

# TGKX.301 - ROOF DECK CONSTRUCTIONS

## 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 Certified 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 Certified.

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## Roof Deck Constructions

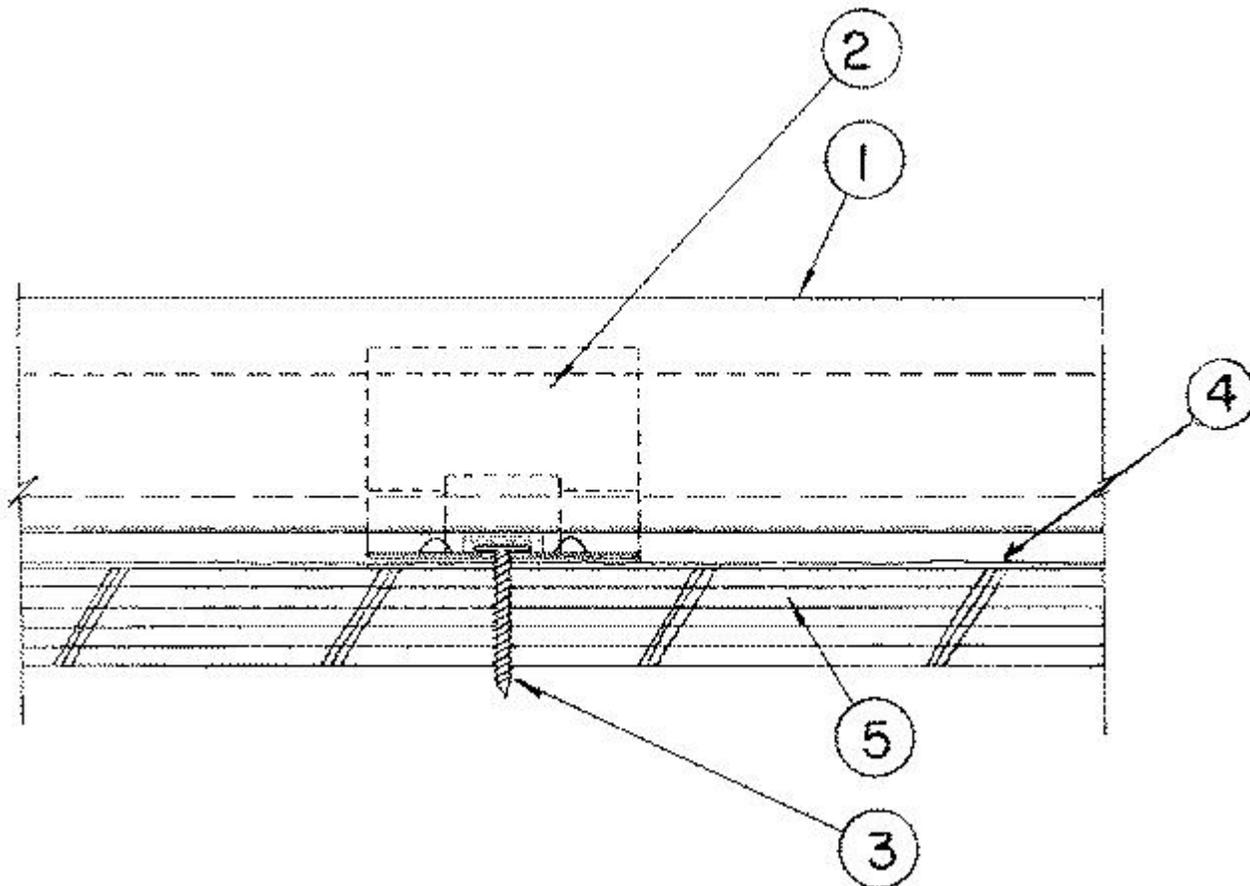
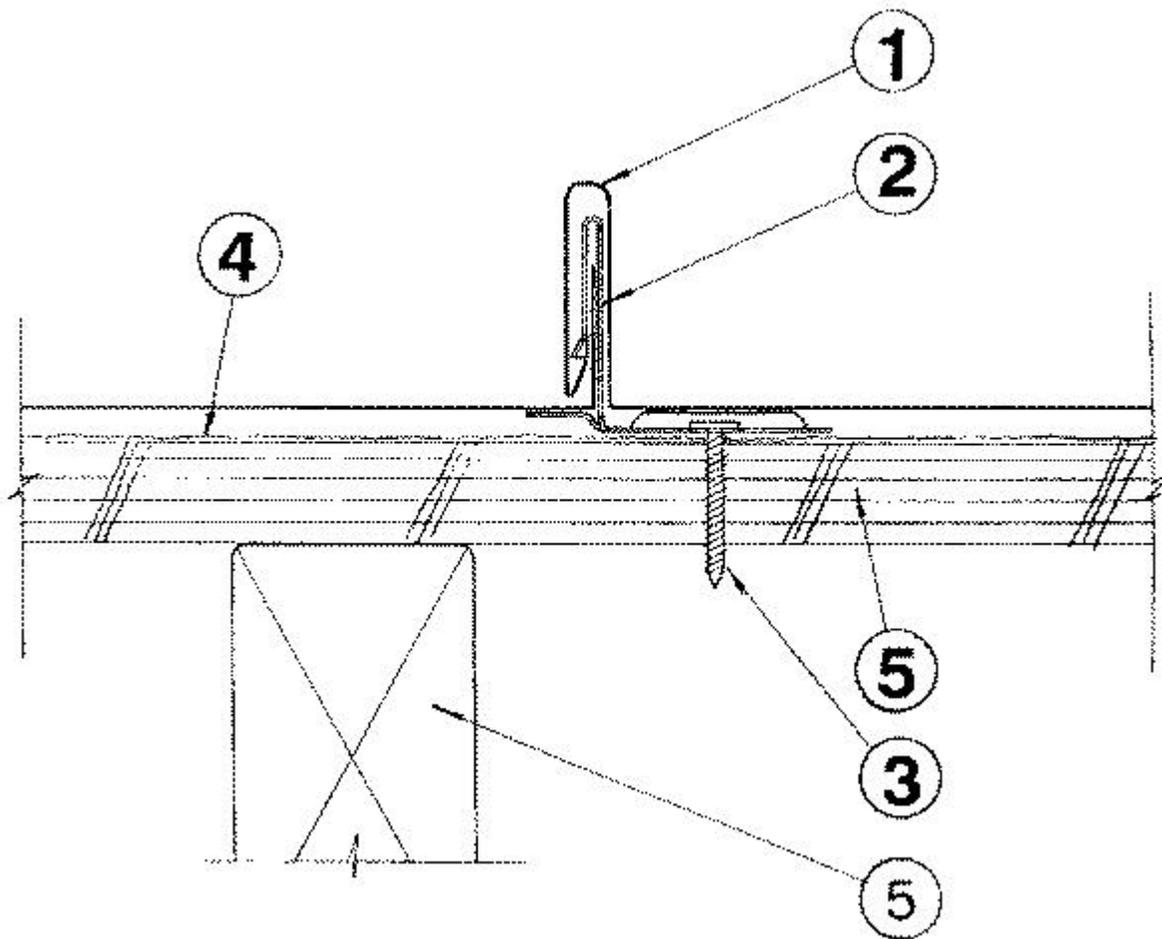
See General Information for Roof Deck Constructions

