

MEKJO Metals LLC

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FORMED METAL ROOF AND WALL PANELS (SECTION 074113.13)

PART 1 – GENERAL

1.1 SUMMARY

- **Section Includes:** Preformed metal wall panels and preformed metal roof panels.

1.2 ADMINISTRATIVE & QUALITY REQUIREMENTS

- **Pre-installation Conference:** Conduct a mandatory conference at the project site to coordinate structural framing, drainage, flashing, and trim.
- **Installer Qualifications:** The installation entity must employ supervisors and installers with a minimum of 3 years of documented experience with metal roof and wall systems.
- **Mockups:** Build a site mockup to verify aesthetic selections, component profiling, and workmanship standards.

1.3 DELIVERY, STORAGE, AND HANDLING

- **Packaging:** Metal panels must be packaged to prevent bending, warping, twisting, or surface damage during transit.
- **Storage:** Stack panels horizontally on elevated platforms or pallets. Store at a positive slope to ensure moisture drainage.
- **Protective Film:** Retain the factory strippable protective covering on the panels until the installation process begins.

1.4 WARRANTY

- **Manufacturer Coating Performance Warranty:** Mekjo metals llc. standard commercial **40-year limited film integrity and chalk/fade paint warranty** backed by the coating manufacturer for the specified geographic and environmental conditions.
- **Contractor Workmanship Warranty:** A 2-year watertight and weatherproof warranty covering panels, flashings, sealants, fasteners, and accessories starting from the date of Substantial Completion. **This workmanship warranty must be issued independently by the installing contractor and is not provided or backed by Mekjo metals llc.**

PART 2 – PRODUCTS

2.1 MANUFACTURER

- **System Supplier:** MEKJO Metals LLC, P.O. Box 1070, 1415 2nd Ave N, Fargo, ND 58107; Phone: 701-970-9262; Email: sales@mekjometals.com; Website: mekjometals.com.

2.2 METAL ROOF & WALL PANELS

- **Panel Profile:** D-Rib Panel; Exposed Fastener Metal Panel featuring trapezoidal ribs with integrated anti-siphon grooves on the panel laps.
- **Material Substrates:**
 - Structural Grade 50 Galvalume® steel conforming to ASTM A 792.
 - Aluminum Association alloy/temper 3003 H-14 or 3105 H-14 conforming to ASTM B 209.
- **Thickness & Dimensions:**
 - **Nominal Thickness:** 29-Gauge (also available in 26-Gauge).
 - **Rib Spacing:** 5.2 inches on center.
 - **Panel Coverage:** 36 inches.
 - **Panel Height:** 3/4-inch rib height.
- **Exterior Finish:** Sherwin-Williams® WeatherXL™ Silicone-Modified Polyester (SMP) Coating System. Formulated with ceramic and select inorganic pigments for maximum resistance to UV degradation, scratching, and chalking. Two-coat system consisting of:
 - **Primer Coat:** 0.2 to 0.3 mils dry film thickness (DFT).
 - **Top Coat:** 0.7 to 0.8 mils dry film thickness (DFT).
 - **Total Topside Thickness:** 0.9 to 1.1 mils total DFT.
 - **Texture Options:** **Standard Smooth Finish or optional WeatherXL™ Crinkle Finish** (textured surface designed to redirect light, hide minor substrate imperfections, and improve mar resistance).
 - **Color:** Selected from manufacturer's standard colors.
- **Interior Finish:** Standard Poly-backer finish featuring a 0.2–0.3 mil primer and a 0.2–0.3 mil wash coat.

2.3 SYSTEM ACCESSORIES

- **Underlayment:** Self-adhering, high-temperature sheet underlayment (minimum 30 mils thick) stable up to 220°F per ASTM D 1970.
 - **Closure Strips:** 1-inch-thick flexible closed-cell rubber, cross-linked polyolefin foam, or laminated polyethylene pre-molded to match the D-Rib profile.
 - **Fasteners:** Self-tapping screws engineered for design wind loads. Steel panels must utilize galvanized steel fasteners equipped with EPDM or PVC sealing washers. Fasteners are driven through the flat sections of the profile next to the ribs. **Estimated fastener consumption rate: 80 screws per 100 sq. ft.**
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PART 3 – EXECUTION

3.1 SUBSTRATE PREPARATION & TOLERANCES

- **Examination:** Check framing alignment and sheathing flatness tolerances before panel placement. Confirm air/water barriers are fully sealed.

- **Installation Tolerances:** Shim and align panels within a maximum tolerance of 1/4 inch in 20 feet on slope lines. Maintain an offset limit of 1/8 inch between adjoining faces.

3.2 INSTALLATION METHODOLOGY

- **Lap-Seam Panels:** Lap ribbed sheets one full rib width. Stagger panel splices and end laps to prevent a four-panel lap condition.
 - **Fastener Patterning:** Install panel fasteners into the flat sections of the profile directly adjacent to the ribs. Adhere to a standard application density of 80 screws per 100 sq. ft. Space fasteners uniformly in vertical and horizontal alignment according to wind load requirements.
 - **Thermal Movement:** Install flashings, trim, and panels with dedicated provisions for structural and thermal expansion. Space flashing expansion joints at a maximum of 10 feet.
 - **Galvanic Protection:** Isolate dissimilar metals or corrosive substrates at all contact points to prevent galvanic corrosion.
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