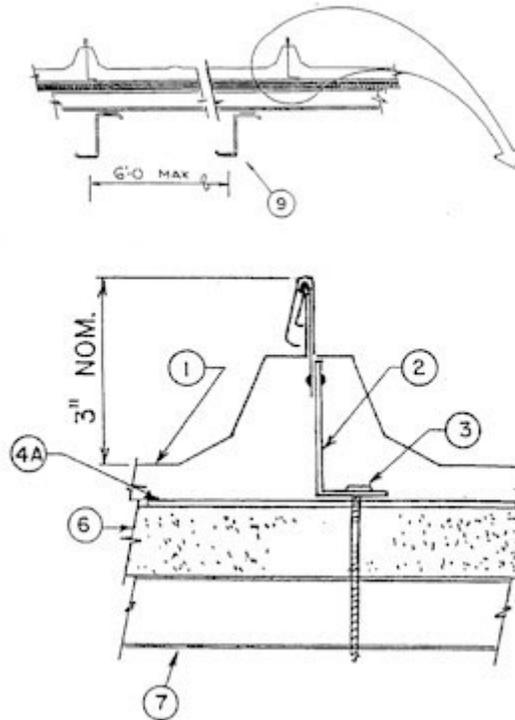


Construction No. 308B

Uplift - Class 90

Fire Not Investigated



1. Metal Roof Deck Panels* 24 MSG min coated steel. Panels continuous over two or more spans. End laps to occur adjacent to purlin with panels overlapped 3 in. A line of sealant may be used at panel ends and side laps.

- A&S BUILDING SYSTEMS, INC.--"Ultra-Dek".
- CHIEF INDUSTRIES INC--"STC" .
- GALVAK S A D E C V--"Galvalok I" .
- KIRBY BUILDING SYSTEMS INC--"Kirbylok 2000" .
- MBCI--"Ultra-Dek " .
- MESCO METAL BUILDINGS - "Ultra-Dek"
- NCI BUILDING SYSTEMS LP-"Ultra-Dek".
- UNITED STRUCTURES OF AMERICA INC--"Guardian I".

2. Roof Deck Fasteners* (Panel Clips) - Articulating clip used with an upper tab clip formed to engage the metal roof deck panel rib (Item 1). The height of the clip to be 3-3/8 in. when no thermal spacer is used, and 4-3/8 in. when a thermal spacer is used (Item 5). Clips are spaced 5 ft. OC max along length of panels, located at the panel sides with guide holes in bottom to accommodate two screw fasteners (Item 3).

- CHIEF INDUSTRIES INC--"STC" .
- GARCO BUILDING SYSTEMS--"Garco-Standing-Seam-Clip" .
- KIRBY BUILDING SYSTEMS INC--"Kirbylok 2000-Clip" or "Kirbylok 2000 Clip II" .
- NCI BUILDING SYSTEMS LP-"Ultra-Dek Articulating Clip" .
- UNITED STRUCTURES OF AMERICA INC--"Guardian I" .

2A. Roof Deck Fasteners* (Panel Clips) - fixed or sliding type fabricated from 0.032 in. thick steel. Width to be 3 in., heights to be 3- 3/8 in. when no thermal spacer (Item No. 4) is used and 4-3/4 in. when thermal spacer is used. Clips spaced 5 ft. on center, located at panel slides over purlins.

- NCI Building Systems LP-"Ultra-Dek Fixed Clip" or "Ultra-Dek Sliding Clip"

3. Fasteners - (Screws) Fasteners used to attach panel clips and bearing plates (Item 2 and 4A) through rigid installation (or optional plywood or OSB when bearing plate not used) and into metal deck (Item 7) to be No. 14 diameter. with Phillips head. Two screws per clip when Item 2 is used. When metal deck is not used, fasteners used to attach panel clips (Item 2) for panel clip-to-purlins are to be No. 14 diameter. Type A, hex washer head with 5/8 in. O.D. washer. Two screws per clip. Fasteners to be installed into purlins (Item 9). Fastener length to be min 1/2 in. longer than total thickness of optional plywood or OSB substructure (Item 4), insulation (Item 6) and metal deck (Item 7). Fasteners used to attach panel clips (Item 2A) for panel clip-to-purlins to be No. 12-14 by 1-1/4 in. long self-drilling, self-tapping, hex-head screw with a separate 5/8 in. O.D. neoprene washer. Two screws used for fixed type clip and one screw used for sliding type. Fasteners to be installed into purlins (Item 9).

