PINKWOOD

WEBshield Handling & Installation Recommendations

DO NOT walk on joists until braced. INJURY CAN OCCUR

DO NOT stack building materials on unsheathed joists. Stack only over beams or walls.

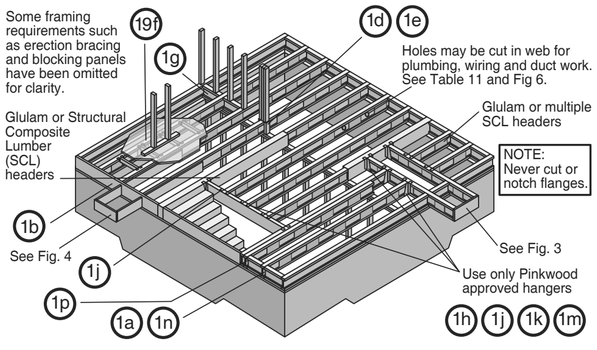
DO NOT walk on joists that are lying flat.

I-JOISTS Made Rated fire

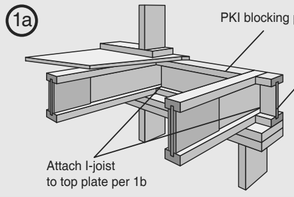
Customer service/support:
Toll free: 1-855-279-3700
E-mail: info@pinkwood.ca

	PKI 20 SERIES	PKI 23 SERIES	PKI 35 Plus SERIES	PKI 40 SERIES	PKI 50 SERIES
Depths:	11⅞" & 14"	11⅞" & 14"	11⅞" & 14"	11⅞" & 14"	11⅞" & 14"
Chord Size:	2½" x 1½"	2½" x 1½"	3½" x 1½"	3½" x 1½"	3½" x 1½"
Webstock:	⅜" OSB	7/16" OSB	⅜" OSB	⅜" OSB	7/16" OSB

Note: PKI 20, 23, 35 Plus, 40 & 50 series are currently available uncoated.



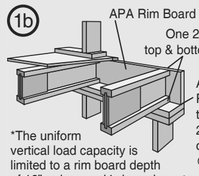
1a



2-1/2" nails at 6" o.c. to top plate (when used for lateral shear transfer, nail to bearing plate with same nailing as required for decking)

*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.

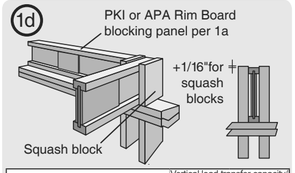
1b



*The uniform vertical load capacity is limited to a rim board 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.

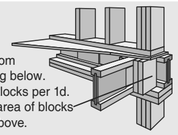
One 8d face nail at each side at bearing. To avoid splitting flange, start nails at least 1½" from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.

1d



Pair of Squash Blocks	Vertical load transfer capacity/ pr of squash blocks (lbf)[1]: 3-1/2" wide	5-1/2" wide
2x lumber	3800	5900
1-1/8" APA Rim Board, Rim Board Plus, C1 or better[5] or Rated Sturd-I-Floor 32 oc	2600	4000
1" APA Rim Board, C2 or better[5] or Rated Sturd-I-Floor 32 oc	1900	3000

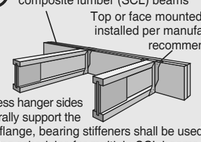
1e



Transfer load from above to bearing below. Install squash blocks per 1d. Match bearing area of blocks below to post above.

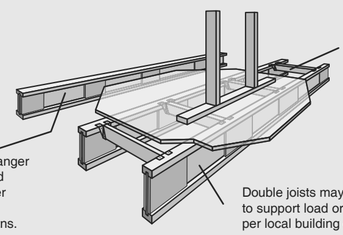
1j

Glulam or multiple structural composite lumber (SCL) beams

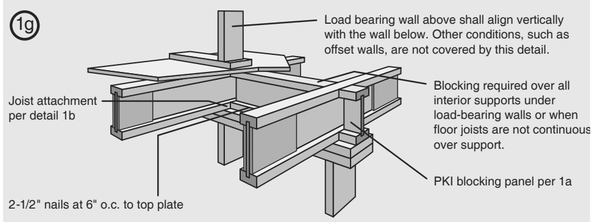


Unless hanger sides laterally support the top flange, bearing stiffeners shall be used. For nailing schedules for multiple SCL beams, see manufacturer's recommendations.

