture applied for slip resistance; light buff that may contain crimson veining; machine split face front and back; split or sawn ends.
         1. Sawn Thickness: 7-1/2 inch (191 mm) +/- 1/2 inch (13 mm).

\*\* NOTE TO SPECIFIER \*\* Delete step size options not required.

* + - * 1. Step Size: 18 x 36 inches (457 x 914 mm) +/- 2 inches (51 mm).
        2. Step Size: 18 x 48 inches (457 x 1219 mm) +/- 2 inches (51 mm).
        3. Step Size: 18 x 60 inches (457 x 1524 mm) +/- 2 inches (51 mm).
        4. Step Size: 24 x 36 inches (610 x 914 mm) +/- 2 inches (51 mm).
        5. Step Size: 24 x 48 inches (610 x 1219 mm) +/- 2 inches (51 mm).
        6. Step Size: 24 x 60 inches (610 x 1524 mm) +/- 2 inches (51 mm).
      1. Chestnut Random Steps: Weathered edge face; medium to dark brown, chocolate and coffee tones; No Sorting - Limited Quantities.
         1. Thickness: 5 to 8 inches (127 to 203 mm).
         2. Depth: 18 to 30+ inches (457 to 762+ mm).
         3. Length: 24 to 60+ inches (610 to 1524+ mm).
      2. Highland Brown Random Steps: Weathered edge face; natural top and bottom; brown tones; tan, auburn, and tawny; natural contour with natural and broken ends.
         1. Thickness: 5 to 8 inches (127 to 203 mm).
         2. Depth: 18 to 36+ inches (457 to 914+ mm).
         3. Length: 24 to 60+ inches (610 to 1524+ mm).
      3. Highland Brown Split Steps: Weathered edge face; natural top and bottom; brown tones; tan, auburn, and tawny; split ends and back.
         1. Thickness: 5 to 8 inch (127 to 203 mm).

\*\* NOTE TO SPECIFIER \*\* Delete step size options not required.

* + - * 1. Step Size: 18 x 36 inches (457 x 914 mm) +/- 2 inches (51 mm).
        2. Step Size: 18 x 48 inches (457 x 1219 mm) +/- 2 inches (51 mm).
        3. Step Size: 18 x 60 inches (457 x 1524 mm) +/- 2 inches (51 mm).
        4. Step Size: 24 x 36 inches (610 x 914 mm) +/- 2 inches (51 mm).
        5. Step Size: 24 x 48 inches (610 x 1219 mm) +/- 2 inches (51 mm).
        6. Step Size: 24 x 60 inches (610 x 1524 mm) +/- 2 inches (51 mm).
      1. Sandy Creek Split Steps: Split-face; natural top and bottom; shades of tan and buff, may contain little to strong tan or crimson veining; split and sawn ends and back
         1. Thickness: 5 to 8 inches (127 to 203 mm).

\*\* NOTE TO SPECIFIER \*\* Delete step size options not required.

* + - * 1. Step Size: 18 x 36 inches (457 x 914 mm) +/- 2 inches (51 mm).
        2. Step Size: 18 x 48 inches (457 x 1219 mm) +/- 2 inches (51 mm).
        3. Step Size: 18 x 60 inches (457 x 1524 mm) +/- 2 inches (51 mm).
        4. Step Size: 24 x 36 inches (610 x 914 mm) +/- 2 inches (51 mm).
        5. Step Size: 24 x 48 inches (610 x 1219 mm) +/- 2 inches (51 mm).
        6. Step Size: 24 x 60 inches (610 x 1524 mm) +/- 2 inches (51 mm).
      1. Wisconsin Granite Boulder Steps: Shot-blast top surface for slip resistance; reds, pinks, grays, blues, burgundy, black, peppered, large and tight grained configurations; natural boulder and broken contour. Colors mixed on pallet.
         1. Thickness: 6 inch (152 mm) +/- 1/2 inch (13 mm).

