

SECTION 04730 - CULTURED STONE

PART 1 -GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cultured stone at building facade.
2. Anchors and supports.
3. Accessories.

B. Related Sections:

1. Masonry mortar and grout: Elsewhere in Division 4.
2. Unit masonry assemblies: Elsewhere in Division 4.
3. Framing and sheathing: Division 6.
4. Joint sealants: Division 7.

1.2 REFERENCES

A. American Society of Civil Engineers:

1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.

B. American Society for Testing and Materials:

1. ASTM C 39, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
2. ASTM C 67, Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
3. ASTM C 177, Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus.
4. ASTM C 192, Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory.
5. ASTM C 270, 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 D 226, Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing

and Waterproofing.

- C. Masonry Veneer Manufacturers Association (MVMA)-
<https://ncma.org/manufactured-stone-veneer/>

1.3 SUBMITTALS

- A. Product Data: Manufactured masonry and application materials including mortar color charts, and weather resistant barrier.
- B. Samples: Panel containing full-size samples of specified manufactured masonry showing full range of colors and textures complete with specified mortar.
 - 1. Actual size of masonry sample approximately 24 by 24 inches.
- C. Quality Assurance/Control Submittals:
 - 1. Qualifications:
 - a. Proof of manufacturer qualifications.
 - i. Quality Bikes
 - a. Project Address: 2501 Noll Dr; Lancaster, PA 17603
 - b. High Construction Company: (717) 291-2276
 - ii. Mount Joy Hampton Inn
 - a. Project Address: 2301 Strickler Rd; Manheim, PA 17545
 - b. Wohlsen Construction Company: 548 Steel Way; Lancaster, PA 17601
 - iii. Calvary Baptist Church
 - a. Project Address: 150 Harvest Fields Dr; Boalsburg, PA 16827
 - b. Lobar Associates: (717) 432-9728
 - b. Proof of installer qualifications.
 - i. ACTS Granite Run Farm
 - a. Project Address: 1343 W Baltimore Ave; Media, PA 19063
 - b. Warfel Construction: (717) 299-4500
 - ii. Peninsula Club House

- a. Project Address: 32981 Peninsula Esplanade; Millsboro, DE 19966
- b. Whayland Company: (302) 875-5445

1.4 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer Qualifications:

- a. Manufacturer associated with MVMA with a minimum of 5 years documented experience manufacturing and marketing all Manufactured Stone products in this section.

- a. Member of following organizations:

- 1. MVMA

2. Installer Qualifications

- b. Company with documented experience in installation of manufactured masonry of the type specified including at least five projects within a 400 mile of the Project

1.5 MOCK-UP:

- ##### A. Provide in a location selected by Architect showing representative sample of installed product including penetration and termination details, corner detail, cultured stone texture, representative color range, mortar color and tooling.

- 1. Minimum Size: 4 by 4 feet.
- 2. Approved field samples may remain as part of completed Work.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Follow manufacturer's instructions.
- B. Store moisture-sensitive materials in weather protected enclosures.

1.7 PROJECT/SITE CONDITIONS

- ##### A. Environmental Requirements: Maintain materials and ambient temperature in area of installation at minimum 40 degrees F prior to, during, and for 48 hours following installation.

1.8 WARRANTY

- A. Special Warranty: Provide manufacturer's standard limited warranty against defects in manufacturing for a period of 50 years following date of Substantial Completion.

1.9 MAINTENANCE

- A. Extra Materials: Furnish extra manufactured stone material in a variety of shapes and sizes in quantity equal to three percent of the installed stone.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Subject to compliance with requirements, provide products manufactured by one of the following, or approved equal:
 - 1. Living Stones Masonry, which is located at 70 Pitney Road; Lancaster, PA, 17602; Tel: (717) 517-8570; Email: Livingstonesmasonry@gmail.com; Web: www.livingstonesmasonry.com

2.2 MANUFACTURED MASONRY MATERIALS

- A. Manufactured Masonry Physical Properties:
 - 1. Compressive Strength: ASTM C 192 and ASTM C 39, 6000 psi, 5 specimen average
 - 2. Bond Between Stone Unit, Type S Mortar, and Backing: ASTM C 482, 220 psi.
 - 3. Maximum Veneer Unit Weight: 15 psf.

