



PK joists

SPECIFIER GUIDE



I-JOISTS Made Better

even



HOLMES.

APPROVED PRODUCTS



PINKWOOD I-JOISTS

PKI 10, PKI 20, PKI 23, PKI 35 Plus, PKI 40, PKI 50

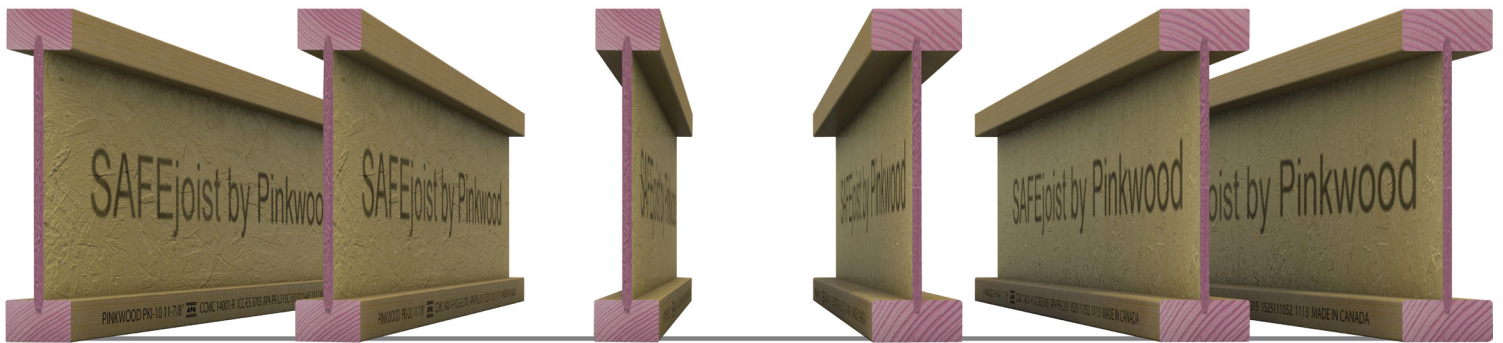
- USA



PinkWood manufactures premium I-joists, under the trade name “PKjoists”, for residential and commercial projects. Our Standard and Fire Rated (SAFEjoists) joists are available in six series ranging in depths of 9 1/2” to 24”, and up to 58’ in lengths. Our PKjoists are built to precise tolerances and will resist warping, crowning, and shrinkage.

PKI SERIES

PKI Joists series are manufactured with either 2”x3” (PKI 10, 20, 23) or 2”x4” (PKI 35 Plus, 40, 50) flanges, which have a specific proprietary lumber grade. Having only two flange sizes results in simplified selection of hangers and fasteners and thereby reduces the number of component SKU’s required by the dealers.



PKI 10 SERIES

Depths: 9 1/2”, 11 7/8”, 14”
Chord Size: 2 1/2” x 1 1/2”
Webstock: 3/8” OSB

PKI 20 SERIES

Depths: 9 1/2”, 11 7/8”, 14”, 16”
Chord Size: 2 1/2” x 1 1/2”
Webstock: 3/8” OSB

PKI 23 SERIES

Depths: 9 1/2”, 11 7/8”, 14”, 16”
Chord Size: 2 1/2” x 1 1/2”
Webstock: 7/16” OSB

PKI 35 Plus SERIES

Depths: 9 1/2”, 11 7/8”, 14”, 16”
Chord Size: 3 1/2” x 1 1/2”
Webstock: 3/8” OSB

PKI 40 SERIES

Depths: 9 1/2”, 11 7/8”, 14”, 16”-24”
Chord Size: 3 1/2” x 1 1/2”
Webstock: 3/8” OSB (7/16” for 18”-24” depths)

PKI 50 SERIES

Depths: 11 7/8”, 14”, 16”-24”
Chord Size: 3 1/2” x 1 1/2”
Webstock: 7/16” OSB

Note: PKI 10, 20, 23, 35 Plus, 40 & 50 series are currently available uncoated. PKI 40 & 50 series are available up to 24” depths.



Our Fire Rated SAFE joists are protected with PKShield, a proprietary fire rated coating. These I-joists have tan coloured coating on the web, and a pink protective coating on the ends. Our Fire Rated joists series are available in two performance levels:

- 1) Class A, FSR of 25 or less (FRA)
- 2) Class B, FSR of 26-75 (FRB)

2012 IRC, SECTION R501.3 OR 2015 IRC, SECTION R302.13 COMPLIANT

PinkWood has developed a proprietary method to meet the requirement of the International Residential Code (IRC). We have successfully tested joists with 2 ft. lengths of OSB panels coated with PKShield, our proprietary intumescent coating, and stapled to the web at 4 ft. on center. These panels (called WEBShield) can be stapled onto the sides of our Standard joists, or onto the sides of our Class A or Class B Fire Rated joists.

For more information, please visit our website at www.PinkWood.ca.

Member of

APA

CCMC # 14001-R
UES 431
APA PR-L315C

PHYSICAL PROPERTIES FOR PKI JOISTS

Design properties are in Allowable Stress Design, and for standard term load duration.

