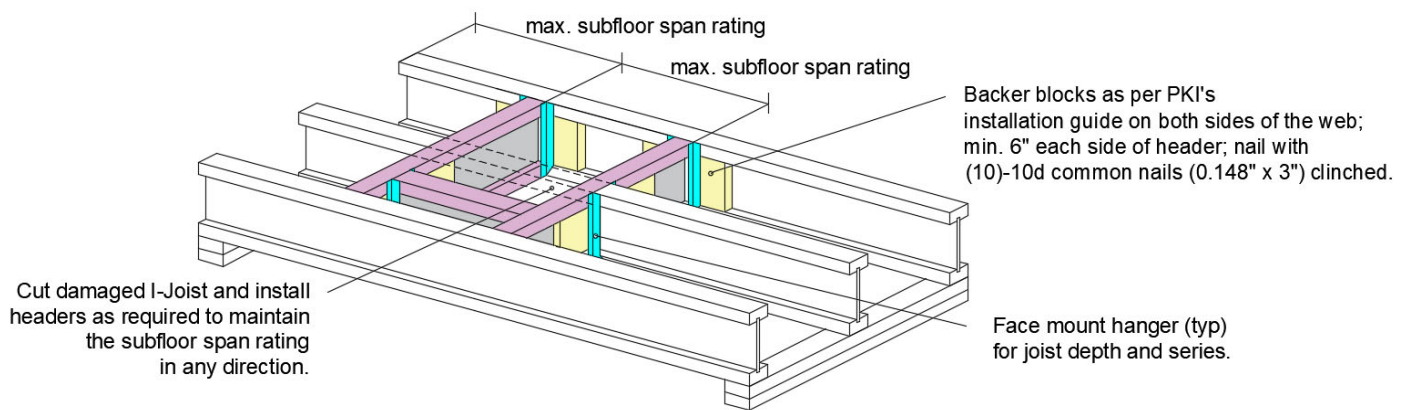


## PinkWood PKI® Joists

### Damaged Joist Repair – Header-out Detail – Canada (LSD)

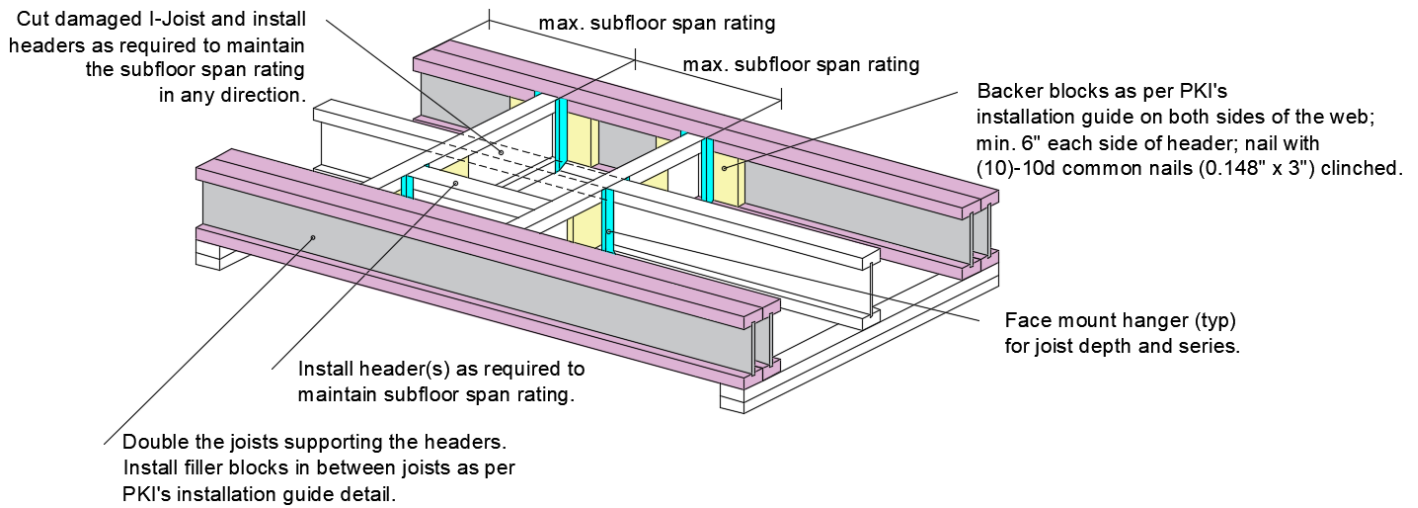
#### Damaged Joist Repair with Header-out:

