# PACIFIC WOODJECHJJOISTS LIGHJJRAJI CO MJJERCIAL, MIDRISE, AJDD JULTITAJIIJI CONSTRUCJION 

 CANADLAN (ISD) TECHNJGAL GUJDEPWIJ 205, 325, $351,429,529$, and 56 H



# PACIFIC <br> WOODTECH 

## Light-Frame Commercial, Midrise and Multifamily Building Products from Pacific Woodtech ${ }^{\text {TM }}$

## ADVANTAGES YOU CAN USE.

Pacific Woodtech products provide solid, true and uniform building solutions for not only residential construction but for light-frame commercial and multifamily projects as well.

Our products deliver sustainability benefits and cost efficiencies that traditional lumber can't match. They offer superior strength, durability and consistency. They cut and work just like traditional wood. And they resist cupping, warping, twisting and shrinking. So you save time and money during construction while delivering advantages your customers will enjoy for years to come.

This guide features design information especially for builders using our engineered wood products in light-frame commercial and multifamily construction.

## LIFETIME LIMITED WARRANTY

Pacific Woodtech products are backed by a lifetime limited warranty. Visit pacificwoodtech.com or call (800) 515-7570 for a copy of the warranty.


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Product Specifications \& Design Values

## LIMIT STATES DESIGN VALUES

| Series | Depth | Weight | Factored Moment | El $\times 10^{6}$ | $\mathrm{K} \times 10^{6}$ | Factored Shear |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (plf) | (lb-ft) | (lb-in ${ }^{2}$ ) | (lb-ft/in) | (lbs) |
| PWI 20S, LPI 20Plus | 9-1/2" | 2.6 | 4670 | 185 | 0.358 | 1990 |
|  | 11-7/8" | 2.9 | 6250 | 318 | 0.438 | 2345 |
|  | 14 " | 3.1 | 7320 | 474 | 0.512 | 2650 |
|  | $16^{\prime \prime}$ | 3.3 | 8400 | 652 | 0.582 | 2950 |
| PWI 32S, LPI 32Plus | 9-1/2" | 2.6 | 5570 | 221 | 0.358 | 1990 |
|  | 11-7/8" | 2.9 | 7210 | 375 | 0.438 | 2345 |
|  | 14 " | 3.1 | 8680 | 549 | 0.512 | 2650 |
|  | 16" | 3.3 | 10065 | 743 | 0.582 | 2950 |
| PWI 36L, <br> LPI 36 | 11-7/8" | 3.1 | 10715 | 429 | 0.468 | 2550 |
|  | 14" | 3.4 | 12900 | 622 | 0.550 | 2890 |
|  | $16 "$ | 3.6 | 14960 | 836 | 0.625 | 3190 |
|  | 18" | 3.9 | 16860 | 1082 | 0.700 | 3450 |
| PWI 42S, LPI 42Plus | 9-1/2" | 3.4 | 8940 | 321 | 0.412 | 2115 |
|  | 11-7/8" | 3.5 | 11585 | 547 | 0.515 | 2565 |
|  | $14 "$ | 3.8 | 13950 | 802 | 0.607 | 2960 |
|  | $16 "$ | 4.0 | 16180 | 1092 | 0.693 | 3340 |
|  | 18" | 4.4 | 18290 | 1333 | 0.960 | 4035 |
|  | 20" | 4.6 | 20245 | 1688 | 1.067 | 4410 |
|  | 24" | 5.5 | 24080 | 2534 | 1.280 | 5160 |
| PWI 52S, LPI 52Plus | 11-7/8" | 4.5 | 14085 | 600 | 0.633 | 3245 |
|  | 14" | 4.8 | 16960 | 874 | 0.747 | 3680 |
|  | 16" | 5.0 | 19670 | 1183 | 0.853 | 4080 |
| PWI 56L, LPI 56 | 11-7/8" | 4.5 | 16920 | 668 | 0.549 | 3245 |
|  | 14 " | 4.8 | 20370 | 968 | 0.641 | 3680 |
|  | $16 "$ | 5.0 | 23625 | 1301 | 0.729 | 4080 |
|  | 18" | 5.3 | 26630 | 1684 | 0.817 | 4490 |
|  | 24" | 6.0 | 35490 | 3127 | 1.081 | 5715 |

## NOTES:

1. Pacific Woodtech ${ }^{T M}$ I-Joists shall be designed for dry-use conditions only. Dry-use applies to products installed in dry, covered and well ventilated interior conditions in which the equivalent average moisture content in lumber will not exceed $15 \%$ nor a maximum of $19 \%$.
2. Moment and Shear are the factored resistances for standard load duration and shall be adjusted according to code.
3. Moment resistance shall not be increased for repetitive member use.
4. Deflection calculations shall include both bending and shear deformations.

Deflection for a simple span, uniform load: $\Delta=\frac{22.5 w L^{4}}{E l}+\frac{w L^{2}}{K}$$\quad$ Where: $\begin{aligned} \Delta & =\text { deflection (in) } \\ W & =\text { uniform load (plf) } \\ L & =\text { design span (ft) }\end{aligned} \quad \begin{array}{ll}\text { El }\end{array} \quad \begin{aligned} & \text { bending stiffness (from table) } \\ & =\text { shear stiffness (from table) }\end{aligned}$
Equations for other conditions can be found in engineering references.

## PROFILE DETAILS

| PWI 20S, LPI 20PLUS PWI 32S, LPI 32PLUS | PWI 36L, LPI 36 | PWI 42S, LPI 42PLUS | PWI 42S, LPI 42PLUS | PWI 52S, LPI 52PLUS PWI 56L, LPI 56 |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  | $3 / 8^{\prime \prime} \rightarrow \left\lvert\, \begin{gathered} 9-1 / 2, " \\ 11-7 / 8^{\prime \prime}, \\ 14^{\prime \prime} \text { or } 16^{\prime \prime} \\ 1 \end{gathered}\right.$ |  |  |
|  |  |  |  |  |
|  |  |  |  | *PWI 52S, LPI 52Plus is only available in 11-7/8," 14 " \& 16" depths |

# Product Specifications \& Design Values 

FACTORED REACTION AND BEARING RESISTANCE

| Series | Depth | End Reaction Resistance ( ${ }^{1} \mathrm{lbs}$ ) |  |  |  |  | Interior Reaction Resistance ${ }^{1}$ (lbs) |  |  |  | Flange Bearing Resistance, $\varnothing \mathrm{Fcp}(\mathrm{lb} / \mathrm{in})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Minimum Bearing |  |  | Maximum Bearing (4") |  | Minimum Bearing (3-1/2") |  | Maximum Bearing (5-1/2") |  |  |
|  |  | W/out Stiffeners | With Stiffeners | Bearing Length | W/out Stiffeners | With Stiffeners | W/out Stiffeners | With Stiffeners | W/out Stiffeners | With Stiffeners |  |
| PWI 20S, LPI 20Plus | 9-1/2" | 1530 | 1800 | 1-1/2" | 1750 | 1990 | 3465 | 3750 | 3865 | 4160 | 1380 |
|  | 11-7/8" | 1530 | 2010 | 1-1/2" | 1830 | 2345 | 3680 | 3985 | 4095 | 4465 |  |
|  | $14 "$ | 1530 | 2200 | 1-1/2" | 1895 | 2650 | 3875 | 4205 | 4300 | 4745 |  |
|  | 16" | 1530 | 2385 | 1-1/2" | 1955 | 2950 | 4055 | 4410 | 4500 | 5010 |  |
| PWI 32S, LPI 32Plus | 9-1/2" | 1530 | 1800 | 1-1/2" | 1750 | 1990 | 3465 | 3750 | 3865 | 4160 | 1695 |
|  | 11-7/8" | 1530 | 2010 | 1-1/2" | 1830 | 2345 | 3680 | 3985 | 4095 | 4465 |  |
|  | 14" | 1530 | 2200 | 1-1/2" | 1895 | 2650 | 3875 | 4205 | 4300 | 4745 |  |
|  | 16 " | 1530 | 2385 | 1-1/2" | 1955 | 2950 | 4055 | 4410 | 4500 | 5010 |  |
| PWI 36L, LPI 36 | 11-7/8" | 1620 | 2370 | 1-1/2" | 2030 | 2550 | 3940 | 4900 | 4475 | 5475 | 1720 |
|  | $14 "$ | 1620 | 2390 | 1-1/2" | 2090 | 2890 | 3940 | 5060 | 4475 | 5625 |  |
|  | $16 "$ | 1620 | 2405 | 1-1/2" | 2145 | 3190 | 3940 | 5215 | 4475 | 5770 |  |
|  | 18" | 1855 | 2840 | 2-1/2" | 2200 | 3450 | 3940 | 5375 | 4475 | 5920 |  |
| PWI 42S, LPI 42Plus | 9-1/2" | 1870 | 2115 | 1-1/2" | 2060 | 2115 | 4575 | 4885 | 4640 | 5045 | 2450 |
|  | 11-7/8" | 1965 | 2385 | 1-1/2" | 2520 | 2565 | 4775 | 5270 | 4925 | 5550 |  |
|  | 14" | 2050 | 2620 | 1-1/2" | 2520 | 2960 | 4955 | 5625 | 5175 | 6005 |  |
|  | $16 "$ | 2130 | 2840 | 1-1/2" | 2520 | 3340 | 5120 | 5960 | 5420 | 6440 |  |
|  | 18" | 2370 | 3640 | 2-1/2" | 2670 | 4035 | 5445 | 6765 | 6075 | 7300 |  |
|  | 20" | 2370 | 3865 | 2-1/2" | 2670 | 4410 | 5445 | 6960 | 6075 | 7630 |  |
|  | 24" | 2370 | 4270 | 2-1/2" | 2670 | 5160 | 5445 | 7325 | 6075 | 8225 |  |
| PWI 52S, LPI 52Plus | 11-7/8" | 2160 | 2875 | 1-1/2" | 2670 | 3245 | 5400 | 6315 | 5740 | 6645 | 2450 |
|  | 14" | 2185 | 3110 | 1-1/2" | 2910 | 3680 | 5420 | 6725 | 5910 | 7165 |  |
|  | 16" | 2210 | 3330 | 1-1/2" | 3135 | 4080 | 5445 | 7110 | 6075 | 7665 |  |
| PWI 56L, LPI 56 | 11-7/8" | 1805 | 2620 | 1-1/2" | 2390 | 3245 | 4940 | 6090 | 5795 | 6410 | 2720 |
|  | 14 " | 1805 | 2770 | 1-1/2" | 2425 | 3680 | 4940 | 6400 | 5795 | 6785 |  |
|  | 16 " | 1805 | 2910 | 1-1/2" | 2455 | 4080 | 4940 | 6700 | 5795 | 7140 |  |
|  | 18" | 2075 | 3630 | 2-1/2" | 2485 | 4490 | 4940 | 7000 | 5795 | 7495 |  |
|  | 24" | 2115 | 4370 | 2-1/2" | 2580 | 5715 | 4940 | 7890 | 5795 | 8570 |  |

