## Attachment of Residential Deck Ledgers to Ends of Metal Plate Connected Wood Trusses—40 psf Deck Live Load

### Structural Building Components Association (SBCA)

Structural Building Components Association (SBCA)  
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### Table 1: Deck Ledger Connection to Ends of Floor Trusses Spaced 24” o.c., max.\(^1,2,3\)

(Deck Live Load = 40 psf, Deck Dead Load = 10 psf, Snow Load ≤ 40 psf)

<table>
<thead>
<tr>
<th>Joist Span</th>
<th>≤ to 6’</th>
<th>6’-1” to 8’</th>
<th>8’-1” to 10’</th>
<th>10’-1” to 12’</th>
<th>12’-1” to 14’</th>
<th>14’-1” to 16’</th>
<th>16’-1” to 18’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection Details</td>
<td>On-center Spacing of Fasteners (in.,)(^4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>½” x 6” lag screw with ½(\frac{3}{32})”, max., wood structural panel sheathing</td>
<td>24</td>
<td>12(^i)</td>
<td>12(^i)</td>
<td>12(^i)</td>
<td>12(^i)</td>
<td>8(^i)</td>
<td>8(^i)</td>
</tr>
<tr>
<td>½” diameter bolt with ½(\frac{3}{32})”, max., wood structural panel sheathing</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>12(^i)</td>
<td>12(^i)</td>
</tr>
</tbody>
</table>

1. Ledgers shall be flashed in accordance with applicable building code requirements to prevent water from contacting the exposed wood structural sheathing and floor truss.  
2. Snow load shall not be assumed to act concurrently with live load.  
3. Ledgers must be 2x10 or 2x12 PPT or code-approved decay-resistant lumber with specific gravity, G ≥ 0.42. Truss 2-ply 2x4 end verticals and key-blocks must have a G ≥ 0.42.  
4. Stagger lag screws and bolts as shown in Detail 1.1.  
5. Requires key-blocks at 24” o.c., maximum. Attach ledger to 2-ply end vertical of each truss with one (1) fastener and to each key-block with one (1) fastener. Refer to Detail 1.2 for key-block construction and installation information.  
6. Requires two (2) key-blocks at 8” o.c., maximum, between each truss. Attach ledger to 2-ply end vertical of each truss with one (1) fastener and to each key-block with one (1) fastener. Refer to Detail 1.2 for key-block construction and installation information.

The seal on this design drawing indicates acceptance of professional engineering responsibility solely for the component(s) depicted. The design assumptions, loading conditions, suitability and use of this component for any particular building is the responsibility of the building designer or owner of the components, per ANSI/TPI 1. The responsibilities and duties of the component designer, component design engineer and component manufacturer shall be in accordance with the latest edition of ANSI/TPI 1 Chapter 2 unless otherwise defined by a contract agreed upon by the parties involved.
Attachment of Residential Deck Ledger to Metal Plate Connected Wood Truss Floor Systems – 40 psf End Connection
DrJ Design Detail

1. General Notes:
   1.1. Ledger must be identified by the grade mark of, or certificate of inspection issued by, an approved lumber grading or inspection bureau or agency.
   1.2. PPT material must be pressure treated with an approved process in accordance with American Wood Protection Association standards.

2. Fasteners:
   2.1. Lag screws and bolts must be installed according to 2012 NDS requirements.
      2.1.1. ½” x 6” lag screws
         2.1.1.1. Lead holes for the threaded portion must be 9/16”.
         2.1.1.2. Clearance holes must be ½” and the same depth of penetration as the length of unthreaded shank.
      2.1.2. ½”-diameter bolts
          2.1.2.1. Holes must be a minimum of 17/32” to a maximum of 9/16”.
   2.2. All fasteners used with PPT wood must be hot-dip zinc-coated (i.e., Galvanized steel, Stainless steel, Silicon bronze, Copper).
   2.3. Fasteners must meet ASTM A153, Class D, for fasteners 3/8” diameter and smaller or Class C for fasteners with diameters over 3/8”.
   2.4. Lag screws, bolts, nuts and washers are permitted to be mechanically deposited zinc-coated steel with coating weights.

3. Hardware:
   3.1. All hardware (e.g., joist hangers, hold-down device) must be galvanized or stainless steel.
   3.2. Hardware hot-dipped prior to fabrication must meet ASTM A653, G-185 coating.
   3.3. Hardware hot-dipped post fabrication must meet ASTM A123.
   3.4. Hardware exposed to saltwater or located within 300’ of a saltwater shoreline must be stainless steel grade 304 or 316.
   3.5. Other coated or non-ferrous hardware must be approved by the authority having jurisdiction.