



Construction No. 508A
TGKX.508A
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

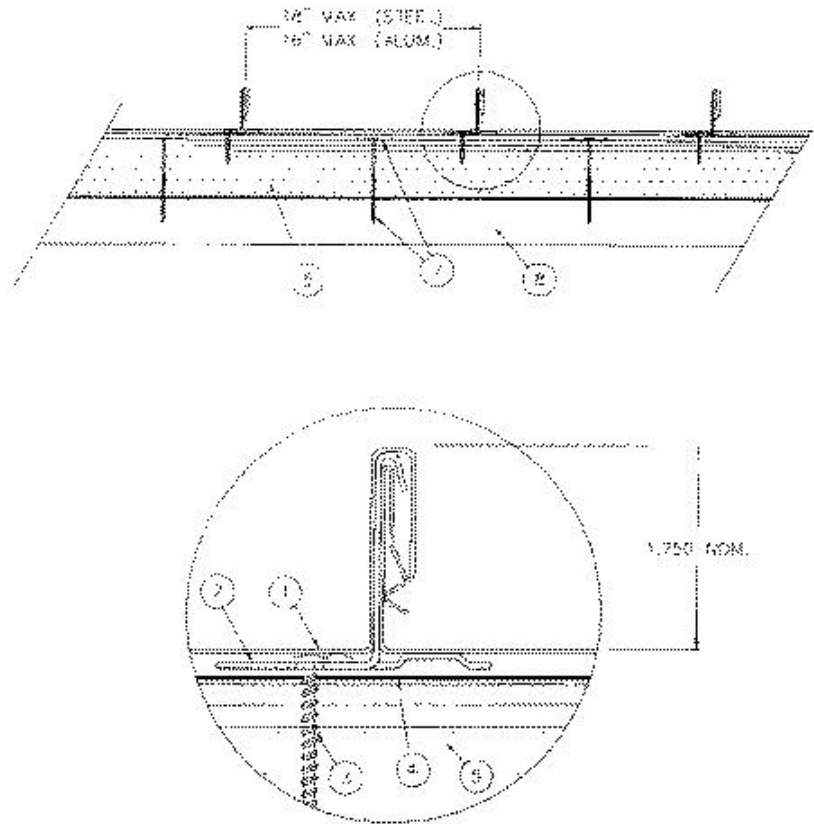
[See General Information for Roof Deck Constructions](#)

Construction No. 508A

February 27, 2012

Uplift — Class 90

Fire Not Investigated



1. **Metal Roof Deck Panels*** — (when used with nailable insulation) No. 24 MSG min thick coated steel panels, 18 in., 16 in., 12 in. or 10 in. wide or 0.032 in. min thick aluminum, 16 in., 12 in. or 10 in. wide; 1-3/4 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.

A F M SUPPLY L L C ([View Classification](#)) — "AFM-14"

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

ARCHITECTURAL METAL WORKS ([View Classification](#)) — "AMW SNAPLOCK"

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

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

BOBBY JAMES INC ([View Classification](#)) — "BJI675"

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

CENTRIA ([View Classification](#)) — "SDP 175-12, -16, -18" (steel only)

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

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

DURO-LAST INC ([View Classification](#)) — "EM 175S"

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

EAST TEXAS ARCHITECTURAL SHEETMETAL L

L C, DBA ETAS INC ([View Classification](#)) — "STRUCTURAL SNAP LOCK"

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

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

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

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

METALCRAFT INC ([View Classification](#)) — "MC175SL"

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

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

METAL SALES MFG CORP ([View Classification](#)) — "Vertical Seam"

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

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

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

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

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

RIFFE METALS L L C ([View Classification](#)) — "Rapidloc 1.75"

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

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

SHEFFIELD METALS INTERNATIONAL ([View Classification](#)) — "SMI 1 ¾" SnapLock"

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

STREAMLINE ROOFING & CONSTRUCTION

INC ([View Classification](#)) — "175SL"

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

TREMCO INC ([View Classification](#)) — "Tremlock SL Series II"

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"

1A. **Metal Roof Deck Panels*** — (When used with structural cement fiber unit) - No. 24 MSG min thick coated steel panels, 18 in, 16 in, 12 in, or 10 in wide, 1-3/4 high at female side rib. Panels continuous over three or more clips. Endlaps for panels to be overlapped 6 in. A bead of sealant may be used at panel ends and side joints.

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

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

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

2. **Roof Deck Fasteners* (Panel Clips)** — One piece assembly, 3-1/2 in. wide, 1-7/8 in. high. No. 18 MSG min thick coated steel. Clips spaced 36 in. OC max for steel panels and 18 in. OC max for aluminum panels. Fastened to nailable insulation (Item 5).

