

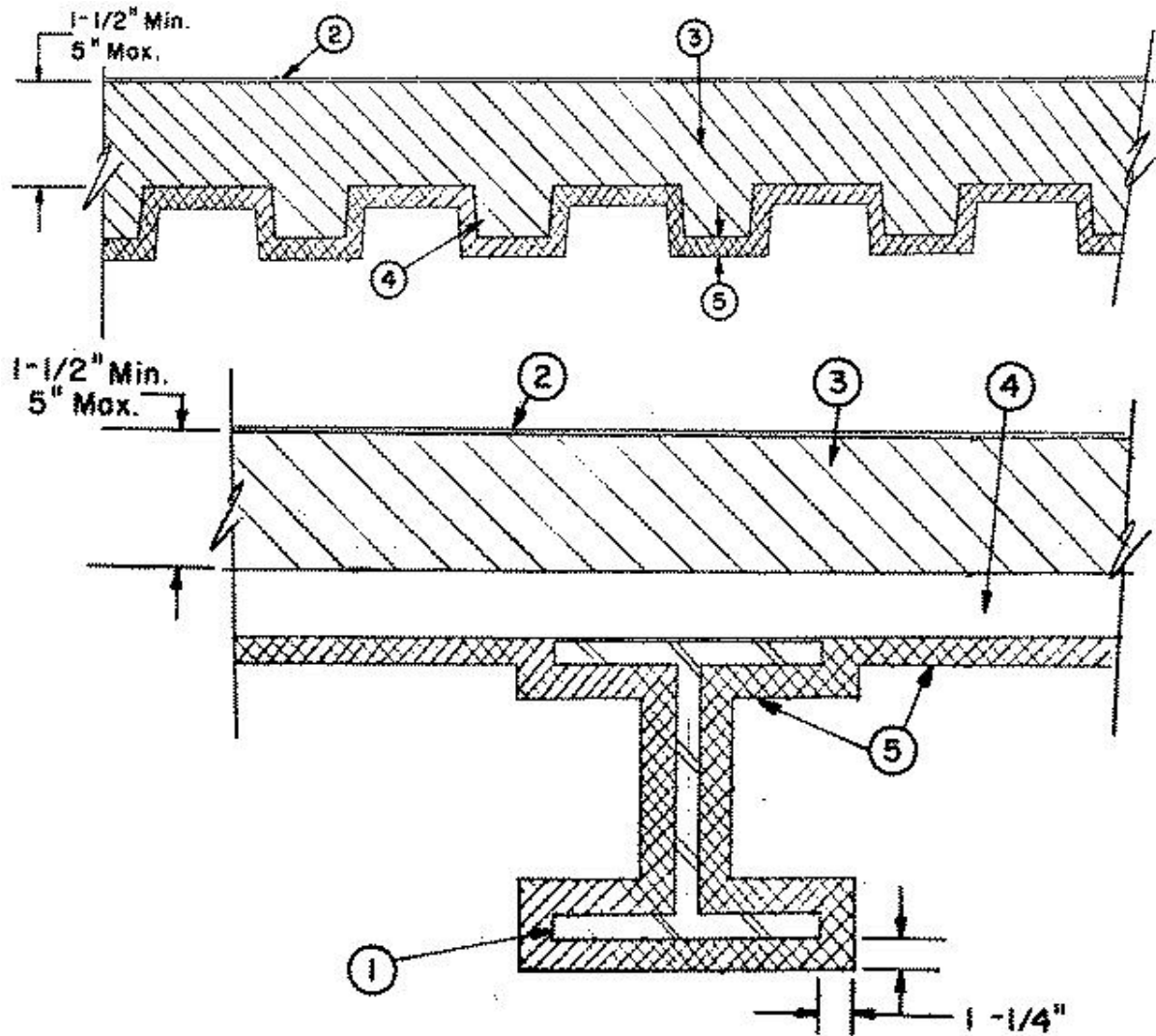
Design No. P709

October 17, 2001

Restrained Assembly Ratings — 1, 1-1/2 and 2 Hr.

Unrestrained Assembly Ratings — 1 and 1-1/2 Hr.

Unrestrained Beam Rating — 1-1/2 Hr.



1. **Beam** — W6x16, min size.

2. **Roof Covering*** — Consisting of hot mopped or cold application materials compatible with insulation(s) described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering Materials(TEVT).

2A. **In lieu of Item 2, roof covering consisting of single-ply Roofing Membrane*** — that is either ballasted, adhered or mechanically attached as permitted under the respective manufacturer's Classification. See Fire Resistance Directory-Roofing Membranes (CHCI).

3. **Insulation** — Compact thickness, 1-1/2 to 5 in. approx equal weights of **perlite aggregate*** and asphalt meeting the following specifications:

Softening point	190-200 F (ASTM D36-26)
Penetration at 77 F	25-30 (ASTM D5-52)
Flash point	500 F (ASTM D92-57)

The resulting mixture is compacted to approx 70 percent of its original volume and has a compacted density of not more than 22 pcf.

See Perlite Aggregate (CFFX) category for names of manufacturers.

4. **Steel Roof Deck** — (Unclassified) — Min 1-1/2 in. deep and 24 in. wide, galv fluted steel deck. Min gauge is 22 MSG. Flutes approx 6 in. O.C., crests approx 3-5/8 in. wide, valleys approx 2-5/8 in. wide. Attached to supports with welds spaced 12 in. OC. Adjacent units button-punched or welded together 36 in. OC along side joints, or

Classified Steel Floor and Form Units* — 1-1/2 in. deep, 36 in. wide, fluted galv steel deck. Min gauge is 22 MSG. Flutes approx 6 in. OC, crest width ranging from 3-1/2 to 5 in. Welded to supports a max 12 in. OC, with an additional weld at each side lap joint.

CONSOLIDATED SYSTEMS INC — Types B, BI, F, N and NI. Units may be phos/ptd.

5. **Spray-Applied Fire Resistive Materials*** — Applied by mixing with water and spraying in more than one coat to a final thickness as shown on the above illustration and in the table below. Mixture applied to steel surfaces which must be clean and free of dirt, loose scale and oil. Min avg and min ind density of 15/14 pcf respectively. For method of density determination, refer to Design Information Section.

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Spray Applied Fire Resistive Mtl Thkns Sprayed to Follow Contour of Deck
1 Hr	1 Hr	1-1/8 in.
1-1/2 Hr	1-1/2 Hr	1-3/8 in.
2 Hr	1-1/2 Hr	2 in.

ARABIAN VERMICULITE INDUSTRIES — Type MK-5.

GRACE CANADA INC — Type MK-5.

GRACE KOREA INC — Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6s, Monokote Acoustic 1.

PYROK INC — Type LD.

SOUTHWEST VERMICULITE CO — Types 4, 5, 5EF, 5GP, 5MD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD.

VERMICULITE PRODUCTS INC — Types MK-5, VP5.

W R GRACE & CO - CONN

CONSTRUCTION PRODUCTS DIV — Types MK-4, MK-5, MK-6/HY, MK-6s, Monokote Acoustic 1, RG.

*Bearing the UL Classification Mark

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