\*\* NOTE TO SPECIFIER \*\* Delete step size options not required.

* + - * 1. Step Size: 2 to 3 ft (610 to 914 mm) diameter.
        2. Step Size: 3 to 4 ft (914 to 1219 mm) diameter.
        3. Step Size: 4 to 5 ft (1219 to 1524 mm) diameter.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete stone type, thickness, and edge options not required.

* + 1. Custom Treads:
       1. Cambrian Cream, Aqua Grantique: Not affected by salt nor do they spall or delaminate.
       2. Thickness: 1-3/16 inches (30 mm) +/- 1/4 inch (6 mm).
       3. Thickness: 2-1/4 inches (57 mm) +/- 1/4 inch (6 mm).
       4. Thickness: 3-1/2 inches (89 mm) +/- 1/2 inch (13 mm).
       5. Surface Texture: Shot-blast.
       6. Surface Texture: Thermal (Cambrian Cream Only)
       7. Edge Profile: Modified Square.
       8. Edge Profile: 1/8 inches Hand Eased top and bottom edge.
       9. Edge Finish: Tapestry.
       10. Custom Radius Shapes Available After Review.

\*\* NOTE TO SPECIFIER \*\* Size Limitations May Occur. Contact Krukowski Stone for current Maximum Standard Sizes.

* + - 1. Dimensions (LxD): \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
      2. Dimensions: As detailed on the Drawings.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete stone type not required. Aqua Blue Boulders may contain long, narrow, angular, and jagged pieces, not typically spherical and round in shape. Sawn sides and drill holes may be included. The Aqua Blue and Aqua Grantique materials contain minerals that on rare occasion may bleed.

* + 1. Boulders
       1. Aqua Blue Boulders: Irregular shaped boulder with natural and fractured surface textures which may contain drill marks or drill holes; dark slate-blue with olive, white quartz, and rust veining.

\*\* NOTE TO SPECIFIER \*\* Delete size options not required.

* + - * 1. 3 to 6 inches (76 to 152 mm).

Coverage: 30 to 35 sq ft (2.79 to 3.25 sq m) per ton.

* + - * 1. 7 to 12 inches (178 to 305 mm).

Coverage: 25 to 30 sq ft (2.32 to 2.79 sq m) per ton.

* + - * 1. 12 to 18 inches (305 to 457 mm).

Coverage: 10 to 12 sq ft (0.93 to 1.11 sq m) per ton

* + - * 1. 18 to 24 inches (457 to 610 mm).

Coverage: 5 to 8 sq ft (0.46 to 0.74 sq m) per ton.

* + - * 1. 24 to 36 inches (610 to 914 mm).

Coverage: 3 to 5 sq ft (0.28 to 0.46 sq m) per ton.

* + - * 1. 3 to 5 ft (914 to 1524 mm) 200 lbs. per cubic ft.
        2. 5 to 8 ft (1524 to 2438 mm) 200 lbs. per cubic ft.
        3. Aqua Blue Specimen Boulders: Hand-picked to customer's requirements.

\*\* NOTE TO SPECIFIER \*\* Size Limitations May Occur. Contact Krukowski Stone for current Maximum Standard Sizes. Please allow for variation in dimensions.

Dimensions: As detailed on the Drawings.

* + - 1. Aqua Blue Fountains and Water Features: Specimen boulder with drilled water supply holes. Rustic and weathered, dark blue, areas of rust, white quartz, or green veining.
         1. Drilled Hole: 1-1/4 inch (32 mm) diameter from the bottom to 6 inches (152 mm) from the top. Drilled 2-1/4 inch (57 mm) diameter from the top to 6 inch (152 mm) depth. For more dramatic bubble effect.
      2. Wisconsin Granite Cobbles and Boulders: Reds, pinks, grays, blues, burgundy, black peppered, large, and tight grained configurations.

\*\* NOTE TO SPECIFIER \*\* Delete size options not required.

