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| <b>DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT</b><br><b>Housing - Federal Housing Commissioner</b><br><br><b>TO: DIRECTORS, SINGLE FAMILY HOCs</b><br><b>DIRECTORS, MULTIFAMILY HUBs</b>   | <b>Series and Series Number:</b><br><b>MATERIALS RELEASE NO: 1265e</b><br>(Supersedes issue dated<br>June 19, 2006) |
|   | <b>ISSUE DATE</b><br><br>October 10, 2007   |
|   | <b>REVIEW DATE</b><br><br>October 10, 2010  |
| <b>SUBJECT: 1. Product</b> TIMBERSTRAND® LAMINATED STRAND LUMBER (LSL),<br>TJ-STRAND® RIM BOARD AND e-RIM® BOARD AND iLEVEL™ RIM BOARD<br><br><b>2. Name and address</b> Weyerhaeuser<br><b>of Manufacturer</b> P. O. Box 8449<br>Boise, ID 83707 |   |

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development (HUD) and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement or approval by HUD of the described product, and any statement or representation, however made, indicating such approval or endorsement by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE:    General Framing Lumber

Description:

TimberStrand® LSL is manufactured from strands of wood species or species combinations blended with an isocyanate-based adhesive. The wood species, species combinations and adhesive used are as specified in the Weyerhaeuser “TimberStrand® LSL Manufacturing Standards”. TimberStrand® LSL members are available in thicknesses up to 5 1/2 inches, depths up to 48 inches and lengths up to 64 feet. TimberStrand LSL is produced at Weyerhaeuser manufacturing plants with quality control inspections by PFS Corporation.

TimberStrand® LSL treated with zinc borate (ZB) in accordance with the TimberStrand® LSL manufacturing standard may be used within the building envelope, such as sill plates supported by masonry or concrete foundations, footings or slabs (including where preservative treated lumber is required within the building envelope) in accordance with the American Wood Preserves’ Association (AWPA) “Use Category UC2”. TimberStrand LSL treated with ZB shall not be used in exposed exterior or ground contact applications. When used under these conditions the corrosion rate of carbon steel and/or galvanized steel in contact with ZB-treated TimberStrand LSL is not increased by the ZB treatment.

iLevel™ Rim Board is either a laminated strand lumber or oriented strand board product available in a 1.125 inch thickness, depths up to 16 inches and length’s up to 24 feet. iLevel Rim Board is manufactured at Weyerhaeuser plants with quality control inspections by PFS Corporation.

TJ-Strand® Rim Board is an oriented strand board product available in 1.25 inch thickness, depths up to 16 inches and length's up to 24 feet. TJ-Strand® e-Rim board is manufactured for Weyerhaeuser by other manufacturers identified in this Material Release (MR) with quality control inspections by PFS Corporation.

e-Rim Board is an oriented strand board product available in 1.0 inch and 1-1/8 inch thicknesses, depths up to 11-7/8 inches and length's up to 24 feet. e-Rim board is manufactured at Weyerhaeuser by plants with quality control inspections by PFS Corporation.

Requirements:

TimberStrand LSL, iLevel Rim Board, TJ-Strand Rim Board and e-Rim Board shall meet all requirements of this MR.

1. Manufacturing tolerances shall be as specified in the applicable product manufacturing standard of Weyerhaeuser (or the applicable quality assurance manual for products manufactured by a listee).
2. Adhesives shall be as specified in the applicable product manufacturing standard of Weyerhaeuser (or the applicable quality assurance manual for products manufactured by a listee). Each plant shall maintain a list of all approved adhesive suppliers and the adhesives for which they are approved.
3. The strand specification shall be as specified in the applicable product manufacturing standard of Weyerhaeuser (or the applicable quality assurance manual for products manufactured by a listee).
4. Wax, preservatives and other additives used in the product manufacture shall be as specified in the applicable product manufacturing standard of Weyerhaeuser (or the applicable quality assurance manual for products manufactured by a listee).

Design and Allowable Stresses:

The structural performance of the finished member is assured by sampling and testing in accordance with the Quality Control Performance Procedures in the product manufacturing standard. The service conditions for the structural composite lumber and rim board products described in this MR shall be in a covered dry condition of use. Dry conditions of use are those environmental conditions represented by sawn lumber at which the equilibrium moisture content is less than 16 percent.

