

SECTION 07 46 23

WOOD SIDING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Thermally Modified Wood Cladding and Accessories.

1.2 RELATED SECTIONS:

- A. Section 06 11 00 – Rough Carpentry.
- B. Section 07 25 00 – Weather Barriers.

1.3 DEFINITIONS:

- A. Rainscreen: An exterior open-joint cladding system incorporating a continuous air cavity created by furring, a water-resistive barrier to manage water intrusion through drainage and ventilation, and a physical air barrier (e.g. sheathing) to prevent air leakage into the building.
- B. RVFS: Rear-ventilated façade system.
- C. WRB: Water-resistive barrier. A code-acceptable material behind the thermally modified wood boards that prevents moisture in the air cavity from intrusion into the exterior building wall assembly.

1.4 REFERENCES

- A. American Wood Protection Association (AWPA):
 - 1. Guidance Document N – Data Requirements for Listing Thermally Modified Wood.
 - 2. AWPA E10-14 – Soil Block Decay Test.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM D143 – Standard Test Methods for Small Clear Specimens of Timber.
 - 2. ASTM D2395 – Standard Test Methods for Density and Specific Gravity (Relative Density) of Wood and Wood-Based Materials.

1.5 SUBMITTALS

- A. Submit in accordance with requirements of Section 01 30 00 - Administrative Requirements.
- B. Product Data: For each product specified include the following:
 - 1. Manufacturer's technical product data, including component descriptions, construction details, and test results showing compliance with specified performance criteria.
 - 2. Manufacturer's surface preparation and installation instructions.

3. Safety Data Sheets (SDS).

C. Sustainability Submittals:

1. Product Data: For recycled content, indicated pre-consumer recycled content and cost.

D. Verification Samples: Provide two samples of specified board, full board width by minimum 4 inches in length, including the selected color and finish.

E. Informational Submittals:

1. Installer qualifications.
2. Product test reports.
3. Sample warranties.

F. Closeout Submittals:

1. Maintenance data for installed system.

1.6 QUALITY ASSURANCE

A. Installer's Qualifications: An entity with demonstrated experience installing systems similar in scope and complexity to those specified.

B. Mock-Up: Arrange for the construction of a mock-up of the products specified in this section. Example must include one decking section for each type specified, including the selected color and finish. Owner and Architect will verify acceptance of products and workmanship.

1. Accepted mockups may be incorporated into the work.
2. Provide mockups as indicated on the drawings.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver, store and handle materials and products in accordance with the manufacturer's instructions and recommendations and industry standards.

B. Store all materials in the manufacturer's original packaging until ready for installation. Protect all products from damage or exposure to adverse weather conditions.

1. Store products in shaded or cool location.

1.8 PROJECT CONDITIONS

A. Schedule work around the ambient conditions required by the manufacturer. Do not perform work outside manufacturer's recommended limits for environmental conditions.

B. Prior to fabrication, verify that dimensions are consistent with those found in the construction drawings. Where discrepancies exist, confirm the proper dimensions with the Architect before proceeding with work.

1.9 WARRANTY

A. Warranty on Cladding Material: Manufacturer agrees to replace any materials determined to have a manufacturing defect, within the specified warranty period.

1. Limited Warranty Period: 20 years prorated from date of purchase.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design Manufacturer: UFP-Edge, a brand of UFP Retail Solutions

1. Address: 2801 East Beltline NE, Grand Rapids, MI 49525.
2. Phone: (844) 529-5882
3. Website: www.ufpedge.com

B. Manufacturer List:

1. Manufacturer:

C. Substitution Limitations:

1. Submit substitution requests in accordance with provisions of Section 01 60 00.
2. Single manufacturer to provide, from a single source, primary products and accessories specified in this section.

2.2 PERFORMANCE REQUIREMENTS:

A. Physical Performance:

1. Impact Resistance: Pass; when tested at 265/220 (in-lb) mean failure energy in accordance with ASTM D4226.
2. Heat Shrinkage: Less than 0.2% linear shrinkage when tested in accordance with ASTM D1042.
3. Surface Distortion: No effect at 120°F or at maximum developed temp of 165°F when tested in accordance with ASTM D3679 Section 6.12.
4. Coefficient of Thermal Expansion: Maximum 2.72×10^{-5} in/in/°F; when tested in accordance with ASTM D696.