## NOTES:

1. End and Interior Reaction Resistance shall be limited by the Flange Bearing Resistance or the bearing resistance of the support material, whichever is less.
2. The Flange Bearing Resistance is the specified strength in compression perpendicular-to-grain $\left(f_{c p}\right)$ of the I-joist flange multiplied by $\phi=0.8$.
3. To account for eased edges when determining the compressive resistance perpendicular-to-grain ( $Q_{r}$ and $Q_{r}^{\prime}$ ) of the I-joist flange and of the support material, subtract the following from the nominal flange width of the I-joist:

- subtract 0.25 " for the PWI 18S, LPI 18, PWI 20S, LPI 20Plus, PWI 32S, LPI 32Plus, PWI 42S, LPI 42Plus,

PWI 52S, LPI 52Plus

- subtract 0.10 " for the PWI 36L, LPI 36, PWI 56L, LPI 56

4. Reaction Resistance, Flange Bearing Resistance and the bearing resistance of any wood support are for standard load duration and shall be reduced according to code for longer loading duration.
5. Reaction Resistance and Flange Bearing Resistance may be increased over that tabulated for the minimum bearing length. Linear interpolation of the Reaction Resistance between the minimum and maximum bearing length is permitted. Bearing lengths longer than the maximum do not further increase Reaction Resistance. Flange Bearing Resistance and that of a wood support will increase with additional bearing length.

## EXAMPLE:

Determine the stiffened end reaction resistance for a 14" PWI 32S with 2" of bearing, supported on an SPF wall plate (768 psi).

1. Determine End Reaction (ER) w/ Stiffeners:
$E R=2200+(2650-2200){ }^{*}\left(2^{\prime \prime}-1.5^{\prime \prime}\right) /\left(4^{\prime \prime}-1.5^{\prime \prime}\right)=2290 \mathrm{lbs}$
2. Determine Flange Bearing Resistance (FBR):

FBR $=754$ psi * $\left(2.5^{\prime \prime}-0.25^{\prime \prime}\right){ }^{*} 2$ " $=3393 \mathrm{lbs}$
3. Determine wall Plate Bearing Resistance (PBR): PBR $=0.8^{*} 768 \mathrm{psi}{ }^{*}\left(2.5 "-0.25^{\prime \prime}\right)$ * 2 " $=2764 \mathrm{lbs}$
4. Final End Reaction Resistance $w /$ Stiffeners $=2290$ lbs

| RIM AND BLOCKING CAPACITY |  |  |
| :---: | :---: | :---: |
| Series | Depth | Factored Vertical Load Resistance |
|  |  | (plf) |
| PWI 20S, LPI 20Plus | 9-1/2" | 2755 |
|  | 11-7/8" | 2552 |
|  | 14" | 2320 |
|  | $16^{\prime \prime}$ | 2175 |
| PWI 32S, LPI 32Plus | 9-1/2" | 3190 |
|  | 11-7/8" | 3190 |
|  | 14" | 2320 |
|  | $16^{\prime \prime}$ | 2175 |
| PWI 36L, LPI 36 | 11-7/8" | 2610 |
|  | 14" | 2610 |
|  | $16 "$ | 2610 |
|  | 18" | 1885 |
| PWI 42S, LPI 42Plus | 9-1/2" | 3190 |
|  | 11-7/8" | 3190 |
|  | $14 "$ | 2900 |
|  | 16 " | 2900 |
|  | 18" | 2465 |
|  | 20" | 2291 |
|  | 24" | 1595 |
| PWI 52S, LPI 52Plus | 11-7/8" | 3480 |
|  | 14" | 3190 |
|  | 16" | 2900 |
| PWI 56L, LPI 56 | 11-7/8" | 3480 |
|  | 14 " | 3190 |
|  | 16" | 2755 |
|  | 18" | 2465 |
|  | 24" | 1595 |

## NOTES:

1. The Factored Vertical Load Resistance is the capacity in pounds per lineal foot of length (plf) and shall not be adjusted for load duration.
2. Concentrated vertical loads require the addition of squash blocks. Do not use rim or blocking to support concentrated vertical loads.
3. The Factored Lateral Load Resistance for all series above is 260 plf but may be limited by the connection details used. Do not exceed the Flange Face Nailing requirements to the left.

## Floor Span Tables: 40 psf Live Load, 25 psf Dead Load, 23/32" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required.
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before sele cting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


