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www.BuildersChoiceStone.com

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## 3-Part Specifications

This specification section has been provided to assist design professionals in preparing project master specifications. Edit carefully to suit your project requirements.

This specification is a manufacturer specific proprietary product specification. Optional text is indicated by brackets [ ]; delete optional text in final copy of specification.

This specification specifies simulated manufactured stone veneer and trim, as manufactured by StoneMaster Inc under the BuildersChoice Stone™ brand. Revise the section number and title below to suit project requirements, specification practices and section content.

### **DIVISION 04 00 00 - MASONRY**

### **SECTION 04 73 00 – MANUFACTURED STONE MASONRY**

## **PART 1 GENERAL**

### 1.01 SUMMARY

A. Section includes: Manufactured stone veneer and trim.

B. Related Sections:

1. Division 5 or 6 Frame Support for Substrate, section specifying weather resistant barrier.
2. Division 7 Flashing, section specifying flashing materials and joint sealers.
3. Division 9 Finish Plaster, section specifying Portland cement plastering.
4. Division 10 Fireplaces and Stoves, section specifying fireplaces and stoves.

### 1.02 REFERENCES

A. American Concrete Institute (ACI)

B. American Society for Testing and Materials (ASTM):

1. ASTM C67 Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
2. ASTM C91 Standard Specification for Masonry Cement.

3. ASTM C150 Standard Specification for Portland cement.
4. ASTM C207 Standard Specification for Hydrated Lime for Masonry Purposes.
5. ASTM C270 Standard Specification for Mortar for Unit Masonry.
6. ASTM C 482 Standard Test Method for Bond Strength of Ceramic Tile to Portland cement.
7. ASTM D567 Standard Test Method for Density Structural Lightweight Concrete.
8. ASTM C567-1981 (1996) Standard Test for Density and Weight.
9. ASTM C-39 Compressive Test for Veneer Mixture.
10. ASTM C109-2005 Compressive Strength of Mortar Mixture - Standard Test for Compressive Strength of Hydraulic Cement Mortars.
11. ASTM C190 Test for Tensile Strength of Veneer.
12. ASTM C348-1986 Test for Flexural Strength of Veneer.
13. ASTM E84 – 10b Standard Test Method for Surface Burning Characteristics of Building Materials.
14. ASTM D 226 Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
15. ASTM C847 Standard Specification for Metal Lath.

C. LEED®: US Green Building Council's Leadership in Energy and Environmental Design Green Building Rating System™.

### 1.03 SUBMITTALS

A. General: Submit listed submittals in accordance with conditions of the contract and Division 1 Submittal Procedures Section.

B. Quality Assurance / Control Submittals:

1. Manufacturer's installation instructions.
2. Proof of installer qualifications.
3. Product Data: Submit product data for manufactured stone and applications materials, including mortar color charts and weather resistant barrier.
4. Samples: Submit panels showing selection and verification samples for specified manufactured stone, including specified mortar. Sample size min. 12" x 12".
5. LEED® Submittals: Credit MR 5.1 Local/Regional Materials; indicate location of manufacturer of manufactured stone and distance from manufacturer to project site. [Manufactured stone can also contribute to credits EA 1.1-1.5 for optimizing energy performance, but no specific submittals are required in this section.]

C. Closeout Submittals: Reference Section 01 78 00

1. Operation and Maintenance Data: Include methods for maintaining installed products, and precautions against cleaning materials and methods detrimental to finishes and performance.
2. Warranty information.

## 1.04 QUALITY ASSURANCE

### A. Qualifications:

1. **Installer Qualifications:** Installer with minimum of 5 years of experience in installing simulated stone and specialized in installation of work similar to that required for this project.
2. **Manufacturer Qualifications:** Manufacturer capable of providing field service representation during construction and approving application method.
3. **Manufacturer Certifications:** Products tested in accordance with criteria set out by ICC-ES AC51. Product Compliance with 2012 International Building Code and 2012 International Residential Code. Product must have a valid ICC-ES Evaluation Report.