* + - * 1. 3 to 9 inch (76 to 229 mm).

Coverage: 30 sq ft (2 79 sq m) per ton.

* + - * 1. 6 to 15 inch (152 to 381 mm).

Coverage: 15 to 20 sq ft (1.39 to 1.86 sq m) per ton.

* + - * 1. 10 to 20 inch (254 to 508 mm).

Coverage: 10+ sq ft (0.93+ sq m) per ton.

* + - * 1. 18 to 24 inches (457 to 610 mm).

Coverage: 8 to 12 sq ft (0.74 to 1.11 sq m) per ton.

* + - * 1. 24 to 36 inches (610 to 914 mm) 180 lbs per cu ft (2883.3 kg per cu m).
        2. 36 to 48 inches (914 to 1219 mm) 180 lbs per cu ft (2883.3 kg per cu m).
        3. 4 to 8 ft (1219 to 2438 mm). 180 lbs per cu ft (2883.3 kg per cu m).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete bench options not required.

* + 1. Benches:
       1. Aqua Blue Boulder Bench: Serpentine seat with Aqua Blue Boulder legs.
          1. Bench Seat: Serpentine shape.

Dimensions (TxWxL): 3-1/2 x 18 x 60 inch (89 x 457 x 1524 mm).

Surface: Brushed surface texture and square brushed eased edges.

Seat Height: 19 inch (483 mm).

* + - * 1. Boulder Legs: One with sawn on top and bottom at 15-1/2 inches (394 mm). The other leg is an Aqua Blue feature boulder with a sawn bottom and notch to rest edge of seat. Irregular shapes, fractured and rustic surface, dark slate-blue with areas of white quartz, olive green and rust veining.
      1. Cambrian Cream Bench: Serpentine seat with Highland Brown outcropping legs.
         1. Bench Seat: Serpentine shape.

Dimensions (TxWxL): 3-1/2 x 18 x 60 inch (89 x 457 x 1524 mm).

Surface: Brushed surface texture and square brushed eased edges

Seat Height: 19 inch (483 mm).

* + - * 1. Legs: One with sawn on top and bottom at 15-1/2 inches (394 mm). The other leg is a feature Highland Brown Outcropping piece with a sawn bottom and notch to rest edge of seat; brown tones; tan, auburn, and tawny; natural, quarry split, and irregular broken ends.
      1. Sandy Creek Bench: Seat top split 4 sides from natural top and bottom slab.
         1. The top piece features a natural surface and bottom. Split on 4 sides.
         2. Seat Depth: 18 inches (457 mm).

\*\* NOTE TO SPECIFIER \*\* Delete bench length options not required.

* + - * 1. Seat Length: 36 inches (914 mm) +/- 2 inches (51 mm).
        2. Seat Length: 48 inches (1219 mm) +/- 2 inches (51 mm).
        3. Seat Length: 60 inches (1524 mm) +/- 2 inches (51 mm).
        4. Seat Thickness: 3 to 4 inches (76 to 102 mm).

\*\* NOTE TO SPECIFIER \*\* Delete legs option not required.

* + - * 1. Leg Depth: 16 inches (406 mm).
        2. Leg Height: 12 inches (305 mm) for placement on a hard surface.
        3. Leg Height: 22 inches (559 mm) if buried.
        4. Split Sides Thickness: 5 to 6 inches (127 to 152 mm) wide.
        5. Use an adhesive to bond the top to the legs.

\*\* NOTE TO SPECIFIER \*\* 6 and 8 inch (152 and 203 mm) Drywalls can be used as lawn edging. See the Drywall Paragraphs for more details. Delete paragraph if not required or delete stone type options not required.