## 40 PSF LIVE LOAD, 25 PSF DEAD LOAD: 23/32" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  |
|  |  | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16 " oc | 19.2" oc | 24" oc | 12" oc | 16 " oc | 19.2" oc | 24" oc | 12" oc | 16 " oc | 19.2" oc | 24" oc |
| PWI 20S, LPI 20Plus | 9-1/2" | 16'-4" | 15'-4" | 14'-10" | 14'-2" | 16'-10" | 15'-11" | 15'-4" | 14'-1" | 16'-9" | 15'-9" | 15'-3" | 14'-2" | 17'-4" | 16'-4" | 15'-9" | 14'-1" |
|  | 11-7/8" | 18'-4" | 17'-3" | 16'-7" | 15'-11" | 19'-3' | 17'-10" | 17'-2" | 16'-4" | 19'-0" | 17'-9" | 17'-1' | 16'-5" | 19'-11" | 18'-6" | 17'-8" | 16'-4" |
|  | 14" | 20'-6" | 19'-0" | 18'-1" | 17'-4" | 21'-5" | 19'-10" | 18'-11" | 17'-8" | 21'-2" | 19'-8" | 18'-10" | 17'-9" | 22'-3" | 20'-8" | 19'-9" | 17'-8" |
|  | 16" | 22'-4" | 20'-8" | 19'-9" | 18'-9" | 23'-5" | 21'-8" | 20'-8" | 18'-11" | 23'-1" | 21'-6" | 20'-6" | 19'-0" | 24'-3" | 22'-7" | 21'-2" | 18'-11" |
| PWI 32S, LPI 32Plus | 9-1/2" | 16'-9" | 15'-10" | 15'-3" | 14'-8" | 17'-4" | 16'-4" | 15'-9" | 15'-1" | 17'-2" | 16'-2" | 15'-7" | 15'-0" | 17'-9" | 16'-9" | 16'-2" | 15'-5" |
|  | 11-7/8" | 19'-0" | 17'-8" | 17'-0" | 16'-4" | 19'-11" | 18'-5" | 17'-8" | 16'-11" | 19'-7" | 18'-2" | 17'-6" | 16'-10" | 20'-7" | 19'-1" | 18'-3' | 17'-3" |
|  | 14" | 21'-1" | 19'-7" | 18'-8" | 17'-9" | 22'-2" | 20'-6" | 19'-6" | 18'-2" | 21'-9" | 20'-3" | 19'-4" | 18'-4" | 22'-10" | 21-3" | 20'-3" | 18'-2" |
|  | $16 "$ | 23'-0" | 21'-3" | 20'-3" | 19'-3" | 24'-1" | 22'-4" | 21'-3" | 19'-1" | 23'-8" | 22'-0" | 21'-0" | 19'-11" | 24'-11" | 23'-2" | 22'-1" | 19'-1" |
| PWI 36L, LPI 36 | 11-7/8" | 19'-7" | 18'-2' | 17'-5" | 16'-9" | 20'-7" | 19'-0" | 18'-2" | 17-4" | 20'-2" | 18'-9" | 17'-10" | 17'-2" | 21'-2" | 19'-8" | 18'-9" | 17'-9" |
|  | 14" | 21'-9" | 20'-1" | 19'-2" | 18'-2" | 22'-10" | 21'-1" | 20'-1" | 19'-1" | 22'-5" | 20'-9" | 19'-10" | 18'-10" | 23'-6" | 21'-10" | 20'-10" | 19'-9" |
|  | 16 " | 23'-7" | 21'-10" | 20'-10" | 19'-9" | 24'-9" | 22'-11" | 21'-10" | 20'-0" | 24'-4" | 22-7" | 21'-6" | 20'-5" | 25'-6" | 23'-8" | 22'-7" | 20'-0" |
|  | 18" | 25'-4" | 23'-5" | 22'-3" | 21'-1" | 26'-8" | 24'-8" | 23'-6" | 20'-0" | 26'-1" | 24'-2" | 23'-1" | 21'-11" | 27'-6" | 25'-6" | 24'-4" | 20'-0' |
| PWI 42S, LPI 42Plus | 9-1/2" | 17'-11" | 16'-10" | 16'-3" | 15'-7" | 18'-9" | 17'-5' | 16'-9" | 16'-1" | 18'-4" | 17'-2" | 16'-7" | 15'-10" | 19'-3" | 17'-10" | 17'-2" | 16'-5" |
|  | 11-7/8" | 20'-9" | 19'-2" | 18'-3" | 17'-5" | 21'-9" | 20'-1' | 19'-1" | 18'-1" | 21'-3" | 19'-8" | 18'-9" | 17'-10" | 22'-4" | 20'-8" | 19'-8" | 18'-8" |
|  | 14" | 23'-0" | 21'-3" | 20'-3" | 19'-2" | 24'-2" | 22'-4" | 21'-3" | 20'-1" | 23'-8" | 21'-11" | 20'-10" | 19'-9" | 24'-10" | 23'-0" | 21'-11" | 20'-9" |
|  | 16 " | 25'-1" | 23'-2" | 22'-1' | 20'-11" | 26'-4" | 24'-4" | 23'-2" | 21'-11" | 25'-9" | 23'-10" | 22'-9" | 21'-6" | 27'-1" | 25'-1" | 23'-10" | 22'-7" |
|  | 18" | 26'-8" | 24'-8" | 23'-6" | 22'-3" | 28'-2" | 26'-0" | 24'-9" | 23'-5" | 27'-5' | 25'-5" | 24'-3" | 22'-11" | 28'-11" | 26'-9" | 25'-6" | 24'-2" |
|  | 20" | 28'-6" | 26'-4" | 25'-1" | 23'-9" | 30'-1" | 27'-9" | 26'-5" | 25'-0" | 29'-4" | 27'-2" | 25'-11" | 24'-6" | 30'-11" | 28'-8" | 27'-4" | 25'-10" |
|  | 24" | 32'-1" | 29'-7" | 28'-2" | 26'-7" | $34^{\prime}-5 "$ | 31'-2' | 29'-8" | 28'-0" | 33'-3" | 30'-6" | 29'-1" | 27'-6" | 35'-8" | 32'-3" | 30'-8" | 29'-0" |
| PWI 52S, LPI 52Plus | 11-7/8" | 21'-3" | 19'-8" | 18'-9" | 17'-10" | 22'-4" | 20'-7" | 19'-8" | 18'-7" | 21'-9" | 20'-2" | 19'-3" | 18'-3" | 22'-10" | 21'-2" | 20'-2" | 19'-1" |
|  | 14" | 23'-8" | 21'-10" | 20'-9" | 19'-8" | 24'-10" | 22'-11" | 21'-10" | 20'-8" | 24'-2" | 22'-5" | 21'-4" | 20'-3" | 25'-5" | 23'-6" | 22'-5" | 21'-3" |
|  | 16" | 25'-9" | 23'-9" | 22'-7" | 21'-5" | 27'-0" | 24'-11" | 23'-9" | 22'-5" | 26'-4" | 24'-5" | 23'-3" | 22'-0' | 27'-8" | 25'-7" | 24'-5" | 23'-1' |
| PWI 56L, LPI 56 | 11-7/8" | 21'-9" | 20'-1" | 19'-1" | 18'-1" | 22'-10" | 21'-0" | 20'-0" | 18'-11" | 22'-3" | 20'-6" | 19'-7" | 18'-6" | 23'-4" | 21'-7" | 20'-6" | 19'-5" |
|  | 14" | 24'-1" | $22^{\prime}-3 \prime$ | 21'-2" | 20'-0" | $25^{\prime}-4$ " | 23'-4" | 22'-2" | 21'-0" | 24'-8" | 22'-9" | 21'-8" | 20'-6" | 25'-11" | 23'-11" | 22'-9" | 21'-7" |
|  | $16 "$ | 26'-2" | 24'-2" | 22'-11" | 21'-9" | 27'-6" | 25'-4" | 24'-1" | 22'-10" | 26'-9' | 24'-9" | 23'-7" | 22'-4" | 28'-2" | 26'-0" | 24'-9" | 23'-5" |
|  | 18" | 28'-1" | 25'-10" | 24'-7" | 23'-3" | 29'-7" | 27'-3" | 25'-11" | 24'-6" | 28'-9" | 26'-7" | 25'-3" | 23'-11" | 30'-3" | 28'-0" | 26'-8" | 25'-3" |
|  | 24" | 34'-0" | 30'-10" | 29'-4" | 27'-8" | 36'-7" | 32'-10" | 30'-11" | 29'-2" | 35'-1" | 31'-8" | 30'-2' | 28'-6" | 37'-9" | 34'-1" | 31'-11' | 30'-1" |

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2$ "gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F24 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: bare joist $\mathrm{L} / 360$ on live load and $\mathrm{L} / 240$ on total load. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to $16^{\prime \prime}$ deep and $2-1 / 2^{\prime \prime}$ for joists $18^{\prime \prime}$ and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for $1-$ Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

| UPLIFT COEFFICIENTS |  |  | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Short span / Long span | 0.50 |  |  |  |  |  |  |  |  |  |  |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated
by a negative value from the following:
Factored Uplift Force $(I b)=L^{*} s^{*}\left(A * D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $\mathrm{s}=$ joist spacing ( ft ), $\mathrm{D}_{\mathrm{f}}=$ factored dead load ( psf ), $\mathrm{L}_{\mathrm{f}}=$ factored live load ( psf ), $A$ and $B$ are coefficients given in the table