CENTRIA ([View Classification](#)) — "C175"

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

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

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

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

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "LokSeam UL90 Clips"

2A. **Roof Deck Fasteners* (Panel Clips)** — One piece assembly, 3-1/2 in. wide, 1-7/8 in. high. No. 18 MSG min thick coated steel. Clips spaced 36 in. OC max for steel panels. Fastened to structural cement-Fiber unit

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

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "LokSeam UL90 Clips"

3. **Fasteners (Screws)** — Fasteners used to attach panel clip (Item 2) to nailable insulation (Item 5), or structural cement-fiber units (Items 5A or 5D) to be No. 10-12 by 1 in. long pancake head, No. 2 Phillips drive, A-point, coated steel screws. Min two fasteners per clip.

4. **Underlayment** — Underlayment used over nailable insulation (Item 5) to be Type 30 organic felt. Sides overlapped min 2 in. End laps per manufacturer's instructions. Felt nailed to nailable insulation with 1 in. long galvanized steel roofing nails, located in side laps and between side lap per manufacturer's instructions. Nail spacing to be max 12 in. OC at the side lap and max 24 in. OC in interior rows.

5. **Nailable Insulation** — Consisting of 1 in. min. to 3-1/2 in. max thick Classified polyisocyanurate foamed plastic with a factory laminated 7/16 in. thick APA rated O.S.B. Density of foamed plastic to be 2 pcf.

5A. **Structural Cement-Fiber Unit (Substructure)** — (Not Shown) (used in lieu of Nailable Insulation (Item 5) Consists of a minimum 5 in. thick composite structural cement-fiber units with foamed plastic core of a minimum 0.95 PCF density

expanded polystyrene and 7/16 in OSB structural use panels on one face. All transverse butt joints are to occur over structural support. Unit will be designated as plank (tongue and groove) when used without truss tees (Item 5B). Unit will be designated as tile (rabbetted) when used with truss tees.

TECTUM INC ([View Classification](#)) — "Type E"

5B. Truss Tee — (Optional) (Not Shown) Minimum size to be 5-6-17-2. Maximum spacing to be 48-1/4 in. OC. Tees to be welded to structural support (Item 6) with a 3/4 in. fillet weld on both sides of tee.

5C. Tectum Grout — (Optional) (Not Shown) Used with truss tee (Item 5B) and tile (rabbetted) type substructure (Item 5A). Grout to fill void between substructure tiles around and above truss tee.

5D. Structural Cement-Fiber Unit (Substructure) — (Not Shown) (May be used in lieu of Item 5A) Consists of a minimum 5 in. thick composite structural cement-fiber units with foamed plastic core of a minimum 1.5 PCF density expanded polystyrene 7/16 in OSB structural use panels on one face. All transverse butt joints are to occur over structural support. Unit will be designated as plank (tongue and groove) when used without truss tees (Item 5B). Unit will be designated as tile (rabbetted) when used with truss tees.

TECTUM INC ([View Classification](#)) — "Type III"

6. Supports (Purlins) — (Not shown) — Purlins used for liner panel (Item 8) support to be cold formed steel sections. As alternatives, structural steel components (hot rolled beams, channels, open web joists, etc.) may be used. Min gauge and yield to depend on design considerations for uplift loading with max spacing to be 6 ft OC. As alternatives, structural steel components (hot rolled beams, channels, open web joists, etc.) may be used. Size and spacing of structural components to depend on design considerations.

7. Fasteners (Screws) — Fasteners used to attach nailable insulation (Item 5) to liner panel (Item 8) to be No. 11-13, No. 3 Phillips drive, truss head, painted steel screws. Length to depend on overall thickness of deck and to penetrate steel deck 1/2 in. min.

A 2 in. diameter formed pressure plate fabricated from No. 22 MSG coated steel to be used with each screw. Fasteners located in three rows along the 8 ft length of the nailable insulation beginning 6 in. from the 8 ft edges with a row down the center and spaced 21 in. OC beginning 6 in. from the 4 ft edges. A total of 15 fasteners used for each 4 by 8 ft board.

Fasteners used to attach Structural Cement Fiber Units (Items 5A or 5D) to structural support (Item 6) to be minimum 6 in. long, No. 14 screw with 5/8 in. diameter head. Fasteners are spaced a maximum of 12 in. OC at each joist along butt end. Pre-drilling with a 3/16 in. bit for steel up to 1/8 in. thick or with a 7/32 in. bit for steel greater than 1/8 in. thick when required.

8. Liner Panel (Steel Deck) — (Optional when structural cement fiber units (items 5A or 5B) are used) No. 22 MSG min thick coated steel. Min depth 1-1/2 in., max pitch 6 in. fabricated to various profiles. Min yield strength 33,000 psi. Fastened to supports (Item 6) with fastener type and spacing per liner panel manufacturers instructions for uplift loading.

9. Gypsum Board — (Optional) (Not shown) — Max thick 5/8 in. supplied in 4 by 8 ft sheets. Butt joints located over crests of metal roof deck panel (Item 1). Fastened to panel with same fasteners used for nailable insulation (Item 5).

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

*Bearing the UL Classification Mark

Last Updated on 2012-02-27

[Questions?](#)

[Print this page](#)

[Notice of Disclaimer](#)

[Page Top](#)

© 2012 UL LLC

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 Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "© 2012 UL LLC".