* + 1. Lawn Edging:
       1. Aqua Grantique Lawn Edging: Split-Face from sawn top and bottom slabs; dark slate and dusty blue with areas of white quartz, olive green and rust veining.
          1. Sawn Height: 3-1/2 inch (89 mm) +/- 1/2 inch (13 mm).
          2. Split Width: 4 inches +/- 1 inch (25 mm).
          3. Lengths: Random.
          4. Coverage: 80 to 90 lineal ft (24.384 to 27.432 lineal m) per ton.
       2. Aqua Grantique Tumbled Lawn Edging: Softened Split-Face from sawn top and bottom slabs; dark slate and dusty blue with areas of white quartz, olive green and rust veining.
          1. Sawn Height: 3-1/2 inch (89 mm) +/- 1/2 inch (13 mm).
          2. Split Width: 4 inches +/- 1 inch (25 mm).
          3. Lengths: Random.
          4. Coverage: 80 to 90 lineal ft (24.384 to 27.432 lineal m) per ton.
       3. Cambrian Cream Lawn Edging: Split from sawn top and bottom slabs; shades of tan and buff, may contain little to strong rose gold veining.
          1. Sawn Height: 3-1/2 inch (89 mm) +/- 1/2 inch (13 mm).
          2. Split Width: 4 inches (102 mm) +/- 1/2 inch (13 mm).
          3. Lengths: Random.
          4. Coverage: 120+ lineal ft (36.576+ lineal m) per ton.
       4. Sandy Creek Lawn Edging: Shades of tan and buff, may contain little to strong rose gold veining.
          1. Natural Height: 4 inches (102 mm) +/- 1/2 inch (13 mm).
          2. Split Width: 4 inches (102 mm) +/- 1/2 inch (13 mm).
          3. Lengths: Random.
          4. Coverage: 110+ lineal ft (33.528+ lineal m) per ton.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph options not required or delete stone type options not required.

* + 1. Natural Stone Pavers:
       1. Aqua Grantique Shot-Blast Pavers: Shot-blast top surface texture applied for slip resistance; dark slate blue and dusty blue with areas of white quartz, olive green and rust veining.
          1. Thickness: 2-1/4 inch (57 mm) +/- 1/4 inches (6 mm).

\*\* NOTE TO SPECIFIER \*\* Delete size options not required.

* + - * 1. Sawn Size: 4 x 8 inches (102 x 203 mm) +/- 1/4 inches (6 mm).
        2. Sawn Size: 8 x 8 inches (203 x 203 mm) +/- 1/4 inches (6 mm).
        3. Sawn Size: 8 x 12 inches (203 x 305 mm) +/- 1/4 inches (6 mm).
      1. Aqua Grantique Tumbled Pavers: Softened Split-Face top and bottom with sawn sides; dark slate and dusty blue with areas of white quartz, olive green and rust veining.
         1. Thickness: 3 inches (76 mm) +/- 1 inches (25 mm), then tumbled.

\*\* NOTE TO SPECIFIER \*\* Delete size options not required.

* + - * 1. Sawn Size: 4 x 8 inches (102 x 203 mm) +/- 1/4 inches (6 mm).
        2. Sawn Size: 8 x 8 inches (203 x 203 mm) +/- 1/4 inches (6 mm).
        3. Sawn Size: 8 x 12 inches (203 x 305 mm) +/- 1/4 inches (6 mm).
      1. Cambrian Cream Sawn Tumbled Pavers: Tumbled top surface; light buff that may contain crimson veining; machine split and sawn ends.
         1. Sawn Height: 3-1/2 inch (89 mm) +/- 1/2 inch (13 mm).
         2. Split size: 5 x 10 inches (127 x 254 mm) +/- 1/2 inch (13 mm).
      2. Cambrian Cream Shot-Blast Pavers: Shot-blast top surface texture; light buff that may contain crimson veining; machine split and sawn ends.
         1. Thickness: 2-1/4 inches (57 mm) +/- 1/4 inches (6 mm).

\*\* NOTE TO SPECIFIER \*\* Delete size options not required.