## Floor Span Tables: 40 psf Live Load, 35 psf Dead Load, 23/32" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


## 40 PSF LIVE LOAD, 35 PSF DEAD LOAD: 23/32" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  |
|  |  | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | $16^{\prime \prime}$ oc | 19.2" oc | 24" oc |
| PWI 20S, LPI 20Plus | 9-1/2" | 16'-4" | 15'-4" | 14'-10" | 13'-3' | 16'-10" | 15'-11" | 14'-9" | 13'-2" | 16'-9" | 15'-9" | 14'-10" | 13'-3" | 17'-4" | 16'-2" | 14'-9" | 13'-2" |
|  | 11-7/8" | 18'-4" | 17'-3" | 16'-7" | 15'-4" | 19'-3" | 17'-10" | 17'-1' | 15'-1" | 19'-0" | 17'-9" | 17'-1" | 15'-4" | 19'-11" | 18'-6" | 17'-1' | 15'-1" |
|  | 14" | 20'-6" | 19'-0" | 18'-1" | 16'-8" | 21'-5" | 19'-10" | 18'-6" | 16'-0" | 21'-2" | 19'-8" | 18'-7" | 16'-8" | 22 '-3" | 20'-4" | 18'-6" | 16'-0" |
|  | 16" | 22'-4" | 20'-8" | 19'-9" | 17'-10" | 23'-5" | 21'-8" | 19'-10" | 16'-9" | 23'-1" | 21'-6" | 19'-11" | 17'-10" | 24'-3" | 21'-9" | 19'-10" | 16'-9" |
| PWI 32S,LPI 32Plus | 9-1/2" | 16'-9" | 15'-10" | 15'-3" | 14'-6" | 17'-4" | 16'-4" | 15'-9" | 14'-3" | 17'-2" | 16'-2" | 15'-7" | 14'-6" | 17'-9" | 16'-9" | 16'-2" | 14'-3" |
|  | 11-7/8" | 19'-0" | 17'-8" | 17'-0" | 16'-4" | 19'-11" | 18'-5" | 17'-8" | 15'-1" | 19'-7" | 18'-2" | 17'-6" | 16'-6" | 20'-7" | 19'-1" | 18'-3" | 15'-1" |
|  | $14 "$ | 21'-1" | 19'-7" | 18'-8" | 17'-9" | 22'-2" | 20'-6" | 19'-6" | 16'-0" | 21-9" | 20'-3" | 19'-4" | 18'-2" | 22'-10" | 21'-3" | 20'-0" | 16'-0" |
|  | 16" | 23'-0" | 21'-3" | 20'-3" | 19'-3" | 24'-1" | 22'-4" | 21'-0" | 16'-9" | 23'-8" | 22'-0" | 21'-0" | 19'-6" | 24'-11" | 23'-2" | 21'-0" | 16'-9" |
| PWI 36L, | 11-7/8" | 19'-7" | 18'-2' | 17'-5" | 16'-9" | 20'-7" | 19'-0" | 18'-2' | 17'-4" | 20'-2" | 18'-9" | 17'-10" | 17'-2" | 21'-2" | 19'-8" | 18'-9" | 17'-7" |
|  | 14" | 21'-9" | 20'-1" | 19'-2" | 18'-2" | 22'-10" | 21'-1" | 20'-1" | 17'-7" | 22'-5" | 20'-9" | 19'-10" | 18'-10" | 23'-6" | 21'-10" | 20'-10" | 17'-7" |
|  | $16 "$ | 23'-7" | 21'-10" | 20'-10" | 19'-9" | 24'-9" | 22'-11" | 21'-10" | 17'-7" | 24'-4" | 22'-7" | 21'-6" | 20'-5" | 25'-6" | 23'-8" | 22'-0" | 17'-7" |
|  | 18" | 25'-4" | 23'-5" | 22'-3" | 21'-1" | 26'-8" | 24'-8" | 22'-0" | 17'-6" | 26'-1' | 24'-2" | 23'-1" | 21'-11" | 27'-6" | 25'-6" | 22'-0" | 17'-6" |
| PWI 42S, LPI 42Plus | 9-1/2" | 17'-11" | 16'-10" | 16'-3" | 15'-7" | 18'-9" | 17'-5' | 16'-9" | 16'-1" | 18'-4" | 17'-2" | 16'-7" | 15'-10" | 19'-3" | 17'-10" | 17'-2" | 16'-4" |
|  | 11-7/8" | 20'-9" | 19'-2" | 18'-3" | 17'-5" | 21'-9" | 20'-1" | 19'-1' | 18'-1" | 21'-3" | 19'-8" | 18'-9" | 17'-10" | 22'-4" | 20'-8" | 19'-8" | 18'-8" |
|  | 14" | 23'-0" | 21'-3" | 20'-3" | 19'-2" | 24'-2" | 22'-4" | 21'-3" | 20'-1" | 23'-8" | 21'-11" | 20'-10" | 19'-9" | 24'-10" | 23'-0" | 21'-11" | 20'-9" |
|  | 16" | 25'-1" | 23'-2" | 22'-1' | 20'-11" | 26'-4" | 24'-4" | 23'-2" | 21'-11" | 25'-9" | 23'-10" | 22'-9" | 21'-6" | 27'-1" | 25'-1" | 23'-10" | 22'-7" |
|  | 18" | 26'-8" | 24'-8" | 23'-6" | 22'-3" | $28^{\prime}-2{ }^{\prime \prime}$ | 26'-0" | 24'-9" | 23'-5" | 27'-5" | 25'-5" | 24'-3" | 22'-11" | 28'-11" | 26'-9" | 25'-6" | 24'-2" |
|  | 20" | 28'-6" | 26'-4" | 25'-1" | 23'-9" | 30'-1" | 27'-9" | 26'-5" | 25'-0" | 29'-4" | 27'-2" | 25'-11" | 24'-6" | 30'-11" | 28'-8" | 27'-4" | 25'-10" |
|  | 24" | 32'-1" | 29'-7" | 28'-2" | 26'-7" | $34^{\prime}-5{ }^{\prime \prime}$ | 31'-2' | 29'-8" | 26'-8" | 33'-3" | 30'-6" | 29'-1" | 27'-6" | $35 '-8{ }^{\prime \prime}$ | 32'-3" | 30'-8" | 26'-8" |
| PWI 52S, LPI 52Plus | 11-7/8" | 21'-3" | 19'-8" | 18'-9" | 17'-10" | 22'-4" | 20'-7" | 19'-8" | 18'-7" | 21'-9" | 20'-2" | 19'-3" | 18'-3" | 22'-10" | 21'-2' | 20'-2" | 19'-1" |
|  | 14" | 23'-8" | 21'-10" | 20'-9" | 19'-8" | 24'-10" | 22'-11" | 21'-10" | 20'-8" | 24'-2" | 22'-5" | 21'-4" | 20'-3" | 25'-5" | 23'-6" | 22'-5" | 21'-3" |
|  | 16" | 25'-9" | 23'-9" | 22'-7" | 21'-5" | 27'-0" | 24'-11" | 23'-9" | 22'-5" | 26'-4" | 24'-5" | 23'-3" | 22'-0" | 27'-8" | 25'-7" | 24'-5" | 23'-1" |
| PWI 56L, LPI 56 | 11-7/8" | 21'-9" | 20'-1" | 19'-1' | 18'-1" | 22'-10" | 21'-0" | 20'-0" | 18'-11" | 22'-3" | 20'-6" | 19'-7" | 18'-6" | 23'-4" | 21'-7" | 20'-6" | 19'-5" |
|  | 14" | 24'-1" | 22'-3" | 21'-2" | 20'-0" | 25'-4" | 23'-4" | 22'-2" | 21'-0" | 24'-8" | 22'-9" | 21'-8" | 20'-6" | 25'-11" | 23'-11" | 22'-9" | 21'-7" |
|  | $16 "$ | 26'-2" | 24'-2" | 22'-11" | 21'-9" | 27'-6" | 25'-4" | 24'-1" | 22'-10" | 26'-9" | 24'-9" | 23'-7" | 22'-4" | 28'-2" | 26'-0" | 24'-9" | 23'-5" |
|  | 18" | 28'-1" | 25'-10" | 24'-7" | 23'-3" | 29'-7" | 27'-3" | 25'-11" | 24'-6" | 28'-9" | 26'-7" | 25'-3" | 23'-11" | 30'-3" | 28'-0" | 26'-8" | 25'-3" |
|  | 24" | 34'-0" | 30'-10" | 29'-4" | 27'-8" | 36'-7" | 32'-10" | 30'-11" | 27'-11" | 35'-1" | 31'-8" | 30'-2" | 28'-6" | 37'-9" | 34'-1" | 31'-11' | 27'-11" |

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2$ " gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F24 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: bare joist $\mathrm{L} / 360$ on live load and $\mathrm{L} / 240$ on total load. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to $16^{\prime \prime}$ deep and $2-1 / 2^{\prime \prime}$ for joists $18^{\prime \prime}$ and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for $1-$ Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

| UPLIFT COEFFICIENTS |  |  | 0.60 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Short span / Long span | 0.50 |  |  | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(I b)=L^{*} s^{*}\left(A * D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $\mathrm{s}=$ joist spacing ( ft ), $\mathrm{D}_{\mathrm{f}}=$ factored dead load ( psf ), $\mathrm{L}_{\mathrm{f}}=$ factored live load ( psf ), $A$ and $B$ are coefficients given in the table

## Floor Span Tables: 50 psf Live Load, 35 psf Dead Load, 23/32" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


50 PSF LIVE LOAD, 35 PSF DEAD LOAD: 23/32" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  |
|  |  | 12" oc | $16^{\prime \prime}$ oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc |
| PWI 20S,LPI 20Plus | 9-1/2" | 16'-1" | 14'-8" | 13'-10" | 12'-5" | 16'-10" | $15^{\prime \prime}-1$ ' | 13'-9" | 12'-4" | 16'-1" | 14'-8" | 13'-10" | 12'-5" | 17'-4" | 15'-1" | 13'-9" | 12'-4" |
|  | 11-7/8" | 18'-4" | 17'-3" | 16'-1" | 14'-4" | 19'-3" | 17'-6" | 16'-0" | 13'-2" | 19'-0" | 17'-6" | 16'-1" | 14'-4" | 19'-11" | 17'-6" | 16'-0" | 13'-2" |
|  | $14 "$ | 20'-6" | 19'-0" | 17'-5" | 15'-6" | 21'-5" | 19'-0" | 17'-4" | 13'-11" | 21'-2" | 19'-1" | 17'-5" | 15'-6" | 21-11" | 19'-0" | 17'-4" | 13'-11" |
|  | 16" | 22'-4" | 20'-5" | 18'-8" | 16'-8" | 23'-5" | 20'-4" | 18'-4" | 14'-7" | 23'-1" | 20'-5' | 18'-8" | 16'-8" | 23'-6" | 20'-4" | 18'-4" | 14'-7" |
| PWI 32S, LPI 32Plus | 9-1/2" | 16'-9" | 15'-5" | 14'-7" | 13'-6" | 17'-4" | 16'-4" | 15'-1" | 12'-5" | 17'-0" | 15'-5" | 14'-7" | 13'-6" | 17'-9" | 16'-6" | 15'-1" | 12'-5" |
|  | 11-7/8" | 19'-0' | 17'-8" | 17'-0" | 15'-5" | 19'-11" | 18'-5" | 16'-6" | 13'-2" | 19'-7" | 18'-2' | 17'-3" | 15'-5" | 20'-7" | 18'-10" | 16'-6" | 13'-2" |
|  | $14 "$ | 21'-1" | 19'-7" | 18'-8" | 16'-11" | 22'-2" | 20'-6" | 17'-5" | 13'-11" | 21'-9" | 20'-3" | 18'-11" | 16'-11" | 22'-10" | 20'-8" | 17'-5" | 13'-11" |
|  | 16" | 23'-0" | 21'-3" | 20'-3" | 18'-3' | 24'-1" | 22'-0" | 18'-4" | 14'-7" | 23'-8" | 22'-0" | 20'-5" | 18'-3" | 24'-11" | 22'-0" | 18'-4" | 14'-7" |
| PWI 36L, LPI 36 | 11-7/8" | 19'-7" | 18'-2' | 17'-5" | 16'-9" | 20'-7" | 19'-0" | 18'-2" | 15'-4" | 20'-2" | 18'-9" | 17'-10" | 16'-9" | 21'-2" | 19'-8" | 18'-9" | 15'-4" |
|  | 14" | 21'-9" | 20'-1" | 19'-2" | 18'-2" | 22'-10" | 21'-1" | 19'-3" | 15'-4" | 22'-5" | 20'-9" | 19'-10" | 18'-10" | 23'-6" | 21'-10" | 19'-3" | 15'-4" |
|  | 16" | 23'-7" | 21'-10" | 20'-10" | 19'-2" | 24'-9" | 22'-11" | 19'-3" | 15'-4" | 24'-4" | 22'-7" | 21'-6" | 19'-2" | 25'-6" | 23'-1" | 19'-3" | 15'-4" |
|  | 18" | 25'-4" | 23'-5" | 22'-3" | 21'-1" | 26'-8" | 23'-1" | 19'-2" | 15'-3" | 26'-1" | 24'-2" | 23'-1" | 21'-11" | 27'-6" | 23'-1" | 19'-2" | 15'-3" |
| PWI 42S, LPI 42Plus | 9-1/2" | 17'-11" | 16'-10" | 16'-3" | 15'-1" | 18'-9" | 17'-5" | 16'-9" | 14'-3" | 18'-4" | 17'-2" | 16'-3" | 15'-1" | 19'-3" | 17'-10" | 17'-2" | 14'-3" |
|  | 11-7/8" | 20'-9" | 19'-2" | 18'-3" | 17'-5" | 21'-9" | 20'-1" | 19'-1" | 17'-3" | 21'-3' | 19'-8" | 18'-9" | 17'-10" | 22'-4" | 20'-8" | 19'-8" | 17'-3" |
|  | 14" | $23^{\prime}-0{ }^{\prime \prime}$ | 21'-3" | 20'-3" | 19'-2" | 24'-2" | 22'-4" | 21'-3" | 18'-8" | 23'-8" | 21'-11" | 20'-10" | 19'-9" | 24'-10" | 23'-0" | 21'-11" | 18'-8" |
|  | $16 "$ | 25'-1" | 23'-2" | 22'-1' | 20'-11" | 26'-4" | 24'-4" | 23'-2" | 19'-10" | 25'-9" | 23'-10" | 22'-9" | 21'-6" | 27'-1" | 25'-1" | 23'-10" | 19'-10" |
|  | 18" | 26'-8" | 24'-8" | 23'-6" | 22'-3" | 28'-2" | 26'-0" | 24'-9" | 22'-6" | 27'-5" | 25'-5" | 24'-3" | 22'-11" | 28'-11" | 26'-9" | 25'-6" | 22'-6" |
|  |  | 28'-7" | 26'-4" | 25'-1" | 23'-9" | 30'-1' | 27'-9" | 26'-5" | 23'-2" | 29'-4" | 27'-2" | 25'-11" | 24'-6" | 30'-11" | 28'-8" | 27'-4" | 23'-2" |
|  | 24" | 32'-1" | 29'-7" | 28'-2" | 26'-7" | 34 '-5" | 31'-2" | 29'-2" | 23'-3" | 33'-3" | 30'-6" | 29'-1" | 27'-6" | 35'-8" | 32'-3" | 29'-2" | 23'-3" |
| PWI 52S,LPI 52Plus | 11-7/8" | 21'-3" | 19'-8" | 18'-9" | 17'-10" | 22'-4" | 20'-7" | 19'-8" | 18'-7" | 21'-9" | 20'-2" | 19'-3" | 18'-3" | 22'-10" | 21'-2" | 20'-2" | 19'-1" |
|  | 14" | 23'-8" | 21'-10" | 20'-9" | 19'-8" | 24'-10" | 22'-11" | 21'-10" | 20'-8" | 24'-2' | 22'-5" | 21'-4" | 20'-3" | 25'-5" | 23'-6" | 22'-5" | 21'-3" |
|  | 16" | 25'-9" | 23'-9" | 22'-7" | 21'-5" | 27'-0" | 24'-11" | 23'-9" | 22'-5" | 26'-4" | 24'-5" | 23'-3" | 22'-0" | 27'-8" | 25'-7" | 24'-5" | 23'-1" |
| PWI 56L, LPI 56 | 11-7/8" | 21'-9" | 20'-1' | 19'-1' | 18'-1" | 22'-10" | 21'-0" | 20'-0" | 18'-11" | 22'-3" | 20'-6" | 19'-7" | 18'-6" | 23'-4" | 21'-7" | 20'-6" | 19'-5" |
|  | $14 "$ | 24'-1" | 22'-3" | 21'-2" | 20'-0" | 25'-4" | 23'-4" | 22'-2" | 21'-0" | 24'-8" | 22'-9" | 21'-8" | 20'-6" | 25'-11" | 23'-11" | 22'-9" | 21'4" |
|  | 16 " | 26'-2" | 24'-2" | 22'-11" | 21'-9" | 27'-6" | 25'-4" | 24'-1" | 22'-4" | 26'-9" | 24'-9" | 23'-7" | 22'-4" | 28'-2" | 26'-0" | 24'-9" | 22'-4" |
|  | 18" | 28'-1" | 25'-10" | 24'-7" | 23'-3' | 29'-7" | 27'-3" | 25'-11" | 23'-3" | 28'-9' | 26'-7" | 25'-3' | 23'-11" | 30'-3" | 28'-0" | 26'-8" | 23'-3" |
|  | 24" | 34'-0" | 30'-10" | 29'-4" | 27'-8" | 36'-7" | 32'-10" | 30'-6" | 24'-4" | 35'-1' | 31'-8" | 30'-2" | 28'-6" | 37'-9" | 34'-1" | 30'-6" | 24'-4" |

NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2$ "gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F24 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: L/480 on live load and $\mathrm{L} / 240$ on total load based on composite action with the glued floor sheathing. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to $16^{\prime \prime}$ deep and $2-1 / 2^{\prime \prime}$ for joists $18^{\prime \prime}$ and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for $1-$ Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

## UPLIFT COEFFICIENTS

| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(\mathrm{Ib})=L^{*} \mathrm{~s}^{*}\left(\mathrm{~A}^{*} \mathrm{D}_{\mathrm{f}}-\mathrm{L}_{\mathrm{f}}\right) / \mathrm{B}$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $s=$ joist spacing ( ft ), $D_{f}=$ factored dead load ( psf ), $\mathrm{L}_{\mathrm{f}}=$ factored live load ( psf ), $A$ and $B$ are coefficients given in the table

## Floor Span Tables: 50 psf Live Load, 45 psf Dead Load, 23/32" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required.
3. Find a span that meets or exceeds the required clear span,
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


50 PSF LIVE LOAD, 45 PSF DEAD LOAD: 23/32" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  |
|  |  | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | $16^{\prime \prime}$ oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc |
| PWI 20S, LPI 20Plus | 9-1/2" | 16'-1" | 14'-5" | 13'-2" | 11'-9" | 16'-7' | 14'-4" | 13'-1" | 11'-2" | 16'-1" | 14'-5" | 13'-2' | 11'-9" | 16'-7" | 14'-4" | 13'-1" | 11'-2" |
|  | 11-7/8" | 18'-4" | 16'-9" | 15'-3" | 13'-8" | 19'-3" | 16'-8" | 14'-11" | 11'-11" | 19'-0" | 16'-9" | 15'-3" | 13'-8" | 19'-3" | 16'-8" | 14'-11" | 11'-11" |
|  | 14" | 20'-6" | 18'-2" | 16'-6" | 14'-9" | 20'-10" | 18'-1" | 15'-9" | 12'-7" | 20'-11" | 18'-2" | 16'-6" | 14'-9" | 20'-10" | 18'-1' | 15'-9" | 12'-7" |
|  | 16" | 22'-4" | 19'-5" | 17'-9" | 15'-10" | 22'-5" | 19'-4" | 16'-7" | 13'-2" | 22'-6" | 19'-5" | 17'-9" | 15'-10" | 22'-5" | 19'-4" | 16'-7" | 13'-2" |
| PWI 32S,LPI 32Plus | 9-1/2" | 16'-9" | 15'-5" | 14'-5" | 12'-10" | 17'-4" | 15'-8" | 14'-0" | 11'-2" | 17'-0" | 15'-5" | 14'-5" | 12'-10" | 17'-9" | 15'-8" | 14'-0" | 11'-2" |
|  | 11-7/8" | 19'-0" | 17'-8" | 16'-5" | 14'-8" | 19'-11" | 17'-11" | 14'-11" | 11'-11" | 19'-7" | 18'-0" | 16'-5" | 14'-8" | 20'-7" | 17'-11" | 14'-11" | 11'-11" |
|  | $14 "$ | 21'-1" | 19'-7" | 18'-0" | 16'-1" | 22'-2" | 19'-0" | 15'-9" | 12'-7" | 21-9" | 19'-9" | 18'-0" | 16'-1" | 22'-9" | 19'-0" | 15'-9" | 12'-7" |
|  | 16" | 23'-0" | 21'-3" | 19'-5" | 17'-4" | 24'-1" | 19'-11" | 16'-7" | 13'-2" | 23'-8" | 21'-3" | 19'-5" | 17'-4" | 24'-6" | 19'-11" | 16'-7" | 13'-2" |
| PWI 36L, | 11-7/8" | 19'-7" | 18'-2' | 17'-5" | 16'-9" | 20'-7" | 19'-0" | 17'-4" | 13'-10" | 20'-2" | 18'-9" | 17'-10" | 16'-9" | 21'-2" | 19'-8" | 17'-4" | 13'-10" |
|  | $14 "$ | 21'-9" | 20'-1" | 19'-2" | 17'-3" | 22'-10" | 20'-11" | 17'-4" | 13'-10" | 22'-5" | 20'-9" | 19'-10" | 17'-3" | 23'-6" | 20'-11" | 17'-4" | 13'-10" |
|  | 16" | 23'-7" | 21'-10" | 20'-10" | 17'-3" | 24'-9" | 20'-11" | 17'-4" | 13'-10" | 24'-4" | 22'-7" | 21'-6" | 17'-3" | 25'-6" | 20'-11' | 17'-4" | 13'-10" |
|  | 18" | 25'-4" | 23'-5" | 22'-3" | 21'-1" | 26'-8" | 20'-10" | 17'-4" | 13'-10" | 26'-1" | 24'-2" | 23'-1" | 21'-2" | 27'-6" | 20'-10" | 17'-4" | 13'-10" |
| PWI 42S, LPI 42Plus | 9-1/2" | 17'-11" | 16'-10" | 16'-3" | 15'-1" | 18'-9" | 17'-5" | 16'-1" | 12'-10" | 18'-4" | 17'-2" | 16'-3" | 15'-1" | 19'-3" | 17'-10" | 16'-1" | 12'-10" |
|  | 11-7/8" | 20'-9" | 19'-2" | 18'-3" | 17'-5" | 21'-9" | 20'-1" | 19'-1" | 15'-7" | 21'-3" | 19'-8" | 18'-9" | 17'-10" | 22'-4" | 20'-8" | 19'-6" | 15'-7" |
|  | 14" | 23'-0" | 21'-3" | 20'-3" | 19'-2" | 24'-2" | 22'-4" | 21-2" | 16'-11" | 23'-8" | 21'-11" | 20'-10" | 19'-9" | 24'-10" | 23'-0" | 21'-2" | 16'-11" |
|  | 16 " | 25'-1" | 23'-2" | 22'-1" | 20'-11" | 26'-4" | 24'-4" | 22'-5" | 17'-11" | 25'-9" | 23'-10" | 22'-9" | 21'-6" | 27'-1" | 25'-1" | 22'-5" | 17'-11" |
|  | 18" | 26'-8" | 24'-8" | 23'-6" | 22'-3" | $28^{\prime}-2{ }^{\prime \prime}$ | 26'-0" | 24'-9" | 20'-4" | 27'-5" | 25'-5" | 24'-3" | 22'-11" | 28'-11" | 26'-9" | 25'-6" | 20'-4" |
|  | 20" | 28'-7" | 26'-4" | 25'-1" | 23'-9" | 30'-1" | 27'-9" | 26'-3" | 20'-11" | 29'-4" | 27'-2" | 25'-11" | 24'-6" | 30'-11" | 28'-8" | 26'-3" | 20'-11" |
|  | 24" | 32'-1" | 29'-7" | 28'-2" | 26'-7" | 34'-5" | 31'-2" | 26'-4" | 21'-0" | $33^{\prime}-3$ " | 30'-6" | 29'-1" | 26'-10" | 35'-8" | 31'-8" | 26'-4" | 21'-0" |
| PWI 52S, LPI 52Plus | 11-7/8" | 21'-3" | 19'-8" | 18'-9" | 17'-10" | 22'-4" | 20'-7" | 19'-8" | 18'-7" | 21'-9" | 20'-2" | 19'-3" | 18'-3' | 22'-10" | 21'-2" | 20'-2" | 19'-0" |
|  | 14" | 23'-8" | 21'-10" | 20'-9" | 19'-8" | 24'-10" | 22'-11" | 21'-10" | 20'-3" | 24'-2" | 22'-5" | 21'-4" | 20'-3' | 25'-5" | 23'-6" | 22'-5" | 20'-3" |
|  | $16^{\prime \prime}$ | 25'-9" | 23'-9" | 22'-7" | 21'-5" | 27'-0" | 24'-11" | 23'-9" | 21'-1" | 26'-4" | 24'-5" | 23'-3" | 22'-0" | 27'-8" | 25'-7" | 24'-5" | 21'-1" |
| PWI 56L, LPI 56 | 11-7/8" | 21'-9" | 20'-1" | 19'-1" | 18'-1" | 22'-10" | 21'-0" | 20'-0" | 18'-4" | 22'-3" | 20'-6" | 19'-7" | 18'-6" | 23'-4" | 21'-7" | 20'-6" | 18'-4" |
|  | 14" | 24'-1" | 22'-3" | 21'-2" | 20'-0" | $25^{\prime}-4$ " | 23'-4" | 22'-2" | 19'-3" | 24'-8" | 22'-9" | 21'-8" | 20'-6" | 25'-11" | 23'-11" | 22'-9" | 19'-3" |
|  | $16 "$ | 26'-2" | 24'-2" | 22'-11" | 21-9" | 27'-6" | 25'-4" | 24'-1" | 20'-2" | 26'-9" | 24'-9" | 23'-7" | 22'-4" | 28'-2" | 26'-0" | 24'-9" | 20'-2" |
|  | 18" | 28'-1" | 25'-10" | 24'-7" | 23'-3" | 29'-7" | 27'-3" | 25'-11" | 21'-1" | 28'-9" | 26'-7" | 25'-3" | 23'-11" | 30'-3" | 28'-0" | 26'-5" | 21'-1" |
|  | 24" | 34'-0" | 30'-10" | 29'-4" | 27'-8" | 36'-7" | 32'-10" | 27'-7" | 22'-0" | 35'-1" | 31'-8" | 30'-2" | 28'-6" | 37'-9" | 33'-2" | 27'-7" | 22'-0" |