Screws used at end lap are to be 1/4-14 by 1 in. long with 3/8 in. hex-washer head and separate 5/8 in. neoprene steel washer. Five (5) fasteners are to be used in the flat section of the end lap panel with the first fastener located 3 in. from either rib, and then spaced in a 3-6-6-3 in. pattern.

An additional fastener is to be located at the second slant segment of the rib on both sides of the end lap panel, and one additional fastener located at the first slanted segment on both sides of one rib. Fasteners used with alternate 16 MSG min thick coated steel upper section to be No. 14 by 1 in. long self-tapping fastener. First fastener located 3/8 in. from first slanted segment in a 4-5-1/2-5-1/2-4 in. pattern. Screws used to attach optional plywood or OSB substructure (Item 4) to metal deck (Item 7) to be No. 14 type with Phillips head. Fastener length to be min of 1/2 in. longer than total thickness of the plywood, insulation and metal deck. Spacing to be 6 in. O.C. at plywood ends and 12 in. O.C. at 2 ft., 0 in. pattern down length of plywood. (Total of 33 fasteners per 4 by 8 ft. plywood sheet).

(Alternate - When bearing plates replace plywood or OSB). An optional No. 10 by 1 in. self-drilling fastener may be used to attach clip to the bearing plate when installer chooses to install rigid board insulation and use bearing plate to hold it in place until clips and panels are installed.

4. Substructure (Plywood or OSB) - (Optional) - (Not shown) Plywood decking to be nom 1/2 in. thick, exposure sheathing span C-D 40/20 plywood or oriented strand board (OSB), nominal 7/16 in. thick, 4X8 ft. To be installed on top of rigid insulation (Item 6) max thickness 4 in. and in lieu of bearing plate (Item 4A).

4A. Substructure (Bearing Plates) - (Optional) To be used in lieu of plywood or OSB (Item 4) with rigid insulation (Item 6) max thickness of 4.4 in. Bearing plates to be 16 MSG min coated steel. Located under each clip (Item 2) for support.

5. Thermal Spacer - (Optional) - (Not shown) Polystyrene, 1 in. max thickness 3 in. wide, cut to fit between panel clips.

6. Rigid Insulation (Optional) - Foamed plastic, min 1 in. thickness, max thickness 4 in. when plywood or OSB is used and 4.4 in. when bearing plates are used. Density to be a min 2 pcf.

6A. Wallboard, Gypsum - (Optional)(Not shown) Any 5/8 in. thick gypsum wallboard supplied in sheets 2 x 4 to 4 x 12 ft. Applied perpendicular to steel deck direction with adhesive. End joints to occur over crests of steel roof deck and to be staggered 2 ft. in adjacent rows. The total cumulative thickness of the rigid board (Item 6) and gypsum board may not exceed total thickness shown under Item 6.

6B. Waterproof Membrane - (Optional)(Not shown) Used to protect plywood or OSB (Item 4). Installed under panels (Item 1).

6C. Vapor Barrier - (Optional)(Not shown) Installed on top of metal deck (Item 7) or on top of gypsum wallboard (Item 6A) if used. Minimum 6 mil plastic sheet.

7. Metal Deck (Optional) - 22 MSG min thickness coated steel. Min depth 1-1/2 in. with ribs at 6 in. O.C. End lap to be 4 in. min and occur over purlin. Metal deck to be welded to purlin in every other low flute, except for the end laps which are welded in every low flute.

8. End-Lap Plate Assembly - (Not Shown) Used at panel end laps consisting of a lower section, 5-5/8 in. wide, with a 1 in. leg and formed to the general profile of the panel and having four 1 in. wide by 3/4 in. long tabs for sliding over the end panel. Upper section to be 2 in. wide and also formed to the general profile of the panel. Upper section to have ribs formed with reinforcement. Both parts min 18 MSG coated steel. Alternate 16 MSG min thick coated steel upper section 1-1/2 in. wide formed to fit the general profile of the panel. Five 5/16 in. diam guide holes located in the flat area only.

9. Purlin Min 14 MSG steel (55,000 psi min yield strength).

*Bearing the UL Classification Marking