Allowable unit stresses, fastener capacities, and allowable load capacities noted in this MR are applicable for loading conditions of "normal" duration when the materials have not been treated with fire retardants or preservatives. This exclusion is not applicable to ZB treated TimberStrand LSL. Duration of load adjustments, as provided for wood members and their connections, are permitted in accordance with the limitations specified in the applicable code.

TimberStrand LSL allowable unit stresses shall be in accordance with Table 1. The design practices for sawn lumber apply to TimberStrand LSL.

Fastener capacity for TimberStrand LSL shall be in accordance with Table 2.

The allowable vertical load capacity for TimberStrand LSL rim board shall be in accordance with Table 3.

The allowable design stresses and allowable vertical load capacity of TJ-Strand rim board and e-Rim Board shall be in accordance with Table 4.

Fastener capacity and details for TJ-Strand rim board and e-Rim Board shall be in accordance with Tables 5 and 6.

The allowable vertical and lateral load capabilities for iLevel Rim Board shall be in accordance with Table 7. Fastener capacities and details for iLevel Rim Board shall be in accordance with Tables 8 and 9.

Installation and Limitations:

Installation shall be in strict accordance with HUD Minimum Property Standards and local building codes for sawn lumber construction.

TimberStrand LSL, iLevel Rim Board, TJ-Strand rim board and e-Rim board shall be stored and handled in accordance with established recommendations for plywood.

Manufacturing Plants:

Components covered by this MR shall be produced at the following locations:

TimberStrand LSL:

Weyerhaeuser  
610 Trus Joist Lane  
Chavies, KY 41727  
(606) 436 8787

Weyerhaeuser  
19586 County Road 102  
Ironton, MN 56455  
(218) 546 8114

Weyerhaeuser  
1000 Jones Road  
Kenora, Ontario P9N 3X8  
Canada  
(807) 548-8000

iLevel Rim Board

Weyerhaeuser  
19586 County Road  
Ironton, MN 56455  
(218) 546-8114

Weyerhaeuser  
184 Gentry Road  
Elkin, NC 28621  
(336) 835-5100

Weyerhaeuser  
610 Trus Joist Lane  
Chavies, KY 41727  
(606) 436-8787

Weyerhaeuser  
1000 Jones Road  
Kenora, Ontario P9N 3X8  
Canada  
(807) 548-8000

TJ-Strand Rim Board:

Weyerhaeuser  
Highway 22 South  
Drayton Valley, Alberta T7A 1S8  
Canada  
(780) 542-8000

Weyerhaeuser  
184 Gentry Road  
Elkin, NC 28621  
(336) 835-5100

J. M. Huber Corporation  
1446 Highway 334  
Commerce, GA 30530  
(706) 336-7661

J. M. Huber Corporation  
1261 Dixie Lee Highway  
Spring City, TN 37381  
(423) 365-5556

e- Rim Board:

Weyerhaeuser  
Highway 22 South  
Drayton Valley, Alberta T7A 1S8  
Canada  
(780) 542-8000

Weyerhaeuser  
184 Gentry Road  
Elkin, NC 28621  
(336) 835-5100

**TABLE 1 - TimberStrand® LSL Structural Framing Lumber Design Stresses** <sup>1, 2, 3, 11</sup>  
(pounds per square inch)

| Grade<br>MOE (x 10 <sup>6</sup> ) | Axial                       |                | Joist/Beam                    |                |                              | Plank                       |                |                              |
|-----------------------------------|-----------------------------|----------------|-------------------------------|----------------|------------------------------|-----------------------------|----------------|------------------------------|
|                                   | F <sub>t</sub> <sup>4</sup> | F <sub>c</sub> | F <sub>b</sub> <sup>5,6</sup> | F <sub>v</sub> | F <sub>c⊥</sub> <sup>7</sup> | F <sub>b</sub> <sup>8</sup> | F <sub>v</sub> | F <sub>c⊥</sub> <sup>7</sup> |
| 1.3                               | 1075                        | 1400           | 1700                          | 400            | 680                          | 1900                        | 150            | 435 <sup>10</sup>            |
| 1.5                               | 1500                        | 1950           | 2250                          | 400            | 775                          | 2525                        | 150            | 475                          |
| 1.55                              | 1600                        | 2050           | 2325                          | 400            | 800                          | 2615                        | 150            | 485                          |
| 1.6                               | 1700                        | 2150           | 2400                          | 400            | 825                          | 2700                        | 150            | 490                          |
| 1.7                               | 1825 <sup>9</sup>           | 2380           | 2600                          | 400            | 880                          | 2900                        | 150            | 510                          |
| 1.9                               | 2150                        | 2850           | 3075                          | 400            | 880                          | 3450                        | 150            | 510                          |
| 2.1                               | 2500                        | 3275           | 3500                          | 400            | 880                          | 3925                        | 150            | 510                          |

