

SECTION 07 42 43.03 – COMPOSITE STONE WALL PANELS – MECHANICAL SECRET FIX**PART 1 GENERAL**

1.1 ADMINISTRATIVE REQUIREMENTS

A. Pre-Installation Conference:

1. Attendance: [Architect,] [Owner,] [Contractor,] [Construction Manager,] [Design/Builder] installer, and related trades.
2. Review: Project conditions, manufacturer requirements, delivery and storage, staging and sequencing, and protection of completed work.

Commented [ZD1]: Retain this paragraph for a pre-installation conference held prior to start of product installation.

1.2 SUBMITTALS

A. Action Submittals:

1. Shop Drawings: Illustrate products, installation, and relationship to adjacent construction.
2. Product Data: Manufacturer's descriptive data and product attributes.
3. Samples: [Selection samples.] [Verification samples.]

B. Informational Submittals:

1. Certificate of Compliance: Certification that installed products meet specified design and performance requirements.

C. Closeout Submittals:

1. Maintenance Data.
2. Extra materials: [] panels in [] x [] size.

1.3 QUALITY ASSURANCE

A. Regulatory Requirements:

1. Fire propagation characteristics: Panels tested and approved for use in NFPA 285 rated wall assembly.
2. Flame spread rating: Class A, tested to ASTM E84.

B. Manufacturer Qualifications: Minimum [5] [] years' experience in manufacture of composite stone wall panels.

C. Fabricator and Installer Qualifications:

1. Minimum [3] [] years' experience in work of this Section.
2. Approved by composite stone wall panel manufacturer.

Commented [ZD2]: Retain this paragraph to specify minimum experience of fabricator and installer.

D. Mockup: [One full size panel.] [] full size panels. Approved mockup [may] [may not] remain as part of the Work.

1.4 SYSTEM DESCRIPTION

A. Design Requirements:

1. Live and dead loads in accordance with Building Code.
2. Minimum wind pressures in accordance with [ASCE 7,] [Building Code,] [], with maximum allowable deflection of [L/240] [L/360] [], tested in accordance with ASTM E1592.
3. Movement caused by an ambient temperature range of [120] [] degrees F and a surface temperature range of [160] [] degrees F.
4. System design to be performed by qualified professional engineer licensed in State of [].

1.5 WARRANTY

- A. Manufacturer's 50 year warranty against structural failure of composite stone wall panels.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Contract Documents are based on Petrarch by Omnis Panels, LLC, www.omnisusa.com.
- B. Substitutions: [Refer to Division 01.] [Not permitted.]

Commented [ZD3]: Edit the following to indicate whether substitutions will be allowed for the products in this section.

2.2 MATERIALS

- A. Composite Stone Wall Panels:
 1. Source: Petrarch.
 2. Description: Composite sheets consisting of natural stone and/or calcium carbonate granules or powder, polyester resin, glass fiber, pigments, and fire retardant, homogeneous color throughout.
 3. Panel thickness: Nominally 7/16 inch.
 4. Modulus of rupture: 5850 PSI, tested to ASTM D790/D790M.
 5. Tensile strength: 2880 PSI, tested to ASTM D638.
 6. Thermal conductivity: 5.822 BTU-in/hr sq ft, tested to ASTM C177.
 7. Thermal expansion: 15.8 x 10⁻⁶ in/in degree C.
 8. Izod impact: 0.49 ft-lb/in of notch, tested to ASTM D256.
 9. Barcol hardness: 64, tested to ASTM D785.
 10. Flame spread rating: 15, tested to ASTM E84.
 11. Moisture absorption: Maximum 0.06 percent, tested to ASTM D570.
 12. Color: [_____] [To be selected from manufacturer's full color range.]
 13. Texture: [Riven.] [Smooth.] [Smooth Matt.] [Riven Matt.]

Commented [ZD4]: Retain this paragraph for 7/16 inch thick panels.

- B. Subframing: Aluminum, [mill finish with primer.] [Anodized.] [Painted.] [Powder coated.]

**** OR ****

- C. Subframing: Steel, [galvanized with primer.] [Painted.] [Powder coated.]

**** OR ****

- D. Subframing: Wood, [primed.] [covered in EPDM foil tape.]

2.3 ACCESSORIES

- A. Back Fastening System:
 1. Mounting brackets: 1/8 in aluminum flat or angled brackets.
 2. Screws: Type and size recommended by composite stone panel manufacturer.
 3. Brass inserts: Type and size recommended by composite stone panel manufacturer.

2.4 FABRICATION

- A. Fabricate panels in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Shop fabricate panels to greatest extent possible.
- C. Pre-drill fastener holes.
- D. Prepare special shapes and cutouts.

- E. Miter edges where indicated.
- F. Prefabricate inside and outside corners.
- G. Fabricate panels with shiplap (Martlet) joints.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install composite stone wall panels in accordance with manufacturer's instructions and approved Shop Drawings.

END OF SECTION

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