

SECTION 074646 - FIBER-CEMENT SIDING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fiber-cement panel system and trim.

1.2 RELATED REQUIREMENTS

- A. Section 072700 - Air Barriers: Fluid-applied membrane air barrier.
- B. Section 099113 - Exterior Painting: Field painting.

1.3 REFERENCE STANDARDS

- A. ASTM C1186 - Standard Specification for Flat Fiber-Cement Sheets.

1.4 SUBMITTALS

- A. See Section 013300 - Submittal Procedures for submittal procedures.
- B. Product Data: Submit manufacturer's data sheets on each product to be used, including:
 - 1. Manufacturer's requirements for related materials to be installed by others.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation methods, including fastener patterns.
- C. Shop Drawings: Indicate dimensions, layout, joints, construction details, support clips, and methods of anchorage.
 - 1. Provide detailed drawings of atypical non-standard applications of cladding junctions and penetrations which are outside the scope of the standard details and specifications provided by the manufacturer.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 4 by 6 inches (100 by 150 mm), representing actual product, color, and patterns.
- F. Installer's qualification statement.
- G. Warranty Documentation for Installation of Building Rainscreen Assembly: Submit installer warranty and ensure that forms have been completed in Owner's name and registered with installer.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of type specified in this section with not less than three years of experience.
- B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.
 - 4. Approved mock-up may remain part of the finished work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store materials in manufacturer's unopened packaging, with labels intact, until ready for installation.
- B. Store materials under dry and waterproof cover, well ventilated, and elevated above grade on a flat surface.
- C. Store siding flat on a smooth level surface. Protect edges and corners from chipping. Store sheets under cover and keep dry prior to installing.

1.7 FIELD CONDITIONS

- A. Do not install panels when air temperature or relative humidity are outside manufacturer's limits.

1.8 WARRANTY

- A. See Section 017700 - Closeout Procedures for additional warranty requirements.
- B. Manufacturer Warranty: Provide manufacturer product warranty for 30 years against manufacturing defects. Complete forms in Owner's name and register with manufacturer.
- C. Application Warranty: Application limited warranty for 2 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Source Limitations: Obtain products, including related accessories, from single source from single manufacturer.

2.2 FIBER-CEMENT PANEL SYSTEM

- A. Basis of Design: Hardie Reveal Panel System; James Hardie Building Products, Inc.; www.jameshardie.com.
 - 1. Substitutions: See Section 016000 - Product Requirements.
- B. Panel Siding: Vertically oriented panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for screw attachment.

1. Texture: Stucco patterned.
2. Length (Height): 96 inches, nominal.
3. Width: 48 inches.
4. Thickness: 5/16 inch, nominal.
5. Finish: Factory applied primer.
6. Warranty: 50 year limited; transferable.

C. Cement Fiber Soffit Panels: Panels made of cement and cellulose fiber formed under high pressure with integral surface texture, complying with ASTM C1186, Type A, Grade II; with machined edges, for nail attachment.

1. Texture: Smooth.
2. Vented panels at locations indicated on the drawings.
3. Length: 96 inches, nominal.
4. Width: 24 inches unless indicated otherwise.
5. Thickness: 5/16 inch, nominal.
6. Finish: Unfinished.
7. Manufacturer: Same as siding.

2.3 ACCESSORIES

A. Furring Strips, Metal: Galvanized metal channels.

B. Trim: Same material and texture as siding.

C. Fasteners:

1. For attaching Hardie Reveal Panel direct to sheathing provide the following:
 - a. Steel Framing, Countersunk Screws: No. 8 by 0.390 inch (9.91 mm) head diameter by 1-5/8 inch (41 mm) long.
 - b. Fasteners shall be of high quality stainless steel to ensure resistance to corrosion. For field painting, fasteners shall be treated to accept paint adhesion.
2. Fasteners to be placed at 16 inches o.c. horizontally and 16 inches o.c. vertically
 - a. Approximately 21 fasteners per 8 foot by 4 foot panel.
 - b. Hardie Reveal Panel fastener configuration #10.

2.4 FINISHES

A. Panels:

1. Primer: Factory applied sealer/primer by James Hardie. Apply flat sheen finishes to panels.
2. Topcoat: Refer to Section 099113 - Exterior Painting.

B. Trim:

1. Factory finish for field-applied topcoat: Chem film.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine substrate, clean and repair as required to eliminate conditions that would be detrimental to proper installation.

- B. Do not begin until unacceptable conditions have been corrected.

3.2 PREPARATION

- A. Protect surrounding areas and adjacent surfaces during execution of this work.
- B. Clean surfaces thoroughly prior to installation.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- D. Ensure that drainage plane is intact and all penetrations are sealed.

3.3 INSTALLATION

- A. Install siding in accordance with manufacturer's instructions and recommendations.
 - 1. Read warranty and comply with terms necessary to maintain warranty coverage.
- B. Use trim details as indicated on drawings.
- C. Touch up field cut edges before installing.
- D. Pre-drill fastening holes if necessary to prevent breakage.
- E. Installation:
 - 1. Fastening Method: Countersunk and filled.
 - 2. Place fasteners no closer than 3/4 inch (9.5 mm) from panel edges and 2 inches (51 mm) from panel corners.
 - 3. Use fasteners as specified in the James Hardie Tech Data sheet and in the Hardie Reveal Panel Installation Instruction.
 - 4. Install panel using 1/2 inch (13 mm) spacers at horizontal joints. Leave bottom edge of panel above all horizontal trims exposed, no caulking shall be placed at this overlap of Horizontal Reveal Trim. Factory primed edge shall always be used.
 - 5. Install a kickout flashing to deflect water away from the siding at the roof intersection.
 - 6. Install a self-adhering membrane on the wall before the subfascia and trim boards are fastened in place, and then install the kickout.
 - 7. Allow minimum vertical clearance between the bottom edge of siding and any other material in strict accordance with the manufacturer's installation instructions and as determined by James Hardie Zone.
 - 8. Maintain clearance between siding and adjacent finished grade.
 - 9. Specific framing and fastener requirements - refer to the applicable building code compliance reports.
- F. Joints in Vertical Siding: Install Z-flashing in horizontal joints between successive courses of vertical siding.

3.4 FINISHING

- A. Finish factory primed siding as schedule in 099113 - Exterior Painting within 180 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.

- B. Field cut edges shall be coated during the installation process using an exterior grade primer/sealer that is compatible with the type of paint to used on project.

3.5 PROTECTION

- A. Protect installed products until Date of Substantial Completion.
- B. Touch-up, repair or replace damaged products before Date of Substantial Completion.

END OF SECTION 074646