



NYC Department of Buildings  
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# Report of Materials and Equipment Acceptance Division

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

## MEA 139-04-M Vol II

**Manufacturer:** MarinoWare, 400 Metuchen Road, South Plainfield, NJ 07080

**Trade Name(s):** JoistRite

**Product:** One hour rated JoistRite floor-ceiling assembly for Class II construction.

**Pertinent Code Section(s)** 27-323, 27-324, 24-280

**Prescribed Test(s):** RS 5-2 (ASTM E119)

**Laboratory:** Underwriter’s Laboratories of Canada

**Test Report(s):** UL file R25068/05CA51592 dated January 24, 2006 and UL Design No. L580.

**Description** – 10” minimum depth 16 gauge Channel shaped steel joists 16” o.c. with ¾” T & G plywood flooring adhesively applied to top of joists. 4” thick Mineral insulation, nominal density 4.5 lb/cu. ft., friction fit to the underside of plywood floor. Double layer ½” thick Firecode C gypsum board attached to 25 msg galvanized resilient channels secured perpendicular to the joist 16” o.c. with (1) #10-16 x 5/8 inch screw. The floor/ceiling assembly shall be constructed in accordance with thickness and installation requirements in Underwriter Laboratories R25068 and UL Design No. L580 and manufacturer’s requirements in achieving the fire resistance ratings listed below:

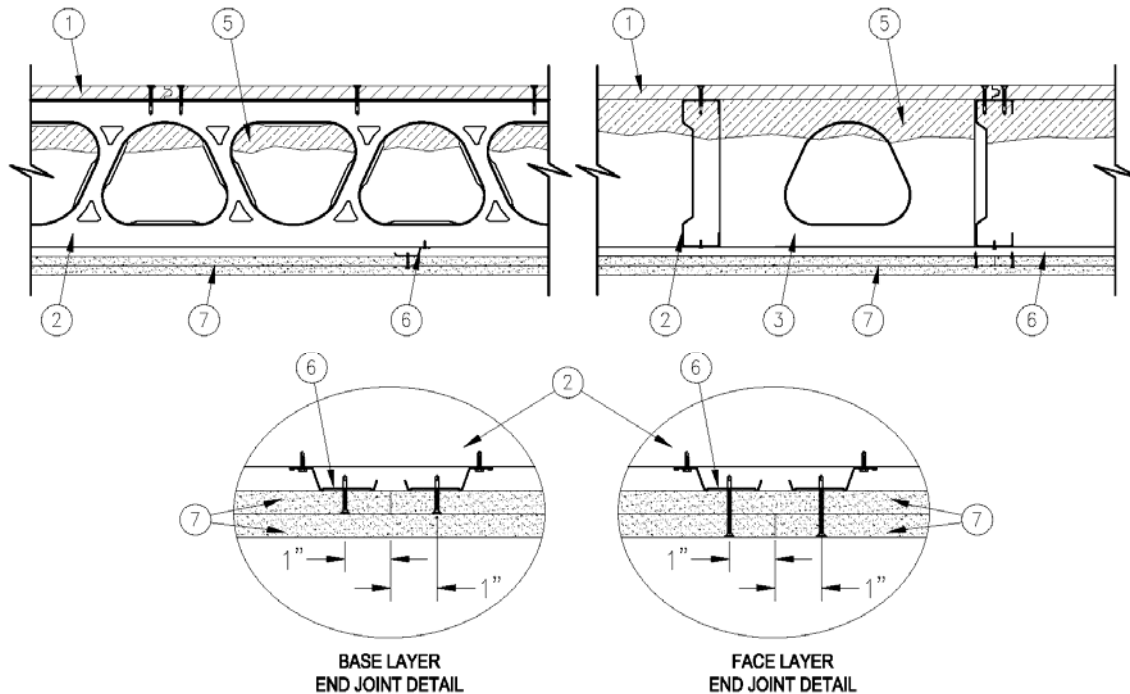


## Design No. L580

January 24, 2006

### Unrestrained Assembly Ratings-1 Hr

Load Restriction: 70% (See Item 2)



**1. Flooring** — Min 3/4 in. thick T & G plywood, min grade "Underlayment". Face grain of plywood to be perpendicular to joists with joints staggered. Plywood secured to joists with polyurethane based construction adhesive along with 1-7/16 in. long No. 10 Phillips wafer head winged plywood screws spaced 12 in. OC in the field and 6 in. OC along edges of board. Screws located 5/8 in from end joints and 1 in from side joints of board. Adhesive may be applied on top of joists prior to placing plywood sheets.