* + - * 1. Split Size: 4 x 8 inches (102 x 203 mm) +/- 1/2 inch (13 mm).
        2. Split Size: 8 x 8 inches (203 x 203 mm) +/- 1/2 inch (13 mm).
        3. Split Size: 8 x 12 inches (203 x 305 mm) +/- 1/2 inch (13 mm).
        4. Split Size, Custom: \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm) +/- 1/2 inch (13 mm).
      1. Glacier Bay Tumbled Pavers: Softened natural top and bottom; brown tones - cream tan, and auburn.
         1. Thickness: 2 to 3 inches (51 to 76 mm).
         2. Split Square: 8 x 8 inches (203 x 203 mm) +/- 1 inch (25 mm) square.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete stone type options not required.

* + 1. Patterned Flooring Cut-To-Size: Multiple pattern options available. Cut to Order - Plan on extended lead times for larger pieces.
       1. Aqua Grantique: Dark slate blue and dusty blue with areas of white quartz, olive green and rust veining.
       2. Cambrian Cream: Light buff that may contain crimson veining.

\*\* NOTE TO SPECIFIER \*\* Delete thickness, finish, or size options not required. Below module at 8 inches; 6 inches and custom modules available. Sizes can be adjusted/reduced for designed joint thickness. Contact Krukowski Stone for current Maximum Standard Sizes - Can be 15"x30".

* + - * 1. Thickness: 1-3/16 inches (30 mm) +/- 1/4 inches (6 mm).
        2. Thickness: 2-1/4 inches (57 mm) +/- 1/4 inches (6 mm).
        3. Shot-Blast Top Surface.
        4. Brushed Top Surface (Recommended for interior applications only).
        5. Honed Top Surface (Recommended for interior applications only).
        6. Thermal Top Surface (Cambrian Cream Only).
        7. Size: 8 x 8 inches (203 x 203 mm) +/- 1/8 inches (3 mm).
        8. Size: 8 x 16 inches (203 x 406 mm) +/- 1/8 inches (3 mm).
        9. Size: 16 x16 inches (406 x 406 mm) +/- 1/8 inches (3 mm).
        10. Size: 16 x 24 inches (406 x 610 mm) +/- 1/8 inches (3 mm).
        11. Size: 24 x 24 inches (610 x 610 mm) +/- 1/8 inches (3 mm). 15 x 30?
        12. Size: \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm) +/- 1/8 inches (3 mm).
        13. Size: 8 inches heights with random lengths.
        14. Size: \_\_\_ inches heights with random lengths.
    1. Patterned Flag:
       1. Sandy Creek: Natural bed-faced top surface; light to dark brown, tan, auburn, and tawny; natural or sawn bottom.
          1. Stone Thickness: 1-1/2 to 3+ inches (38 x 76+ mm).

\*\* NOTE TO SPECIFIER \*\* Delete size option not required. Call for current maximum sizes.

* + - * 1. Cut to size +/- 1/8 inches (3 mm).
        2. Split to size +/- 1/2 inch (13 mm).
        3. Minimum Size: 8 x 8 inches (203 x 203 mm).
        4. Maximum Size: 24 x 48 inches (610 x 1219 mm).
        5. Size: \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required or delete thickness and edge options not required.

* + 1. Pool Coping:
       1. Cambrian Cream, Aqua Grantique: Not affected by salt nor do they spall or delaminate.
       2. Thickness: 1-3/16 inches (30 mm).
       3. Thickness: 2-1/4 inches (57 mm).
       4. Surface Texture: Shot-blast.
       5. Surface Texture: Thermal (Cambrian Cream Only)
       6. Edge Profile: Modified Square.
       7. Edge Profile: 1/8 inches Hand Eased top and bottom edge.
       8. Edge Finish: Tapestry.
       9. Custom Radius Shapes Available After Review.

\*\* NOTE TO SPECIFIER \*\* Size Limitations May Occur. Contact Krukowski Stone for current Maximum Standard Sizes.

