

Design/System/Construction/Assembly Usage Disclaimer

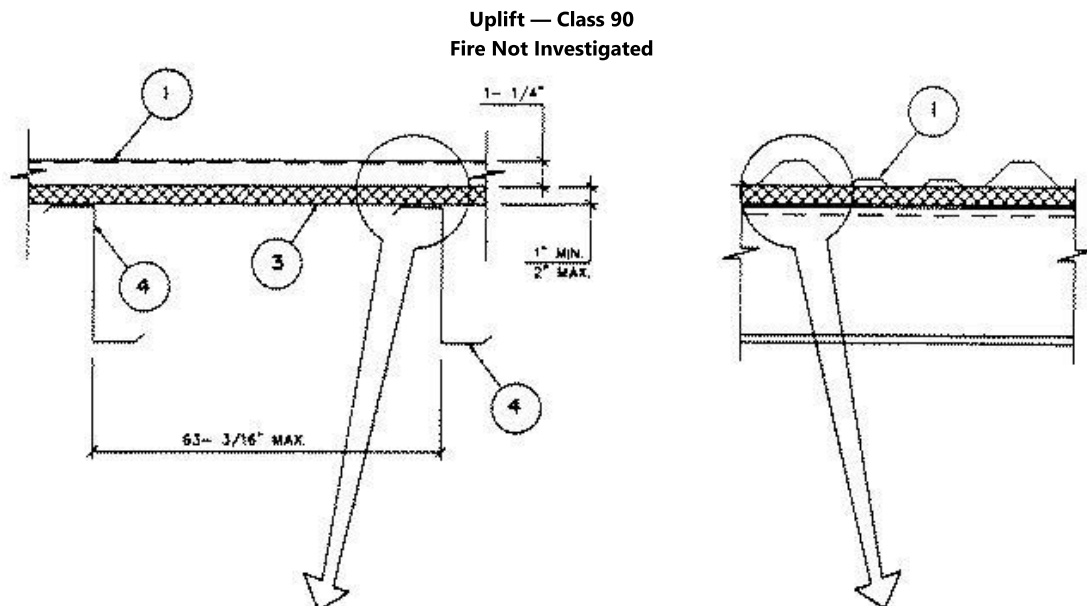
- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies 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.

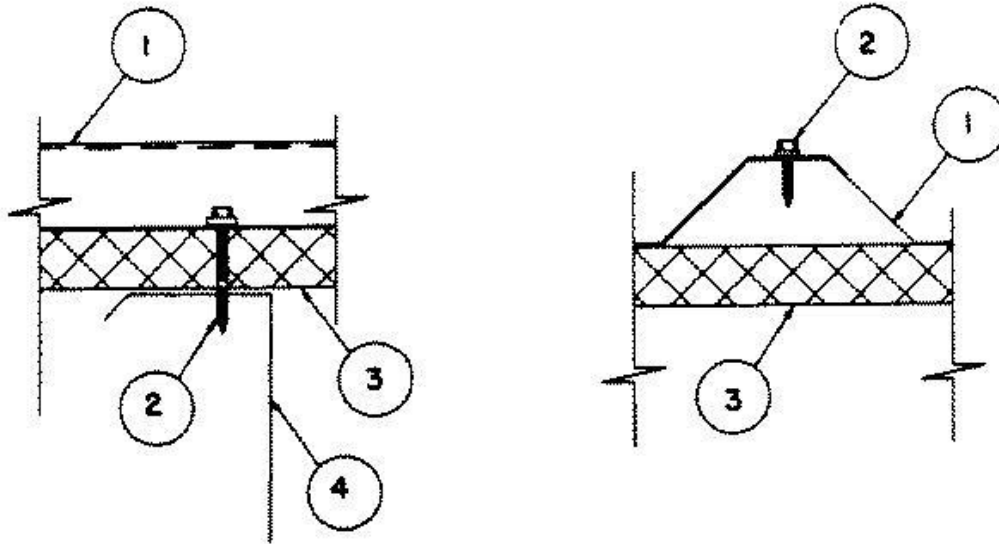
Roof Deck Constructions

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

Construction No. 104

April 24, 2023





1. **Metal Roof Deck Panels*** — No. 26 MSG min coated steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped 3 in. min., 6 in. max with lap beginning even with purlin web and continuing across purlin upper flange. A line of sealant may be used at panel end and side laps.

