

DESIGN AND CONSTRUCTION GUIDELINES AND STANDARDS

DIVISION 7 • THERMAL & MOISTURE PROTECTION

07 62 00 • SHEET METAL TRIM & FLASHING

SECTION INCLUDES

Sheet Metal Trim and Flashing

RELATED SECTIONS

04 20 00 Unit Masonry
06 10 00 Rough Carpentry
07 20 00 Building Insulation and Moisture Protection
07 30 00 Asphalt Roof Shingles
07 40 00 Siding
07 45 00 Gutters and Downspouts
07 50 00 Membrane Roofs
08 50 00 Windows

Sheet Metal & Air Conditioning Contractors Association: www.smacna.com
for typical details and technical guidelines on metal design & fabrication.

DESIGN

Extruded aluminum or solid PVC is preferred for corner boards. Do not use brake metal on exterior siding corner boards.

Design adequate expansion joints or design profiles to minimize buckling. Metal with a face width over 6" should have an expansion break to prevent oil canning.

When designing cladding over existing roof fascia, rake trim or other exterior siding components, clarify with details how rainwater is to be prevented from entering behind cladding at joints.

Provide details for overlapping successive or adjacent courses of cladding and for providing drip edges to avoid capillary action.

Specify 10' lengths of cladding (typical) and 4' minimum length; maximizing lengths wherever possible to avoid excessive joints and increased potential for leakage.

Rotted wood trim and siding can result from improperly installed metal cladding. Show the details for seaming and joining cladding and provide drip-edges to clarify the intended method of installation to contractors. The damage may not become evident for many years until after the metal cladding is installed.

Specify hidden fasteners where possible and prefinished fasteners where fasteners are exposed.

See section 06 10 00 for termite shield guidelines.

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MATERIALS

A minimum .024 inch thickness material is suitable for most applications. Profiles can be bent in the field and do not require shop fabrication. Where greater durability is required, consider thicknesses of .032" or .040" thickness, both of which can be shop fabricated with conventional brake presses or cold-rolled.

When designing custom bent metal profiles, research standard components which are readily available from metal distributors and use standard shapes if possible. If a custom shape is required, simplify the profile to allow the entire piece to be fabricated as one.

If there are multiple pieces required due to the limitations of the brake press, clarify the joints in architectural details and clearly show details for fastening, flashing and providing for thermal expansion.

EXECUTION

Specify field mock-ups for architect review and approval for: any cladding detail which deviates from the architect's details as well as any atypical details not shown on architectural drawings.

Locate laps and seams so as to shed water and prevent water from penetrating the system and causing damage to the substructure.

Overlap seams a minimum of 2 inches.

Blind riveting and concealed cleats which allow for thermal expansion are the preferred installation method for cladding such as roof fasciae. Use slotted nail holes when fastening to prevent oil canning and buckling. Use prefinished nails where fasteners are exposed

Install lengths to be as long as possible to eliminate joints. This may result in a higher waste factor. Specify lengths so bidders are aware of expectations. Slip joints are the typical accepted detail for long lengths of cladding.

Do not install aluminum over pressure treated (PT) lumber, regardless of whether aluminum is pre-finished. Consider using solid fir blocking instead of pressure-treated wood where blocking will be protected from weather and aluminum flashing or cladding is proposed. Where wood is exposed to weather, consider alternative decay resistant hardwoods or flashing materials such as stainless steel or copper. Verify the compatibility of all metals when used together to minimize galvanic corrosion.