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2$ " gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F24 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: L/480 on live load and $\mathrm{L} / 240$ on total load based on composite action with the glued floor sheathing. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to $16^{\prime \prime}$ deep and $2-1 / 2^{\prime \prime}$ for joists $18^{\prime \prime}$ and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for $1-$ Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

## UPLIFT COEFFICIENTS

| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(\mathrm{Ib})=L^{*} \mathrm{~s}^{*}\left(\mathrm{~A}^{*} \mathrm{D}_{\mathrm{f}}-\mathrm{L}_{\mathrm{f}}\right) / \mathrm{B}$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $s=$ joist spacing ( ft ), $D_{f}=$ factored dead load ( psf ), $\mathrm{L}_{\mathrm{f}}=$ factored live load ( psf ), $A$ and $B$ are coefficients given in the table

## Floor Span Tables: 100 psf Live Load, 35 psf Dead Load, 23/32" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


100 PSF LIVE LOAD, 35 PSF DEAD LOAD: 23/32" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  | Maximum Continuous Spans |  |  | Maximum Simple Spans |  |  | Maximum Continuous Spans |  |  |
|  |  | 12" oc | 16 c oc | 19.2" oc | 12" oc | $16^{\prime \prime}$ oc | 19.2" oc | 12" oc | 16 c oc | 19.2" oc | 12" oc | $16^{\prime \prime}$ oc | 19.2" oc |
| PWI 20S,LPI 20Plus | 9-1/2" | 12'-6" | 11'-4" | 10'-8" | 13'-7" | 11'-4" | 9'-5" | 12'-6" | 11'-4" | 10'-8" | 13'-7" | 11'-4" | 9'-5" |
|  | 11-7/8" | 15'-0" | 13'-7" | 12'-6" | 15'-10" | 12'-1" | 10'-0" | 15'-0" | 13'-7" | 12'-6" | 15'-10" | 12'-1" | 10'-0" |
|  | $14 "$ | 17'-1" | 14'-11" | 13'-7" | 17'-1" | 12'-9" | 10'-7" | 17'-1" | 14'-11" | 13'-7" | 17'-1" | 12'-9" | 10'-7" |
|  | 16" | 18'-5" | 16'-0" | 14'-7" | 18'-0" | 13'-5" | 11'-2" | 18'-5" | 16'-0" | 14'-7" | 18'-0" | 13'-5" | 11'-2" |
| PWI 32S, LPI 32Plus | 9-1/2" | 13'-2" | 11'-11" | 11'-2" | 14'-3" | 11'-4" | 9'-5" | 13'-2" | 11'-11" | 11'-2" | 14'-3" | 11'-4" | 9'-5" |
|  | 11-7/8" | 15'-8" | 14'-3" | 12'-10" | 16'-2" | 12'-1" | 10'-0" | 15'-8" | 14'-3" | 12'-10" | 16'-2" | 12'-1" | 10'-0" |
|  | 14" | 17'-10" | 16'-2" | 14'-2" | 17'-1" | 12'-9" | 10'-7" | 17-10" | 16'-2" | 14'-2" | 17'-1" | 12'-9" | 10'-7" |
|  | $16^{\prime \prime}$ | 19'-9" | 17'-6" | 15'-3" | 18'-0" | 13'-5" | 11'-2" | 19'-9" | 17'-6" | 15'-3" | 18'-0" | 13'-5" | 11'-2" |
| PWI 36L, LPI 36 | 11-7/8" | 16'-5" | 14'-10" | 13'-11" | 17'-9" | 14'-1" | 11'-8" | 16'-5" | 14'-10" | 13'-11" | 17'-9" | 14'-1" | 11'-8" |
|  | 14" | 18'-7" | 16'-10" | 14'-7" | 18'-10" | 14'-1" | 11'-8" | 18'-7" | 16'-10" | 14'-7" | 18'-10" | 14'-1" | 11'-8" |
|  | 16" | 20'-6" | 17'-7" | 14'-7" | 18'-10" | 14'-1" | 11'-8" | 20'-6" | 17'-7" | 14'-7" | 18'-10" | 14'-1" | 11'-8" |
|  | 18" | 22'-4" | 20'-2" | 17'-10" | 18'-10" | 14'-0" | 11'-8" | 22'-4" | 20'-2" | 17'-10" | 18'-10" | 14'-0" | 11'-8" |
| PWI 42S, LPI 42Plus | 9-1/2" | 14'-9" | 13'-4" | 12'-6" | 16'-0" | 13'-1" | 10'-11" | 14'-9" | 13'-4" | 12'-6" | 16'-0" | 13'-1" | 10'-11" |
|  | 11-7/8" | $17^{\prime}-8{ }^{\prime \prime}$ | 16'-0" | 15'-0" | 19'-2" | 15'-10" | 13'-3" | $17^{\prime}-8{ }^{\prime \prime}$ | 16'-0" | 15'-0" | 19'-2" | 15'-10" | 13'-3" |
|  | 14" | 20'-1" | 18'-2" | 16'-9" | 21'-10" | 17'-2" | 14'-3" | 20'-1" | 18'-2" | 16'-9" | 21'-10" | 17'-2" | 14'-3" |
|  | 16 " | 22'-4" | 20'-2" | 18'-4" | 24'-3" | 18'-2" | 15'-2" | 22'-4" | 20'-2" | 18'-4" | 24'-3" | 18'-2" | 15'-2" |
|  | 18" | 24'-1" | 21'-10" | 20'-6" | 26'-2" | 20'-8" | 17'-2" | 24'-1" | 21'-10" | 20'-6" | 26'-2" | 20'-8" | 17'-2" |
|  | 20" | 26'-1" | 23'-7" | 22'-2" | 28'-5" | 21'-3" | 17'-8" | 26'-1" | 23'-7" | 22'-2" | 28'-5" | 21'-3" | 17'-8" |
|  | 24" | 29'-11" | 27'-1" | 24'-8" | 28'-7" | 21'-4" | 17'-9" | 29'-11" | 27'-1" | 24'-8" | 28'-7" | 21'-4" | 17'-9" |
| PWI 52S, LPI 52Plus | 11-7/8" | 18'-4" | 16'-7" | 15'-7" | 19'-11" | 18'-0" | 16'-1" | 18'-4" | 16'-7" | 15'-7" | 19'-11" | 18'-0" | 16'-1" |
|  | 14" | 20'-10" | 18'-10" | 17'-9" | 22'-8" | 20'-6" | 17'-1" | 20'-10" | 18'-10" | 17'-9" | 22'-8" | 20'-6" | 17'-1" |
|  | 16" | 23'-1" | 20'-11" | 19'-7" | 25'-1" | 21'-5" | 17'-9" | 23'-1" | 20'-11" | 19'-7" | 25'-1" | 21'-5" | 17'-9" |
| PWI 56L, LPI 56 | 11-7/8" | 18'-10" | 17'-0" | 15'-11" | 20'-5" | 18'-5" | 15'-6" | 18'-10" | 17'-0" | 15'-11" | 20'-5" | 18'-5" | 15'-6" |
|  | $14 "$ | 21'-4" | 19'-3" | 18'-1" | 23'-2" | 19'-7" | 16'-3" | 21'-4" | 19'-3" | 18'-1" | 23'-2" | 19'-7" | 16'-3" |
|  | $16 "$ | 23'-7" | 21'4" | 19'-2" | 25'-7" | 20'-6" | 17'-0" | 23'-7" | 21'-4" | 19'-2" | 25'-7" | 20'-6" | 17'-0" |
|  | 18" | 25'-8" | 23'-2" | 21'-9" | 27'-11" | 21'-5" | 17'-9" | 25'-8" | 23'-2" | 21'-9" | 27'-11" | 21'-5" | 17'-9" |
|  | 24" | 31'-8" | 28'-8" | 26'-10" | 29'-11" | 22'-4" | 18'-7" | 31'-8" | 28'-8" | 26'-10" | 29'-11" | 22'-4" | 18'-7" |

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2^{\prime \prime}$ gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F24 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: L/480 on live load and $L / 240$ on total load based on composite action with the glued floor sheathing. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4$ " for joists up to 16 " deep and $2-1 / 2^{\prime \prime}$ for joists $18^{\prime \prime}$ and deeper. An interior bearing length of at least $3-1 / 2^{" ~ i s ~ r e q u i r e d . ~ T h e ~ s p a n s ~ a r e ~ l i m i t e d ~ t o ~}$ the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for I-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

## UPLIFT COEFFICIENTS

| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(I b)=L^{*} s^{*}\left(A * D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span (ft), $s=$ joist spacing (ft), $D_{f}=$ factored dead load (psf), $L_{f}=$ factored live load (psf), $A$ and $B$ are coefficients given in the table

# Floor Span Tables: 100 psf Live Load, 45 psf Dead Load, 23/32" OSB Sheathing 

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


100 PSF LIVE LOAD, 45 PSF DEAD LOAD: 23/32" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  | Maximum Continuous Spans |  |  | Maximum Simple Spans |  |  | Maximum Continuous Spans |  |  |
|  |  | 12" oc | $16{ }^{\text {" oc }}$ | 19.2" oc | 12" oc | 16 " oc | 19.2" oc | 12" oc | 16 oc | 19.2" oc | $12^{\prime \prime}$ oc | $16^{\prime \prime}$ oc | 19.2" oc |
| PWI 20S, LPI 20Plus | 9-1/2" | 12'-6" | 11'-4" | 10'-6" | 13'-3" | 10'-8" | 8'-10" | 12'-6" | 11'-4" | 10'-6" | 13'-3" | 10'-8" | 8'-10" |
|  | 11-7/8" | 15'-0" | 13'-4" | 12'-1" | 15'-3" | 11'-4" | 9'-5" | 15'-0" | 13'-4" | 12'-1" | 15'-3" | 11'-4" | 9'-5" |
|  | 14" | 16'-8" | 14'-5" | 13'-2" | 16'-1" | 12'-0" | 9'-11' | 16'-8" | 14'-5" | 13'-2" | 16'-1" | 12'-0" | 9'-11' |
|  | 16" | 17'-11" | 15'-6" | 14'-1" | 16'-10" | 12'-7" | 10'-5" | 17'-11" | 15'-6" | 14'-1" | 16'-10" | 12'-7" | 10'-5" |
| PWI 32S, LPI 32Plus | 9-1/2" | 13'-2" | 11'-11" | 10'-8" | 14'-3" | 10'-8" | 8'-10" | 13'-2" | 11'-11" | 10'-8" | 14'-3" | 10'-8" | 8'-10" |
|  | 11-7/8" | 15'-8" | 14'-3" | 12'-1" | 15'-3" | 11'-4" | 9'-5" | 15'-8" | 14'-3" | 12'-1" | 15'-3" | 11'-4" | 9'-5" |
|  | 14" | 17-10" | 15'-9" | 13'-3" | 16'-1" | 12'-0" | 9'-11" | 17-10" | 15'-9" | 13'-3" | 16'-1" | 12'-0" | 9'-11" |
|  | 16" | 19'-7" | 16'-11" | 14'-4" | 16'-10" | 12'-7" | 10'-5" | 19'-7" | 16'-11" | 14'-4" | 16'-10" | 12'-7" | 10'-5" |
| PWI 36L, LPI 36 | 11-7/8" | 16'-5" | 14'-10" | 13'-8" | 17'-8" | 13'-2" | 10'-11" | 16'-5" | 14'-10" | 13'-8" | 17'-8" | 13'-2" | 10'-11" |
|  | 14" | 18'-7" | 16'-6" | 13'-8" | 17'-8" | 13'-2" | 10'-11" | 18'-7" | 16'-6" | 13'-8" | 17'-8" | 13'-2" | 10'-11" |
|  | $16 "$ | 20'-6" | 16'-6" | 13'-8" | 17'-8" | 13'-2" | 10'-11" | 20'-6" | 16'-6" | 13'-8" | 17'-8" | 13'-2" | 10'-11" |
|  | 18" | 22'-4" | 20'-2" | 16'-9" | 17'-8" | 13'-2" | 10'-11" | 22'-4" | 20'-2" | 16'-9" | 17'-8" | 13'-2" | 10'-11" |
| PWI 42S, LPI 42Plus | 9-1/2" | 14'-9" | 13'-4" | 12'-6" | 16'-0" | 12'-3" | 10'-3" | 14'-9" | 13'-4" | 12'-6" | 16'-0" | 12'-3" | 10'-3" |
|  | 11-7/8" | 17'-8" | 16'-0" | 14'-3" | 19'-2" | 14'-11" | 12'-5" | 17'-8" | 16'-0" | 14'-3" | 19'-2" | 14'-11" | 12'-5" |
|  | 14" | 20'-1" | 18'-2" | 15'-9" | 21'-7" | 16'-1" | 13'-5" | 20'-1" | 18'-2" | 15'-9" | 21'-7" | 16'-1" | 13'-5" |
|  | $16 "$ | 22'-4" | 20'-2" | 17'-2" | 22'-10" | 17'-1" | 14'-2" | 22'-4" | 20'-2" | 17'-2" | 22'-10" | 17'-1" | 14'-2" |
|  | 18" | 24'-1" | 21-10" | 20'-6" | 25'-11" | 19'-5" | 16'-1" | 24'-1" | 21-10" | 20'-6" | 25'-11" | 19'-5" | 16'-1" |
|  | 20" | 26'-1" | 23'-7" | 21'-11" | 26'-8" | 19'-11" | 16'-7" | 26'-1" | 23'-7" | 21'-11" | 26'-8" | 19'-11" | 16'-7" |
|  | 24" | 29'-11" | 26'-3" | 23'-11" | 26'-10" | 20'-0" | 16'-8" | 29'-11" | 26'-3" | 23'-11" | 26'-10" | 20'-0" | 16'-8" |
| PWI 52S, LPI 52Plus | 11-7/8" | 18'-4" | 16'-7" | 15'-7" | 19'-11" | 18'-0" | 15'-1" | 18'-4" | 16'-7" | 15'-7" | 19'-11" | 18'-0" | 15'-1" |
|  | 14" | 20'-10" | 18'-10" | 17'-9" | 22'-8" | 19'-4" | 16'-1" | 20'-10" | 18'-10" | 17'-9" | 22'-8" | 19'-4" | 16'-1" |
|  | $16^{\prime \prime}$ | 23'-1" | 20'-11" | 19'-7" | 25'-1" | 20'-1" | 16'-8" | 23'-1" | 20'-11" | 19'-7" | 25'-1" | 20'-1" | 16'-8" |
| PWI 56L, LPI 56 | 11-7/8" | 18'-10" | 17'-0" | 15'-11" | 20'-5" | 17'-6" | 14'-6" | 18'-10" | 17'-0" | 15'-11" | 20'-5" | 17'-6" | 14'-6" |
|  | $14 "$ | 21'-4" | 19'-3" | 17'-0" | 23'-2" | 18'-4" | 15'-3" | 21'-4" | 19'-3" | 17'-0" | 23'-2" | 18'-4" | 15'-3" |
|  | 16" | 23'-7" | 21'-4" | 18'-0" | 25'-7" | 19'-3" | 16'-0" | 23'-7" | 21-4" | 18'-0" | 25'-7" | 19'-3" | 16'-0" |
|  | 18" | 25'-8" | 23'-2" | 21'-6" | 26'-10" | 20'-1" | 16'-8" | 25'-8" | 23'-2" | 21'-6" | 26'-10" | 20'-1" | 16'-8" |
|  | 24" | 31'-8" | 28'-8" | 26'-0" | 28'-1" | 21'-0" | 17'-5" | 31'-8" | 28'-8" | 26'-0" | 28'-1" | 21'-0" | 17'-5" |

