

# TGKX.437 - 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.

## Roof Deck Constructions

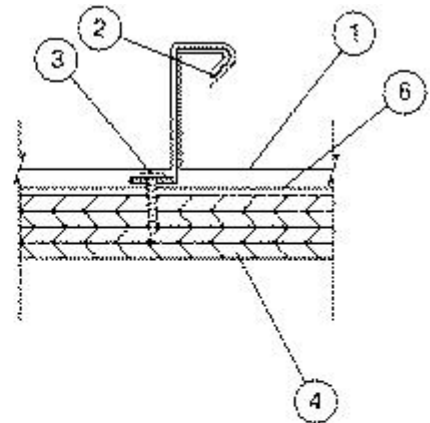
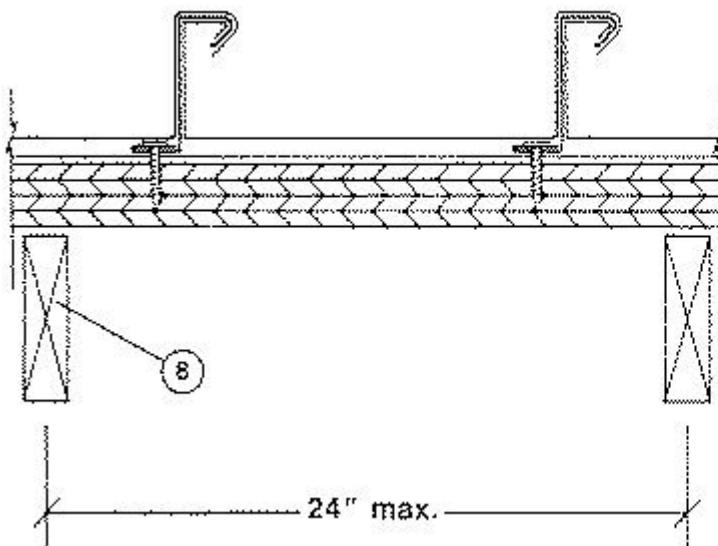
See General Information for Roof Deck Constructions

### Construction No. 437

June 28, 2016

**Uplift — Class 90**

**Fire Not Investigated**



1. **Metal Roof Deck Panels\*** — No. 24 MSG min coated steel. Max panel width 16 in., rib height 2 in. Panels continuous over two or more spans. Endlaps to overlap 6 inches. Panels may be physically curved at a radius of 110 ft. or greater. A bead of sealant may be used at panel ends and side joints. Side laps to be tightened and crimped with an electric crimping machine to a min 45 degree angle. Crimping process to include the upper portion of panel clips (Item 2).

**A & S BUILDING SYSTEMS L P** (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

**CENTRAL TEXAS METAL ROLLFORMING INC** (View Classification) — "SPANLOC 200"

**CHIEF INDUSTRIES INC** (View Classification) — "MVF" or "MVP"

**CUSTOM-BILT METALS** (View Classification) — CB-2000

**MBCI** (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

**MESCO METAL BUILDINGS** (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

**METAL SALES MANUFACTURING CORPORATION** (View Classification) — T-Span or "T-Span 180" (180° Seam)

**NCI BUILDING SYSTEMS L P** (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

**PETERSEN ALUMINUM CORP** (View Classification) — "Tite-Loc" and "Tite-Loc Plus"

**PINNACLE STRUCTURES INC** (View Classification) — "PINNACLE BATTENLOK" and "PINNACLE SUPERLOK"

**ROLLFAB METAL BUILDING PRODUCTS** (View Classification) — "MS-200HP/90" and "MS-200HP/180"

**SAN ANTONIO QUALITY METALS** (View Classification) — "ML-200"

**TAYLOR METAL INC, DBA TAYLOR METAL PRODUCTS** (View Classification) — "MS200"

**TREMCO INC** (View Classification) — "TremLock VP Series II"

**UNITED STRUCTURES OF AMERICA INC** (View Classification) — "Sure-Lok" or "Supreme-Lok"

2. **Roof Deck Fasteners\*** — (**Panel Clips**) — Either of the following: Fixed or Utility Clip — one piece assembly fabricated from No. 22 MSG min gauge steel, 3 in. wide. Floating Clip — two piece assembly with a base fabricated from No. 16 MSG min gauge steel, 1-5/8 in. wide, and atop fabricated from No. 22 MSG min gauge steel, 4-1/4 in. wide. Clip spacing 60 in. O.C. max.