- See Figure 1 for description of strand orientation.
- Allowable stresses are based on covered, dry conditions of use, defined as those environmental conditions represented by sawn lumber with an equilibrium moisture content less than 16%.
- Values shown are structural framing lumber design stress. When applicable, application design shall account for cross sectional geometry and modifications, such as holes, notches, and tapered end cuts.
- The F<sub>t</sub> values in the table reflect the volume effects of length, width and thickness for a range of common application conditions. Therefore the F<sub>t</sub> values in the Table do not apply to TimberStrand LSL when used as a component of engineered products manufactured by Trus Joist which are listed in other evaluation reports.
- For depths other than 12 inches regardless of thickness, table values shall be multiplied by (12/d)<sup>0.092</sup>. Adjustments for common depths are shown below. For depths less than 3.5 inches, the factor for the 3.5 inch depth shall be used.

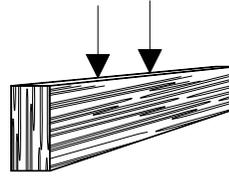
| Depth (inches)    | 3.5  | 5.5  | 7.25 | 9.25 | 12.0 | 16.0 | 20.0 | 24.0 |
|-------------------|------|------|------|------|------|------|------|------|
| <b>Multiplier</b> | 1.12 | 1.07 | 1.05 | 1.02 | 1.00 | 0.97 | 0.95 | 0.94 |

- When structural members qualify as repetitive members in accordance with the Minimum Property Standards, a four percent increase is permitted for F<sub>b</sub>, in addition to the increases permitted in Footnote 4.
- Compression perpendicular to grain values (F<sub>c⊥</sub>) shall not be increased for duration of load.
- Values shown are for thicknesses up to 3.5 inches (89 mm).
- When 1.7E grade TimberStrand LSL is used as truss chords and webs of engineered wood trusses the design axial tension is 2050 psi. This value includes an adjustment for length effect. The TimberStrand LSL material shall be marked as “Truss Chord Grade”, and the engineered wood trusses shall be manufactured under a recognized quality control program. The plate tooth-holding values for TimberStrand LSL web and chord members are as recognized in other evaluation reports.
- The allowable compression perpendicular-to-grain, plank orientation, for zinc borate (ZB) treated 1.3E TimberStrand LSL shall be 625 psi, for plate application.
- For uniformly loaded simple span beams, deflection calculated as follows:

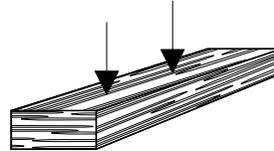
$$\Delta = \frac{270WL^4}{Ebd^3} + \frac{28.8WL^2}{Ebd}$$

Where:

- W = Uniform load, plf
- $\Delta$  = Deflection, inches
- L = Span, feet
- b = Beam width, inches
- d = Beam depth, inches
- E = Modulus of Elasticity, psi



EDGE LOADING (parallel to wide face of strands(WFS))



FACE LOADING (perpendicular to wide face of strands(WFS))

