PINKWOOD

U.S. Handling & Installation Recommendations





DO NOT walk DO NOT stack on ioists until building materials braced. on unsheathed INJURY CAN joists. Stack only over beams or OCCUR

11/2" x 21/2'

walls.

21/2" x 11/2

DO NOT walk on joists that are lying flat.



Customer service/support: Toll free: 1-855-279-3700 E-mail: info@pinkwood.ca

31/2" x 11/2

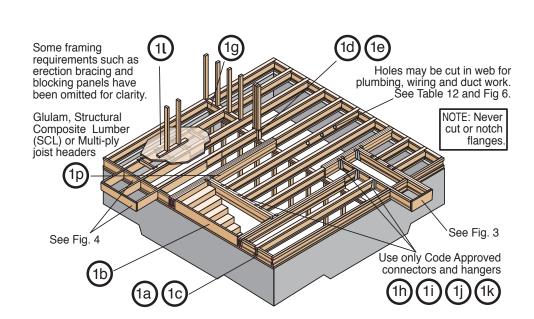
31/2" x 11/2"

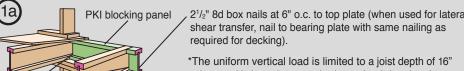


Note: PKI15, 20, 23, 35Plus, 40 and 50 series are available with factory applied WEBshield protection.

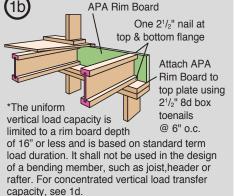
31/2" x 11/2"

2¹/₂" x 1¹/₂





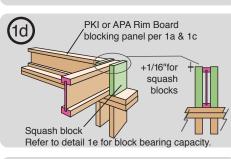
The uniform vertical load is limited to a joist depth of 16" or less and is based on standard term load duration. It shall not be used in the design of a bending member. such as joist, header or rafter. For concentrated vertical load transfer capacity, see 1d.

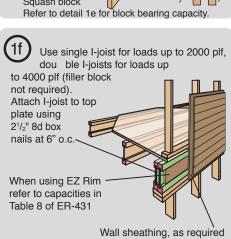


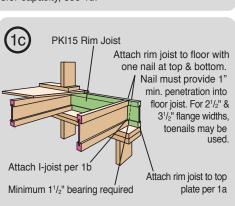
Attach I-joist

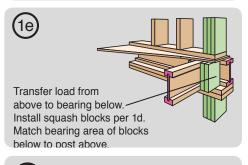
to top plate per 1b

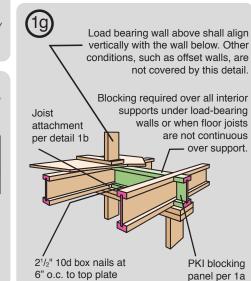
One 8d face nail at each side at bearing. To avoid splitting flange, start nails at least 11/2" from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.