| Joist Series | Joist Depth (inches) | Weight (plf) | Moment (lbs-ft) | Shear (lbs) | End Reaction (lbs) | | | | Intermediate Reaction (lbs) | | | | Bending Stiffness EI (x10 ⁶ lbs-in ²) | Shear Deflection Coefficient K (x10 ⁶ lbs) |
|--------------|----------------------|--------------|-----------------|-------------|------------------------------|------|--------------------------|------|-----------------------------|------|----------------|------|--|---|
| | | | | | 1 1/2" or 2 1/2" Bearing (1) | | 4" or 3 1/2" Bearing (2) | | 3 1/2" Bearing | | 5 1/2" Bearing | | | |
| | | | | | Web Stiff. | | Web Stiff. | | Web Stiff. | | Web Stiff. | | | |
| | | | | | No | Yes | No | Yes | No | Yes | No | Yes | | |
| PKI 10 | 9 1/2 | 2.6 | 2365 | 1260 | 900 | 1140 | 1110 | 1260 | 2195 | 2280 | 2450 | 2520 | 168 | 4.94 |
| | 11 7/8 | 2.9 | 3100 | 1485 | 900 | 1275 | 1160 | 1485 | 2195 | 2485 | 2525 | 2810 | 286 | 6.18 |
| | 14 | 3.1 | 3720 | 1680 | 900 | 1395 | 1200 | 1680 | 2195 | 2665 | 2585 | 2960 | 420 | 7.28 |
| PKI 20 | 9 1/2 | 2.6 | 2810 | 1260 | 970 | 1140 | 1110 | 1260 | 2195 | 2375 | 2450 | 2635 | 193 | 4.94 |
| | 11 7/8 | 2.9 | 3755 | 1485 | 970 | 1275 | 1160 | 1485 | 2330 | 2525 | 2595 | 2830 | 327 | 6.18 |
| | 14 | 3.1 | 4405 | 1680 | 970 | 1395 | 1200 | 1680 | 2455 | 2665 | 2725 | 3005 | 479 | 7.28 |
| | 16 | 3.3 | 5060 | 1870 | 970 | 1510 | 1240 | 1870 | 2570 | 2795 | 2850 | 3175 | 652 | 8.32 |
| PKI 23 | 9 1/2 | 2.7 | 3330 | 1330 | 1025 | N/A | 1330 | N/A | 2410 | N/A | 2850 | N/A | 208 | 4.94 |
| | 11 7/8 | 3.0 | 4320 | 1655 | 1005 | 1390 | 1485 | 1655 | 2410 | 2765 | 2850 | 3205 | 352 | 6.18 |
| | 14 | 3.3 | 5200 | 1945 | 1005 | 1360 | 1485 | 1840 | 2410 | 2765 | 2850 | 3205 | 515 | 7.28 |
| | 16 | 3.5 | 6030 | 2190 | 1005 | 1360 | 1485 | 1840 | 2410 | 2765 | 2850 | 3205 | 700 | 8.32 |
| PKI 35 Plus | 9 1/2 | 2.7 | 3395 | 1260 | 900 | 1140 | 1110 | 1260 | 2195 | 2280 | 2450 | 2520 | 234 | 4.94 |
| | 11 7/8 | 2.9 | 4395 | 1485 | 900 | 1275 | 1160 | 1485 | 2195 | 2485 | 2525 | 2810 | 396 | 6.18 |
| | 14 | 3.2 | 5270 | 1680 | 900 | 1395 | 1200 | 1680 | 2195 | 2665 | 2585 | 2960 | 580 | 7.28 |
| | 16 | 3.4 | 5990 | 1870 | 900 | 1510 | 1240 | 1865 | 2195 | 2880 | 2645 | 3105 | 787 | 8.32 |
| PKI 40 | 9 1/2 | 3.4 | 5390 | 1340 | 1185 | 1340 | 1305 | 1340 | 2900 | 3095 | 2940 | 3195 | 328 | 4.94 |
| | 11 7/8 | 3.6 | 6970 | 1625 | 1245 | 1510 | 1595 | 1625 | 3025 | 3340 | 3120 | 3515 | 553 | 6.18 |
| | 14 | 3.9 | 8395 | 1875 | 1280 | 1660 | 1595 | 1875 | 3085 | 3565 | 3280 | 3805 | 807 | 7.28 |
| | 16 | 4.0 | 9730 | 2115 | 1295 | 1800 | 1595 | 2115 | 3145 | 3775 | 3435 | 4080 | 1092 | 8.32 |
| | 18 | 4.5 | 11005 | 2535 | 1310 | 2060 | 1680 | 2550 | 2850 | 4285 | 3435 | 4970 | 1421 | 9.36 |
| | 20 | 4.8 | 12175 | 2680 | 1310 | 2185 | 1680 | 2640 | 2850 | 4410 | 3435 | 4970 | 1799 | 10.40 |
| | 22 | 5.1 | 13335 | 2815 | 1310 | 2310 | 1680 | 2735 | 2850 | 4530 | 3435 | 4970 | 2224 | 11.44 |
| PKI 50 | 11 7/8 | 3.6 | 7955 | 2135 | 1245 | 1510 | 1595 | 1625 | 3025 | 3340 | 3120 | 3515 | 565 | 6.18 |
| | 14 | 3.9 | 9200 | 2280 | 1280 | 1660 | 1595 | 1875 | 3085 | 3565 | 3280 | 3805 | 824 | 7.28 |
| | 16 | 4.0 | 10655 | 2415 | 1295 | 1800 | 1595 | 2115 | 3145 | 3775 | 3435 | 4080 | 1115 | 8.32 |
| | 18 | 4.5 | 12770 | 2535 | 1310 | 2060 | 1680 | 2550 | 2850 | 4285 | 3435 | 4970 | 1453 | 9.36 |
| | 20 | 4.8 | 14175 | 2680 | 1310 | 2185 | 1680 | 2640 | 2850 | 4410 | 3435 | 4970 | 1839 | 10.40 |
| | 22 | 5.1 | 14590 | 2815 | 1310 | 2310 | 1680 | 2735 | 2850 | 4530 | 3435 | 4970 | 2273 | 11.44 |
| | 24 | 5.4 | 15845 | 2945 | 1310 | 2440 | 1680 | 2830 | 2850 | 4640 | 3435 | 4970 | 2757 | 12.48 |

Notes:

- For 9 1/2" to 16" I-joists, the minimum end reaction is based on 1 1/2" bearing length. For 18" to 24" joist, the minimum end reaction is based on 2 1/2" bearing length.
- For PKI 23 I-joist series, the maximum end reaction is based on 3 1/2" bearing length. For all other I-joists, the maximum end reaction is based on 4" bearing length.

SIMPLE SPANS: 23/32" SHEATHING GLUED & NAILED

40 Live Load / 15 Dead Load (L/480)

| JOIST DEPTH | JOIST TYPE | Simple Spans (ft-in) | | | |
|-------------|-------------|----------------------|----------|----------|----------|
| | | O/C SPACING | | | |
| | | 12" | 16" | 19.2" | 24" |
| 9 1/2" | PKI 10 | 17'- 6" | 16'- 0" | 14'- 8" | 13'- 1" |
| | PKI 20 | 18'- 2" | 16'- 7" | 15'- 8" | 14'- 4" |
| | PKI 23 | 18'- 7" | 17'- 0" | 16'- 1" | 15'- 0" |
| | PKI 35 Plus | 19'- 2" | 17'- 7" | 16'- 7" | 15'- 5" |
| | PKI 40 | 21'- 2" | 19'- 3" | 18'- 2" | 16'- 11" |
| 11 7/8" | PKI 10 | 20'- 9" | 18'- 5" | 16'- 9" | 15'- 0" |
| | PKI 20 | 21'- 7" | 19'- 9" | 18'- 6" | 16'- 6" |
| | PKI 23 | 22'- 0" | 20'- 2" | 19'- 0" | 17'- 9" |
| | PKI 35 Plus | 22'- 10" | 20'- 10" | 19'- 8" | 17'- 11" |
| | PKI 40 | 25'- 2" | 22'- 11" | 21'- 7" | 20'- 1" |
| | PKI 50 | 25'- 3" | 23'- 0" | 21'- 9" | 20'- 2" |
| 14" | PKI 10 | 23'- 3" | 20'- 2" | 18'- 5" | 16'- 5" |
| | PKI 20 | 24'- 5" | 21'- 11" | 20'- 0" | 17'- 11" |
| | PKI 23 | 25'- 0" | 22'- 10" | 21'- 7" | 19'- 5" |
| | PKI 35 Plus | 25'- 10" | 23'- 7" | 21'- 11" | 18'- 7" |
| | PKI 40 | 28'- 6" | 25'- 11" | 24'- 6" | 22'- 9" |
| | PKI 50 | 28'- 8" | 26'- 1" | 24'- 7" | 22'- 11" |
| 16" | PKI 20 | 27'- 1" | 23'- 6" | 21'- 5" | 19'- 2" |
| | PKI 23 | 27'- 7" | 25'- 3" | 23'- 5" | 20'- 11" |
| | PKI 35 Plus | 28'- 7" | 25'- 7" | 23'- 4" | 18'- 10" |
| | PKI 40 | 31'- 6" | 28'- 8" | 27'- 0" | 25'- 2" |
| | PKI 50 | 31'- 8" | 28'- 10" | 27'- 2" | 25'- 4" |
| 18" | PKI 40 | 34'- 4" | 31'- 4" | 29'- 6" | 27'- 5" |
| | PKI 50 | 34'- 7" | 31'- 6" | 29'- 8" | 27'- 7" |
| 20" | PKI 40 | 37'- 2" | 33'- 10" | 31'- 11" | 29'- 8" |
| | PKI 50 | 37'- 5" | 34'- 1" | 32'- 1" | 29'- 10" |
| 22" | PKI 40 | 39'- 10" | 36'- 4" | 34'- 3" | 30'- 7" |
| | PKI 50 | 40'- 1" | 36'- 7" | 34'- 5" | 30'- 7" |
| 24" | PKI 40 | 42'- 6" | 38'- 9" | 36'- 3" | 30'- 7" |
| | PKI 50 | 42'- 10" | 39'- 0" | 36'- 9" | 30'- 7" |