B. Surface-Burning Characteristics: Meet the following values when tested in accordance with ASTM E84:

1. Class C Flame-Spread Index: 130.
2. Smoke Developed Index: 105 (pre-painted white)
3. Smoke Developed Index: 125 (Natural un-painted)

C. Environmental Performance:

1. Moisture Absorption: Less than 0.05% moisture absorption, when tested in accordance with ASTM D1037.
2. Rot and Decay Resistance: Pass; when tested in accordance with ASTM D2107-05.
3. Termite Resistance: Pass; when tested in accordance with ASTM D3345-08.

4. Freeze Thaw Resistance: Less than 10% effect, no adjustments when tested in accordance with ASTM D7032.

D. Sustainability Performance:

2.3 THERMALLY MODIFIED WOOD CLADDING

A. Thermally Modified Wood Cladding: Provide grade 2 or better, tongue and groove, thermally modified cladding boards in compliance with AWPA Guidance Document N.

1. Basis of Design Product: Thermally Modified Wood Siding, by UFP-Edge, a brand of UFP Retail Solutions
2. Physical Characteristics:
 - a. Edge Profile: End Matched, tongue and groove, with chamfered edge reveal.
 - b. Edge Profile: end matched, tongue and groove with square edge reveal.
 - c. Bottom Profile: Square and flat.
 - d. Thickness: 11/16 inch.
 - e. Width: 5-3/8 inches.
 - f. Width: 7-1/8 inches.
 - a. Length: 8 feet.
 - b. Length: 10 feet.
 - c. Length: 12 feet.
 - d. Length: 14 feet.
 - e. Length: 16 feet.
 - f. Material: Grade 2 and better, ponderosa pine.
 - 1) Finish: Natural, unfinished.
 - 2) Finish: factory applied on five sides.
 - 3) Finish: Big Sky, factory applied on five sides.
 - 4) Finish: Wood Smoke, factory applied on five sides.
 - 5) Finish: Glacier, factory applied on five sides.
 - 6) Finish: Lost Trail, factory applied on five sides.
 - 7) Finish: Back Country, factory applied on five sides.
 - 8) Surface Texture: Smooth, milled surface.
 - 9) Surface Texture: Wire-brushed surface.
 - g. Material: Grade 2 and better, vertical grain hemlock.
 - 1) Finish: Natural, unfinished.
 - 2) Surface Texture: Smooth, milled surface.
 - 3) Surface Texture: Wire-brushed surface.

B. ACCESSORIES

1. A. Metal Flashings:
 - a. Aluminum sheet, ASTM B209.
 - b. Stainless steel sheet, ASTM A666, Type 305.
2. Fasteners: Type 305 stainless steel screws.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the work.
1. Examine substrate wall framing to verify that support members and anchorage have been installed within alignment tolerances required by siding manufacturer.
 2. Examine substrate wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by siding manufacturer.
 - a. Verify that air and moisture barrier has been installed over sheathing substrate to prevent air infiltration and water penetration.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. General: Comply with manufacturer's printed installation instructions, clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION

- A. General: Install in accordance with manufacturer's current installation instructions, industry recognized best practices, all code bodies having jurisdiction, and approved shop drawings.
1. Do not install damaged products.
 2. Refer to manufacturer's published technical data for expansion and contraction due to changes in temperature.
- B. Install and secure cladding in accordance with manufacturer's written instructions in orientation, sizes, and locations indicated to create a drained and back-ventilated rainscreen system. Anchor siding and other system components of the Work securely in place.
1. Shim or otherwise plumb substrates receiving siding system.
 2. Locate and space fastenings in uniform vertical and horizontal alignment.
 3. Install siding boards, accessories, and trim with positive anchorage to building and provide for thermal expansion.
- C. Provide Blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

3.4 CLEANING AND PROTECTION

- A. Clean and remove all stains, grime, or other soils using manufacturer's recommended methods. Only use materials and methods approved by the manufacturer for use on the finishes specified.
- A. Damaged products must be repaired or replaced prior to substantial completion.

[Project Number]
[Date]

[Project Name]
[Project Location]

B. Protect installed products until completion of work specified in this section.

END OF SECTION 074643