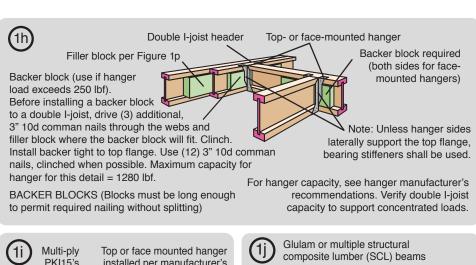


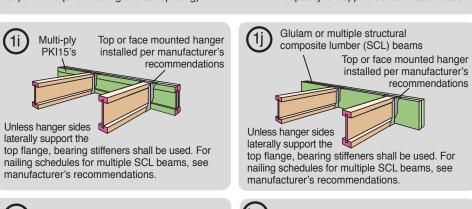


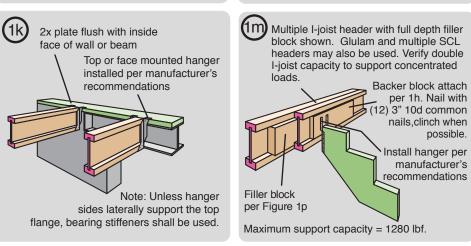


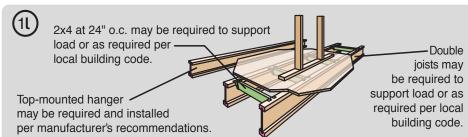


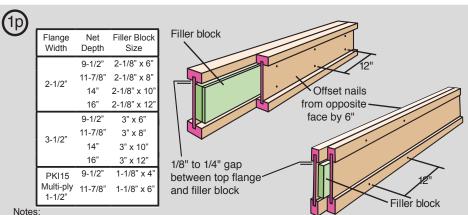




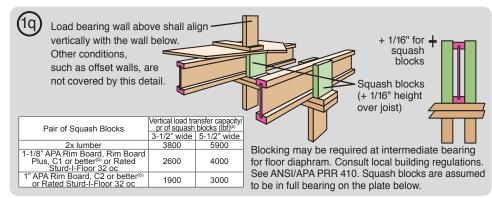


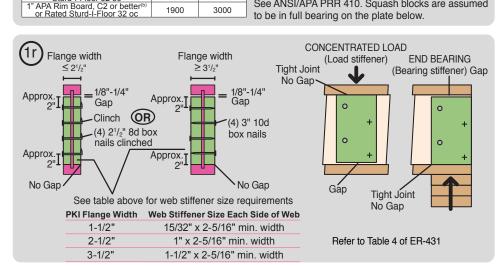


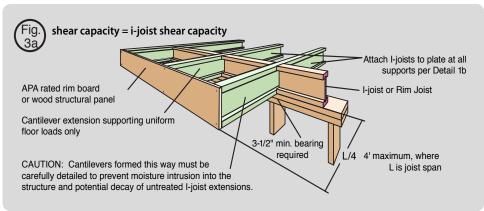


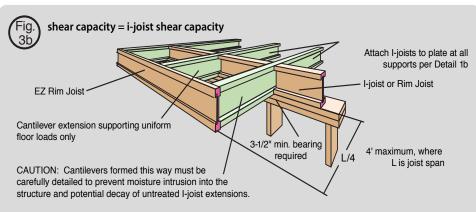


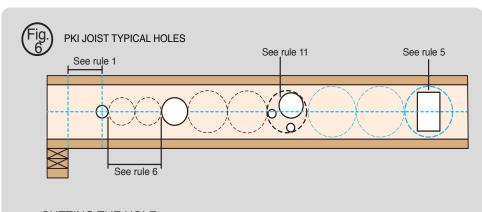
- 1. Support back of I-joist web during nailing to prevent damage to web/flange connection.
- 2. Leave a 1/8-inch gap between top of filler block and bottom of top I-joist flange.
- 3. Filler block is required between joists for full length of span.
- 4. For flange widths of 21/2" or less, nail joists together with two rows of 3" 10d common nails, 12" o.c. (clinched when possible) on each side of the double I-joist (total 4 nails per ft). For flange widths greater than 21/2", use two rows of 3" 10d common nails at 6" o.c. on each side of the double I-joist (total 8 nails per ft).
- 5. The maximum load that may be applied to one side of the double joist using this detail is 620 lb/ft. 6. For I-joist depths greater than 16 inches, please contact your PinkWood representative for details.
- 7. Web fill may be omitted for some loading conditions. Please contact PinkWood representative for details.