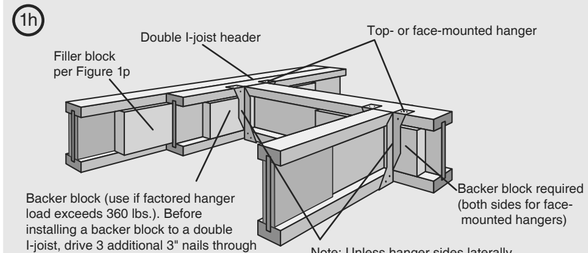
19f



1g



1h



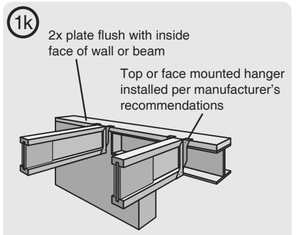
Backer block (use if factored hanger load exceeds 360 lbs.). Before installing a backer block to a double I-joist, drive 3 additional 3" nails through the webs and filler block where the backer block will fit. Clinch. Install backer tight to top flange. Use twelve 3" nails, clinched when possible. Maximum factored resistance for hanger for this detail = 1620 lbs.

Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

BACKER BLOCKS (Blocks must be long enough to permit required nailing without splitting)

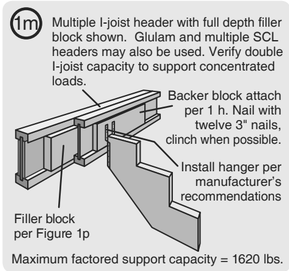
For hanger capacity, see hanger manufacturer's recommendations. Verify double I-joist capacity to support concentrated loads.

1k



Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

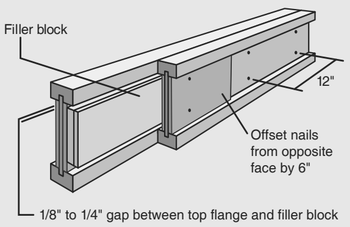
1m



Maximum factored support capacity = 1620 lbs.

1p

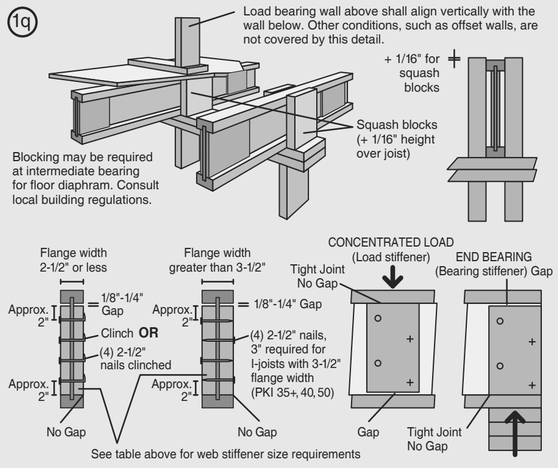
Flange Width	Net Depth	Filler Block Size
2-1/2"	11-7/8"	2-1/8" x 8"
	14"	2-1/8" x 10"
3-1/2"	11-7/8"	3" x 8"
	14"	3" x 10"

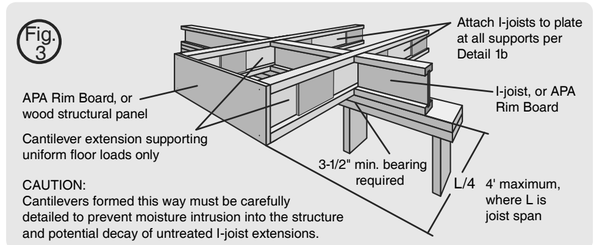


Notes:

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 2-1/2 inches or less, nail joists together with two rows of 10d nails 12 inches o.c. (clinched when possible) on each side of the double I-joist (total 4 nails per foot). For flange widths greate than 2-1/2 inches, use two rows of 10d nails at 6 inches o.c. on each side of the double I-joist (total 8 nail per foot).
5. The maximum load that may be applied to one side of the double joist using this detail is 620 lbf/ft.
6. For I-joist depths greater than 16 inches, please contact your PinkWood representative for details.

