

# A new joist choice for modular multifamily and commercial buildings

## Open Joist™ passes manufactured housing fire test

Open Joist™ has passed a critical one-hour fire test per ASTM E 119-08/ UL 263 at an accredited, internationally recognized independent testing laboratory. Results of this test allow the Open Joist framing product to be specified into factory-built multifamily and commercial building projects.

The Open Joist floor/ceiling assembly used in the test was specifically designed and constructed to match construction details found in factory-built structures. The assembly includes polyurethane foam adhesive that is often used in these structures.

***ITW-TACC is the approved supplier of both the one- and two-part construction adhesive and polyurethanes used in testing.***

### Labor-saving assembly details include:

- The option of using a two-part polyurethane foam adhesive to be applied at the drywall/2x6 ceiling joist interface for ease of initial attachment.
- Long length of drywall sheets placed parallel to long length of joists.
- Drywall screws spaced at 12" on-center for both layers of 5/8" Type C drywall.
- The option of using a one-part construction adhesive to be applied between the first and second layers of ceiling drywall for ease of attachment.
- The use of 9-1/4" depth Open Joist incorporating 3x2 #2 SPF flanges.



Open Joist is a cost-effective, versatile alternative to I-joists, dimension lumber and fixed-length, metal-plated trusses that offers exceptional strength, stiffness, and an open-web design for quick and easy installation of mechanical systems, and reduces labor costs. Open Joist also allows contractors the option of trimming truss ends quickly to compensate for dimensional changes within the structure. Open Joist is manufactured by Universal Forest Product and is available nationally through major building materials distributors.

Universal Forest Products is a leader in bringing new concepts to the manufactured housing industry which is set-up to manufacture a multitude of structures requiring a one-hour fire rating such as multifamily, assisted living, apartments, hotels, and commercial buildings.

**To contact a sales representative in your area, call 866-243-7200 or email [ojservice@ufpi.com](mailto:ojservice@ufpi.com).**

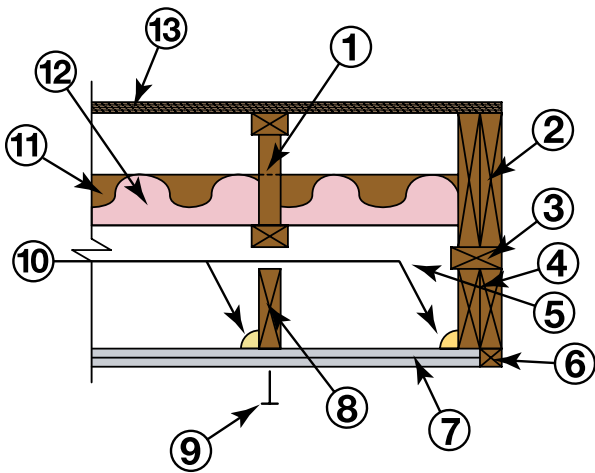
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[www.openjoist.com/fireresist](http://www.openjoist.com/fireresist)

# Open Joist™ Modular Construction

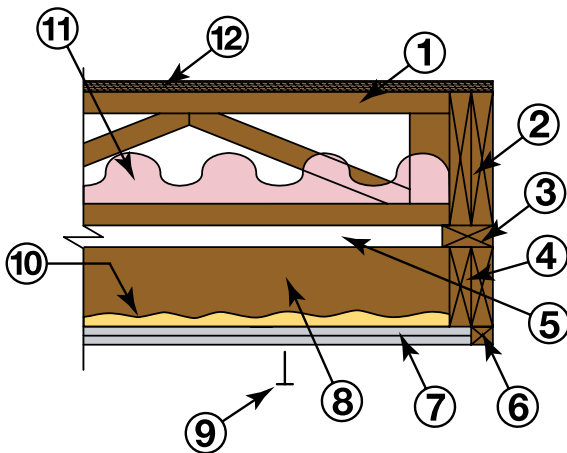
## Section A-A



1. 9-1/4" or deeper Open Joist™ 3x2 #2 SPF flanges at 16" on center
2. (2) 2x10 #2 SPF rim board
3. (1) 2x4 #2 SPF – laid flat
4. (2) 2x6 or deeper #2 SPF rim board
5. 1-1/2" airspace
6. 1-1/4" x 1-1/2" wood filler
- \*\*7. (2) Layers – 5/8" Type C drywall. Using construction adhesive is optional between inner and outer layers of drywall. Long length of drywall can be installed parallel or perpendicular to long length of ceiling joists.
8. 2x6 or deeper #2 SPF ceiling joist at 16" on center.
9. Inner layer of drywall is attached to the joist with 1-5/8" long Coarse Thread bugle head drywall screws spaced 12" o/c. Outer layer of drywall is attached to the joist through inner layer with 2-1/2" long Coarse Thread bugle head drywall screws spaced 12" o/c. (Offset outer layer screws by 6" to avoid hitting inner layer screws.)
- \* 6" to avoid hitting inner layer screws.)
10. Optional bead of foam adhesive – two-part polyurethane – Avg. 1" bead
11. 2x4 #2 SPF strongback recommended
12. Optional batt insulation – placed in between joist bay
13. 23/32" tongue and groove rated decking attached to Open Joist with a 1/4" bead of construction adhesive and 6d nails spaced at 6 inches along the perimeter and 12 inches on center in the field.

Note: All ends and edges of inner and outer drywall layers must be attached to 2x6

## Section B-B



1. 9-1/4" or deeper Open Joist 3x2 #2 SPF flanges at 16" on center
2. (2) 2x10 #2 SPF rim board
3. 2x4 #2 SPF – laid flat
4. 2x6 or deeper #2 SPF rim board
5. 1-1/2" airspace
6. 1-1/4" x 1-1/2" wood filler
- \*\*7. (2) Layers – 5/8" Type C drywall. Using construction adhesive is optional between inner and outer layers of drywall. Long length of drywall can be installed parallel or perpendicular to long length of ceiling joists.
8. 2x6 or deeper #2 SPF ceiling joist at 16" on center
9. Inner layer of drywall is attached to the joist with 1-5/8" long Coarse Thread bugle head drywall screws spaced 12" o/c. Outer layer of drywall is attached to the joist through inner layer with 2-1/2" long Coarse Thread bugle head drywall screws spaced 12" o/c. (Offset outer layer screws by 6" to avoid hitting inner layer screws).
- \* by 6" to avoid hitting inner layer screws).
10. Optional bead of foam adhesive – two-part polyurethane – Avg. 1" bead
11. Optional batt insulation – placed in between joist bay
12. 23/32" tongue and groove rated decking attached to Open Joist with a 1/4" bead of construction adhesive and 6d nails spaced at 6 inches along the perimeter and 12 inches on center in the field.

SWRI® Project No. 01.14604.01.001  
 Tested December 19, 2008  
 Per ASTM E119-08 for 1-Hour Fire Rating

**ITW-TACC is the approved supplier of both the one- and two-part construction adhesive and polyurethanes used in testing.**

\* Optional two-part foam adhesive is the F2100 Series, which binds the drywall to the 2x6 ceiling joists.

\*\* Optional one-part construction adhesive is the F6400 Series, which binds the two layers of drywall together.

Please contact John Kozal, PE, at Universal Forest Products Engineering Department with any technical questions: 616-364-2045 or jkozal@ufpi.com

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