### **Construction No. 301**

September 16, 2015

**Uplift — Class 90**

**Fire Not Investigated**



1. **Metal Roof Deck Panels\*** — No. 24 MSG min coated steel panels, 20 in. wide or 12 in. wide, 1-1/2 in. high at female side rib. Panels continuous over three or more clips with no end laps. A bead of sealant may be used at panel side joints.

**AEP SPAN, DIV OF ASC PROFILES** (View Classification) — "12 in. High-Seam", "20 in. High-Seam"

**AMERICAN BUILDINGS CO** (View Classification) — "Seam-Loc -12, -16, -18"

**CENTRAL TEXAS METAL ROLLFORMING INC** (View Classification) — "SHURLOC 150"

**INTEGRIS METALS INC** (View Classification) — "Integris System 4"

**MERCHANT & EVANS INC** (View Classification) — "No. 305-12", "No. 305-15", "No. 305-18", "No. 305-19"

**MID-SOUTH METAL PRODUCTS** (View Classification) — "MSMP Structural Snap Lock"

**SAN ANTONIO QUALITY METALS** (View Classification) — "SL-150"

1A. **Metal Roof Deck Panels\*** — No. 24 MSG min coated steel panels, 19.5 in. max width 1-1/2 in. high at female side rib. Panels continuous over three or more clips with no end laps. A bead of sealant may be used at panel side joints.

**MORIN CORP** (View Classification) — "SSL-12", "SSL-15", "SSL-18", "SSL-19"

2. **Roof Deck Fasteners\* (Panel Clips)** — One piece assembly, 1-3/4 in. wide, 1-5/16 in. high. Min thickness 0.025 in. (No. 24 MSG). Clips spaced 18 in. OC fastened to plywood deck.

**AEP SPAN, DIV OF ASC PROFILES** (View Classification) — "High Seam Clip"

2A. **Roof Deck Fasteners\* (Panel Clips)** — One piece assembly, 2-1/4 in. wide, 1-1/8 in. high. Min thickness 0.025 in. (No. 24 MSG). Clips spaced 18 in. OC fastened to plywood deck.

**MERCHANT & EVANS INC** (View Classification) — "No. 305 Series Clip"

3. **Fasteners (Screws)** — Fasteners used to attach panel clips (Items 2 and 2A) to plywood to be No. 10-12 by 1 in. long pancake head, No. 2 Phillips drive, A-point, coated steel screw. Min one fastener per clip to be used.

4. **Underlayment** — Underlayment used over plywood deck to be 30 lb organic felt. Sides overlapped min 2 in., end laps per manufacturer's instructions. Felt nailed to plywood deck with 1 in. long galv steel roofing nails, located per manufacturer's instructions. Nail spacing to be max 12 in. OC at the side lap and max 24 in. OC in interior rows.

**As An Alternate**, a self-adhering modified bitumen water proofing membrane may be used, installed per manufacturer's instructions. Note — when alternate is used, the plywood joints need not be sealed.

5. **Plywood Decking** — Plywood decking to be graded per PS83 specifications, 19/32 in. thick, exposure 1, APA rated 20 in. OC, square edged. Butt ends not blocked. All butt and side joints to be sealed with a one part urethane caulk sealant applied with a caulking gun and feathered outward from the joint. (Note exception under Item 4, Alternate).

6. **Supports** — Spaced max of 24 in. OC. Any of the following types may be used to support the plywood decking:

a) 2 by 6 in., min No. 2 grade A.F.P.A. S-P-F Hemlock Fir, Douglas Fir or Southern Pine or equivalent.

b) Wood trusses with a nom 2 by 4 in. upper chord of the same grade as Item a.

c) No. 22 MSG min cold formed coated steel (min yield to be 33,000 psi).

7. **Plywood Fasteners** — Fasteners used to attach the plywood deck to the supports to be as follows:

a) For plywood-to-wood supports No. 8-18 by 1-7/8 in. long bugle-head steel screws with a No. 2 Phillips drive, a "Hi-Low" thread pattern and an "S-Point".

b) As an alternate to Item a, 8d by 2-1/2 in. long deformed shank common nails may be used.

c) For plywood-to-steel supports for a steel thickness less than No. 20 MSG No. 7-19 by 1-1/4 in. long bugle-head steel screws with a No. 2 Phillips head drive "Hi-Low" threads and an "S-Point". For a steel thickness greater than No. 20 MSG to No. 16 MSG, No. 6-20 by 1-1/4 in. long bugle-head steel screws with a No. 2 Phillips drive and an S12 (TEKS/3®) point. Spacing: Fastener spacing for all fastener types to be 6 in. OC at the plywood edges and 12 in. OC in the interior.

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

**\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2015-09-16

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