### B. Regulatory Requirements: [Specify applicable requirements of regulatory agencies].

C. **Mock-Ups:** Install at project site a job mock-up using acceptable products and manufacturer approved installation methods. Obtain Owner's and Architect's acceptance of finish color, texture, pattern, and workmanship standard. Comply with Division 1 Quality Control (Mock-Up Requirements) Section.

1. **Mock-Up Size:** min 4 by 4 foot sample panel at jobsite as directed.
2. **Pattern:** Illustrate field pattern of stone, color, and tooling of joints.
3. **Maintenance:** Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.

## 1.05 DELIVERY, STORAGE, AND HANDLING

A. **General:** Comply with Division 1 Product Requirements Sections.

B. **Ordering:** Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.

C. **Storage and Protection:** Store materials protected from exposure to harmful weather conditions. Store mortar and other moisture-sensitive materials in protected enclosures.

## 1.06 PROJECT CONDITIONS

A. **Environmental Requirements/Conditions:** Ambient air temperature shall be in accordance with manufacturer's requirements.

1. Maintain materials and surrounding air temperature to minimum 40 degrees prior to, during and for 48 hours after completion of work.
2. Protect materials from rain, moisture and freezing temperatures prior to, during, and for 48 hours after completion of work.
3. Allow no construction activity on opposite side of wall during installation and for 48 hours after completion of work.

## 1.07 WARRANTY

A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions. Minimum 1-year warranty on labor required.

B. Manufacturer's Warranty: Submit, for owner's acceptance, manufacturer's standard warranty document.

1. Warranty Period: Specify term in years commencing on date of project completion. 50-year minimum warranty required.

## PART 2 PRODUCTS

### 2.01 MANUFACTURED STONE VENEER

A. Manufacturer: StoneMaster, Inc.

15105-D John J. Delaney Drive, Suite 26, Charlotte, NC 28277  
Phone: 704-333-0353, email: [info@builderschoicestone.com](mailto:info@builderschoicestone.com)

B. Proprietary Products/Systems: BuildersChoice Stone™

1. Sizes and Shapes: [Specify from available selection [www.builderschoicestone.com](http://www.builderschoicestone.com) stone sizes vary from 1" to 12" in height, from 3" to 23" in length and from ¼" to 3" in thickness depending on the selected shape]
  - a. [Ledgestone]
  - b. [Stackstone]
  - c. [Fieldstone]
  - d. [Split Face]
2. Colors and Textures: [Specify colors and textures. Refer to manufacturer's published literature for available colors.]
3. BuildersChoice Stone™ Accessories:
  - a. [Water Table/Sill]
  - b. [Trim Stone]
  - c. [Keystone]
  - d. [Hearthstone]
  - e. [Light Box]
  - f. [Receptacle Box]

C. Manufactured Stone Physical Properties

1. Compressive strength: per ASTM C39, 1800 PSI – 4000 PSI
2. Shear (Adhesion) strength: ASTM C482, 50 PSI – 130 PSI
3. Freeze/Thaw: ASTM C67-03, less than 3% weight loss.

4. Fire Hazard: Flame spread of 0. Smoke development of 0 in accordance with ASTM E84.
5. Moisture Absorption: per AC51-2008, less than 18% of dry weight.
6. Shipping weight of manufactured stone units: 8 - 15 psf.

## 2.02 RELATED MATERIALS

### A. Mortar:

1. Premixed Type S or mortar mixed using components and proportions to comply with ASTM C270:
  - a. Portland Cement, ASTM C150, Type I or masonry cement (Type S), ASTM C91.
  - b. Masonry sand.
  - c. Lime: ASTM C207
  - d. Color: Iron Oxide Pigments

### B. Masonry Sealer: [If specifying use: breather type (non-film forming) sealer].

### C. Weather Resistant Barrier: Kraft waterproof building paper, UBC Standard No.14-1 or ASTM D226 for Type 1 felt.

### D. Lath:

1. Metal Lath: 18 gauge galvanized woven wire mesh or galvanized [2.5 lb flat diamond mesh] meeting ASTM C847 criteria.

## 2.03 MORTAR MIXES

A. Mixing: Mix proprietary materials in accordance with manufacturer's instructions including product data and product technical bulletins. Thoroughly mix mortar ingredients in quantities needed for immediate use in accordance with ASTM C270, Type N. Do not use antifreeze compounds to lower the freezing point of mortar.