40 Live Load / 30 Dead Load (L/480)

| JOIST DEPTH | JOIST TYPE | Simple Spans (ft-in) | | | |
|-------------|-------------|----------------------|----------|----------|----------|
| | | O/C SPACING | | | |
| | | 12" | 16" | 19.2" | 24" |
| 9 1/2" | PKI 10 | 16'- 5" | 14'- 3" | 13'- 0" | 11'- 8" |
| | PKI 20 | 17'- 11" | 15'- 6" | 14'- 2" | 12'- 8" |
| | PKI 23 | 18'- 7" | 16'- 11" | 15'- 5" | 13'- 10" |
| | PKI 35 Plus | 19'- 2" | 17'- 1" | 15'- 7" | 13'- 11" |
| | PKI 40 | 21'- 2" | 19'- 3" | 18'- 2" | 16'- 11" |
| 11 7/8" | PKI 10 | 18'- 10" | 16'- 4" | 14'- 11" | 13'- 4" |
| | PKI 20 | 20'- 9" | 17'- 11" | 16'- 5" | 14'- 8" |
| | PKI 23 | 22'- 0" | 19'- 3" | 17'- 7" | 15'- 9" |
| | PKI 35 Plus | 22'- 5" | 19'- 5" | 17'- 9" | 14'- 4" |
| | PKI 40 | 25'- 2" | 22'- 11" | 21'- 7" | 19'- 9" |
| | PKI 50 | 25'- 3" | 23'- 0" | 21'- 9" | 19'- 9" |
| 14" | PKI 10 | 20'- 7" | 17'- 10" | 16'- 4" | 14'- 7" |
| | PKI 20 | 22'- 5" | 19'- 5" | 17'- 9" | 15'- 2" |
| | PKI 23 | 24'- 5" | 21'- 1" | 19'- 3" | 17'- 3" |
| | PKI 35 Plus | 24'- 6" | 21'- 3" | 18'- 3" | 14'- 7" |
| | PKI 40 | 28'- 6" | 25'- 11" | 24'- 6" | 20'- 1" |
| | PKI 50 | 28'- 8" | 26'- 1" | 24'- 7" | 20'- 1" |
| 16" | PKI 20 | 24'- 1" | 20'- 10" | 19'- 0" | 15'- 5" |
| | PKI 23 | 26'- 3" | 22'- 9" | 20'- 9" | 17'- 9" |
| | PKI 35 Plus | 26'- 2" | 22'- 2" | 18'- 6" | 14'- 10" |
| | PKI 40 | 31'- 6" | 28'- 8" | 25'- 3" | 20'- 3" |
| | PKI 50 | 31'- 8" | 28'- 10" | 25'- 3" | 20'- 3" |
| 18" | PKI 40 | 34'- 4" | 30'- 9" | 28'- 0" | 24'- 0" |
| | PKI 50 | 34'- 7" | 31'- 6" | 29'- 8" | 24'- 0" |
| 20" | PKI 40 | 37'- 2" | 32'- 4" | 29'- 6" | 24'- 0" |
| | PKI 50 | 37'- 5" | 34'- 1" | 30'- 0" | 24'- 0" |
| 22" | PKI 40 | 39'- 0" | 33'- 10" | 30'- 0" | 24'- 0" |
| | PKI 50 | 40'- 1" | 35'- 4" | 30'- 0" | 24'- 0" |
| 24" | PKI 40 | 40'- 8" | 35'- 3" | 30'- 0" | 24'- 0" |
| | PKI 50 | 42'- 7" | 36'- 0" | 30'- 0" | 24'- 0" |

NOTES ON SPAN TABLES

- Allowable design span applicable to simple-span residential floor construction with loads as indicated in the tables above. The live load deflection is limited to span/480.
- Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PS 1, PS 2, CSA O325, or CSA O437. Adhesive shall meet ASTM D3498 or APA Specification AFG-01.
- Minimum end bearing length shall be 1-1/2 inches for 9 1/2" to 16" deep I-joists and 2-1/2 inches for 18" to 24" deep I-joists.
- Pink shaded** spans require 2-1/2" end bearing for 9 1/2" to 16" deep I-joists and 4" end bearing for 18" to 24" deep I-joists.
- Bearing stiffeners are not required for end bearings when I-joists are used with the spans and spacings given in this table, except as required by hanger manufacturers.
- For multiple spans, underlined spans require 3-1/2" intermediate bearing with web stiffener, all other span require 3-1/2" intermediate bearing without web stiffener.

MULTIPLE SPANS: 23/32" SHEATHING GLUED & NAILED

40 Live Load / 15 Dead Load (L/480)

| JOIST DEPTH | JOIST TYPE | Multiple Spans (ft-in) | | | |
|-------------|-------------|------------------------|-----------------|-----------------|-----------------|
| | | O/C SPACING | | | |
| | | 12" | 16" | 19.2" | 24" |
| 9 1/2" | PKI 10 | 18'- 7" | 16'- 1" | 14'- 8" | 13'- 1" |
| | PKI 20 | 19'- 10" | 17'- 6" | 16'- 0" | 14'- 4" |
| | PKI 23 | 20'- 3" | 18'- 6" | 17'- 5" | 15'- 7" |
| | PKI 35 Plus | 20'- 11" | 19'- 2" | 17'- 7" | 15'- 9" |
| | PKI 40 | 23'- 1" | 21'- 0" | 19'- 10" | 18'- 5" |
| 11 7/8" | PKI 10 | 21'- 3" | 18'- 5" | 16'- 9" | 15'- 0" |
| | PKI 20 | 23'- 4" | 20'- 3" | 18'- 6" | 16'- 6" |
| | PKI 23 | 24'- 1" | 21'- 9" | 19'- 10" | <u>17'- 9"</u> |
| | PKI 35 Plus | 24'- 11" | 21'- 11" | <u>20'- 0"</u> | <u>17'- 11"</u> |
| | PKI 40 | 27'- 5" | 25'- 0" | 23'- 7" | 21'- 11" |
| | PKI 50 | 27'- 7" | 25'- 2" | 23'- 8" | <u>22'- 0"</u> |
| 14" | PKI 10 | 23'- 3" | 20'- 2" | 18'- 5" | <u>16'- 5"</u> |
| | PKI 20 | 25'- 4" | 21'- 11" | 20'- 0" | <u>17'- 11"</u> |
| | PKI 23 | 27'- 3" | 23'- 10" | 21'- 9" | <u>19'- 5"</u> |
| | PKI 35 Plus | 27'- 8" | <u>24'- 0"</u> | <u>21'- 11"</u> | <u>19'- 5"</u> |
| | PKI 40 | 31'- 1" | 28'- 4" | 26'- 8" | <u>24'- 9"</u> |
| | PKI 50 | 31'- 3" | 28'- 6" | 26'- 10" | <u>24'- 11"</u> |
| 16" | PKI 20 | 27'- 2" | 23'- 6" | 21'- 5" | <u>19'- 2"</u> |
| | PKI 23 | 29'- 7" | 25'- 8" | <u>23'- 5"</u> | <u>20'- 1"</u> |
| | PKI 35 Plus | 29'- 6" | <u>25'- 7"</u> | <u>23'- 4"</u> | <u>20'- 10"</u> |
| | PKI 40 | 34'- 4" | 31'- 4" | 29'- 6" | <u>26'- 7"</u> |
| | PKI 50 | 34'- 7" | 31'- 6" | <u>29'- 8"</u> | <u>27'- 5"</u> |
| 18" | PKI 40 | 37'- 6" | <u>34'- 2"</u> | 31'- 8" | <u>28'- 3"</u> |
| | PKI 50 | 37'- 9" | <u>34'- 5"</u> | <u>32'- 5"</u> | <u>30'- 1"</u> |
| 20" | PKI 40 | 40'- 7" | <u>36'- 5"</u> | <u>33'- 3"</u> | <u>29'- 9"</u> |
| | PKI 50 | 40'- 10" | <u>37'- 2"</u> | <u>35'- 0"</u> | <u>32'- 1"</u> |
| 22" | PKI 40 | <u>43'- 7"</u> | <u>38'- 2"</u> | <u>34'- 10"</u> | <u>31'- 2"</u> |
| | PKI 50 | <u>43'- 10"</u> | <u>39'- 11"</u> | <u>36'- 5"</u> | <u>32'- 7"</u> |
| 24" | PKI 40 | <u>45'- 11"</u> | <u>39'- 9"</u> | <u>36'- 3"</u> | <u>32'- 5"</u> |
| | PKI 50 | <u>46'- 9"</u> | <u>41'- 7"</u> | <u>37'- 11"</u> | <u>33'- 9"</u> |