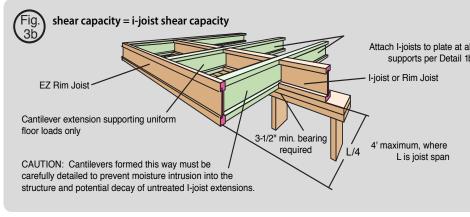


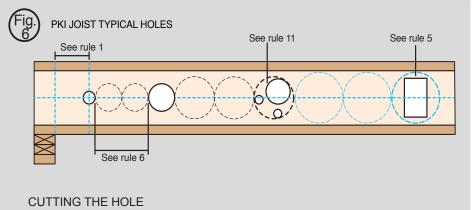
- · Holes in webs should be cut with a sharp saw
- For rectangular holes, avoid over-cutting the corners, as this can cause unnecessary stress concentrations. Slightly rounding the corners is recommended. Starting the rectangular hole by drilling a 1-inch-diameter hole in each of the four corners and then making the cuts between the holes is another good method to minimize damage to the I-joist.

Simple Span for Live Loads up to 40 psf

and Dead Loads up to 25 psf

Spacing - 19.2" o.c.





· Never drill, cut or notch the flange, or over-cut the web.

shear capacity = 2x8 min. shear capacity Full-depth backer block with 1/8" gap between block and top flange of I-joist. See Detail 1h. Nail with 2 rows of 3" 10d common nails at 6" o.c. and clinch. 2 x 8 min. Nail to backer block and joist with two rows of 3" 10d common nails at 6" o.c. and clinch Attach I-joists to plate at (Cantilever nails may be used to attach all supports per Detail 1b backer block if length of nail is sufficient to allow clinching.) Lumber or wood structural panel 1-1/2 x L closure Cantilever external supporting uniform floor loads only 4' maximum. where L is length of cantilever I-joist, PKI15 Rim Joist or APA Rim Board

WARNINGS



drill any

holes over a

support.

cut or notch top or bottom cords.





use conventional lumber for structural rim or band board

install joists on an angle.



split the flange.

Ensure proper

toe nailing.

bevel cut the joist past the inside



face of wall.



use conventional



at lumber yard.

prolong exposure to the elements lumber combined with PKI Joists (rain, snow, sun) as built-up. either on-site or

TABLE 10 ALLOWABLE LOCATION OF CIRCULAR HOLES IN PKI JOIST WEBS

Minimum Distance from Inside Face of Bearing to Center of Hole (ft-in) Clear Joist Series Round Hole Diameter (inches) Depth Span 6 1/4 8 5/8 10 3/4 12 3/4 **PKI 10** 13' 1'-0" 2'-3" PKI 15 13' 1'-0" 15' 1'-0" 3'-4" PKI 20 9 1/2" PKI 23 16' 1'-0" 2'-8" PKI 35 Plus 16' 1'-0" 3'-11" PKI 40 18' 1'-4" 4'-9" PKI 10 15' 1'-0" 1'-0" 3'-7" PKI 15 15' 1'-0" 2'-6' PKI 20 1'-0" 1'-6" 17' 4'-9" PKI 23 18' 1'-0" 2'-1" 11 7/8" PKI 35 Plus 18' 1'-0" 2'-1" 5'-4" PKI 40 22' 1'-0" 3'-6" 7'-3" 5'-7" 22' 1'-1" PKI 50 1'-0" **PKI 10** 17' 1'-0" 1'-0" 2'-2" 5'-0" 2'-1" 17' PKI 15 1'-0" 4'-3" PKI 20 18' 1'-0" 1'-0" 5'-7" 2'-8" 1'-0" PKI 23 20' 1'-0" 2'-5" 5'-10" 20' 1'-0" 1'-0" 6'-9" PKI 35 Plus 3'-9" PKI 40 24' 1'-0" 1'-10" 5'-2" 8'-6" PKI 50 24' 1'-0" 1'-0" 3'-6" 7'-5" 4'-1" 6'-10' PKI 20 20' 1'-0" 1'-0" 1'-6" PKI 23 21' 1'-0" 1'-0" 1'-0" 3'-6" 6'-8" PKI 35 Plus 21' 1'-0" 1'-0" 2'-0" 4'-8" 7'-5" 16'

Note - Distances in this chart are based on uniformly loaded joists (standard load duration). Consult Pinkwood design software for loading and holes configurations other than those depicted in this guide.