Figure 1 – Orientation

**TABLE 2 - TimberStrand® LSL Fastener Details**

| Fastener   | Description  | Comments  |        |       |        |       |        |        |
|--|--|---|--------|-------|--------|-------|--------|--------|
| Lateral Nail and Wood Screw Capacity   | Edge: Parallel and Perpendicular to grain<br>Face: Parallel and Perpendicular to grain | For all grades 1.3E and higher use specific gravity, SG = 0.50 (Douglas-fir/Larch).   |        |       |        |       |        |        |
| Nail Withdrawal Capacity   | Edge   | For all grades 1.3E and higher use specific gravity, SG = 0.42 (S-P-F).<br>For all grades 1.3E and higher of Yellow Poplar <sup>6</sup> TimberStrand LSL use specific gravity, SG = 0.55 (Southern Pine).             |        |       |        |       |        |        |
|  | Face   | For all grades 1.3E and higher use specific gravity, SG = 0.50 (Douglas fir-larch).<br>For all grades 1.3E and higher of Yellow Poplar <sup>6</sup> TimberStrand LSL use specific gravity, SG = 0.55 (Southern Pine). |        |       |        |       |        |        |
| Bolt Capacity - Bolt parallel to WFS:  |  | Not evaluated   |        |       |        |       |        |        |
| Bolt capacity - Bolt perpendicular to WFS <sup>2</sup>   | Load parallel to grain   | For all grades 1.3E and higher use specific gravity, SG = 0.50 (Douglas fir-larch).   |        |       |        |       |        |        |
|  | Load perpendicular to grain  | For all grades 1.3E and higher use specific gravity, SG = 0.58 (Red Maple).   |        |       |        |       |        |        |
| Lag bolt capacity-½ inch diameter-bolt perpendicular to WFS  | Load: Parallel and Perpendicular to grain  | 400 lbs. <sup>1</sup>   |        |       |        |       |        |        |
| Note: Nail and bolt design values are developed using the specific gravity shown, in accordance with the Minimum Property Standards. |  |   |        |       |        |       |        |        |
| <b>Closest On Center Nail Spacing Parallel To WFS Orientation<sup>(3,4,5)</sup></b>  |  |   |        |       |        |       |        |        |
| Common Nail Size   | Member Thickness (inches)  |   |        |       |        |       |        |        |
|  | 1 1/4  | 1 1/2 and 1 3/4   |        | 2 1/2 |        | 3 1/2 |        |        |
|  | 1 row  | 1 row   | 2 rows | 1 row | 2 rows | 1 row | 2 rows | 3 rows |
| 8d   | 4  | 3   | 3      | 3     | 3 1/2  | 3     | 3      | 3      |
| 10d  | 4  | 4   | 4      | 3     | 3 1/2  | 3     | 3      | 3      |
| 16d  | 6  | 6   | 6      | 3 1/2 | 3 1/2  | 3 1/2 | 3 1/2  | --     |

- 400 pounds is the lateral load permitted for ½ inch diameter lag bolt in 1½ inch thick main and side members with full penetration into the main member. Lateral load capacities for other lag bolt sizes and conditions to be evaluated in accordance with the Minimum Property Standards using an equivalent SG = 0.50 for load parallel to grain and equivalent SG = 0.55 for load perpendicular to grain. For capacities at an angle to grain refer to Note 2. Capacities in withdrawal have not been evaluated.
- When loading at an angle to grain, the lateral capacity is calculated using the Hankinson formula using an equivalent SG = 0.50 for load parallel to grain and equivalent SG = 0.55 for load perpendicular to grain.
- The closest on center spacing for nails perpendicular to WFS is the same as permitted by the Minimum Property Standards for sawn lumber.
- Multiple rows to be staggered and a minimum spacing between rows of 1/2 inch is permitted.
- Multiple rows to be equally spaced from the centerline of the narrow face axis.
- TimberStrand LSL identified with a circled 45 (plant number) as part of the product label.

**TABLE 3 - 1.3E TimberStrand® LSL Rim Board**<sup>1, 2, 3</sup>

| Thickness (inches) | Allowable Vertical Load (PLF) <sup>4</sup> | Depth Range (inches) |
|--------------------|--|----------------------|
| 1.25 <sup>5</sup>  | 4250                                       | 16" and less         |
| 1.25 <sup>5</sup>  | 3450                                       | over 16" up to 20"   |
| 1.50               | 4140                                       | up to 24"            |

1. The allowable shear values in pounds per foot for horizontal wood structural panel diaphragms with framing of nominal 2-inch thick Douglas fir larch or Southern pine are applicable to: (1) 1.25-inch thick TimberStrand LSL Rim Board, unblocked diaphragms only, and (2) 1.50-inch thick TimberStrand LSL Rim Board, unblocked and blocked diaphragms.
2. TimberStrand LSL rim board shall be laterally supported at the top and continuously supported at the bottom, and the gravity loads shall be uniformly applied along the top, in lieu of design by a design professional for other conditions.
3. Fastener capacities for TimberStrand LSL rim board are as given in Table 2, except as provided in Note 5 below.
4. Compression perpendicular-to-grain capacities of the sill plate and floor sheathing shall be checked.
5. The allowable lateral load capacity for 1/4 inch, 3/8 inch and 1/2 inch diameter lag screws installed perpendicular to the wide face of strands, and loaded perpendicular-to-grain are 250 lbs., 400 lbs. and 475 lbs. respectively.