40 Live Load / 30 Dead Load (L/480)

| JOIST DEPTH | JOIST TYPE | Multiple Spans (ft-in) | | | |
|-------------|-------------|------------------------|-----------------|-----------------|-----------------|
| | | O/C SPACING | | | |
| | | 12" | 16" | 19.2" | 24" |
| 9 1/2" | PKI 10 | 16'- 5" | 14'- 3" | 13'- 0" | 11'- 8" |
| | PKI 20 | 17'- 11" | 15'- 6" | 14'- 2" | <u>12'- 8"</u> |
| | PKI 23 | 19'- 6" | 16'- 11" | 15'- 5" | 13'- 9" |
| | PKI 35 Plus | 19'- 8" | 17'- 1" | 15'- 7" | <u>13'- 0"</u> |
| | PKI 40 | 23'- 1" | 21'- 0" | 19'- 2" | 15'- 4" |
| 11 7/8" | PKI 10 | 18'- 10" | 16'- 4" | 14'- 11" | <u>13'- 4"</u> |
| | PKI 20 | 20'- 9" | 17'- 11" | 16'- 5" | <u>14'- 5"</u> |
| | PKI 23 | 22'- 3" | 19'- 3" | 17'- 7" | <u>15'- 9"</u> |
| | PKI 35 Plus | 22'- 5" | <u>19'- 5"</u> | <u>17'- 9"</u> | <u>14'- 2"</u> |
| | PKI 40 | 27'- 5" | 24'- 5" | <u>22'- 4"</u> | <u>18'- 7"</u> |
| | PKI 50 | 27'- 7" | 25'- 2" | <u>23'- 8"</u> | <u>19'- 1"</u> |
| 14" | PKI 10 | 20'- 7" | 17'- 10" | 16'- 4" | <u>14'- 7"</u> |
| | PKI 20 | 22'- 5" | 19'- 5" | 17'- 9" | <u>15'- 3"</u> |
| | PKI 23 | 24'- 5" | 21'- 1" | 19'- 3" | 15'- 10" |
| | PKI 35 Plus | 24'- 6" | <u>21'- 3"</u> | <u>19'- 0"</u> | <u>15'- 3"</u> |
| | PKI 40 | 31'- 0" | <u>26'- 10"</u> | <u>24'- 6"</u> | <u>20'- 4"</u> |
| | PKI 50 | 31'- 3" | <u>28'- 1"</u> | <u>25'- 6"</u> | <u>20'- 4"</u> |
| 16" | PKI 20 | 24'- 1" | 20'- 10" | 19'- 0" | 16'- 0" |
| | PKI 23 | 26'- 3" | <u>22'- 9"</u> | 19'- 9" | 15'- 10" |
| | PKI 35 Plus | <u>26'- 2"</u> | <u>22'- 8"</u> | <u>20'- 7"</u> | <u>16'- 5"</u> |
| | PKI 40 | 33'- 4" | <u>28'- 11"</u> | 26'- 4" | 21'- 7" |
| | PKI 50 | 34'- 7" | <u>30'- 3"</u> | <u>27'- 0"</u> | 21'- 7" |
| 18" | PKI 40 | <u>35'- 6"</u> | <u>30'- 9"</u> | 28'- 0" | <u>24'- 6"</u> |
| | PKI 50 | <u>37'- 9"</u> | <u>33'- 1"</u> | <u>30'- 2"</u> | <u>24'- 6"</u> |
| 20" | PKI 40 | <u>37'- 4"</u> | <u>32'- 4"</u> | 29'- 6" | <u>25'- 2"</u> |
| | PKI 50 | <u>40'- 3"</u> | <u>34'- 10"</u> | 31'- 6" | <u>25'- 2"</u> |
| 22" | PKI 40 | <u>39'- 0"</u> | <u>33'- 10"</u> | <u>30'- 10"</u> | <u>25'- 11"</u> |
| | PKI 50 | <u>40'- 10"</u> | <u>35'- 4"</u> | <u>32'- 3"</u> | <u>25'- 11"</u> |
| 24" | PKI 40 | <u>40'- 8"</u> | <u>35'- 3"</u> | <u>32'- 2"</u> | <u>26'- 6"</u> |
| | PKI 50 | <u>42'- 7"</u> | <u>36'- 10"</u> | <u>33'- 2"</u> | <u>26'- 6"</u> |

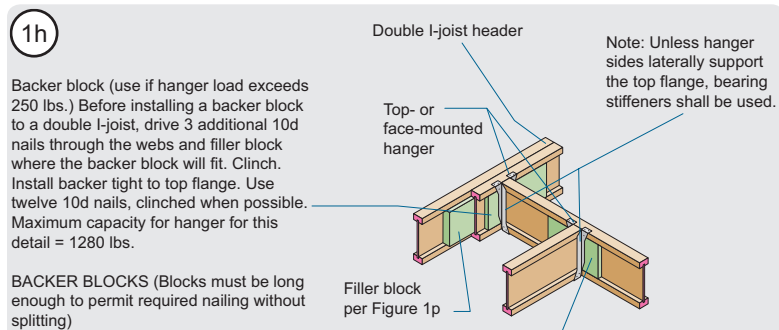
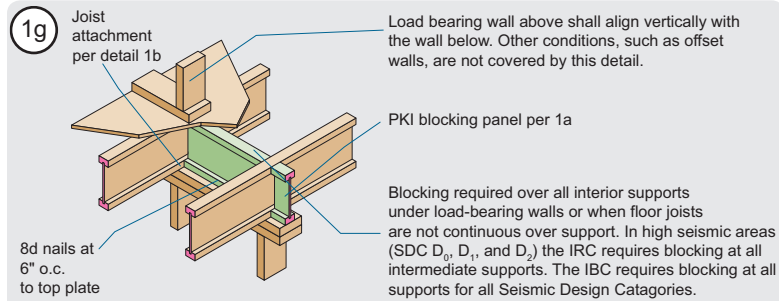
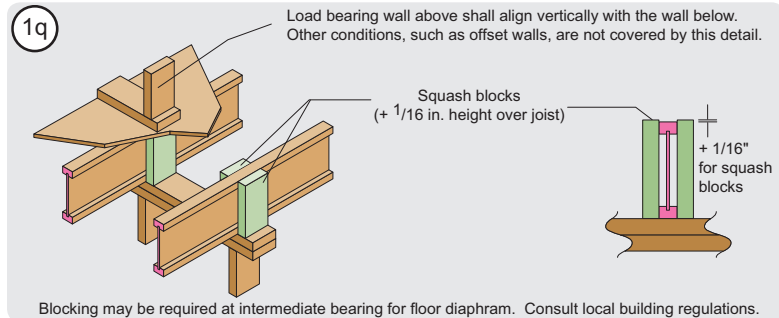
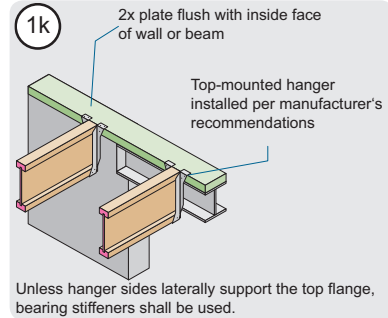
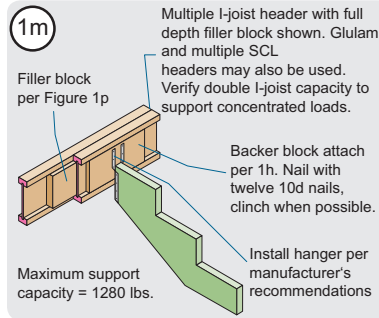
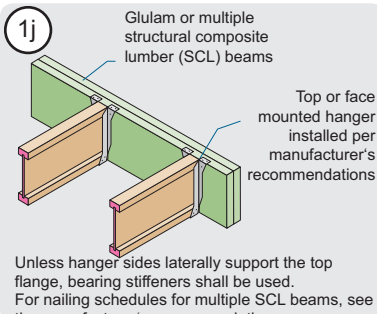
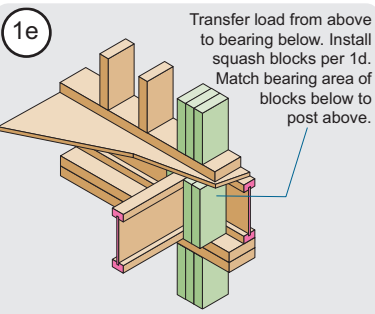
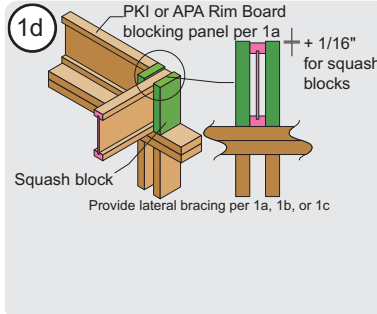
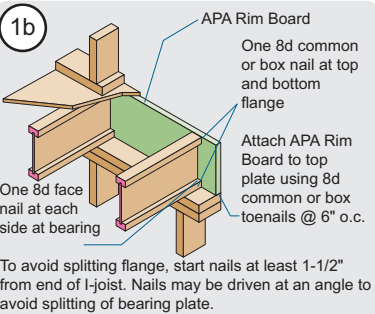
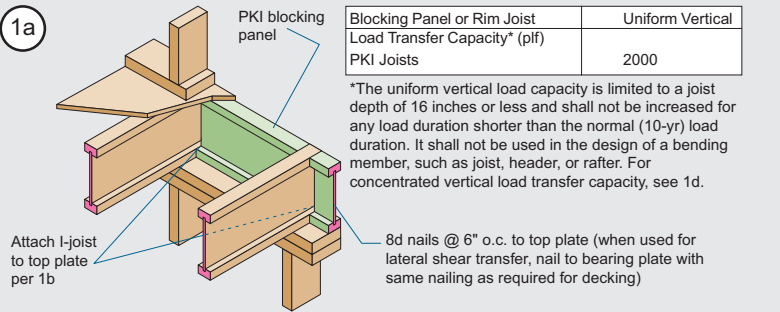
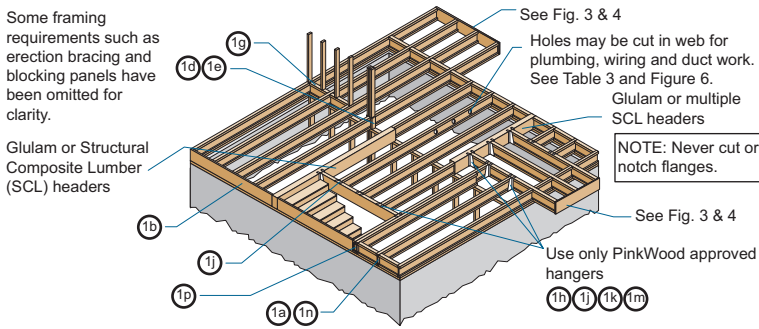
NOTES ON SPAN TABLES