When PKI® joist is damaged beyond repair, and the removal of the entire damaged joist is impractical, heading out the damaged section by adding additional PKI joists with joist hangers may be the best option. The following detail restores the floor performance provided that the damaged joist was uniformly loaded, the adjacent joists carrying the header-out loads are designed to accommodate the additional point loads, and the **subfloor span rating** is not exceeded.



#### Installation Notes

- Support the floor loading above the damaged joist prior to the section removal.
- Verify subfloor span grade to ensure header(s)-out dimensions support the subfloor capacity.
- Remove damaged joist section.
- Install header(s)-out joists perpendicular to the floor joist span direction.
- Header(s) may be anywhere in the span; Header(s) must have the same depth and grade as the damaged joist.
- Ensure appropriate face mount or top flange hangers are used with specified fasteners.
- Use backer blockers as specified in the PKI® installation guide.
- Subfloor must be glued and nailed.
- Attach the header(s) to the adjacent undamaged joists with face mount hangers. The adjacent joists shall be checked for the additional concentrated side loads and doubled if required. The backer and filler blocks for the double joists shall be as per PKI® installation guide.



**Subfloor Span rating**—The span rating for APA RATED SHEATHING is two numbers separated by a slash. The left-hand number is the maximum recommended center-to-center spacing for supports in inches when the panel is used for roof sheathing with long dimensions across supports. The right-hand number is the maximum center-to-center spacing of supports in inches when the panel is used for subflooring with the long dimension across supports. The Span rating on APA RATED STURD-I-FLOOR underlayment and APA RATED SIDING panels appears as a single number. The Span ratings for APA RATED STURD-I-FLOOR and underlayment panels, like those for APA RATED SHEATHING, are based on application of the panel with the long dimension or strength axis across three or more supports.

**Span rating, Canadian Standard**—Span rating and end-use designation for use in Canada. In the Canadian span marking, the “R” signifies roofs and the “F” represents subfloors.

**APA Panel Trademark**

<p>1 RATED STURD-I-FLOOR</p> <p>2 <b>24 oc</b></p> <p>3 SIZED FOR SPACING</p> <p>4 T&amp;G NET WIDTH 47-1/2</p> <p>5 EXPOSURE 1</p> <p>6 THICKNESS 0.703 IN.</p> <p>7 <b>000</b></p> <p>8 PS 1-19 UNDERLAYMENT</p> <p>23/32 CATEGORY</p>	<p>1 RATED SHEATHING</p> <p>2 <b>48/24</b></p> <p>3 SIZED FOR SPACING</p> <p>4 EXPOSURE 1</p> <p>5 THICKNESS 0.703 IN.</p> <p>6 <b>000</b></p> <p>7 PS 2-18 SHEATHING</p> <p>8 HUD-UM-40</p> <p>23/32 CATEGORY</p> <p>CONSTRUCTION SHEATHING 12</p> <p>13 <b>2R48/2F24</b></p> <p>4 EXTERIOR</p> <p>14 18mm</p> <p>CSA 0325-16</p> <p>15 STRENGTH AXIS THIS DIRECTION</p>	<p>1 RATED SIDING</p> <p>9 303-18-S/W</p> <p>2 <b>16 oc</b> GROUP 1</p> <p>10 SIZED FOR SPACING</p> <p>4 EXTERIOR</p> <p>5 THICKNESS 0.322 IN.</p> <p>6 <b>000</b></p> <p>7 PS 1-19</p> <p>8 HUD-UM-40</p> <p>11/32 CATEGORY</p>
--	---	--