* + - 1. Dimensions (LxD): \_\_\_ x \_\_\_ inches (\_\_\_ x \_\_\_ mm).
      2. Dimensions: As detailed on the Drawings.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until the substrates have been properly constructed and prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

\*\* NOTE TO SPECIFIER \*\* Delete preparation and installation options not required.

* 1. PREPARATION - THIN VENEER MASONRY
     1. Clean surfaces thoroughly prior to installation.
     2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
     3. Masonry Contractor shall include building into the masonry equipment and materials furnished through other divisions such as lintels, steel framing, shelf angles, anchors, sleeves, thimbles, piping, flashings, and other miscellaneous items, and shall also be required to do the cutting and patching of masonry where necessary to accommodate work of other trades, all as hereinafter specified, shown on Drawings, or reasonably implied in either, providing a complete job.
     4. Building code requirements vary from area to area. Check with local authorities for building code requirements in your area.
     5. Measure Area:
        1. Flats: Find your square footage by multiplying the length of your area. Then measure the square footage of any doors, windows, etc. and subtract their square footage from the total square footage.
        2. Corners: Measure the lineal footage of the corners needed.
     6. Stone Layout:
        1. Before applying stone, layout an area of stone near the work area to help find color, shape, and size to design your pattern. This will allow you to layout and rearrange the stone in the most pleasing design.
        2. You may need to remove debris from some stones; a few pieces may need to be cleaned with water and a brush prior to application.
  2. INSTALLATION - THIN VENEER MASONRY
     1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
        1. Mixing the Mortar:
           1. Type "N" or pre-blended stone mortar mix. Use one part "N" mortar with two parts mason sand. Mix enough water to achieve a workable consistency.

This mortar will be used for the scratch coat, buttering the stone and to grout the joints.

* + - * 1. A liquid bonding agent can be added to the mortar for additional bonding strength.
        2. Colored mortars also improve the installation.
      1. Scratch Coat Application:
         1. Install a scratch coat 1/2 to 3/4 inch (13 to 19 mm) thick of mortar to the metal lath in a workable area.
         2. Do not apply scratch coat to the entire area. Work in sections, approximately 5 to 0 sq ft, and so stones can be applied before mortar dries.
         3. Allow the scratch coat to set for 30 minutes.
         4. If you are applying the stone directly to concrete and masonry surfaces you will need to improve the wall's adhesion capabilities. To do this dampen the wall prior to installation or add a liquid bonding agent to the mortar mix.
      2. Apply the Stone:
         1. Install corner stones first starting at the bottom and working up. Apply an even, 1/2 to 1 inch (13 to 25 mm) thick layer of mortar to the back of the stone (a.k.a. "buttering"). Because each stone will be a different thickness you'll need to adjust the amount of mortar applied to the back of each piece.
      3. Grouting and Striking the Joints:
         1. After the stones have been applied, fill joints with mortar using a grout bag. Conceal any noticeable broken or cut stone edges by covering with mortar.
         2. Wait for the mortar to firm in the joints and then rake out the excess using a wood or metal strike tool. Joints can remain flush or raked for the desired look.
         3. Seal all joint edges by applying pressure on the mortar, causing mortar to move in to the joints.

The mortar joints will smear if they are worked too soon.

