



Construction No. 414 TGKX.414 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

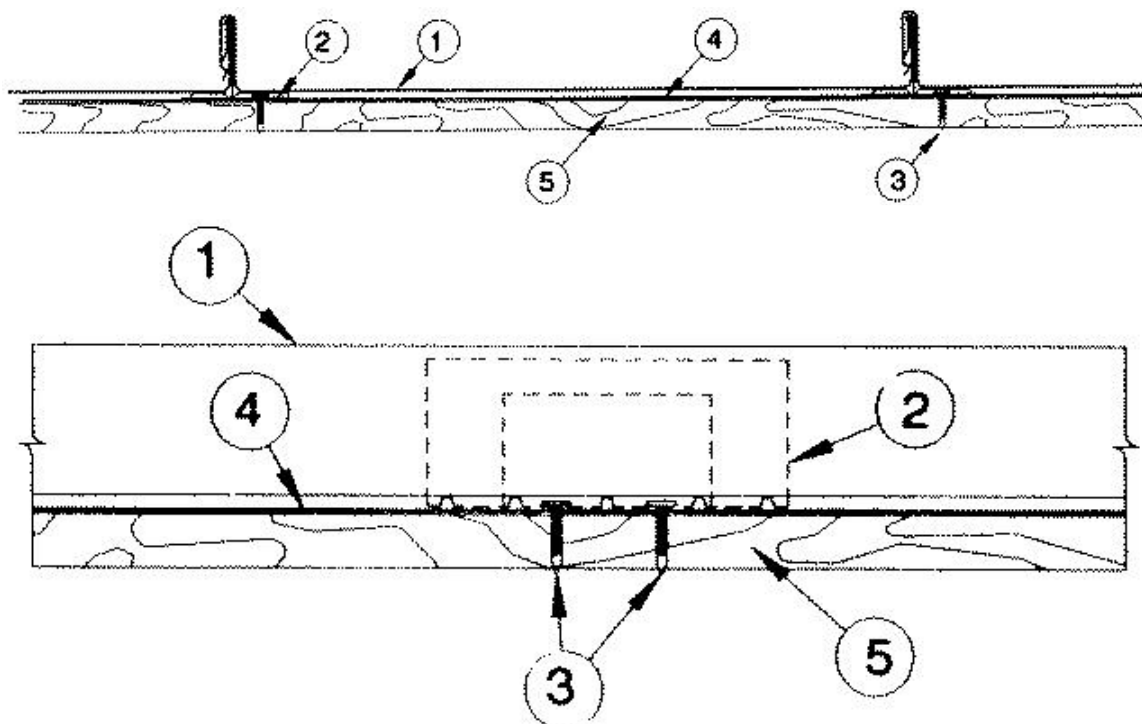
[See General Information for Roof Deck Constructions](#)

Construction No. 414

February 27, 2012

Uplift – Class 90

Fire Not Investigated



1. **Metal Roof Deck Panels*** — No. 24 MSG min coated steel panels, 18 in. max width, 1-3/4 in. high at female side rib. Panels continuous over three or more clips with no endlaps. A bead of sealant may be used at panel side joints.

A & S BUILDING SYSTEMS L P ([View Classification](#)) — "LokSeam"

ACI BUILDING SYSTEMS INC ([View Classification](#)) — "SnapLok"

ALLIANCE STEEL INC ([View Classification](#)) — "NFS16"

ARCHITECTURAL INTEGRATED METALS INC ([View Classification](#)) — "SNAP-Seam"

CENTRAL TEXAS METAL ROLLFORMING INC ([View Classification](#)) — "Shurloc 175"

CONSOLIDATED SYSTEMS INC ([View Classification](#)) — "SC175"

EAGLE METALS MFG INC — "Eagle Metals Series 2000 Snap-Loc"

FIRESTONE METAL PRODUCTS L L C ([View Classification](#)) — "UC-14"

MBCI ([View Classification](#)) — "LokSeam"

MESCO METAL BUILDINGS ([View Classification](#)) — "LokSeam"

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "LokSeam"

NORTHWEST ROOF TILE & METAL L L C ([View Classification](#)) — "LT175"

METAL FORMING INC ([View Classification](#)) — "1.75 Snap Lock Steel Panel"

METAL ROOFING SYSTEMS INC ([View Classification](#)) — "MRS System 2000"

NEW TECH MACHINERY CORP ([View Classification](#)) — "SS675"

PETERSEN DEAN COMMERCIAL INC ([View Classification](#)) — "1.75" Snap Lock"

PREMIUM PANELS INC ([View Classification](#)) — "SS675"

ROLLFAB METAL BUILDING PRODUCTS ([View Classification](#)) — "SL-175" or "1.75 Snap Lock Steel Panel"

SHEET METAL WORKS OF ARIZONA ([View Classification](#)) — "SL175"

SHEFFIELD METALS INTERNATIONAL ([View Classification](#)) — "SMI 1 3/4" SnapLock"

SPANN ROOFING & SHEET METAL INC ([View Classification](#)) — "Spann Series 2000"

TAYLOR METAL INC ([View Classification](#)) — "Versa Span"

TEXARKANA METAL BUILDING SUPPLY ([View Classification](#)) — "SSP 675 Panel"

UNION CORRUGATING CO ([View Classification](#)) — "SL175"

U S METALS L L C ([View Classification](#)) — "US-175LS"

WHIRLWIND STEEL BUILDINGS INC ([View Classification](#)) — "Weather Snap-12" or "Weather Snap-16"

2. Roof Deck Fasteners* (Panel Clips) — One piece assembly, 3-1/2 in. wide, 1-7/8 in. high. Min thickness 18 MSG. Clips spaced 36 in. OC, max, fastened to plywood deck.

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "LokSeam UL 90 Clip"

EXCEL STAMPING & MFG INC ([View Classification](#)) — "LS-178-18 Clip"

LOGAN STAMPINGS INC — "Snap Lock Clip No. 675"

3. Fasteners (Screws) — Fasteners used to attach panel clips (Item 2) to plywood to be No. 10-12 by minimum 1 in. long, without insulation and/or coverboard, pancake head, No. 2 Phillips drive, A-point, coated steel screw. Min two fasteners per clip to be used.

4. Underlayment — (Optional) — Underlayment attached over Foamed Plastic (Item 8 and/or 8A) or Decking (Item 5) or Cover Board (Item 10).

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 PS-1 specifications, 19/32 in. thick, exposure 1, APA Rated Sheathing (42/20) 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 No. 4, Alternate).

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

- a) Nom 2 by 6 in., No. 2 grade or better S-P-F, Hemlock Fir, Douglas Fir or Southern Yellow 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 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 a S12 (TEKS/3) (R) point.

Spacing: Fastener spacing for all fastener types to be 6 in. OC at the plywood edges and 12 in. OC in the interior.

8. Foamed Plastic* — (Rigid Insulation — Optional — Not Shown) — Applied flat or tapered to maximum 10 in. thick combination of Item 8A. Bearing plates required under panel attachment points.

FIRESTONE BUILDING PRODUCTS CO L L C ([View Classification](#)) — "ISO 95+ GL" or "Resista"

8A. Foamed Plastic — (Rigid Insulation — Optional — Not Shown) — Placed on top of Item 4A. Maximum 10-in thick combination of Item 8 . Bearing plates required under panel attachment points.

FIRESTONE BUILDING PRODUCTS CO L L C ([View Classification](#)) — "ISOGARD HD"

9. **Roof Deck Fasteners*** — (Bearing Plates) — Plates to be 4 in. by 4 in. by No. 26 MSG min galvanized steel. Two 1/4 in. guide holes located in line with panel clip (Item 2) guide holes.

FIRESTONE METAL PRODUCTS L L C ([View Classification](#)) — "UC Bearing Plate"

10. **Cover Board** — (Optional — Not Shown) — Min 1/2 in. thick (15/32 in. actual) plywood, DOC PS-1 rated (square edged may be used) or min 7/16 in thick OSB, DOC PS-2 rated, 1/2 in. thick gypsum board, 1/2 in. wood fiberboard, 1/4 in. min thickness G-P Gypsum "DensDeck", 1/4 in. min thick USG "SECUROCK Glass Mat Board" or "SECUROCK Roof Board" applied over the plywood decking (Item 5) or Foamed Plastic (Items 8 and/or 8A). When used or used over Foamed Plastic bearing plate not required.

Refer to General information, Roof Deck Construction (Building Materials Directory) for items not evaluated.

*Bearing the UL Classification Mark

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[Page Top](#)

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