Reference: APA's Form No. R300

**MINIMUM PANEL THICKNESS OR PANEL MARK FOR FLOORS<sup>a</sup>**

Maximum Joist Spacing, mm (inches)	CSA O325 OSB Span Rating <sup>f</sup>		CSA O121, CSA O151 and CSA O153 Plywood <sup>f,g</sup>		Minimum Fastener Length, mm (inches) <sup>d</sup>		Maximum Fastener Spacing, mm (inches) <sup>c</sup>	
	Subfloor Panel	Subfloor Panel Used with Panel-Type Underlay	Minimum Panel Thickness (mm)	Common Spiral Nails <sup>b</sup>	Ring-Thread Nails or Screws	Supported Panel Edges <sup>e</sup>	Intermediate Supports	
300 (12)	1F16	2F16	15.5	51 (2)	45 (1-3/4)	150 (6)	300 (12)	
400 (16)	1F16	2F16	15.5	51 (2)	45 (1-3/4)	150 (6)	300 (12)	
500 (20)	1F20	2F20	15.5	51 (2)	45 (1-3/4)	150 (6)	300 (12)	
600 (24)	1F24	2F24	18.5	51 (2)	45 (1-3/4)	150 (6)	300 (12)	

- a. Based on Part 9 of the NBCC, which assumes a maximum specified live load of 2.4 kPa (50 psf) and panels installed with face grain or strong axis perpendicular to supports. Spans greater than 600 mm (24 inches) or live loads greater than 2.4 kPa (50 psf) are outside the scope of Part 9, and must be calculated by a qualified design professional (see Table 3). Also see "Heavy Duty Plywood Floors" section for nonresidential floors with high loads (e.g., warehouses and stacked storage). For subfloor recommendations under ceramic tile, refer to Table 5. For subfloor recommendations under gypsum concrete, contact manufacturer of floor topping.
- b. Spiral nails may be replaced with common round nails 2.84 mm (0.112 inch) in diameter, in which case glue-nailing is recommended. Glue-nailing of fasteners is recommended for a firmer floor and reduced squeaks. Use only adhesives conforming to ASTM D3498 or APA Specification AFG-01, applied in accordance with the adhesive manufacturer's recommendations. If OSB panels with sealed surfaces and edges are to be used, use only solvent-based glues; check with panel manufacturer. See "The APA Glued Floor System" section in this publication for more information.
- c. Reduced fastener spacing may be required where floor is engineered as a diaphragm.
- d. All nails must conform to CSA B111, *Wire Nails, Spikes and Staples*. Fasteners listed apply to panels 20 mm thick or less. Spiral and ring-thread nails are 3.05 mm (0.120 inch) in diameter. Wood screws shall be a minimum 3.2 mm (0.125 inch) in diameter and conform to ASME B18.6.1, *Wood Screws (Inch Series)*. For panels greater than 20 mm and less than 25 mm thick, use common spiral nails 57 mm (2-1/4 inches) or ring-thread nails or screws 51 mm (2 inches) long. Other code-approved fasteners of equivalent capacity are permitted.
- e. Supported panel joints shall occur approximately along the centreline of framing with a minimum bearing of 12 mm (1/2 inch). Fasten panels 9 mm (3/8 inch) from panel edges.
- f. The requirement for edge support and the need for a separate underlayment panel are addressed within each section of this document, according to finish flooring type.
- g. Applies to all regular grades of plywood, including sheathing, Select, Select Tight-Face, and Good-One-Side.

**Reference: APA's Form No. R300**

For Roof Sheathing requirements see **APA's Form No. R305**