

# TGKX.342A - 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

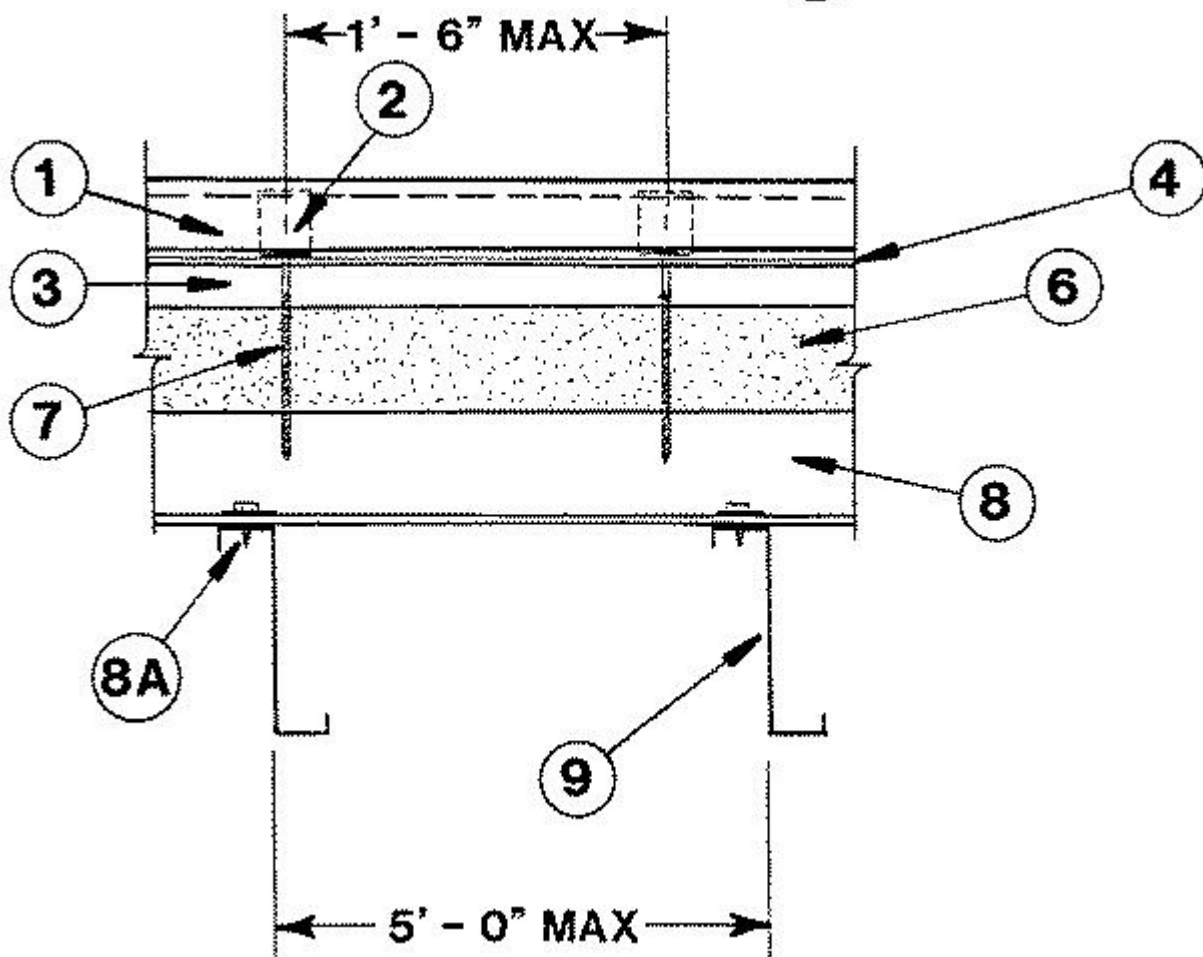
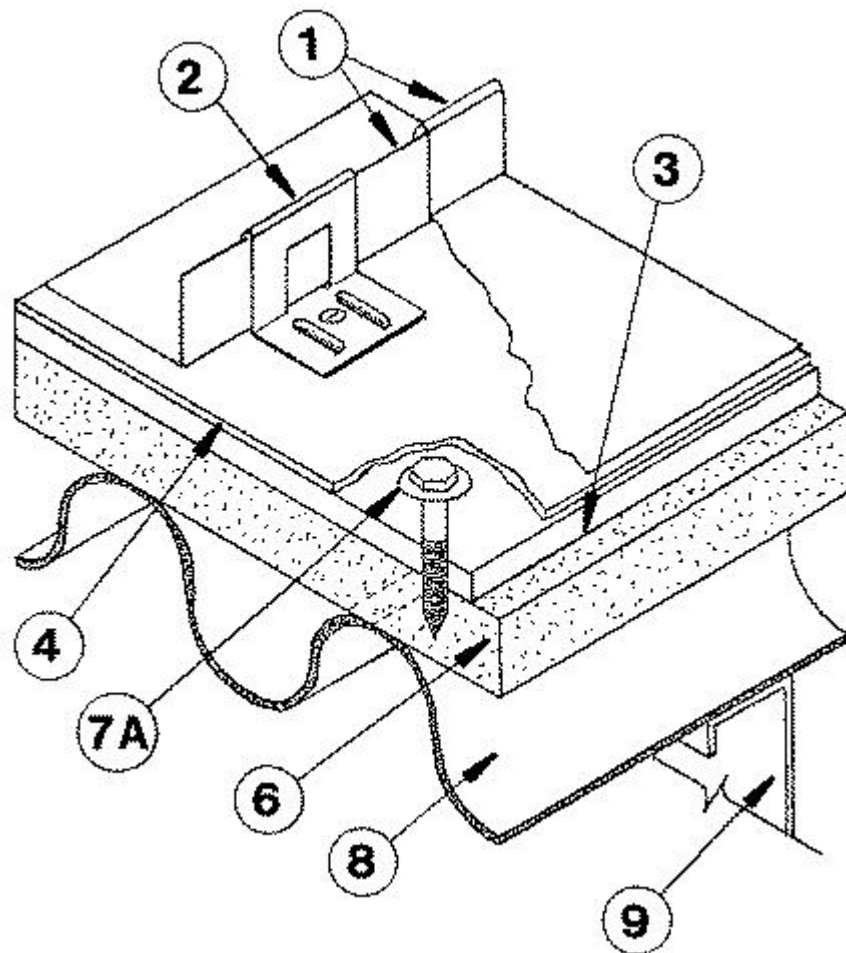
See General Information for Roof Deck Constructions