**2. Structural Steel Members\*** — JoistRite channel-shaped joists, channel-shaped, min 10 in. deep with min 2 in. wide flanges and 3/4 in. flanges. The joists are fabricated from min 16 MSG galv steel. Joists spaced max 16 in. OC. Floor joists attached to rim joist using channel-shaped steel web stiffeners. **Allowable loading must be calculated so as to stress the steel studs to a maximum of 70% of the stress calculated in accordance with the allowable stress design approach outlined in the manufacturer's load tables.**

**MARINOWARE, div. of WARE INDUSTRIES INC** — Type JR JoistRite floor joists, Type JT JoistRite track

**3. Blocking & Bridging** — Installed before construction loads are applied. The blocking consists of JoistRite solid blocking placed between joists spaced max 5 ft-4 in. OC perpendicular to the joists and max 4 ft-8 in. OC along the joist length. In addition, bridging consists of ½ in. by 1-1/2 in. cold-rolled channel, min No. 16 GA, attached to the bottom of the joist and along the blocking. Attach to each blocking piece with four 5/8 in. long No. 10 x 16 low profile steel screws.

**4. Web Stiffeners (not shown)** — Min 3-5/8 in. wide, 16 GA, JoistRite web stiffeners. Secured to each joist and track with ½ in. long No. 10 x 16 low profile steel screws.

**5. Mineral and Fiber Board\*** — Nom 4 in. thick mineral wool insulation friction-fit to underside of plywood between structural steel members. Any mineral wool insulation bearing the UL Classification Marking for Surface Burning Characteristics having a flame spread index of 25 or less, a smoke developed index of 50 or less and a min density of 4.0 lb/cu ft may be used.

See **Mineral and Fiber Board** (BQXR) category in the Building Materials Directory for names of manufacturers

**6. Resilient Channels** — Resilient channels, formed of No. 25 MSG galv steel, 1/2 in. deep, spaced max 16 in. OC perpendicular to joists. Channels secured to each joist with one 5/8 in. long No. 10 x16 low profile steel screw. Two additional rows of channels, spaced 3-1/2 in. OC, oriented opposite each gypsum board end joint as shown in end joint detail.

**7. Gypsum Board\*** — Two layers of 1/2 in. thick by 48 in. wide gypsum board installed with long dimension perpendicular to resilient channels. Base layer secured to resilient channel using 1 in. long Type S bugle head steel screws spaced 12 in. OC in the field and 6 in. OC along the end joints of the board. Screws located 5/8 in. from end joints and 1 in. from long edges. End joints secured to both resilient channels as shown in end joint detail. Face layer attached to resilient channels through upper layer with 1-1/4 in. long Type S bugle head steel screws spaced a max 12 in. OC in the field and 6 in. OC along the end joints of the board. Screws located 5/8 in. from end joint and 1 in. from the long edges. End joints secured to both resilient channels as shown in end joint detail. All joints in face layer boards to be offset from joints in base layer by min 16 in.

**AMERICAN GYPSUM CO** — Types AG-C

**BPB AMERICA INC** — ProRoc Type C

**BPB CANADA INC** — ProRoc Type C

**CANADIAN GYPSUM COMPANY** — Types C, IP-X2, IPC-AR

**G-P GYPSUM CORP, SUB OF GEORGIA-PACIFIC CORP** — Type 5

**LAFARGE NORTH AMERICA INC** — Types LGFC-C, LGFC-C/A

**NATIONAL GYPSUM CO** — Types FSK-C, FSW-C

**PABCO GYPSUM, DIV OF PACIFIC COAST BUILDING PRODUCTS INC** — Type PG-C

**STANDARD GYPSUM L L C** — Type SG-C

**TEMPLE-INLAND FOREST PRODUCTS CORP** — Type TG-C

**UNITED STATES GYPSUM CO** — Types C, IP-X2, IPC-AR

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR

**8. Finishing System - (Not Shown)** — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads on both first and second layers of gypsum board. Nom 2 in. wide paper tape embedded in first coat of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board.

**Terms and Conditions:** That the above described one hour fire rated floor-ceiling assembly in accordance with UL Design No. L580 and manufacturers literature be accepted. All shipments and deliveries of such equipment shall be provided with a metal tag suitably placed, certifying that the equipment shipped or delivered is equivalent to that tested and accepted for use, as provided for in Section 27-131 of the Building Code.

Final Acceptance March 23, 2006  
Examined by Sun Derkudam