1'-0"

1'-0"

26'

26'

PKI 40

PKI 50

1'-0"

1'-0"

3'-6"

2'-1"

6'-7"

5'-6"

9'-9"

9'-0"

WEB HOLE SPECIFICATIONS

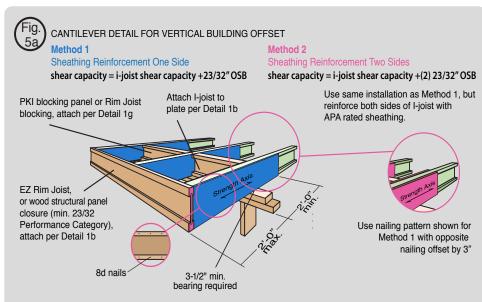
One of the benefits of using I-joists in residential floor construction is that holes may be cut in the joist webs to accommodate electrical wiring, plumbing lines and other mechanical systems, thereby minimizing the depth of the floor system.

Rules for cutting holes in PKI Joists

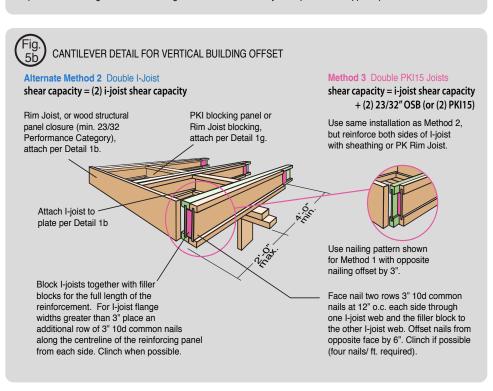
- 1) The distance between the inside edge of the support and the centerline of any hole shall be in compliance with the requirements of Table 10.
- 2) I-joist top and bottom flange should NEVER be cut, notched or otherwise modified.
- 3) Whenever possible, field-cut holes should be centered in the middle of the web.
- 4) The maximum size hole that can be cut into an I-joist web shall equal the clear distance between the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bottom of the hole and the adjacent I-joist
- 5) Square and Rectangular holes are permitted in the joist web provided that an encompassing circumscribed round hole is permitted at that location
- 6) Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole (or twice the length of the longest side of the longest rectangular hole) and each hole must be sized and located in compliance with the requirements of Table 12
- 7) Holes measuring 1-1/2 inches or smaller shall be permitted anywhere in a cantilevered section of a PKI-joist. Holes of greater size may be permitted subject to verification.
- 8) A 1-1/2-inch hole or smaller can be placed anywhere in the web provided that it meets the requirements of rule number 6 above.
- 9) All holes shall be cut in a workman-like manner in accordance with the restrictions listed above and as illustrated in Figure 6.
- 10) Limit three maximum-size holes per span.
- 11) A group of round holes at approximately the same location shall be permitted if they meet the requirements for a single round hole circumscribed around them.