- Allowable design span applicable to multiple-span residential floor construction with loads as indicated in the tables above. The live load deflection is limited to span/480.
- Spans are based on a composite floor with glued-nailed sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PS 1, PS 2, CSA O325, or CSA O437. Adhesive shall meet ASTM D3498 or APA Specification AFG-01.
- Minimum end bearing length shall be 1-1/2 inches for 9 1/2" to 16" deep I-joists and 2-1/2 inches for 18" to 24" deep I-joists.
- Pink shaded** spans require 2-1/2" end bearing for 9 1/2" to 16" deep I-joists and 4" end bearing for 18" to 24" deep I-joists.
- Bearing stiffeners are not required for end bearings when I-joists are used with the spans and spacings given in this table, except as required by hanger manufacturers.
- For multiple spans, underlined spans require 3-1/2" intermediate bearing with web stiffener, all other span require 3-1/2" intermediate bearing without web stiffener.

FLOOR INSTALLATION DETAILS - PKI 10, 20, 23, 35 Plus, 40 & 50

TYPICAL PERFORMANCE RATED I-JOIST FLOOR FRAMING AND CONSTRUCTION

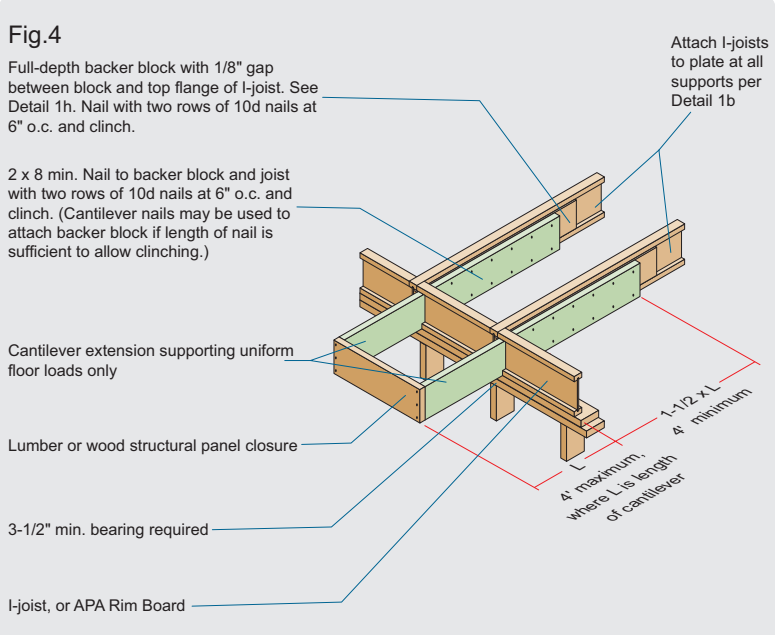
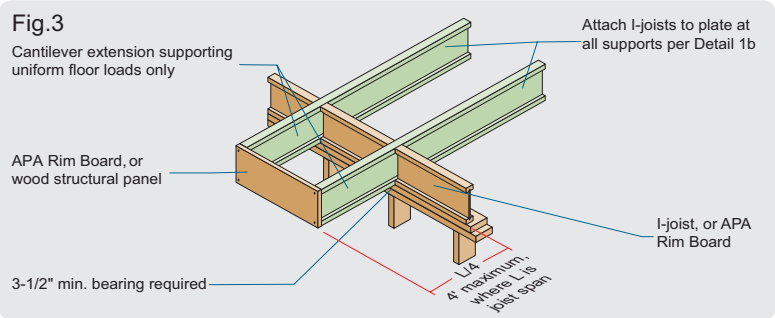
Fig.1



| Flange Width | Material Thickness Required ^(a) | Minimum Depth ^(b) |
|--------------|--|------------------------------|
| 2-1/2" | 1" | 5-1/2" |
| 3-1/2" | 1-1/2" | 7-1/4" |

(a) Minimum grade for backer block material shall be Utility grade SPF (south) or better for solid sawn lumber and Rated Sheathing or Single Floor grade for wood structural panels.
 (b) For face-mount hangers use net joist depth minus 3-1/4" for joists with 1-1/2" thick flanges. For 1-5/16" thick flanges use net depth minus 2-7/8".

Disclaimer: The above details represent the most common details found in day to day construction of I-joist floor systems and are not intended to cover all scenarios that may be encountered in the field. When faced with an uncertain design detail, please contact your PKI supplier or PinkWood Ltd. for assistance.



1p FILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST CONSTRUCTION

| Flange Width | Net Depth | Filler Block Size |
|--------------|-----------|-------------------|
| 2-1/2" | 9-1/2" | 2-1/8" x 6" |
| | 11-7/8" | 2-1/8" x 8" |
| | 14" | 2-1/8" x 10" |
| 3-1/2" | 9-1/2" | 3" x 6" |
| | 11-7/8" | 3" x 8" |
| | 14" | 3" x 10" |
| 16" | 11-7/8" | 3" x 12" |
| | 14" | 3" x 12" |

Notes:

- Support back of I-joist web during nailing to prevent damage to web/flange connection.
- Leave a 1/8-inch gap between top of filler block and bottom of top I-joist flange.
- Filler block is required between joists for full length of span.
- 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 greater 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 nails per foot).
- The maximum load that may be applied to one side of the double joist using this detail is 620 lbf/ft.
- For I-joist depths greater than 16 inches, please contact your PinkWood representative for details.