**BUILDING PRODUCTS DEVELOPMENT INC** (View Classification) — "NC3300", "NCF-3300", "NCF-3300-SS" Series Clip

**NCI BUILDING SYSTEMS L P** (View Classification) — "BattenLok High or Low, Fixed or Floating Clip"; "BattenLok Utility Clip" — "SuperLok High or Low, Fixed or Floating Clip"; "SuperLok Utility Clip".

2A. **Roof Deck Fasteners\*** — (Panel Clip) — (Not Shown) — Two part assembly; A base fabricated from No. 16 MSG min coated steel and upper tab fabricated from No. 22 MSG min coated steel. Clips fastened to purlins using two fasteners per clip. See Item No. 3 for description of fasteners.

**METAL SALES MANUFACTURING CORPORATION** (View Classification) — "T-Span Clip"

2B. **Roof Deck Fasteners\*** — (Panel Clips) — (Not Shown) Used with "Tite-Loc" or "Tite-Loc Plus" Panels.

One piece assembly; 3 in. wide, approximately 2 in. high with two or three guide holes in base. Fabricated from No. 22 MSG coated steel.

**PETERSEN ALUMINUM CORP** (View Classification) — "Tite-Loc Utility Clip", "Tite-Loc Plus Utility Clip"

One piece assembly; 3 in. wide, approximately 2-3/8 in. or 3 in. high, with three guide holes in base. Fabricated from No. 22 MSG coated steel.

**PETERSEN ALUMINUM CORP** (View Classification) — "Tite-Loc Low/High Fixed Clip", "Tite-Loc Plus Low/High Fixed Clip"

Two piece assembly; Base approximately 2 in. wide, 1-11/16 in. long formed to engage upper tab. Fabricated from No. 16 MSG coated steel. Tab approximately 4-5/16 in. wide; 2-3/8 in. or 2-7/8 in. high, formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.

**PETERSEN ALUMINUM CORP** (View Classification) — "Tite-Loc Sliding Clip", "Tite-Loc Plus Sliding Clip", "Tite-Loc AR Fixed Clip" and "Tite-Loc AR Sliding Clip", "Tite-Loc Plus AR Fixed Clip" and "Tite-Loc Plus AR Sliding Clip".

3. **Fasteners** — (Screws) Screws used to attach the panel clips to Substructure (Item 4) to be No. 10 by 1 in. long Pancake head wood screws with a No. 2 Phillips head or 10x1 in., 1/4 in. Hex Head Woodgrip. Two screws per clip. Screws used at endlap (high system only) to be one of the following: 14x1-1/4 in. Hex Washer Head, self-drilling; 14x1 in. Type AB, Hex Washer Head self-tapping; 14x1-1/4 in. Hex Washer Head, self-drilling; 14x1 in. Type AB Phillips Stainless Steel, self-tapping. Five screws per panel in a 1, 3, 4, 4, 3 in. pattern. Screws used to attach Substructure (Item 4) to wood trusses or joists (Item 7 ) to be No. 8 by 2 in. Bugle head screws. As an optional fastener, 2-1/2 in. long 8d common deformed shank nails may be used. When light gauge structural steel joists are used, screws to be No. 12 by 1-5/8 in. long with a Phillips head.

Spacing of screws to be 6 in. O.C. at plywood or OSB ends and 12 in. O.C. at interior joists.

4. **Substructure (Plywood or OSB)** — Plywood decking or oriented strand board (OSB) to be a nom 5/8 in. thick, exposure sheathing span C-D, 40/20 plywood. (All butt joints to be sealed against leakage by using tape and/or caulking). In lieu of plywood, 1 in. tongue and groove decking may be used.

4A. **Endlap Back-Up Plate (Optional)(Not Shown) — (High system only)** — Used at panel endlaps, 16 MSG min coated steel, 15-1/2 in. wide with two 1 in. wide by 3/4 in. long tabs for sliding over end of panel.

5. **Moisture Barrier** — (Optional) (Not Shown) Any suitable membrane to protect Substructure (Item 4).

6. **Thermal Spacer** — (Optional) Polystyrene — 3/8 in., 5/8 in. or 1 in. nom thickness, 3 in. wide by 15-7/8 in. long.

7. **Joists** — Joists, spaced at 2 ft, 0 in. O.C. max, may be one of the following:

A. Nom 2 by 6 in. wood joists, No. 2 or better.

B. Nom 2 by 4 in. wood when used on a top chord of a wood truss, No. 2 or better.

C. Light gauge structural steel framing with the member against the plywood or OSB to be a min No. 22 MSG coated steel. Refer to General Information, Roof Deck Constructions, 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 2016-06-28

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