### **Construction No. 342A**

September 16, 2015

**Uplift — Class 90**

**Fire Not Investigated**



1. **Metal Roof Deck Panels\*** — No. 24 MSG min gauge coated steel. Panel width may be 20 in. or 12 in. Panel ribs to be 1-1/2 in. high at female side. Panels continuous over three or more clips with no end laps.

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

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

**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.

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

**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.

**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. **Gypsum Board\* (Mineral Board)** — Min thickness 1/2 in. Opposite side edges have a tongue and groove configuration. Butt (end) joints to be staggered and occur over steel deck crests. Wallboard installed perpendicular to steel deck corrugations.

**LOADMASTER SYSTEMS INC** (View Classification) — "Duraflex Mineral Board"

4. **Vapor Barrier** — Single ply, used between the wallboard and metal roof deck panels to be a min 30 lb roofing felt.

5. **Joint Tape** — (Not shown) — All wallboard joints shall be taped with 2.5 in. wide joint tape supplied by the manufacturer.

6. **Foamed Plastic — (Rigid Insulation)** — (Optional) — Expanded polystyrene supplied in 4 by 8 ft sheets, min thickness 13/16 in., min density 1.0 pcf or (Rigid Insulation) Polyisocyanurate supplied in 4 by 8 ft sheets or (Rigid Insulation) Phenolic supplied in 4 by 8 ft sheets. All end joints to be staggered with respect to adjoining rows. All joints to be offset from joints in mineral board (Item 3).

7. **Fasteners** — For attaching panel clips to steel deck to be min one 0.140 in. diam threaded shank Phillips, bugle or trumpet head, self-drilling, self-tapping corrosion resistant coated steel screws supplied by roof deck manufacturer. Screws shall penetrate steel deck min 1/2 in.

7A. **Fasteners** — For attaching wallboard to steel deck (Item 8) to be min 0.140 in. diam threaded shank Phillips, bugle or trumpet head, self-drilling, self-tapping, corrosion resistant coated steel screws supplied by the manufacturer. Screws are installed into top corrugations of steel deck through nom 3 by 3 in. corrosion resistant steel roof deck plates, spaced in a pattern as determined by the pitch of the steel deck with the min density of 21 fasteners per 4 by 8 ft sheet of gypsum board (Item 3).

8. **Steel Deck** — Fabricated to various profiles, min yield strength 33,000 psi. Steel deck profile, thickness, support spacing and method of positioning (end and side laps) and fastening deck to supports to be per deck manufacturers requirements for uplift loading.

8A. **Deck Fasteners** — Steel deck panels to be fastened to structural supports and at laps using ARC spot welds with weld washers or screw fasteners per deck manufacturer's requirements for uplift loading.

9. **Purlins** — 16 MSG min gauge steel (min yield strength 50,000 PSI) or min Type H open web joists.  
Refer to General Information, Roof Deck Constructions (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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The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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