I-JOIST WEB STIFFENERS

A web stiffener is a wood block that is used to reinforce the web of an I-joist at locations where:

- The webs of the I-joist are in jeopardy of buckling out of plane. This usually occurs in deeper I-joists.
- The webs of the I-joist are in jeopardy of "knifing" through the I-joist flanges. This can occur at any I-joist depth when the design reaction loads exceed a specific level.
- The I-joist is supported in a hanger and the sides of the hanger do not extend up to the top flange. With the top flange unsupported by the hanger sides, the joist may deflect laterally, putting a twist in the flange of the joist. The web stiffener supports the I-joist along a vertical axis as designed. (In this application, the web stiffener acts very much like a backer block.)

There are two kinds of web stiffeners: bearing stiffeners and load stiffeners. They are differentiated by the applied load and the location of the gap between the slightly undersized stiffener and the top or bottom flange.

WEB STIFFENER INSTALLATION DETAILS

Bearing stiffeners are located at the reactions, both interior and exterior, when required.
Load stiffeners are located between supports where significant point loads are applied to the top flange of an I-joist.

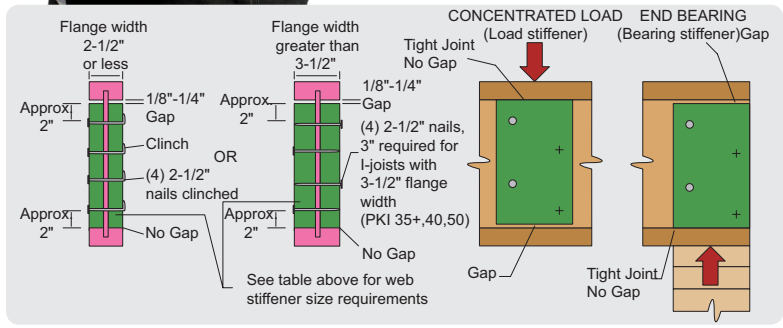
STIFFENER SIZE REQUIREMENTS

Table 3

| PKI Flange Width | Web Stiffener Size Each Side of Web |
|------------------|-------------------------------------|
| 2-1/2" | 1" x 2-5/16" min. width |
| 3-1/2" | 1-1/2" x 2-5/16" min. width |



"Fire Rated PKjoists make your home a safer place to live. To me that's making it right."
Mike Holmes



PHYSICAL DESCRIPTION:

Web stiffener blocks may be comprised of lumber, APA Rim Board or wood structural panels. The wood structural panels should be Rated Sheathing or Single Floor; minimum lumber grade is Utility grade SPF (south) or better.

Ideally, the depth of the web stiffener should equal the distance between the flanges of the joist minus 1/8 inch to 1/4 inch. For **bearing stiffeners**, this gap is placed between the top of the stiffener and the bottom of the top flange. For **load stiffeners**, the gap is located at the bottom of the stiffener.

LOCATION OF CIRCULAR HOLES IN PKI JOIST WEBS

TABLE 5. 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 1/4 | 7 | 8 | 8 5/8 | 9 | 10 | 10 3/4 | 11 | 12 | 12 3/4 | 13 | 14 | 14 3/4 | 15 | 16 | 16 3/4 | 17 | 18 | 18 3/4 | 19 | 20 | 20 3/4 |
| 9 1/2" | PKI 10 | 12.91 | 1'-1" | 1'-2" | 1'-8" | 2'-11" | 4'-4" | 4'-9" | | | | | | | | | | | | | | | | | | | | | |
| | PKI 20 | 14.09 | 1'-1" | 1'-2" | 2'-5" | 3'-9" | 5'-2" | 5'-7" | | | | | | | | | | | | | | | | | | | | | |
| | PKI 23 | 14.83 | 1'-1" | 1'-2" | 1'-5" | 3'-1" | 4'-10" | 5'-3" | | | | | | | | | | | | | | | | | | | | | |
| | PKI 35 Plus | 15.32 | 1'-1" | 2'-1" | 3'-5" | 4'-9" | 6'-3" | 6'-9" | | | | | | | | | | | | | | | | | | | | | |
| | PKI 40 | 16.81 | 2'-0" | 3'-4" | 4'-9" | 6'-4" | 7'-11" | 8'-4" | | | | | | | | | | | | | | | | | | | | | |
| 11 7/8" | PKI 10 | 14.81 | 1'-1" | 1'-2" | 1'-2" | 1'-8" | 2'-10" | 3'-2" | 4'-2" | 5'-6" | 6'-7" | | | | | | | | | | | | | | | | | | |
| | 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" | 1'-8" | 3'-1" | 3'-6" | 4'-8" | 6'-4" | 7'-6" | | | | | | | | | | | | | | | | | | |
| | 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 10 | 16.24 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 1'-8" | 1'-11" | 2'-9" | 4'-0" | 4'-9" | 5'-3" | 6'-8" | 8'-2" | | | | | | | | | | | | | | | |
| | 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" | 1'-10" | 2'-2" | 3'-2" | 4'-7" | 5'-7" | 6'-2" | 7'-9" | 9'-6" | | | | | | | | | | | | | | | |
| | 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" | | | | | | | | | | | | | | | | |
| 16" | PKI 20 | 18.97 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 1'-5" | 1'-8" | 2'-6" | 3'-8" | 4'-5" | 4'-10" | 6'-1" | 7'-1" | 7'-5" | 9'-3" | 11'-3" | | | | | | | | | | | | |
| | PKI 23 | 19.94 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 1'-3" | 1'-4" | 1'-5" | 2'-9" | 3'-7" | 4'-1" | 5'-8" | 7'-0" | 7'-5" | 9'-5" | 11'-7" | | | | | | | | | | | | |
| | PKI 35 Plus | 18.71 | 1'-1" | 1'-2" | 1'-2" | 1'-5" | 2'-6" | 2'-10" | 3'-8" | 4'-10" | 5'-7" | 6'-1" | 7'-4" | 8'-4" | 8'-9" | 11'-0" | 13'-0" | | | | | | | | | | | | |
| | PKI 40 | 25.03 | 1'-1" | 1'-2" | 2'-3" | 3'-7" | 4'-10" | 5'-2" | 6'-2" | 7'-6" | 8'-5" | 9'-0" | 10'-6" | 11'-9" | 12'-2" | 14'-3" | 15'-10" | | | | | | | | | | | | |
| | PKI 50 | 25.17 | 1'-1" | 1'-2" | 1'-2" | 2'-2" | 3'-7" | 3'-11" | 5'-1" | 6'-7" | 7'-7" | 8'-2" | 9'-10" | 11'-1" | 11'-7" | 13'-5" | 15'-0" | | | | | | | | | | | | |
| 18" | PKI 40 | 27.24 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 2'-5" | 2'-9" | 3'-9" | 5'-1" | 6'-0" | 6'-6" | 8'-0" | 9'-2" | 9'-6" | 11'-2" | 12'-8" | 13'-2" | 15'-6" | 17'-6" | | | | | | | | | |
| | PKI 50 | 27.41 | 1'-1" | 1'-2" | 1'-2" | 2'-3" | 3'-7" | 3'-11" | 4'-11" | 6'-4" | 7'-3" | 7'-9" | 9'-3" | 10'-5" | 10'-10" | 12'-5" | 13'-9" | 14'-2" | 16'-0" | 17'-8" | | | | | | | | | |
| 20" | PKI 40 | 29.48 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 1'-7" | 1'-11" | 2'-10" | 4'-2" | 4'-11" | 5'-5" | 6'-10" | 7'-10" | 8'-2" | 9'-7" | 10'-9" | 11'-1" | 12'-11" | 14'-8" | 15'-3" | 17'-9" | 20'-1" | | | | | | |
| | PKI 50 | 29.66 | 1'-1" | 1'-2" | 1'-2" | 1'-10" | 3'-1" | 3'-5" | 4'-4" | 5'-8" | 6'-6" | 7'-0" | 8'-5" | 9'-6" | 9'-10" | 11'-3" | 12'-5" | 12'-10" | 14'-5" | 15'-9" | 16'-3" | 18'-5" | 20'-3" | | | | | | |
| 22" | PKI 40 | 30.34 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 1'-3" | 1'-4" | 2'-1" | 3'-3" | 4'-1" | 4'-6" | 5'-9" | 6'-9" | 7'-1" | 8'-5" | 9'-5" | 9'-9" | 11'-2" | 12'-4" | 12'-9" | 14'-10" | 16'-7" | 17'-4" | 20'-5" | 22'-10" | | | |
| | PKI 50 | 30.34 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 1'-10" | 2'-1" | 3'-0" | 4'-3" | 5'-0" | 5'-6" | 6'-9" | 7'-9" | 8'-1" | 9'-5" | 10'-5" | 10'-9" | 12'-2" | 13'-6" | 13'-11" | 16'-1" | 17'-10" | 18'-5" | 20'-10" | 23'-1" | | | |
| 24" | PKI 40 | 30.34 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 1'-3" | 1'-4" | 1'-4" | 2'-6" | 3'-3" | 3'-8" | 4'-10" | 5'-9" | 6'-1" | 7'-4" | 8'-3" | 8'-7" | 9'-10" | 10'-10" | 11'-2" | 12'-7" | 13'-11" | 14'-5" | 16'-10" | 18'-11" | 19'-8" | 22'-9" | 25'-2" |
| | PKI 50 | 30.34 | 1'-1" | 1'-2" | 1'-2" | 1'-3" | 1'-3" | 1'-4" | 2'-2" | 3'-4" | 4'-1" | 4'-6" | 5'-9" | 6'-8" | 6'-11" | 8'-2" | 9'-2" | 9'-6" | 10'-9" | 11'-10" | 12'-2" | 13'-10" | 15'-3" | 15'-9" | 17'-11" | 19'-7" | 20'-4" | 23'-4" | 25'-10" |

