Cantilever Details & Reinforcement

**F12** INTERIOR BALCONY

Uniform loads only.

Blocking panel or rim board. Nail to top plate at 6” o.c.

Rim board or wood structural panel

Max. ¾ of adjacent span up to 4’-0”.

**F13** EXTERIOR BALCONY

Min. 2x8. Preservative-treated as required. 2 rows of 3” x 0.148” nails at 6” o.c. Clinch when possible.

Uniform loads only. 60 psf live load max.

Lumber or wood structural panel.

Backer block. 2 rows of clinched nails at 6” o.c.

**F14** REINFORCED CANTILEVER

Method 1 – SHEATHING ONE SIDE

Rim board or wood structural panel

Blocking panel or rim board. Nail to top plate at 6” o.c.

Method 2 – SHEATHING TWO SIDES

Stagger nails from opposite sides to avoid flange splitting.

**F15** REINFORCED CANTILEVER

Alternate Method 2 – I-JOIST ONE SIDE

Rim board or wood structural panel

Blocking panel or rim board. Nail to top plate at 6” o.c.

Joist Flange Width  | Filler Block Nail Length  | Filler Thickness
-------------------|--------------------------|------------------
1 ½”               | 2” min.                  | 1 ¼” or 1 ⅛”    
1 ⅛”               | 3” min.                  | 1”               
2 ⅛”               | 3” min.                  | 1 ⅛”             
2 9/16”            | 3½” min.                 | 2”               
2 ⅜”               | 3½” min.                 | 2” or 2 ¼”       
3 ⅜”               | 3” min. ea. side         | 3”               

Method 1 and 2: Min. 23/32” sheathing-grade panels. Strength axis parallel to joist length. Reinforcement depth = joist depth. Nail to flanges at 6” o.c.
# Cantilever Reinforcement

## JOISTS WITH 3/8" WEBS

<table>
<thead>
<tr>
<th>Roof Truss</th>
<th>7½&quot; Joist</th>
<th>9½&quot; Joist</th>
<th>11½&quot; Joist</th>
<th>14&quot; Joist</th>
<th>16&quot; Joist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load (lbs)</td>
<td>35 psf Total Load (115%)</td>
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<td>35 psf Total Load (115%)</td>
<td>45 psf Total Load (115%)</td>
<td>55 psf Total Load (115%)</td>
</tr>
<tr>
<td>Span (ft)</td>
<td>26</td>
<td>28</td>
<td>30</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>12&quot; O.C.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>15&quot; O.C.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19.2&quot; O.C.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24&quot; O.C.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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### Notes:
- 0 = No reinforcement and no web stiffeners are required.
- WS = Web stiffeners are required at the support.
- 1 = Reinforcer required on one side of the cantilever. See the Method 1 detail on page 90.
- 2 = Reinforcers required on both sides of the cantilever. See the Method 2 or Alternate Method 2 detail on page 90.
- X = Consider deeper joists or closer spacing.

Table values apply to joists sized by means of the 10 psf dead load allowable residential floor spans table on pages 10-11 and are based on uniform loads across the ends of the cantilevers that include a 15 psf roof dead load and a 100 plf exterior wall load. Uniform loading may be assumed when window and door openings are up to three feet wide and spaced at least three feet apart. Otherwise, consider the need for extra joists under the window and door header jack studs.

Use sizing software or consult a professional engineer for conditions beyond the scope of this table.

## JOISTS WITH 7/16" WEBS

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<td>0</td>
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<td>19.2&quot; O.C.</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24&quot; O.C.</td>
<td>0</td>
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