1q





CAUTION:
Cantilevers formed this way must be carefully detailed to prevent moisture intrusion into the structure and potential decay of untreated I-joist extensions.

NOTES

(a) The following table may be used for I-joist spacing of 24 inches o.c. or less.

(b) Hole location distance is measured from inside face of supports to center of hole.

(c) Distances in this chart are based on uniformly loaded joists.

(d) Hole sizes and/or locations that fall outside the scope of this table may be acceptable based on analysis of actual hole size, span, spacing and loading conditions. The I-joist shear capacity at the location of a circular web hole (V_{rh}) is calculated using the following equation:

V_{rh} = Published Shear Value x [(Joist Depth – Hole Diameter) / Joist Depth]

(e) SAF = Span Adjustment Factor, used as defined below:

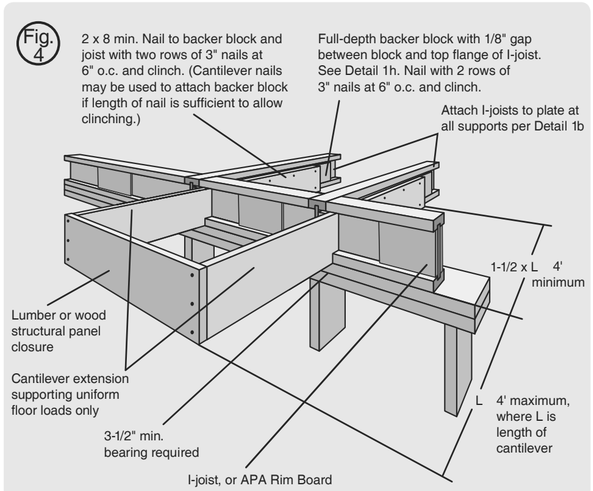
OPTIONAL:

Table 5 is based on the I-joists used at their maximum span. If the I-joists are placed at less than their full allowable span, the maximum distance from the centerline of the hole to the face of any support (D) as given above may be reduced as follows:

$$D_{reduced} = \frac{L_{actual}}{SAF} \times D$$

Where:
- $D_{reduced}$ = Distance from the inside face of any support to center of hole, reduced for less-than-maximum span applications (ft). The reduced distance shall not be less than 12 inches from the face of the support to edge of the hole.
- L_{actual} = The actual measured span distance between the inside faces of supports (ft).
- SAF = Span Adjustment Factor given in this table.
- D = The minimum distance from the inside face of any support to center of hole from this table.

If $\frac{L_{actual}}{SAF}$ is greater than 1, use 1 in the above calculation for $\frac{L_{actual}}{SAF}$