* + - 1. Brushing and Cleaning the Area:
         1. When the mortar becomes crumbly use a dry bristle brush or a small whisk broom to clean spots of mortar off the stone's face.
         2. Loose mortar and mortar spots should not be allowed to dry overnight.
         3. Using just a stiff brush and clean water is recommended for cleaning the stonework.
         4. A mild solution of granular detergent mixed with water may be used to remove dirt or other stains.
         5. Once cleaning is complete a stone sealer may be applied to enhance the stone's color and give it a shiny appearance.
         6. Test the sealer on an unused stone before applying to make sure you will like
  1. INSTALLTION OF DRYWALL STONE
     1. Layout wall to the lines and grades indicated on the drawings. Use the string line and stakes to mark off any straight portions and marking paint to draw out any curves.
     2. Prepare a trench base that follows a string line and/or marking paint. Trench should be a minimum of 1 foot deep by 6 inches wider than the stone.
     3. Fill the trench with 3 to 4 inches of crushed stone. Level and compact the crushed stone thoroughly with a plate compactor and add another 2 inches of crushed stone on top of the compacted stone.
     4. Level the base course of stone by placing the first layer of stone on the crushed stone base. Check for level front to back and side to side and adjust accordingly with the large mallet.
     5. Stack the second course on top of the base course. Do not line up the seams between the stones from one course to the other. Select stones that fit well with those on either side. If there are large gaps, it may be necessary to use the stone splitter to get a snugger fit. Shim the stones as required to eliminate wobbling.
     6. If the wall is to be larger than 3 feet high, place a perforated drain tile behind the base course and then buried by the drainage aggregate.
     7. Each course should be set back at least 3/4 inch to allow the wall to lean back into the ground that it will be retaining. Shim the backs of the stones to eliminate wobbling.
     8. Progressively backfill the wall with the drainage aggregate after each two or three courses are stacked. Prior to backfilling, lay the geo-textile fabric on the soil behind the wall, and place the drainage aggregate between the wall and the fabric. The aggregate shall be a minimum of 8 to 12 inches from the wall to the fabric. Compact each layer of aggregate thoroughly. Fill soil in behind the fabric as the stone is added.
     9. Finish the top of the wall with well fitted stones matched to the wall configuration.
  2. INSTALLATION OF STEPS
     1. Excavate the rough shape and dimensions of the steps and grades indicated on the drawings.
     2. Construct the stairs progressively from the bottom stair to the top stair.
     3. Prepare a trench base that is a minimum of 8 to 10 inches deep by 2 to 3 inches wider than the stone stair.
     4. Fill the trench with 4 to 6 inches of crushed stone. Level and compact the crushed stone thoroughly with a plate compactor or hand tamper and add another 2 inches of crushed stone on top of the compacted stone.
     5. Level the base course of stone and place the first stone step on the crushed stone base. Check for level front to back and side to side and adjust accordingly.
     6. Place each successive stair on a base course of stone and work up to the top of the slope. Check periodically for level and grade of final stair and adjust accordingly.
  3. INSTALLATION OF LAWN EDGING
     1. Excavate the rough shape and dimensions of the edging and the lines and grades indicated on the drawings.
     2. Level and compact the edging base with a plate compactor or hand tamper.
     3. Place the stone edging on the prepared base. Check for level front to back and side to side and adjust accordingly.
     4. Fill the face and rear of the curb with materials indicated to lock it into position. Check periodically for level and grade and adjust accordingly.
  4. INSTALLATION OF PAVERS
     1. Excavate the rough shape and dimensions of the paving and the lines and grades indicated on the drawings.
     2. Level and compact the edging base with a plate compactor or hand tamper.
     3. Place the sand evenly on the prepared base to a thickness of 4 to 6 inches. Check for level and adjust accordingly.
     4. Dampen and roller compact sand to level and even surface.
     5. Screed and scarify the top 1/2 inch (13 mm) of sand.
     6. Place paver units in the pattern indicated using a straight reference edge.
     7. Place half units, special shaped units, and curbs at edge and interruptions.
     8. Maintain evenly spaced joints a maximum width of 1/2 inch (12.5 mm).
     9. Sprinkle sand over surface, sweep into joints and moisten. Recover with additional sand until firm joints are achieved. Remove excess sand.
     10. Tamp and level paver units with mechanical vibrator until units are firmly bedded, level, and to correct elevation and gradients.
     11. Recover with additional sand, sweep into joints, and remove excess sand.
  5. CLEANING AND PROTECTION
     1. Clean products in accordance with the manufacturer's recommendations.
     2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION