

TGKX.508 - 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

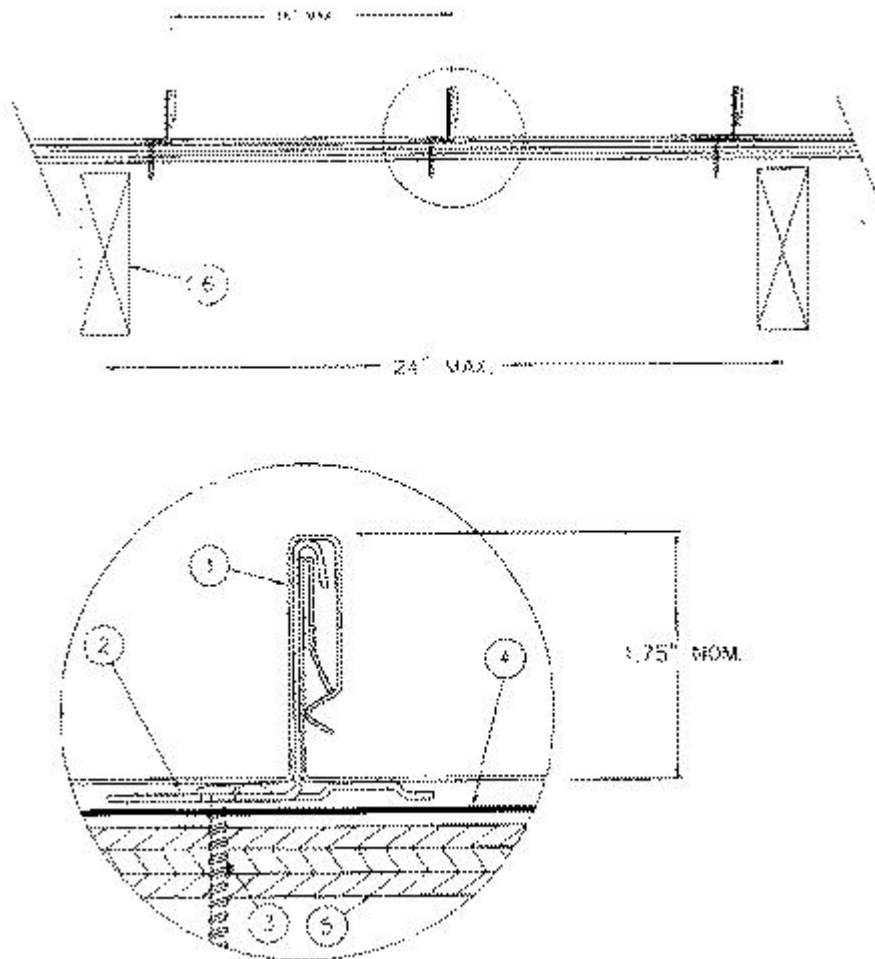
Roof Deck Constructions

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

Construction No. 508

February 3, 2023

Uplift-Class 90
Fire Not Investigated



1. **Metal Roof Deck Panels*** — 0.032 in. min thick aluminum; 16 in. wide, 1-3/4 in. high at the rib. Panels continuous over three or more clips with no end laps. A bead of sealant may be used at panel side joints.

ARCHITECTURAL METAL SOLUTIONS ([View Classification](#)) — "Snap-Lock"

BEACON SALES ACQUISITION INC, DBA COASTAL METAL SERVICE ([View Classification](#)) — "EZ-LOC"

BERRIDGE MFG CO ([View Classification](#)) — "Snaplock Panel"

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

DREXEL METALS INC ([View Classification](#)) — "DMC 175S"

FIRESTONE METAL PRODUCTS, A DIV OF FIRESTONE BUILDING PRODUCTS CO LLC ([View Classification](#)) — "UC-14"

GIDEON STEEL PANEL CO L L C ([View Classification](#)) — "G175s"

HPM BUILDING SUPPLY ([View Classification](#)) — "Sur-Lock"

MCELROY METAL MILL INC ([View Classification](#)) — "Medallion-Lok"

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

METAL PANELS INC ([View Classification](#)) — "StrongSeam SL175"

METAL SALES MANUFACTURING CORPORATION ([View Classification](#)) — "Vertical Seam"

NEW TECH MACHINERY CORP ([View Classification](#)) — "SS 675"

P S M L V INC DOING BUSINESS AS PENN SHEET METAL ([View Classification](#)) — "PSM175SL"

PETERSEN ALUMINUM CORP ([View Classification](#)) — "Snap-Clad"

REEDS METALS OF BENTON ([View Classification](#)) — "Secure-Seam"

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

ROOF WORKS FABRICATING L L C ([View Classification](#)) — "Snap Lock 675"

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

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

STREAMLINE ROOFING & CONSTRUCTION INC ([View Classification](#)) — "175SL"

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

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

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

V & R SHEET METAL LLC ([View Classification](#)) — "SS675 Panel"

WESTERN STATES METAL ROOFING ([View Classification](#)) — "Western Lock®"

2. Roof Deck Fasteners* — (Panel Clips) — One piece assembly, 3-1/2 in. wide, 1-7/8 in. high with a 1-3/8 in. wide horizontal leg. No. 18 MSG min thick galvanized or stainless steel. Two 1/4 in. guide holes located in horizontal leg. Clips spaced 18 in. OC.

FIRESTONE METAL PRODUCTS, A DIV OF FIRESTONE BUILDING PRODUCTS CO LLC ([View Classification](#)) — "UC-14"

PETERSEN ALUMINUM CORP ([View Classification](#)) — "Snap-Clad Clip"

2A. Roof Deck Fasteners* — (Panel Clips) — One piece assembly, 3-1/2 to 3-3/4 in. wide, 1-7/8 in. high. One panel clip located at each purlin intersection. Min thickness 0.048 in. (No. 18 MSG).

METAL SALES MANUFACTURING CORPORATION ([View Classification](#)) — "Vertical Seam Clip"

3. Panel Fasteners — (Screws) — Fasteners used to attach panel clips (Item 2) to plywood (Item 5) to be No. 10-12 by minimum 1 in. long, without insulation and/or coverboard, No. 1 Phillips drive, bugle head coated steel wood screws. Two screws used per clip inserted through 1/4 in. diameter guide holes.

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

5. **Plywood Decking** — Plywood decking to be rated per PS - 1 specification, nominal 5/8-in (19/32 in. actual) or 1/2-in (15/32-in. actual) thick. Butt ends not blocked.

6. **Supports** — Spaced max 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 nominal 2 by 4 in. upper chord of the same grade as Item a.

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

7. **Plywood Fasteners** — (Not Shown) — 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.

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** — (Optional — Not Shown) — Placed on top of Item 8. 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, A DIV OF FIRESTONE BUILDING PRODUCTS CO LLC ([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 (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 2023-02-03

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