ALL STEEL BUILDINGS & COMPONENTS TUBULAR DIVISION INC ([View Classification](#)) — "R or PBR panel"

ALLSOUTH PRE-ENGINEERED COMPONENTS L L C ([View Classification](#)) — "R" or "PBR" Panel

AMERICAN BUILDING COMPONENTS ([View Classification](#)) — "R or PBR Panel"

B C STEEL BUILDINGS INC ([View Classification](#)) — "R/PBR"

BORGA STEEL INC ([View Classification](#)) — "BSP"

BRIDGER STEEL ([View Classification](#)) — "PBR Panel"

BBM STEEL BUILDINGS INC ([View Classification](#)) — "R-Panel"

CENTRAL TEXAS METAL ROLLFORMING INC ([View Classification](#)) — "R-Panel" or "PBR-Panel"

CREGO METAL SYSTEMS ([View Classification](#)) — "CMR"

EAST TEXAS ARCHITECTURAL SHEETMETAL L L C, DBA ETAS INC ([View Classification](#)) — "R Panel"

ECONOMY METALS INC ([View Classification](#)) — "R Panel"

ENCORE STEEL BUILDING COMPANY ([View Classification](#)) — "PBR"

H&H METAL PRODUCTS INC ([View Classification](#)) — "PBR Panel"

HPM BUILDING SUPPLY ([View Classification](#)) — "Custom 4-Rib"

FLATIRON STEEL ([View Classification](#)) — "PBR"

JAG METALS LLC ([View Classification](#)) — "PBR Panel"

JNL STEEL COMPONENTS INC ([View Classification](#)) — "R-PANEL" or "PBR-PANEL"

MBCI ([View Classification](#)) — "R" or "PBR"

MESCO METAL BUILDINGS ([View Classification](#)) — "R" or "PBR"

METAL ROOFING SUPPLY & MFG ([View Classification](#)) — "PBR Panel"

NCI BUILDING SYSTEMS L P ([View Classification](#)) — "R" or "PBR"

NORTHLAND STEEL AND TRIM ([View Classification](#)) — "R-Panel"

OAKLAND METAL BUILDINGS INC ([View Classification](#)) — "PBR"

PINNACLE STRUCTURES INC ([View Classification](#)) — "PBR"

PRIME BUILDING COMPONENTS L L C ([View Classification](#)) — "R Panel" or "PBR Panel"

RIGID GLOBAL BUILDINGS L L C ([View Classification](#)) — "R" or "PBR"

SAN ANTONIO QUALITY METALS ([View Classification](#)) — "PBR"

SCHULTE BUILDING SYSTEMS INC ([View Classification](#)) — "R" or "PBR" Panel

SOUTHWEST METAL COMPONENTS AND SUPPLY LP ([View Classification](#)) — "R-Panel" or "PBR"

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

TERRY BUILDING CO INC ([View Classification](#)) — "R" Panel

TEXAS BUILDING AND ROOFING SUPPLIES INC — "R" or "PBR" Panel

TSB INDUSTRIAL INC ([View Classification](#)) — "R" Panel

WEST TEXAS STEEL & SUPPLY ([View Classification](#)) — "R" or "PBR"

2. Panel Fasteners — For panel to purlin connections when using 16 MSG steel purlins to be No. 12-14 self-drilling, self-tapping, hex-head plated steel standoff screws with a separate 5/8 in. OD formed steel washer and a separate neoprene sealing washer. Min fastener length shall be 3/4 in. longer than the nom thickness of the insulation so as to insure full thread engagement.

Spacing to be 12 in. OC located between major ribs. Spacing at end laps to be in a 4-1/2, 7-1/2, 4-1/2, 7-1/2 in. pattern beginning 2-1/2 in. from the center line on both sides of each major ribs.

As an alternate fastener when using No. 16 MSG steel purlins, No. 14 self-tapping hex-head plated steel screws with a separate 5/8 in. OD formed steel washer and a neoprene sealing washer may be used. Min length shall be 3/4 in. longer than the nom thickness of the rigid insulation so as to insure full thread engagement. Pilot holes, 3/16 in. diam, to be used with alternate fastener only.

Fasteners for use with Type H open web steel joists to be No. 12-24 by 7/8 in. long self-drilling, self-tapping hex-head plated steel screws with a separate 5/8 in. OD formed steel washer and a separate neoprene sealing washer.

For Panel-to-Panel Connections — To be No. 14 by 7/8 in. lap tek self-drilling, self-tapping hex-head, plated steel screws with a separate 1/2 in. OD formed steel washer and a neoprene sealing washer. Spacing to be min 20 in. OC.

As an alternate fastener: No. 14 by 3/4 in. self-tapping, hex-head plated steel screws with a separate formed steel washer and a separate neoprene sealing washer may be used. For alternate fasteners only, a 7/32 in. diam pilot hole shall be used in the top sheet and a 1/8 in. diam pilot hole shall be used in the bottom sheet.

3. Insulation* — Rigid type. Supplied in 4 ft wide sheets, min density 2 pcf. Min thickness 1 in. Max thickness 2-1/4 in. Butt joints to occur over purlins. Top surface of all joints to be continuously sealed with a 2 in. wide vapor barrier tape, pressure sensitive on one side.

4. Purlins — No. 16 MSG min gauge steel (min yield strength 50,000 psi) or H Series open web steel 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 2023-04-24

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