Product Approval 00-04
April 16, 2005

<table>
<thead>
<tr>
<th>Division 06:</th>
<th>Wood and Plastics</th>
<th>Section 06090:</th>
<th>Wood and Plastic Fastenings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product:</td>
<td>Metwood 2x10 Joist Reinforcer</td>
<td>Manufacturer:</td>
<td>Metwood, Inc. 819 Naff Road Boons Mill, Virginia 24065</td>
</tr>
</tbody>
</table>

**CONDITIONS OF USE:**

This report is limited to the applications and products as stated in the Legacy Report 97-73 (attached). The ICC-ES Subcommittee on National Codes intends that the report be used by the code official to determine that it complies with the code requirements specifically addressed, provided that this product is installed in accordance with the following conditions:

1. The Metwood 2x10 Joist Reinforcer shall be installed in accordance with this report, and the language in the legacy report.

2. The Metwood 2x10 Joist Reinforcer shall be limited to use with nominal 2x10 solid sawn No. 2 Southern pine lumber joists with a maximum span of 15 feet (4570 mm).

3. A maximum of one Metwood 2x10 Joist Reinforcer shall be used along the span of the joist.

4. Holes in the joists, other than the Metwood 2x10 Joist Reinforcer, shall be limited to a maximum size of 1 1/2-inch diameter, and shall be no closer than 20 inches from either outside edge of the Metwood 2x10 Joist Reinforcer.

5. The application of the Metwood 2x10 Joist Reinforcer is limited to covered, dry conditions of use. Dry conditions of use are those conditions at which the moisture content for solid-sawn lumber is less than 16 percent.

6. Use of the Metwood 2x10 Joist Reinforcer with preservative treated lumber is outside the scope of this report.

An Equal Opportunity Employer
7. The Merwood 2x10 Joist Reinforcer shall not be located closer than 12 inches (305 mm) from the closest support.

8. This report is subject to periodic re-examination. For information on the current status of this report, contact the ICC-ES.

Eric M. Mays, P.E., C.B.O.
Building Official

Cc: Product Approval Folder
Building Plan Review Branch
Construction Inspections Branch

An Equal Opportunity Employer
DIVISION: 06—WOOD AND PLASTICS
Section: 06098—Wood and Prastic Fastenings

REPORT HOLDER:
METWOOD, INC.
819 NAFF RD.
BOONES MILL, VIRGINIA 24065

EVALUATION SUBJECT:
METWOOD 2X10 JOIST REINFORCER

EVALUATION SCOPE
Compliance with the following codes:
BOSCA® National Building Code®
- Section 106.4 Appliance materials and equipment
- Section 2305.3 Cutting and notching
- Section 2305.3.1 Solid lumber joints
1998 International One- and Two-Family Dwelling Code®
- Section 108.1 Alternative methods, materials, and equipment
- Section 502.6 Drilling and notching
- Section 502.6.1 Sawn lumber

DESCRIPTION
The Metwood 2x10 Joist Reinforcer is a steel plate bracket with fasteners that allows for holes larger than those allowed by the applicable code to be used on nominal 2x10 solid sawn No. 2 Southern pine lumber joists. The Metwood 2x10 Joist Reinforcer is fabricated from 18 gauge steel with a yield strength (FY) of 50 ksi conforming ASTM A466, to allow for a 6-inch diameter hole located in the center of the joist depth. See Figure 1 of this report for a diagram of the installation requirements for the Metwood 2x10 Joist Reinforcer.

CONDITIONS OF USE
This report is limited to the applications and products as stated in this report. The ICC-ES Subcommittees on national Codes intends that the report subject complies with the code requirements specifically addressed, provided that the product is installed in accordance with the following conditions:
- The Metwood 2x10 Joist Reinforcer shall be installed in accordance with this report.™
ITEMS REQUIRING VERIFICATION

The following items are related to the use of the report subject, but are not within the scope of the evaluation. However, these items are related to the determination of code compliance:

- Details, notes and calculations for the design and construction of the building structure in which the Metwood 2x10 Joist Reinforcer is used, as required by the BOCAP National Building Code of 1999, prepared by a qualified individual as indicated in this report.

INFORMATION SUBMITTED

- Report to Metwood Incorporated, prepared and signed by Dr. Joseph R. Loferski, dated July 30, 2000, containing physical testing and statistical analysis. The physical testing compared the maximum strengths and modulus of elasticity of nominal 2x10 solid sawn No. 2 Southern pine lumber joists, at a 15 foot span, with and without the Metwood 2x10 Joist Reinforcer installed. The joists without the Metwood 2x10 Joist Reinforcer installed were tested without holes or notches. The joists with the Metwood 2x10 Joist Reinforcer installed were tested with a 6-inch-diameter hole located at the Metwood 2x10 Joist Reinforcer in accordance with the manufacturer’s instructions. Both bending and shear were investigated. The testing and analysis indicate no significant difference in maximum strength and modulus of elasticity of the joists tested.

- Standard specification for the steel used for Metwood 2x10 Joist Reinforcer manufacture, by Metwood, Inc., containing minimum submittal, material and finish specifications for steel sheet to be used to manufacture the Metwood 2x10 Joist Reinforcer, consistent with this report.

PRODUCT IDENTIFICATION

- Metwood 2x10 Joist Reinforcer shall be marked at the plant with the identifying language “See ICC-ES Legacy Report No. 97-73.”

ELEVATION

SECTION

10 fasteners shall be used in the predrilled holes located as indicated above. The fasteners shall be 1/2-inch-long No. 10 wood screws.

FIGURE 1—METWOOD 2X10 JOIST REINFORCER

"THIS DRAWING IS FOR ILLUSTRATION PURPOSES ONLY. IT IS NOT INTENDED FOR USE AS A CONSTRUCTION DOCUMENT FOR THE PURPOSE OF DESIGN, FABRICATION OR ERECTION."