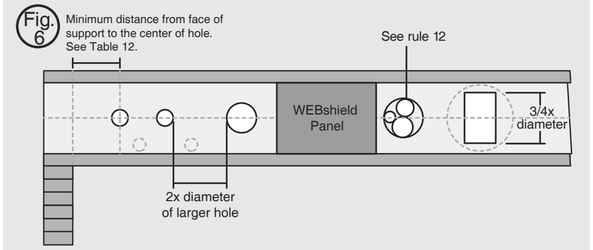


TABLE 11 - LOCATION OF CIRCULAR HOLES IN PKI JOIST WEBS

Simple or Multiple Span for Live Loads up to 40 psf and Dead Loads up to 15 psf

Joist Depth	Series	SAF	Minimum Distance from Inside Face of Any Supports to Center of Hole (ft-in) Round Hole Diameter (in.) 2	3	4	5	6	6 1/2	7	8	8 5/8	9	10	10 3/4
11 7/8"	PKI 20	16.32	1'-1"	1'-2"	1'-5"	2'-8"	3'-11"	4'-3"	5'-2"	6'-8"	7'-11"			
	PKI 23	17.52	1'-1"	1'-2"	1'-2"	2'-6"	3'-10"	4'-3"	5'-4"	6'-10"	8'-2"			
	PKI 35 Plus	17.67	1'-1"	1'-2"	2'-4"	3'-7"	4'-10"	5'-2"	6'-2"	7'-9"	9'-1"			
	PKI 40	19.96	1'-5"	2'-9"	4'-1"	5'-6"	6'-11"	7'-3"	8'-5"	10'-1"	11'-2"			
	PKI 50	20.08	1'-1"	1'-2"	1'-2"	2'-7"	4'-5"	4'-10"	6'-3"	8'-2"	9'-6"			
14"	PKI 20	17.69	1'-1"	1'-2"	1'-2"	1'-5"	2'-7"	2'-10"	3'-9"	5'-0"	5'-10"	6'-4"	7'-10"	9'-8"
	PKI 23	19.24	1'-1"	1'-2"	1'-2"	1'-3"	2'-2"	2'-6"	3'-6"	4'-11"	5'-10"	6'-4"	8'-0"	9'-9"
	PKI 35 Plus	18.42	1'-1"	1'-2"	1'-3"	2'-5"	3'-7"	3'-10"	4'-9"	6'-1"	6'-11"	7'-6"	9'-4"	11'-5"
	PKI 40	22.63	1'-1"	2'-2"	3'-5"	4'-9"	6'-1"	6'-5"	7'-6"	8'-11"	9'-11"	10'-6"	12'-2"	13'-7"
	PKI 50	22.76	1'-1"	1'-2"	1'-2"	2'-4"	3'-11"	4'-4"	5'-6"	7'-3"	8'-4"	9'-0"	10'-11"	12'-5"

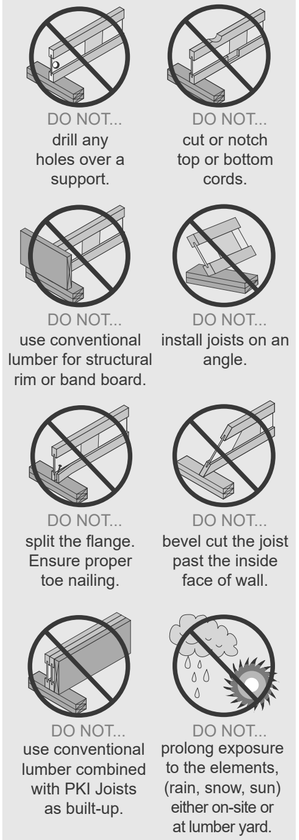
WEBSHIELD AND WEB HOLE SPECIFICATIONS

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

The following rules for cutting holes applies:

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 11 of IAPMO Report UES-0431.
2) I-joist top and bottom flanges must NEVER be cut, notched or otherwise modified.
3) Whenever possible, field-cut holes should be centered on 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 flange.
5) The sides of square holes or longest sides of rectangular holes should not exceed three-fourths of the diameter of the maximum round hole 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 11.
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) Maximum of one 6" hole is allowed in the WEBshield provided that an addtional minimum 6" of WEBshield is added to the penetrated panel. (see IAPMO UES0431)
12) 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.

WARNINGS



DO NOT... drill any holes over a support.

DO NOT... cut or notch top or bottom cords.

DO NOT... use conventional lumber for structural rim or band board.

DO NOT... install joists on an angle.

DO NOT... split the flange. Ensure proper toe nailing.

DO NOT... bevel cut the joist past the inside face of wall.

DO NOT... use conventional lumber combined with PKI Joists as built-up.

DO NOT... prolong exposure to the elements, (rain, snow, sun) either on-site or at lumber yard.

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