**TABLE 4 - TJ-Strand® RIM BOARD and e-Rim® BOARD CAPACITIES**

| Rim Board Material | Thickness (inches) | Design Stresses (pounds per square inch) |                 |     |                  | Allowable Vertical Load (plf) <sup>3,4</sup> | Depth Range (inches) |
|--------------------|--------------------|--|-----------------|-----|------------------|--|----------------------|
|                    |                    | MOE x 10 <sup>6</sup>                    | Fb <sup>1</sup> | Fv  | Fc⊥ <sup>2</sup> |  |                      |
| TJ-Strand          | 1.25               | 0.80                                     | 1200            | 400 | 680              | 4250   | 16 and less          |
| e-Rim              | 1.125              | 0.71                                     | 1000            | 400 | 1000             | 4250   | 11-7/8 and less      |
|                    | 1.0                | 0.71                                     | 1000            | 400 | 1000             | 4250   | 11-7/8 and less      |

1. No depth modification applies for depths of 16 inches and less.
2. Compression perpendicular to grain value may not be increased for duration of load.
3. TJ-Strand Rim Board and e-Rim Board must be laterally supported at the top and continuously supported at the bottom, and the gravity loads must be uniformly applied along the top, in lieu of design by a design professional for other conditions.
4. Compression perpendicular-to-grain capacities of the sill plate and floor sheathing must be checked.

**TABLE 5 - TJ-Strand® RIM BOARD<sup>1</sup> and e-Rim® BOARD<sup>2</sup> FASTENER DETAILS**

| <b>Fastener</b>  | <b>Description</b>               | <b>Comments</b>   |
|--|----------------------------------|---|
| Lateral nail and screw capacity  | Edge: Parallel and perpendicular | SG = 0.50 (Douglas fir-larch) for TJ-Strand Rim Board<br>SG = 0.42 (S-P-F) for e-Rim Board  |
|  | Face: Parallel and perpendicular | SG = 0.50 (Douglas fir-larch)   |
| Bolt Capacity <sup>3</sup>   | Face: Parallel and perpendicular | SG = 0.50 (Douglas fir-larch)   |
| Lag Bolt Capacity  | Face: perpendicular-to-grain     | 1/2 inch dia.: 325 lbs. <sup>4</sup> SG = 0.50 (Douglas fir-larch) e-Rim Board<br>1/4 inch dia.: 250 lbs. (TJ-Strand Rim Board)<br>3/8 inch dia.: 400 lbs. (TJ-Strand Rim Board)<br>1/2 inch dia.: 475 lbs. (TJ-Strand Rim Board) |
| Note: Nail and bolt design values are developed using the specific gravity shown, in accordance with the Minimum Property Standards. |                                  |   |

- The allowable shear values in pounds per foot for unblocked horizontal wood structural panel diaphragms with framing of nominal 2 inch thick Douglas fir-larch or southern pine are applicable to TJ-Strand Rim Board only.
- e-Rim Board is permitted for use as rim board material in structures complying with the conventional construction requirements as defined in Section 2320 of the UBC, Section 2307 of the SBC, Section 2305 of the BOCA NBC, Section 2308 of the IBC and Section R502 of the IRC.
- When loading at an angle to grain, the lateral capacity is calculated using the Hankinson formula and an equivalent SG = 0.50 for load parallel to grain and equivalent SG = 0.55 for load perpendicular to grain.
- 325 lbs. Is the lateral load permitted for 1/2 inch diameter lag bolt in e-Rim Board main members and 1 1/2 inch thick side members with full penetration into the main member. Lateral load capacities for other lag bolt sizes and conditions to be evaluated in accordance with the Minimum Property Standards, using an equivalent SG = 0.50 for load parallel to grain and equivalent SG = 0.55 for load perpendicular to grain. For capacities at an angle to grain refer to Footnote 3, above. Capacities in withdrawal have not been evaluated.

