

Design/System/Construction/Assembly Usage Disclaimer

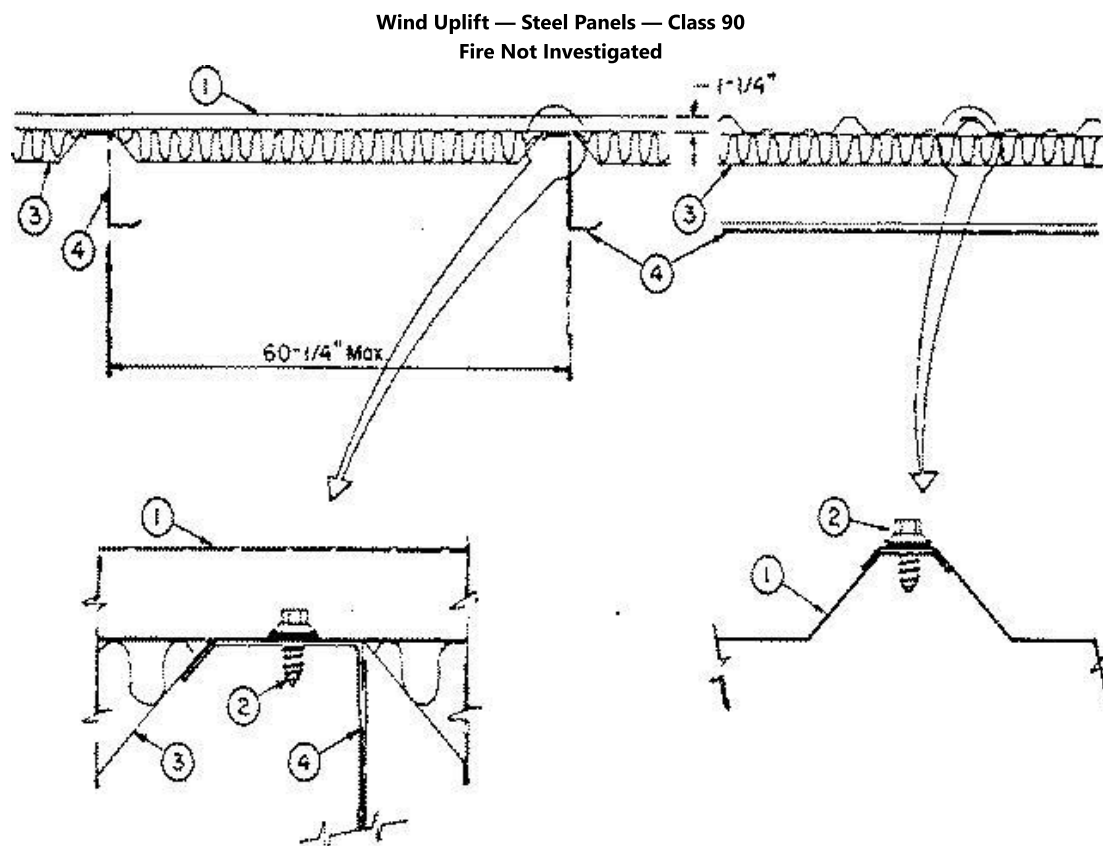
- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies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

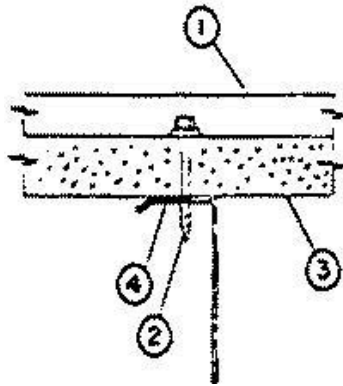
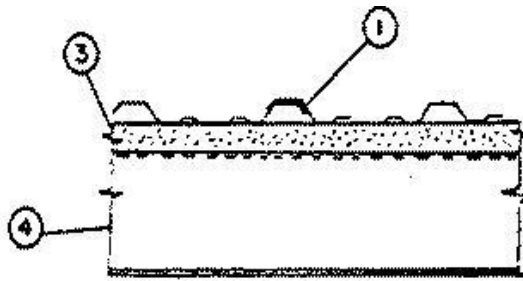
Roof Deck Constructions

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

Construction No. 112

April 24, 2023





1. Metal Roof Deck Panels* — No. 26 MSG min gauge 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 laps beginning even with purlin web and extending across purlin flange. A bead of sealant may be used at panel side and end 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"

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

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

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

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

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

KIRBY BUILDING SYSTEMS INC ([View Classification](#)) — "Kirby-Rib"

MARLYN METALS INC ([View Classification](#)) — "R" or "PBR"

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

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

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

2. Panel Fasteners — When using compressible blanket insulation — for panel to purlin connections to be No. 14 self-tapping hex-head plated steel or stainless steel screws with a separate steel washer 5/8 in. diam. and a neoprene sealing washer. Length to be 3/4 in. for 3 in. max thickness insulation and 1 1/4 in. for over 3 in. thickness. Fasteners for panel to panel connections to be same type 3/4 in. long. Pilot holes to be 3/16 in. diam. Spacing for panel to purlin fasteners to be in a 5-7-5-7 in. pattern located 2 1/2 in. from the center line on both sides of each major rib. Spacing at end lap to be the same. For panel to panel connections, fasteners to be 20 in. O.C. with a fastener located approx in line with the purlin fasteners.

As An Alternate Fastener — For panel to purlin connections to be No. 12-14 self-drilling, self-tapping, hex-head plated or stainless steel screws with a separate 1/2 in. O.D. steel washer and a neoprene sealing washer. Length to be 1 in. for up to 3 in. max thickness insulation and 1-1/2 in. for over 3 in. thickness. For panel to panel connections to be No. 14 by 7/8 in. lap tek. Spacing to be the same as above.

Panel Fasteners When Using Rigid Insulation — For panel to purlin connections to be No. 12-14 self-drilling, self-tapping, hex-head, plated steel stand-off screws with a separate 5/8 O.C. formed steel washer and a separate neoprene sealing washer. Min fastener length to be 7/8 in. longer than nom thickness of rigid insulation. Fasteners for panel to panel connections to be same as for compressible insulation. Spacing to be same as above.

3. **Insulation** — (Optional) — Any compressible blanket insulation 4 in. max thickness before compression or rigid type — 2-1/4 in. max thickness; 4 ft wide. Butt joints (rigid insulation) 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.

THE DOW CHEMICAL CO ([View Classification](#)) — Types Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR, TUFF-R™ ci Insulation, Thermax IH Insulation, Type Thermax Plus Liner Panel and Thermax Heavy Duty Plus (HDP)

4. **Purlins** — No. 16 MSG min gauge steel (55,000 psi min yield strength.)

5. **Lateral Bracing** — (Not shown) — As required.

Refer to General Information, Roof Deck Constructions (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

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 Solutions' Follow - Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL Solutions' Follow - Up Service. Always look for the Mark on the product.

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