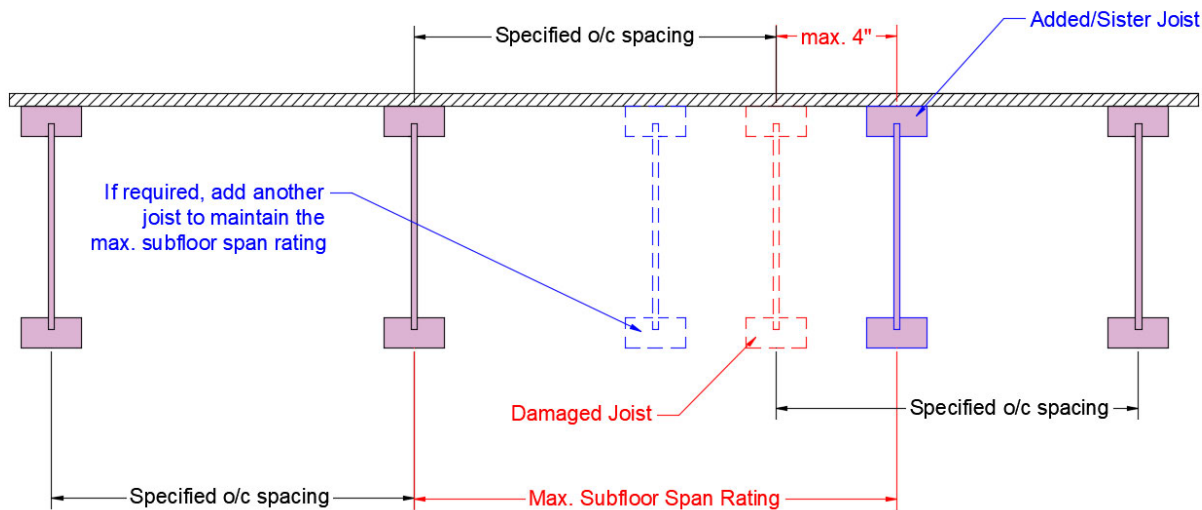


## PinkWood PKI® Joists

### Damaged Joist Repair – Added/Sister Joist – Canada (LSD)

#### Damaged Joist Repair with Added/Sister Joist:

When a PKI® joist is damaged beyond repair, and the removal of the damaged joist is impractical, adding an additional PKI® joist next to the damaged joist may be the best option. The following detail restores the floor performance provided that the damaged joist was uniformly loaded, and the **span rating** of the subfloor is not exceeded.



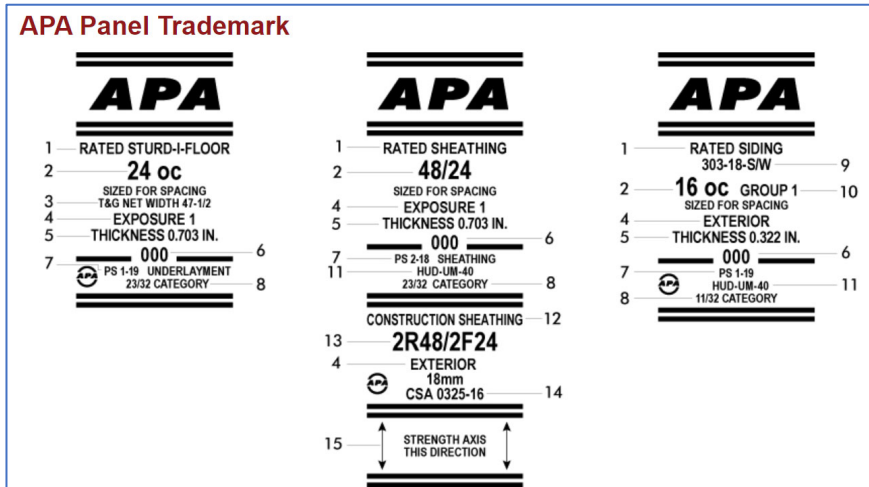
#### Notes:

- The added/sister joist shall be identical to the damaged joist (grade, length, depth, width, and bearing lengths)
- 4" maximum offset from the damaged joist
- The subfloor/sheathing shall be glued and nailed as the damaged joist.
- Full depth blocking must be provided between joists at the bearings or connect existing rim-board to the new joist.

**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**



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**.

If a shift greater than 4" is needed, and additional joists are impractical, Pinkwood recommends “heading out” the joist and creating a double joist header as depicted in the **Backer Block for Concentrated Side Loads – Canada (LSD)** and the **Header-Out** Technical Notes.

Additional analysis may be required to ensure the adjacent joists can support the added loads from the headers.