ONLINE CERTIFICATIONS DIRECTORY

Construction No. 166
TGKX.166
Roof Deck Constructions

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Listed or Classified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered as Classified, Listed, or Recognized.

Roof Deck Constructions

See General Information for Roof Deck Constructions

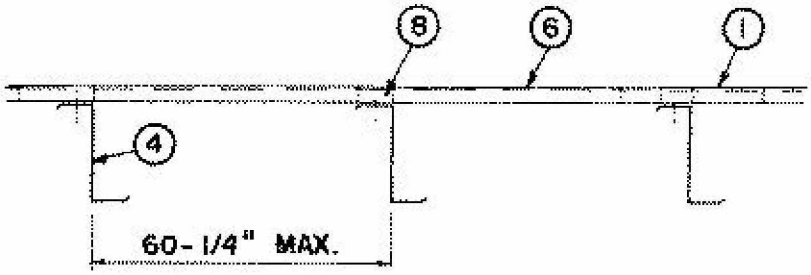
Construction No. 166

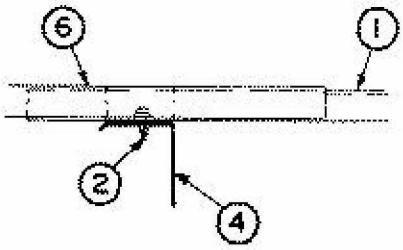
October 30, 1996

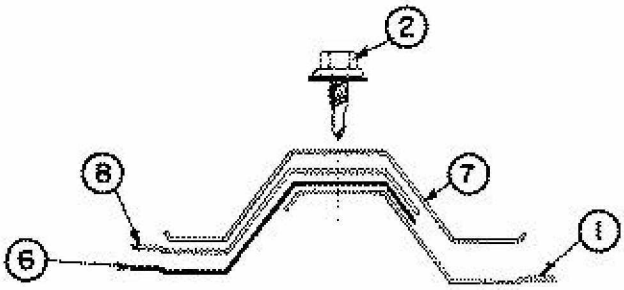
Metal Deck Assemblies

Wind Uplift — Steel Panels — Class 90

Fire Not Investigated







1. **Metal Roof Deck Panels*** — No. 26 MSG min gauge coated steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped 6 in. with lap centered over purlin web. A line of sealant may be used at panel end and side laps.

FLEXOSPAN STEEL BUILDINGS INC (View Classification)

MCELROY METAL MILL INC (View Classification)

2. **Fasteners** — For panel to purlin connections, fasteners to be No. 12-14 self-drilling, self-tapping, hex-washer head

plated steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Length to be 1 in. for insulation up to 3 in. thick and 1-1/2 in. for insulation over 3 in. Spacing to be in a 5-7-5-7 in. pattern beginning 2-1/2 in. from the centerline on both sides of each major rib. Spacing at end laps to be the same.

Fasteners for panel to panel connections to be No. 14 by 3/4 in. self-drilling, self-tapping, hex-head plated steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Spacing to be 20 in. OC with a fastener located in line with the purlin fasteners.

As an Alternate Fastener — For panel to purlin connections, No. 14 self-tapping hex-head plated steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Length to be 3/4 in. for insulation up to 3 in. thick and 1-1/4 in. for over 3 in. thickness. Pilot holes to be 3/16 in. diameter. Spacing to be the same as for self-drilling fasteners.

For translucent panel to purlin (end-lap) connections, fasteners to be hex-head No. 12-14 structural, self-drilling screws with a separate 5/8 in. O.D. plated steel washer and a bonded neoprene sealing washer. Length to be 1-1/2 in. for insulation up to 6 in. Spacing to be in a 3, 1-1/2, 3, 4-1/2, 3, 1-1/2, 3, 4-1/2, 3, 1-1/2, 3 in. pattern beginning 2-1/4 in. from the centerline on both sides of each major rib.

For translucent panel to metal (side-lap) connections, fasteners to be hex-head No. 14 by 7/8 in. long, self-drilling steel screws with a separate 5/8 in. O.D. plated steel washer and a bonded neoprene sealing washer. Spacing to be 12 in. O.C.

3. **Insulation —** (Optional) — Any compressible blanket insulation, 4 in. max thickness before compression.

4. **Purlin —** No. 16 MSG min gauge coated steel, 50,000 psi min yield strength.

5. **Lateral Bracing —** (Not shown) — As required.

6. **Building Units —** *(Optional) — (Translucent glass fiber reinforced plastic panels) — Thickness nominal 1/16 in., formed to the general profile of the metal panels. Panels continuous over two spans. To be used with Translucent Panel Rib Reinforcement (Item 7) and Translucent Panel Reinforcement (Item 3).

MCELROY METAL MILL INC (View Classification) — Multi-Rib Skylight

7. **Translucent Panel Rib Reinforcement —** For reinforcement of side laps — No. 26 MSG min. gauge steel strips fabricated to the configuration of side lap.

8. **Translucent Panel Purlin Reinforcement —** For translucent panel reinforcement over purlins — 3 in. wide by No. 26 MSG min. gauge strips fabricated in the shape of the Classified Metal Roof Deck Panel (Item 1).

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

*Bearing the UL Classification Mark

Last Updated on 1996-10-30

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