2.4 MORTAR

- B. Keystone Cement
 - 1. Meets the requirements of the most recent revision of ASTM C-91 for Type S Cement
 - a. Color: Grey
 - 2. When mixed properly with three parts ASTM C-144 masonry sand, will produce ASTM C-270 Type S Mortar
 - a. Mortar Aggregate: Complying with ASTM C 144, standard masonry type.

3. Hydrated Lime: Complying with ASTM C 207:
 - a. Type S

4. Water: Clean and potable

2.5 ADDITIONAL MATERIALS

A. Wall Underlayment

1. Jumbo Tex 60 Min

- i. Complies with the International Code Council Evaluation Services Acceptance Criteria for Water Resistive Barriers (AC 38)
- ii. Complies with the Uniform Building Code Standard 14-1
- iii. Complies as an alternative to the water-resistive barrier specified in Section 1404.2 of the International Building Code
- iv. Complies as an alternative to the weather-resistant sheathing papers specified in Section R703.2 of the International Residential Code
- v. Exceeds the requirements of ASTM E-96 (A), ASTM D-779, ASTM D-828, and ASTM E-283

B. Plastic

1. Weep Screed- AMICO Vinyl Foundation Weed Screed

- i. ASTM C1063 Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster
- ii. ASTM C841 Standard Specification for Installation of Interior Lathing and Furring
- iii. ASTM D1784 Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
- iv. ASTM D4216 Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) and Related PVC and Chlorinated Poly(Vinyl Chloride) (CPVC) Building Products Compounds.

2. Drip Cap- Vinyl Corp. Drip Casing

- i. Meets ASTM D-1784 and D 4216 cell class 13244C standards
- ii. Materials meets or exceeds ASTM D-638, ASTM D-790, and ASTM D-256

3. EZ Bead- AMICO E-Z Bead Vinyl Casing Bead

- i. ASTM C1063 Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster
 - ii. ASTM C841 Standard Specification for Installation of Interior Lathing and Furring
 - iii. ASTM D1784 Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
 - iv. ASTM D4216 Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) and Related PVC and Chlorinated Poly(Vinyl Chloride) (CPVC) Building Products Compounds.
4. Flashing Tape- FortiFlash Waterproof Flashing Membrane
- i. ASTM D146 - Standard Test Methods for Sampling and Testing Bitumen-Saturated Felts and Woven Fabrics for Roofing and Waterproofing
 - ii. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension
 - iii. ASTM D779 - Standard Test Method for Water Resistance of Paper, Paperboard, and Other Sheet Materials by the Dry Indicator Method
 - iv. ASTM D903 - Peel or Stripping Strength of Adhesive Bonds
 - v. ASTM E96 - Water Vapor Transmission of Materials
 - vi. ASTM E154 - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover

C. Metal Lath: ClarkDietrich Expanded Metal Lath

- 1. Complies with ASTM C847, fabricated from steel complying with ASTM A653 with a G60 galvanized coating
- 2. Complies with up to date International Building Code and International Residential Code

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared
- B. If substrate preparation is the responsibility of another installer, notify Architect of

unsatisfactory preparation before proceeding

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions

3.3 INSTALLATION

- A. MVMA Guidelines <https://ncma.org/manufactured-stone-veneer/>

3.4 PROTECTION

- A. Protect Finished work from rain and work on either side of the wall during and for 48 hours following installation
 - 1. Protect installed products until completion of project
 - 2. Clean prior to project close out
 - 3. Touch- up, repair, or replace damage products before Substantial Complete