**TABLE 6 - TJ-Strand® RIM BOARD and e-Rim® BOARD  
CLOSEST ON CENTER NAIL SPACING PARALLEL TO WFS ORIENTATION<sup>1</sup> (inches)**

| <b>ANail Size</b>   | <b>Box</b>                 |                    | <b>Common</b>              |                    |
|---------------------|----------------------------|--------------------|----------------------------|--------------------|
|                     | <b>TJ-Strand Rim Board</b> | <b>e-Rim Board</b> | <b>TJ-Strand Rim Board</b> | <b>e-Rim Board</b> |
| 8d (2 1/2")         | 4                          | 6                  | 4                          | 6                  |
| 10d (3 1/2")        | 4                          | 6                  | 4                          | 6                  |
| 12d (3 1/4")        | 4                          | 6                  | 4                          | 6                  |
| 16d sinker (3 1/4") | 4                          | 16 <sup>3</sup>    | 4                          | 16 <sup>3</sup>    |
| 16d (3 1/2")        | 4                          | 16 <sup>3</sup>    | 6 <sup>2</sup>             | 16 <sup>3</sup>    |

- The closest on center spacing for nails perpendicular to WFS is the same as permitted by the Minimum Property Standards for sawn lumber.
- When nailing through the wall sill plate and floor sheathing, the closest on center nail spacing is 4 inches (1 3/8 inch maximum penetration).
- When nailing through the wall sill plate and floor sheathing, the closest on center nail spacing is 5 inches (1 3/8 inch maximum penetration).

**TABLE 7 - iLevel™ RIM BOARD CAPACITIES** <sup>1,2,3</sup>

| Thickness (inches) | Allowable Vertical Load (plf) | Allowable Lateral Load (pdf) | Depth Range (inches) |
|--------------------|-------------------------------|------------------------------|----------------------|
| 1-1/8              | 4000                          | 180                          | 9-1/2 to 16          |

1. Compression perpendicular to grain value may not be increased for duration of load.
2. iLevel Rim Board shall be laterally supported at the top and continuously supported at the bottom, and the gravity loads shall be uniformly applied along the top, in lieu of design by a design professional for other conditions.
3. Compression perpendicular-to-grain capacities of the sill plate and floor sheathing must be checked.

**TABLE 8 - iLevel™ RIM BOARD FASTENERS DETAILS**

| Fastener                        | Description                      | Comments                                     |
|---------------------------------|----------------------------------|--|
| Lateral Nail and Screw Capacity | Edge: Parallel and perpendicular | See footnote 1                               |
|                                 | Face: Parallel and perpendicular | Specific gravity of 0.50 (Douglas fir-larch) |
| Nail Withdrawal Capacity        | Face                             | Specific gravity of 0.38                     |
| Lateral Bolt Capacity           | Face: Parallel and perpendicular | Specific gravity of 0.50 (Douglas fir-larch) |
| Lag Bolt Capacity               | Face: Perpendicular-to-grain     | ½ inch dia.: 350 lbs. <sup>3</sup>           |

1. iLevel Rim Board is permitted for use as rim board material in structures complying with the conventional construction requirements as defined in Section 2320 of the UBC, Section 2308 of the IBC and Section R502 of the IRC.
2. When loading at an angle to grain, the lateral capacity is calculated using the Hankinson formula.
3. 350 pounds is the lateral load permitted for ½ inch diameter lag bolt in iLevel Rim Board main members and 1 ½ inch thick side members with full penetration into the main member with a 3/8 inch gap between main and side members.

**TABLE 9 - iLevel™ RIM BOARD CLOSEST ON CENTER NAIL SPACING PARALLEL TO WFS ORIENTATION**<sup>1</sup>  
(inches)

| Nail Size         | BOX             | Common          |
|-------------------|-----------------|-----------------|
| 8d (2 ½")         | 6               | 6               |
| 10d (3")          | 6               | 6               |
| 12d (3 ¼")        | 6 <sup>2</sup>  | 6 <sup>2</sup>  |
| 16d sinker (3 ¼") | 16 <sup>3</sup> | 16 <sup>3</sup> |
| 16d (3 ½")        | 16 <sup>3</sup> | 16 <sup>3</sup> |

1. The closest on center spacing for nails perpendicular to WFS is the same as permitted by the Minimum Property Standards for sawn lumber.
2. When nailing through the wall sill plate and floor sheathing, the closest on center nail spacing is 4 inches (1 3/8 inch maximum penetration).
3. When nailing through the wall sill plate and floor sheathing, the closest on center nail spacing is 5 inches (1 3/8 inch maximum penetration).