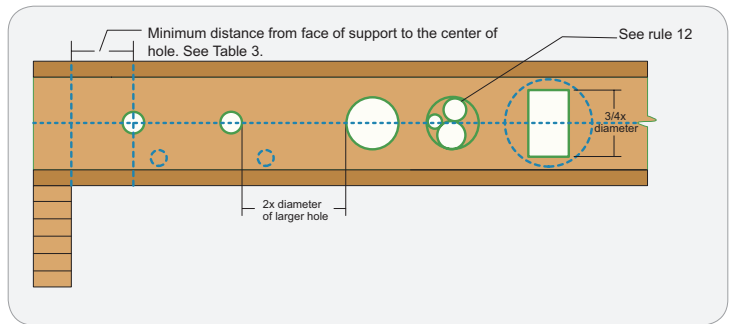
WEB HOLE SPECIFICATIONS

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, therefore 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 5.
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 5.
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.

PKI JOIST TYPICAL HOLES - FIGURE 6



Notes:

- (a) 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_m) is calculated using the following equation:

$$V_m = \text{Published Shear Value} \times [(\text{Joist Depth} - \text{Hole Diameter}) / \text{Joist Depth}]$$

- (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 indicated, may be reduced as follows:

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

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).

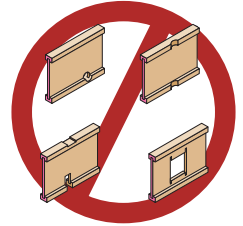
SAF = Span Adjustment Factor given in this table.

D = The minimum distance from the inside face of any support to center of hole from this table.

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

Cutting the Hole

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



FIRE RATED ASSEMBLIES

Full PinkWood Fire assembly listings can be found in APA Product Report PR-S315

PinkWood Assembly PK1.5

One-Hour Fire Resistance Rated Floor/Ceiling Assembly
This fire resistance design is listed in accordance with American Wood Council's Design for Code Acceptance (DCA) 3

PKI 10, PKI 20, PKI 23, PKI 35 Plus, PKI 40, and PKI 50

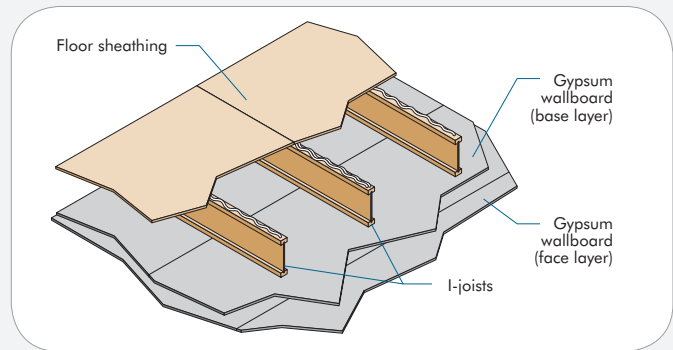
A. BASIC ASSEMBLIES

1. Floor Topping (Optional): Varies (reference sound ratings if applicable).
2. Floor Sheathing: Min. 23/32-inch (18-mm) T&G Wood Structural Panel. The sheets shall be installed with their long edge perpendicular to the joists with end joints centered over the top flange of joists. Floor sheathing must be installed per code requirements.
3. Structural Members: Min. 9-1/4 inches (235 mm) deep I-joists. Max. 24 inches (610 mm) on center spacing. Min. flange thickness of 1-1/2 inches (38 mm) and each flange area of at least 2.25 inches² (1,452 mm²). Min. web thickness of 3/8 inch (9.5 mm).
4. Ceiling: Two layers of 1/2-inch (13-mm) Type C Gypsum Wallboard.
 - a. Base Layer: Install with long dimension perpendicular to joist length. Attach to the bottom flange of the joists using 1-inch (25-mm) Type S drywall screws at 12 inches (305 mm) on center. The end joints of the wallboard must be centered on the bottom flange of the joist and must be staggered.
 - b. Face Layer: Install with long dimension perpendicular to joist length. Attach to the bottom flange of the joists through the base layer using 1-5/8-inch (41-mm) Type S drywall screws spaced at 12 inches (305 mm) on center on intermediate joists and 8 inches (203 mm) on center at end joints. The longitudinal joints of this layer must be offset 24 inches (610 mm) from those of the base layer. The end joints must be centered on the bottom flange of the joists and offset a min. of 48 inches (1219 mm) from those of the base layer. Additionally, face layer end joints are attached to the base layer with 1-1/2-inch (38-mm) Type G drywall screws at 8 inches (203 mm) on center with a 4-inch (102-mm) stagger, placed 6 inches (152 mm) either side of the joint.
 - c. Finish: The face layer joints must be covered with tape and coated with joint compound. Screw heads must also be covered with joint compound.

B. SOUND RATING(a)

| Components | STC | IIC |
|--|-----|-----|
| Base Assembly with Carpet and Padding, Gypsum Concrete | 49 | 55 |

(a) Sound ratings from the American Wood Council publication Design for Code Acceptance (DCA) 3.

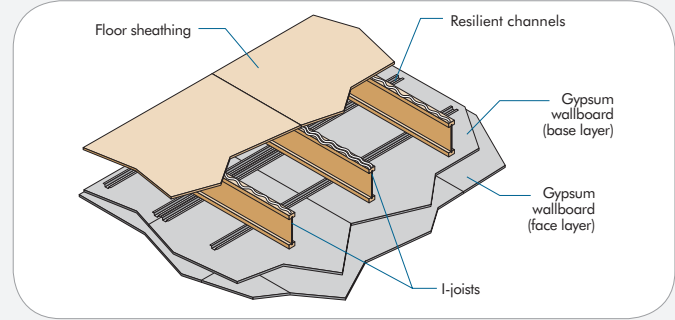


FIRE RATED ASSEMBLIES

PinkWood Assembly PK1.6

One-Hour Fire Resistance Rated Floor/Ceiling Assembly
This fire resistance design is listed in accordance with American Wood Council's Design for Code Acceptance (DCA) 3

