

## TGKX.486 - 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.

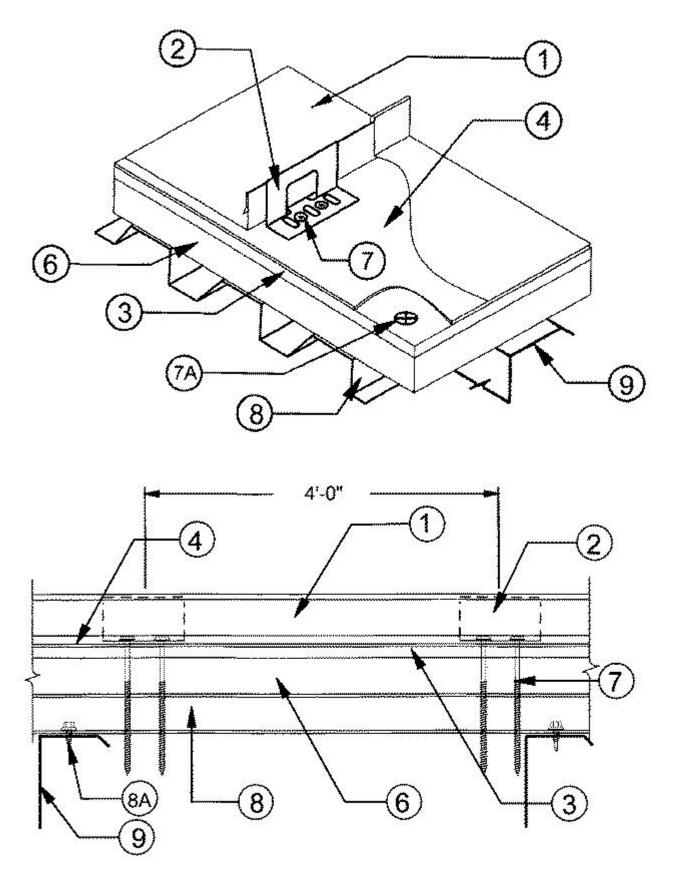
## **Roof Deck Constructions**

See General Information for Roof Deck Constructions

**Construction No. 486** 

April 02, 2019

Uplift — Class 90
Fire Not Investigated



1. **Metal Roof Deck Panels\*** — No. 24 MSG min coated steel, 18 in. max width, 1-3/4 in. high at the ribs. Panels continuous over three or more spans. Endlaps for panel to be overlapped 6 in. and to include back-up plate (Item 2A). A bead of sealant may be used at panel end joints.

 $\textbf{A \& S BUILDING SYSTEMS L P} \ (\textit{View Classification}) -- "LokSeam"$ 

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ALLIANCE STEEL INC (View Classification) — "NFS16"
AMERICAN BUILDINGS CO (View Classification) — "Seam-Loc -12, -16, -18"
AMERICAN BUILDING COMPONENTS (View Classification) — "LokSeam"
BEACON SALES ACQUISITION INC, DBA COASTAL METAL SERVICE (View Classification) — "EZ Loc"
BERRIDGE MFG CO (View Classification) — "Snaplock Panel"
BORGA STEEL INC (View Classification) — "Vertical Lock"
CENTRAL STATES MFG INC (View Classification) — "Central Snap"
CENTRAL TEXAS METAL ROLLFORMING INC (View Classification) — "Shurloc 175"
DORSEY'S COMMERCIAL ROOFING INC (View Classification) — "Dorsey u 14"
FIRESTONE METAL PRODUCTS, A DIV OF FIRESTONE BUILDING PRODUCTS CO LLC (View Classification) — "UC-14"
INTEGRIS METALS INC (View Classification) — "Integris System 4"
MBCI (View Classification) — "LokSeam"
MCELROY METAL MILL INC (View Classification) — "ABC Permaseam Panel"
METAL FORMING INC (View Classification) — "1.75 Snap Lock Steel Panel"
METAL ROOFING SYSTEMS INC (View Classification) — "MRS System 2000"
MID-SOUTH METAL PRODUCTS (View Classification) — "MSMP Structural Snap Lock"
NCI BUILDING SYSTEMS L P (View Classification) — "LokSeam"
NORTHWEST ROOF TILE & METAL L C (View Classification) — "LT175"
P S M L V INC DOING BUSINESS AS PENN SHEET METAL (View Classification) — "PSM175SL"
ROLLFAB METAL BUILDING PRODUCTS (View Classification) — "SL-175" or "1.75 Snap Lock Steel Panel"
SHEET METAL WORKS OF ARIZONA (View Classification) — "SL175"
STANDARD STRUCTURES INC (View Classification) — "SnapSeam"
TAYLOR METAL INC, DBA TAYLOR METAL PRODUCTS (View Classification) — "Versa Span"
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WESTAR ROOFING CORP (View Classification) — "SL175"

2. **Roof Deck Fasteners\*** — One piece assembly, 3-1/2 in. wide, 1-7/8 in. high, thickness 0.048 in. Clip spacing to be 48 in. OC. **AMERICAN BUILDING COMPONENTS** (View Classification) — "LokSeam UL 90 Clip"

BEACON SALES ACQUISITION INC, DBA COASTAL METAL SERVICE (View Classification) — "EZ Loc Panel Clip"

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

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

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

- 2A. **Endlap Back-Up Plate** (Not Shown) No. 16 MSG min coated steel, width of back-up plate to correspond to width of panel. Two 1 in. wide by 3/4 in. long tabs are used for sliding over end of panels.
- 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. **GEORGIA-PACIFIC GYPSUM L L C** (View Classification) "DensDeck®", "DensDeck Prime®"

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

- 4. Vapor Barrier Single ply used between the wallboard (Item 3) and the metal roof deck panels (Item 1).
- 5. Joint Tape (Not Shown) 2-1/2 in. wide tape supplied by manufacturer to be used at all wallboard joints.
- 6. **Foamed Plastic (Rigid Insulation)** (Optional) Expanded polystyrene or polyisocyanurate supplied in 4 by 8 ft sheets, min thickness 13/16 in. min density 1.0 pcf. All end joints to be staggered with respect to adjacent rows. All joints to be offset from joints in mineral board (Item 3).
- 7. **Fasteners** Screws used to fasten panel clips (Item 2) to steel deck (Item 8) to be No. 14 Truss head with No. 3 Phillips drive. Length to be min 1/2 in. longer than thickness of wallboard, rigid insulation and metal deck. Two screws per clip. Fasteners used at endlaps to be one of the following: 14x1 in. Type AB self-tapper; 14x1-1/4 in. Hex washer head self-driller; 14x1 Type AB Phillips stainless steel self-tapper.
- 7A. **Fasteners** For attaching in wallboard to steel deck to be min 0.140 in diam threaded shank Phillips, bugle or trumpet head, self-drilling, self-tapping, corrosion resistance coated steel screws supplied by manufacturer. Screws are installed into top corrugations of steel roof 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 a min of 21 fasteners per 4 by 8 ft sheet (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 puddle welds with weld washers or screw fasteners per deck manufactures requirements for uplift loading.
- 9. Purlins 16 MSG min coated steel, min yield strength 50,000 psi or Type H open web joists.

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 2019-04-02

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