## **PART 3 EXECUTION**

### 3.01 MANUFACTURER'S INSTRUCTIONS

A. Compliance: Comply with manufacturer's product data, including product technical data, and product installation instructions.



### 3.02 EXAMINATION

A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

### 3.03 PREPARATION

A. Surface Preparation: [Specify applicable product preparation requirements].

1. Open Stud: Install paperbacked [metal lath] to studs using galvanized nails or staples which penetrate a minimum of 1" and 4" on center. Apply 1/2" - 3/4" scratch coat and allow to dry 24-48 hours. Wrap weather resistant barrier and [metal] lath a minimum of 16" around all outside and inside corners.
2. Sheathed Surfaces: Install 1 layer of weather resistant barrier with lap joints 4" shingle fashion. Apply code approved [metal] lath, attach with galvanized nails or staples which penetrate a minimum of 1". Apply 6" on center vertically and 16" on center horizontally. Wrap weather resistant barrier and [metal] lath a minimum of 16" around all outside and inside corners.
3. Concrete and Masonry Surfaces - New, Clean and Untreated: No preparation needed. Examine newly poured concrete closely to ensure that its finished surface contains no releasing agents (form oil). If it does contain form oil, etch surface with muriatic acid, rinse thoroughly and/or score with a wire brush, or use high pressure water or sandblasting to remove.
4. Existing Concrete and Masonry Surfaces: If required, remove paint, coatings, sealers, and dirt as recommended herein.
5. Apply [metal] lath to surfaces, attach with galvanized concrete nails which penetrate a minimum of 1". Apply 6" apart, 16" on center.

### 3.04 MANUFACTURED STONE VENEER INSTALLATION

A. Mortar: Apply 1/2" - 3/4" of mortar to [lath] [dampened masonry, stucco, or concrete surfaces], covering a maximum of 10 square feet at one time. Press the units firmly into position in soft mortar bed, wiggle and apply slight pressure to unit to ensure firm bonding, causing mortar to extrude slightly around edges of units.

B. Joints: Place units with uniform mortar joints. Stone joints should not be over 1/2" - 3/4" in width. When installing stones without a mortar joint, units should be fitted tight against each other with no allowance for mortar joints.

1. Remove excess mortar; do not allow mortar to set up on face of units. Point and tool joints before mortar has set. Clean and finish joints in accordance with manufacturer's instructions.

C. Setting Units: Press each stone into the mortar setting bed firmly enough to squeeze some mortar out around the stone's edges. Apply pressure to the stone to ensure a good bond.

Ensure complete coverage between the mortar bed and back surface of the stone. Mortar may also be applied to entire back of the stone.

1. Install hearth pieces in a 1/2" - 3/4" deep mortar setting bed.

D. Cutting: Perform necessary cutting with proper tools to provide uniform edges; take care to prevent breaking unit corners or edges.

E. Finish Color/Textures/Patterns: [Specify installation finishes coordinated with finishes specified in Part 2 Products].

### 3.05 FIELD QUALITY REQUIREMENTS

A. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

### 3.06 CLEANING

A. Cleaning: Use a strong solution of granulated soap or detergent and water with a bristle brush. Do not use a wire brush as it will cause damage to the surface. Rinse immediately with fresh water. Do not attempt to clean using acid or acid based products. Do not clean with high-pressure power washer.

B. Salt and De-icing Chemicals: Do not use de-icing chemicals on areas immediately adjacent to a Landmark Stone Products application.

C. Scuffing: Remove scuff marks by cleaning as specified herein.

D. Efflorescence: To remove efflorescence, allow stone to dry thoroughly, then scrub vigorously with a stiff brush and clean water. Rinse thoroughly. Do not use a wire brush. For difficult efflorescence problems, scrub thoroughly with a solution of 1 part white household vinegar to 5 parts water. Rinse thoroughly.

### 3.07 PROTECTION

A. Protection: Protect installed product and finish surfaces from damage during construction.

END OF SECTION