443 Lafayette Road N.
St. Paul, Minnesota 55155
www.dli.mn.gov

MINNESOTA DEPARTMENT OF LABOR & INDUSTRY

(651) 284-5000
1-800-DIAL-DLI

**Industrialized Modular Buildings and Prefabricated Structures**
**MN State Building Code Chapters 1361 & 1360**

## Informational Bulletin #45

**From: Construction Codes and Licensing Division, Manufactured Structures Section**
**To: Modular and Prefabricated Building Manufacturers**
**Date: March 10, 2014**

**RE: Manufacturers Compliance with International Residential Code (IRC)**

It has been evidenced in reviewing manufacturers documents (plans and systems designs) submitted for review of code compliance and by in-plant audits that fasteners for structural elements and truss bracing requirements are non-existent. Neither item is being followed for compliance with construction codes or engineering design, and alternative code compliance designs have not been submitted for review.

The IRC tables or specific sections will indicate the type, amount, and spacing of mechanical fasteners permitted for various structural elements. In lieu of the specific mechanical fasteners shown in the IRC or equivalents the ICC-ES Evaluation Report #ESR-1539 may be used. If fasteners other than indicated above are used for structural members then fastening calculations verifying compliance for strength, shear, and withdrawal shall be submitted for review by a licensed engineer. Mechanical fasteners or devices used to connected roof trusses or rafters to walls must also meet the requirements of the IRC structural design and uplift requirements without damaging the truss chords or rafter ends when secured.

IRC section R802.10 requires that truss design drawings indicate required permanent member bracing locations. R802.10 also requires that trusses be braced to prevent rotation and provide lateral stability specified in construction documents for the building and on the individual truss design drawings. In the absence of specific bracing requirements trusses shall be braced in accordance with accepted industry practice such as the SBCA Building Component Safety Information (BCSI) Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses. It has recently been found that several manufacturers have not been including truss bracing in production of homes as required by the truss manufacturer's specific drawings or the BCSI.