



TECHNICAL BULLETIN

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UL Construction #310

Medallion I

UL580 Class 90 Wind Uplift

1. **Metal Roof Deck Panels*** - No. 24 MSG min. coated steel. Max panel width 16-1/2 in. and rib height 3/4 in. End laps to occur adjacent to supports with panels overlapped 4 in. min.

McElroy Metal Mill, Inc. "Medallion"
- 1A. **Metal Roof Deck Panels*** - Coated steel panels may be physically curved at a radius of 20 ft. or greater or mechanically curved between 4 ft. and a nominal 19 ft.

McElroy Metal Mill, Inc. "Medallion"
- 1A1. **Metal Roof Deck Panels*** - (Not shown) - 0.032 Aluminum panels. Max panel width 16.5 in. and rib height 3/4 in. End laps to occur adjacent to steel supports with panels overlapped 4 in. min.

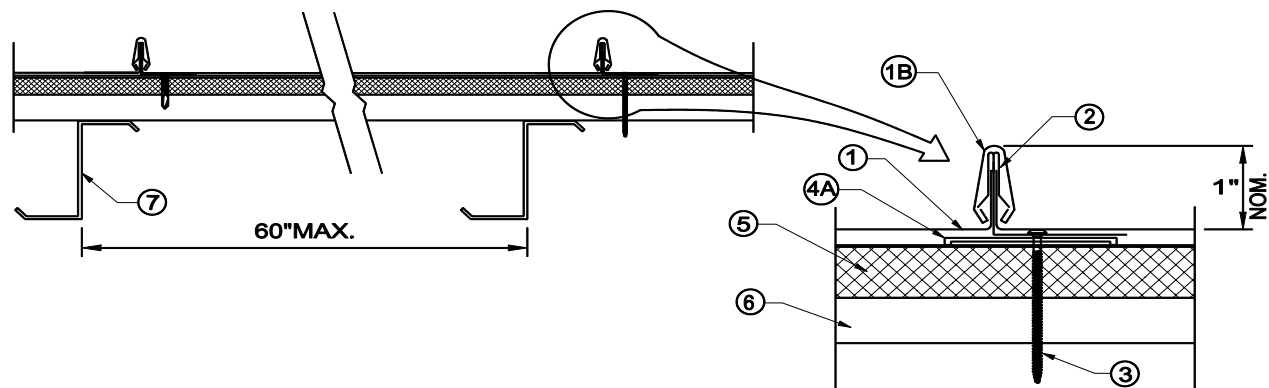
McElroy Metal Mill, Inc. "Medallion"
- 1B. **Metal Roof Deck Panels* (Battens)** - Battens covering panel ribs and clips to be 3/8 in. wide and 7/8 in. high, formed from same type and thickness material as that used to fabricate metal panels (Item 1).

McElroy Metal Mill, Inc. "Medallion I Batten"
2. **Roof Deck Fasteners*(Panel Clips)** - One piece clip, 3/4 " high, 1-1/2" wide by 2" long, min. 30 MSG coated steel or min. 26 gauge stainless steel. When coated steel metal roof deck panels used (Item 1) clips are spaced 24" O.C. Guide holes in bottom of clip.

McElroy Metal Mill, Inc. "Medallion I"
3. **Fasteners - (Screws)** - Screws used to attach plywood or OSB substructure (Item 4) to metal deck to be #14 type with Phillips head. Fastener length to be min of 1/2" longer than total thickness of the plywood or OSB, insulation and metal deck. Spacing to be 6" OC at plywood or OSB ends and 12" OC at 2'-0" pattern down length of plywood. (Total of 33 fasteners per 4' by 8' plywood or OSB sheet). Screws used to attach panel clips to plywood or OSB to be #10 by 1" long pancake head wood screw with #2 Phillips head size. One screw per clip. (Alternate - When bearing plates or oriented strand board (OSB) replaces plywood). Screws used to attach panel clips through bearing plate into metal deck to be #14 type with Phillips head. Fastener length to be min of 1/2" longer than the total thickness of the insulation and metal deck. One per clip. An optional #10 by 1" self-drilling fastener may be used to attach clip to the bearing plate when installer chooses to install rigid board insulation and use bearing plate to hold it in place until clips and panels are installed.
4. **Plywood or OSB** - (Optional) - (Not shown) Min APA Rated plywood, exposure sheathing span C-D 40/20, nominal 1/2 in. thick or oriented strand board (OSB), nominal 7/16 in. thick, 4 x 8 ft. Sheets to be installed on top of Rigid Insulation (Item 5) in lieu of bearing plates (Item 4A). To be used with Rigid Insulation (Item 5), max thickness 4 in.
- 4A. **Substructure - (Bearing Plates)** (Optional) (Not Shown) - To be used in lieu of plywood or OSB (Item 4) with rigid insulation (Item 5) up to a maximum thickness of 6 in. Bearing plates to be 16 MSG min coated steel. Located under each clip (Item 2) for support.
5. **Rigid Insulation - (Optional)** - Foamed plastic, max thickness 4 in. when plywood or OSB (Item 4) is used and 6 in. when bearing plates (Item 4A) are used. Compressive strength to be 2 PCF.
- 5A. **Gypsum Board** - (Optional, Not Shown) - Any 5/8" thick gypsum wallboard supplied in sheets 2 x 4 to 4 x 12 ft. applied perpendicular to steel deck direction with adhesive. End joints to occur over crests of steel roof deck and be staggered 2' in adjacent rows. The total cumulative thickness of the rigid board (Item 5) and gypsum board may not exceed total thicknesses shown under Item 5.
- 5B. **Waterproof Membrane** - (Optional) (Not Shown) - Used to protect plywood or OSB (Item 4). Installed under panels (Item 1).
- 5C. **Vapor Barrier** - (Optional) (Not Shown) - Installed on top of metal deck (Item 6) or on top of gypsum wallboard (Item 5A) if used. Minimum 6 mil plastic sheet.
6. **Metal Deck** - 22 MSG min thickness coated steel. Min depth 1-1/2 in. with deck to be welded to purlin in every other low flute, except for end laps which are welded in every low flute.
- 6A. **Metal Deck - (Liner Panel)** - Alternate to Item 6 - No. 18 MSG min thickness coated steel (33,000 psi min. yield strength). Min. depth 1-1/2 in., max pitch 6 in., installed and attached to supports (Item 7A) with fastener spacing and type per deck manufacturer's instructions for uplift loading.
7. **Purlin** - Min No. 14 MSG steel (55,000 psi min yield strength).
- 7A. **Supports** - (Purlins) - Purlins used for liner panel support (Item 6) to be cold formed steel sections or structural steel components (hot rolled beams, channels, open web joists, etc.) may be used. Support spacing, min gauge and yield strength to depend on design conditions for uplift loading.

Refer to General Information, Roof Deck Constructions, (Roofing Materials and Systems Directory) for items not evaluated.

*Bearing the UL Classification Mark



CORPORATE OFFICE
SHREVEPORT, LOUISIANA