



Engineered Wood Products

Wood I-Joist Fire Protection Solutions

Meeting IRC 2012 Sec. 501.3 Requirements

THE CODE

As of July 1, 2014, all One and Two Family Dwellings in Massachusetts must comply with the IRC 2012 Sec. 501.3

R501.3 Fire protection of floors. Floor assemblies, not required elsewhere in this code to be fire resistance rated, shall be provided with a 1/2 inch gypsum wallboard membrane, 5/8 inch wood structural panel membrane, or equivalent on the underside of the floor framing member.

THE EXCEPTIONS

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA13D, or other approved equivalent sprinkler system.
2. Floor assemblies located directly over a crawl space not intended for storage or fuel-fired appliances.
3. Portions of floor assemblies can be unprotected when complying with the following:
 - 3.1 The aggregate area of the unprotected portions shall not exceed 80 square feet per story.
 - 3.2 Fire blocking in accordance with Section R302.11.1 shall be installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.

4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.

FOUR SOLUTIONS for Exception 4 available from National Lumber

Solution 1: Boise Cascade AJS 24 FMJ



AJS® 24 FMJ has passed the E119 fire test as required to establish equivalency to dimension lumber joists. Met ICC-ES acceptance criteria for fire protection of residential floors. Code approved through ICC-ES ESR 1144.

Solution 2: 1-1/2" VERSA-LAM® Joists



1-1/2" VERSA-LAM® Joists are in-stock in 9-1/2" and 11-7/8" heights. Installed like conventional 2x10 or 2x12 kiln-dried stock, 1-1/2" VERSA-LAM® allows for longer spans and an economical floor.

Solution 3: Drywall



Drywall 1/2" thick may be used attached to the underside of the floor joist as a ceiling application or installed vertically to either side of the I-Joist. Taping and application of joint compound are not required.

Solution 4: Mineral Wool Insulation



Mineral Wool Insulation (3-1/2") can be installed between the I-Joists on the top of the bottom flanges and held in place by wire fasteners.

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