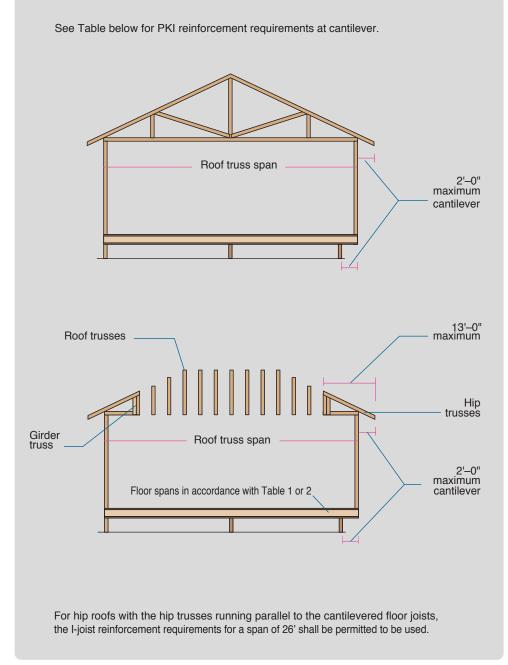






APA RATED SHEATHING 48/24 OR APA RATED STURD-I-FLOOR 24 oc (min. 23/32 Performance Category) required on sides of joist. Depth shall match the full height of the joist. Nail with 21/2" 8d common nails at 6" o.c., top and bottom flange. Install with face grain horizontal. Attach I-joist to plate at all supports per Detail 1b.





Note: In all roof and floor details, 10d common nails may be used where 10d is specified unless otherwise specified in ER-431. 8d common nails may be used where 8d is specified unless specified in ER-431.

REINFORCED LOAD BEARING CANTILEVER TABLES

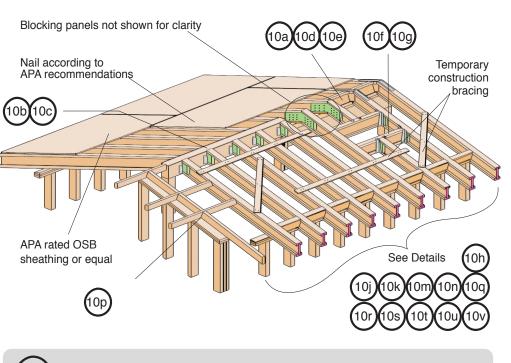
	PKI20												PKI40										
Joist Depth (IN)	σ <u> </u>	Roof Total Load (PSF)										<u> </u>	s (Roof Total Load (PSF)									
	Roof Truss Span (FT)		35			45		55			oist Death (IN)	bth (Roof Truss Span (FT)	35			45			55			
st De					Jois	t Spacin	g (IN)					st De	3oof Spar	Joist Spacing (IN)									
ig		16	19.2	24	16	19.2	24	16	19.2	24		.io		16	19.2	24	16	19.2	24	16	19.2	24	
	24	0	0	0	0	0	2	0	2	Χ			24	0	0	0	0	0	2	0	1	Χ	
	26	0	0	1	0	1	Х	1	2	Χ			26	0	0	0	0	0	2	0	2	Χ	
	28	0	0	1	0	1	Х	1	Χ	Χ			28	0	0	1	0	1	Х	1	2	Χ	
N	30	0	0	2	0	2	Χ	2	Χ	Χ		01	30	0	0	1	0	1	Χ	1	Х	Χ	
9-1/2	32	0	0	2	0	2	Χ	2	Χ	Χ		9-1/2	32	0	0	2	0	2	Χ	1	Χ	Χ	
	34	0	0	Χ	1	Χ	Х	Х	Χ	Χ			34	0	0	2	0	2	Χ	2	Χ	Χ	
	36	0	1	Х	1	Χ	Χ	Х	Χ	Χ			36	0	0	2	1	2	Χ	2	X	Χ	
	38	0	1	Χ	2	Χ	Х	Х	Χ	Χ			38	0	1	Χ	1	Χ	Χ	Х	X	Χ	
	40	0	2	Χ	2	Χ	Χ	Х	Χ	Χ			40	0	1	Χ	1	Χ	Χ	Х	Χ	Χ	
	24	0	0	0	0	0	1	0	0	2			24	0	0	0	0	0	0	0	0	1	
	26	0	0	0	0	0	1	0	1	Χ			26	0	0	0	0	0	0	0	0	2	
	28	0	0	0	0	0	2	0	1	Χ			28	0	0	0	0	0	1	0	0	Χ	
8/	30	0	0	0	0	0	2	0	2	Χ		8/	30	0	0	0	0	0	1	0	1	Χ	
11-7/8	32	0	0	1	0	1	Х	1	2	Χ		11-7/8	32	0	0	0	0	0	2	0	1	Χ	
	34	0	0	1	0	1	Х	1	Х	Х			34	0	0	0	0	0	2	0	2	Х	
	36	0	0	1	0	1	Х	1	Х	Х			36	0	0	1	0	1	Х	1	2	Х	
	38	0	0	2	0	2	Х	2	Х	Х			38	0	0	1	0	1	Х	1	Χ	Χ	
	40	0	0	2	0	2	Х	2	Х	Х			40	0	0	1	0	1	X	1	Х	X	
41	24	0	0	0	0	0	0	0	0	1			24	0	0	0	0	0	0	0	0	0	
	26	0	0	0	0	0	0	0	0	2			26	0	0	0	0	0	0	0	0	1	
	28	0	0	0	0	0	1	0	0	2			28	0	0	0	0	0	0	0	0	1	
	30	0	0	0	0	0	1	0	1	X		4	30	0	0	0	0	0	0	0	0	2	
	32	0	0	0	0	0	1	0	1	X		14	32	0	0	0	0	0	0	0	0	2	
	34	0	0	0	0	0	2	0	1	X			34	0	0	0	0	0	1	0	1	X	
	36	0	0	0	0	0	2	0	2	X			36	0	0	0	0	0	1	0	1	X	
	38	0	0	1	0	1	X	1	2	X			38	0	0	0	0	0	2	0	1	X	
	40	0		'	0	0	X	'	X	X			40	0	0	0	0	0	2	Ů	2	X	
16	24	0	0	0	0	0	0	0	0	0			24	0	0	0	0	0	0	0	0	0	
	26 28	0	0	0	0	0	0	0	0	1	16		26	0	0	0	0	0	0	0	0	0	
				0		0	0		0				28	0	0	0	0	0	0	0	0	0	
	30 32	0	0	0	0	0	0	0	0	2		9	30	0	0	0	0	0	0	0	0	1	
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	34 36	0	0	0	0	0	1	0	1	X			34	0	0	0	0	0	0	0	0	1	
	UO U	U	U	U	U	U	- 1	U	ı	^			36	0	0	0	0	0	0	0	0	2	
1	38	0	0	0	0	0	2	0	1	Х			38	0	0	0	0	0	1	0	0	2	