Certification and Identification:

Weyerhaeuser shall certify that TimberStrand LSL, TJ-Strand Rim Board, e-Rim Board, and iLevel Rim Board conform to the requirements of this MR. Each additional listee shall certify that TJ-Strand rim board manufactured by them meets the requirements of this MR. PFS Corporation shall validate the manufacturer's certification that TimberStrand LSL, TJ-Strand rim board, e-Rim board, and iLevel Rim Board meet the requirements of this MR. The quality control test records shall be made available for inspection by HUD upon request.

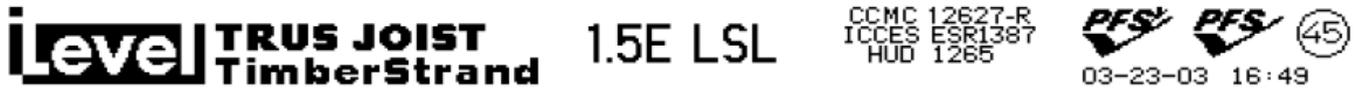
TimberStrand LSL certified as conforming to this MR shall be identified with a stamp noting the name and plant number of the manufacturer, the product trade name, the grade, "HUD 1265", and the name or logo of the quality control agency, PFS Corporation. TimberStrand LSL rim board shall be identified by the designation "1.3E TimberStrand LSL Rim Board", in addition to the identification requirements for TimberStrand LSL.

Each TJ-Strand rim board panel certified as conforming to this MR shall be identified with a stamp noting the Weyerhaeuser logo; production date and shift; plant number; the designations "HUD 1265", "TJ-Strand" and "1.25 inch 0.8E RIMBOARD", and the name or logo of the quality control agency, PFS Corporation.

Each e-Rim Board certified as conforming to this MR shall be identified by a stamp containing the Weyerhaeuser logo; the production date and shift; the plant number; the thickness and the designations "HUD 1265", "e-Rim" and "RIMBOARD"; and the name or logo of the quality control agency (PFS Corporation).

Each iLevel Rim Board certified as conforming to this MR shall be identified by a stamp containing the Weyerhaeuser logo; the production date and shift; the plant number; the thickness and the designations "HUD 1265," and "1 1/8" Rim Board"; and the name or logo of the quality control agency (PFS Corporation).

SAMPLE STAMPS



Warranty:

Weyerhaeuser warrants TimberStrand LSL, TJ-Strand rim board, e-Rim and iLevel Rim Board to be free of any defects due to faulty materials and workmanship in the manufacturing process for a period of 20 years from the date of installation. The liability of Weyerhaeuser under this warranty shall be limited to replacement of defective materials and the cost of installation or, at the option of Weyerhaeuser, equal payment thereof.

This warranty applies to any material failure due to manufacturing only and does not cover, nor will the manufacturer be liable for, any defects or damage due to misuse, improper installation, or damage resulting from fire, lighting, or other causes beyond the manufacturer's control.

This manufacturer's warranty does not relieve the builder, in any way, of responsibility under the terms of the Builder's Warranty required by the National Housing Act or under any provisions applicable to any other housing program. A copy of the manufacturer's warranty shall be furnished by the builder to the homeowner.

Manufacturer's Responsibilities:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance, or failure reported by HUD.
3. When requested, provide the FHA Standards, Office of Manufactured Housing Programs, HUD Headquarters, with a representative list of properties in which the material, product, or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

Evaluation:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to:

U. S. Department of Housing and Urban Development  
FHA Standards, Office of Manufactured Housing Programs  
451 7<sup>th</sup> Street, SW, Room 9168  
Washington, DC 20410-8000

Appropriate User Fees shall be sent to:

U. S. Department of Housing and Urban Development  
Miscellaneous Income – Technical Suitability of Product Fees  
Bank of America  
P .O. Box 198762  
Atlanta, GA 30384-8762

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revisions may be in the form of a supplement to this MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, “User Fee System for the Technical Suitability of Products Program,” and current User Fee Schedule.

Cancellation:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of the MR. HUD will notify the manufacturer or producer that the MR may be canceled when:

1. Conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. The manufacturer has changed its organizational form without notifying HUD, or
3. The manufacturer has not complied with responsibilities it assumed as a condition of HUD’s acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

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This Materials Release is issued solely for the captioned firm, and is not transferable to any person or successor entity.

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