PKI 10, PKI 20, PKI 23, PKI 35 Plus, PKI 40, and PKI 50



A. BASIC ASSEMBLIES

1. Floor Topping (Optional): Varies (reference sound ratings if applicable).
2. Floor Sheathing: Min. 23/32-inch (18-mm) T&G Wood Structural Panel. The sheets shall be installed with their long edge perpendicular to the joists with end joints centered over the top flange of joists. Floor sheathing must be installed per code requirements.
3. Structural Members: Min. 9-1/4 inches (235 mm) Deep I-joists. Max. 24 inches (610 mm) on center spacing. Min. flange thickness of 1-1/2 inches (38 mm) and each flange area of at least 2.25 inches² (1,452 mm²). Min. web thickness of 3/8 inch (9.5 mm).
4. Resilient Channels†: Min. 0.019-inch (0.5-mm) Galvanized Resilient Channels. Attached perpendicular to the bottom flange of the I-joist with 1-1/4-inch (32-mm) Type S drywall screws. Channels are spaced a max. of 16 inches (406 mm) on center (24 inches or 610 mm when I-joists are spaced a max. of 16 inches or 406 mm on center), are doubled at each base layer wallboard end joint, and extend to the next joist beyond each joint.
5. Ceiling: Two layers of 1/2-inch (13-mm) Type C Gypsum Wallboard.
 - a. Base Layer: Install with long dimension perpendicular to resilient channels. Attach to the resilient channels using 1-1/4 inch (32-mm) Type S drywall screws at 12 inches (305 mm) on center. The end joints of the wallboard must be staggered.
 - b. Face Layer: Install with long dimension perpendicular to resilient channels. Attach to the resilient channels through the base layer using 1-5/8-inch (41-mm) Type S drywall screws spaced at 12 inches (305 mm) on center. The longitudinal joints of this layer must be offset 24 inches (610 mm) from those of the base layer. Additionally, face layer end joints are attached to the base layer with 1-1/2-inch (38-mm) Type G drywall screws at 8 inches (203 mm) on center placed 1-1/2 inches (38 mm) either side of the joint.
 - c. Finish: The face layer joints must be covered with tape and coated with joint compound. Screw heads must also be covered with joint compound.

B. SOUND RATING(a)

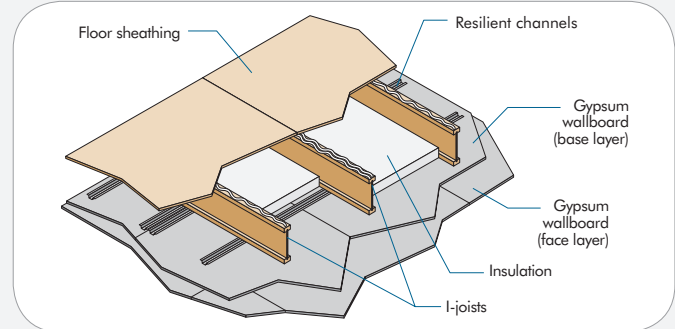
| Components | STC | IIC |
|--|-----|-----|
| Base Assembly with Carpet and Padding | 54 | 68 |
| Base Assembly with Carpet and Padding, Gypsum Concrete | 58 | 55 |

(a) Sound ratings from the American Wood Council publication Design for Code Acceptance (DCA) 3.

PinkWood Assembly PK1.7

One-Hour Fire Resistance Rated Floor/Ceiling Assembly
This fire resistance design is listed in accordance with American Wood Council's Design for Code Acceptance (DCA) 3

PKI 10, PKI 20, PKI 23, PKI 35 Plus, PKI 40, and PKI 50



A. BASIC ASSEMBLIES

1. Floor Topping (Optional): Varies (reference sound ratings if applicable).
2. Floor Sheathing: Min. 23/32-inch (18-mm) T&G Wood Structural Panel. The sheets shall be installed with their long edge perpendicular to the joists with end joints centered over the top flange of joists. Floor sheathing must be installed per code requirements.
3. Insulation: Glass Fiber Insulation. Installed between I-joists and supported by resilient channels.
4. Structural Members: Min. 9-1/4 inches (235 mm) Deep I-joists. Max. 24 inches (610 mm) on center spacing. Min. flange thickness of 1-1/2 inches (38 mm) and each flange area of at least 2.25 inches² (1,452 mm²). Min. web thickness of 3/8 inch (9.5 mm).
5. Resilient Channels†: Min. 0.019-inch (0.5-mm) Galvanized Resilient Channels. Attached perpendicular to the bottom flange of the I-joist with 1-1/4-inch (32-mm) Type S drywall screws. Channels are spaced a max. of 16 inches (406 mm) on center (24 inches or 610 mm when I-joists are spaced a max. of 16 inches or 406 mm on center), are doubled at each base layer wallboard end joint, and extend to the next joist beyond each joint.
6. Ceiling: Two layers of 1/2-inch (13-mm) Type C Gypsum Wallboard.
 - a. Base Layer: Install with long dimension perpendicular to resilient channels. Attach to the resilient channels using 1-1/4 inch (32-mm) Type S drywall screws at 12 inches (305 mm) on center. The end joints of the wallboard must be staggered.
 - b. Face Layer: Install with long dimension perpendicular to resilient channels. Attach to the resilient channels through the base layer using 1-5/8-inch (41-mm) Type S drywall screws spaced at 12 inches (305 mm) on center. The longitudinal joints of this layer must be offset 24 inches (610 mm) from those of the base layer. Additionally, face layer end joints are attached to the base layer with 1-1/2-inch (38-mm) Type G drywall screws at 8 inches (203 mm) on center placed 1-1/2 inches (38 mm) either side of the joint.
 - c. Finish: The face layer joints must be covered with tape and coated with joint compound. Screw heads must also be covered with joint compound.

B. SOUND RATING(a)

| Components | STC | IIC |
|--|-----|-----|
| Base Assembly with cushioned vinyl | 59 | 50 |
| Base Assembly with Carpet and Padding | 55 | 68 |
| Base Assembly with cushioned vinyl, Gypsum Concrete | 65 | 51 |
| Base Assembly with Carpet and Padding, Gypsum Concrete | 63 | 65 |

(a) Sound ratings from the American Wood Council publication Design for Code Acceptance (DCA) 3.

PRODUCT STORAGE

Protect products from sun and water.

Caution: Wrap is slippery when wet.

Use support blocks at 10' on centre to keep products out of mud and water.



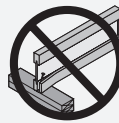
SAFETY PRECAUTIONS



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



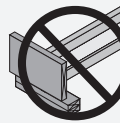
DO NOT...
cut or notch top or bottom cords.



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



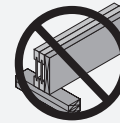
DO NOT...
bevel cut the joist past the inside face of wall.



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



DO NOT...
install joists on an angle.



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.

WARNING

Joists are unstable until braced laterally

Bracing includes:

- Blocking
- Hangers
- Rim Board
- Sheathing
- Rim
- Strut Lines

Lack of proper bracing during construction can result in serious injuries. Follow these guidelines:

1. All blocking, hangers, rim boards and rim joists at the end supports of the PKI Joists must be completely installed and properly nailed.
2. Lateral strength, like a braced end wall or an existing deck, must be established at the end of the bay. This can also be accomplished by a temporary or permanent deck (sheathing) fastened to the first four feet of joists at the end of the bay.
3. Safety bracing of 1x4 (minimum) must be nailed to a braced end wall or sheathed area (as in #2) and to each joist. Without this bracing, buckling sideways or rollover is highly probable under light construction loads - such as a worker or one layer of unnailed sheathing.
4. Sheathing must be completely attached to each PKI Joist before additional loads can be placed on the system.
5. Ends of cantilevers require safety bracing on both the top and the bottom flanges.
6. The flanges must remain straight within a tolerance of $1/2$ " from true alignment.

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.





ENGINEERED FLOOR SYSTEM GUARANTEE

PinkWood joists are manufactured to meet or exceed the rigorous engineering and testing standards set by every major code approval agency in North America.

All PinkWood joist products are unconditionally guaranteed to be free of manufacturing defects. When installed and handled as per the PKjoist Installation Guide, our joists will perform in accordance with the published structural specifications.

In the unlikely event that a problem occurs due to a manufacturing defect, PinkWood shall be given a reasonable opportunity to inspect the PinkWood product on site. If this evaluation reveals a problem due to manufacturing defects, the situation shall be promptly corrected.

Please feel free to contact a representative of PinkWood for specific details and limitations of this guarantee.



Authorized Dealer:



A product of PinkWood Ltd. Visit us at www.PinkWood.ca
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