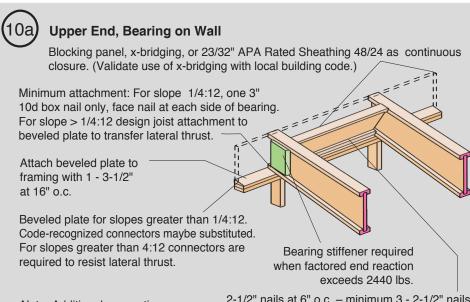
Table Legend:

- 0 = No reinforcement required.
- 1 = PKIs reinforced with 23/32 Performance Category wood structural panel on one side only.
- 2 = PKIs reinforced with 23/32 Performance Category wood structural panel on both sides or double I-joist.
- X = Try a deeper joist or closer spacing.

Notes:

- (1) Maximum load shall be: 15 psf roof dead load, 55 psf floor total load, and 80 plf wall load. Wall load is based on 3'-0" maximum width window or door openings. For larger openings, or multiple 3'-0" width openings spaced less than 6'-0" o.c., additional joists beneath the opening's cripple studs may be required.
- (2) Table applies to joists 16" to 24" o.c.
- (3) For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the distance between the supporting wall and the ridge beam. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the distance between the supporting walls as if a truss is used.
- (4) Joists space at 12" o.c. require no reinforcement.





Note: Additional connection may be required for wind uplift.

2-1/2" nails at 6" o.c. — minimum 3 - 2-1/2" nails per blocking panel. (When used for lateral shear transfer match nail type and sheathing edge nailing ("boundary nailing" for engineered diaphragm applications.) Use minimum 2-1/2" nails.