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2^{\prime \prime}$ gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F24 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: $L / 480$ on live load and $L / 240$ on total load based on composite action with the glued floor sheathing. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to $16^{\prime \prime}$ deep and $2-1 / 2^{\prime \prime}$ for joists 18 " and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for I-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

## UPLIFT COEFFICIENTS

| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(I b)=L^{*} s^{*}\left(A * D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $s=$ joist spacing (ft), $D_{f}=$ factored dead load (psf), $L_{f}=$ factored live load (psf), $A$ and $B$ are coefficients given in the table

## Floor Span Tables: 50 psf Live Load, 35 psf Dead Load, 7/8" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


50 PSF LIVE LOAD, 35 PSF DEAD LOAD: 7/8" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  |
|  |  | 12" oc | $16^{\prime \prime}$ oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16 c oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc |
| PWI 20S,LPI 20Plus | 9-1/2" | 16'-3" | 14'-10" | 13'-10" | 12'-5" | 17'-6" | 15'-1" | 13'-9" | 12'-4" | 16'-3" | 14'-10" | 13'-10" | 12'-5" | 17'-6" | 15'-1" | 13'-9" | 12'-4" |
|  | 11-7/8" | 19'-5" | 17'-7" | $16^{\prime}-1$ " | 14'-4" | 20'-3" | 17'-6" | 16'-0" | 13'-2" | 19'-5" | 17'-7" | 16'-1" | 14'-4" | 20'-3" | 17'-6" | 16'-0" | 13'-2" |
|  | 14" | 21'-11" | 19'-1" | 17'-5" | 15'-6" | 21'-11" | 19'-0" | 17'-4" | 13'-11" | 22'-0" | 19'-1" | 17'-5" | 15'-6" | 21'-11" | 19'-0" | 17'-4" | 13'-11" |
|  | 16" | 23'-7" | 20'-5" | 18'-8" | 16'-8" | 23'-6" | 20'-4" | 18'-4" | 14'-7" | 23'-7" | 20'-5" | 18'-8" | 16'-8" | 23'-6" | 20'-4" | 18'-4" | 14'-7" |
| PWI 32S,LPI 32Plus | 9-1/2" | 17'-2" | 15'-7" | 14'-9" | 13'-6" | 18'-6" | 16'-6" | 15'-1" | 12'-5" | 17'-2" | 15'-7" | 14'-9" | 13'-6" | 18'-7" | 16'-6" | 15'-1" | 12'-5" |
|  | 11-7/8" | 20'-5" | 18'-7" | 17'-3" | 15'-5" | 21'-4" | 18'-10" | 16'-6" | 13'-2" | 20'-5" | 18'-7" | 17'-3" | 15'-5" | 21'-9" | 18'-10" | 16'-6" | 13'-2" |
|  | 14 " | 22'-7" | 20'-9" | 18'-11" | 16'-11" | 23'-9" | 20'-8" | 17'-5" | 13'-11" | 23'-1" | 20'-9" | 18'-11" | 16'-11" | 23'-11" | 20'-8" | 17'-5" | 13'-11" |
|  | 16" | 24'-7" | 22'-5" | 20'-5" | 18'-3' | 25'-9" | 22'-0" | 18'-4" | 14'-7" | $25^{\prime}-4{ }^{\prime \prime}$ | 22'-5" | 20'-5" | 18'-3" | 25'-9" | 22'-0" | 18'-4" | 14'-7" |
| PWI 36L, LPI 36 | 11-7/8" | 21'-0" | 19'-4" | 18'-3" | 16'-11" | 22'-0" | 20'-5" | 19'-3" | 15'-4" | 21'-3" | 19'-4" | 18'-3" | 16'-11" | 22'-7" | 21'-0" | 19'-3" | 15'-4" |
|  | 14" | 23'-3" | 21'-7" | 20'-7" | 19'-2" | 24'-5" | 22'-8' | 19'-3" | 15'-4" | 23'-11" | 21'-11" | 20'-7" | 19'-2" | 25'-1" | 23'-1" | 19'-3" | 15'-4" |
|  | 16" | 25'-3" | 23'-5" | 22'-3" | 19'-2" | 26'-6" | 23'-1" | 19'-3" | 15'-4" | 25'-11" | 24'-2" | 22'-9" | 19'-2" | 27'-3" | 23'-1" | 19'-3" | 15'-4" |
|  | 18" | 27'-1' | 25'-1" | 23'-10" | 22'-6" | 28'-6" | 23'-1" | 19'-2" | 15'-3" | 27'-10" | 25'-11" | 24'-8" | 23'-0" | 29'-4" | 23'-1" | 19'-2" | 15'-3" |
| PWI 42S, LPI 42Plus | 9-1/2" | 19'-2" | 17'-5" | 16'-5" | 15'-3" | 20'-1" | 18'-8" | 17'-9" | 14'-3" | 19'-2" | 17'-5" | 16'-5" | 15'-3' | 20'-7" | 18'-11" | 17'-10" | 14'-3" |
|  | 11-7/8" | 22'-2" | 20'-6" | 19'-6" | 18'-2" | 23'-3" | 21'-6" | 20'-6" | 17'-3" | 22'-8" | 20'-10" | 19'-7" | 18'-2' | 23'-10" | 22'-1" | 21'-0" | 17'-3" |
|  | 14" | 24'-8" | 22'-10" | 21'-8" | 20'-5" | 25'-10" | 23'-11" | 22'-9" | 18'-8" | 25'-2" | 23'-5" | 22'-3" | 20'-8" | 26'-5" | 24'-7" | 23'-5" | 18'-8" |
|  | $16 "$ | 26'-10" | 24'-10" | 23'-7" | 22'-3" | 28'-2" | 26'-1" | 24'-9" | 19'-10" | 27'-5" | 25'-6" | 24'-3" | 22'-10" | 28'-10" | 26'-9" | 24'-10" | 19'-10" |
|  | 18" | 28'-6" | 26'-5" | 25'-2" | 23'-8" | 30'-0" | 27'-10" | 26'-6" | 22'-6" | 29'-2' | 27'-2" | 25'-10" | 24'-5" | 30'-9" | 28'-7" | 27'-3' | 22'-6" |
|  | 20" | 30'-6" | 28'-3" | 26'-10" | 25'-3" | 32'-2" | 29'-9" | 28'-3' | 23'-2" | 31'-2" | 29'-0" | 27'-8" | 25'-10" | $33^{\prime}-3$ " | 30'-7" | 28'-11" | 23'-2" |
|  | 24" | 34'-11" | 31'-8" | 30'-1" | 28'-3" | 37'-5" | 33'-10" | 29'-2" | 23'-3" | $36^{\prime}-0{ }^{\prime \prime}$ | 32'-9" | 31'-0" | 28'-3" | 38'-8' | 34'-7" | 29'-2" | 23'-3" |
| PWI 52S,LPI 52Plus | 11-7/8" | 22'-9" | 21'-1" | 20'-1" | 18'-10" | 23'-10" | 22'-1" | 21'-0" | 19'-10" | 23'-3" | 21'-7" | 20'-4" | 18'-10" | 24'-4" | 22'-8" | 21'-6" | 20'-4" |
|  | 14" | 25'-3" | 23'-5" | 22'-3" | 20'-11" | 26'-6" | 24'-6" | 23'-4" | 21'-11" | 25'-9" | 23'-11" | 22'-10" | 21'-5" | 27'-1' | 25'-2' | 23'-11" | 22'-5" |
|  | 16" | 27'-6" | 25'-5" | 24'-2" | 22'-9" | 28'-10" | 26'-8" | 25'-5" | 23'-3" | 28'-1" | 26'-1" | 24'-10" | 23'-4" | 29'-5" | 27'-4" | 26'-1" | 23'-3" |
| PWI 56L, LPI 56 | 11-7/8" | 23'-3" | 21'-6" | 20'-5" | 19'-3" | 24'-4" | 22'-7" | 21'-5" | 20'-2" | 23'-8" | 22'-0" | 20'-10" | 19'-4" | 24'-10" | 23'-1" | 21'-11" | 20'-3" |
|  | 14" | 25'-9" | 23'-10" | 22'-8" | 21'-3" | 27'-0" | 25'-0" | 23'-9" | 21'-4" | 26'-3" | 24'-4" | 23'-2' | 21'-10" | 27'-7" | 25'-7" | 24'-4" | 21'-4" |
|  | 16" | 27'-11" | 25'-10" | 24'-7" | 23'-1" | 29'-4" | 27'-2" | 25'-10" | 22'-4" | 28'-6" | 26'-6" | 25'-2" | 23'-8" | 30'-0" | 27-10" | 26'-6" | 22'-4" |
|  | 18" | 30'-0" | 27'-9" | 26'-4" | 24'-9" | 31'7" | 29'-3" | 27'-9" | 23'-3" | 30'-7" | 28'-4" | 27-0" | 25'-5" | 32'-5" | 29'-11" | 28'-6" | 23'-3" |
|  | 24" | 37'-1' | 33'-5" | 31'-4" | 29'-5" | 39'-9" | 35'-11" | 30'-6" | 24'-4" | 38'-1" | 34'-7" | 32'-4" | 30'-4" | 40'-11" | 36'-8" | 30'-6" | 24'-4" |

NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span.

Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2^{\prime \prime}$ gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F32 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: L/480 on live load and L/240 on total load based on composite action with the glued floor sheathing. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4$ " for joists up to 16 " deep and $2-1 / 2^{\prime \prime}$ for joists $18^{\prime \prime}$ and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for I-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

| UPLIFT COEFFICIENTS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(I b)=L^{*} s^{*}\left(A * D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $s=$ joist spacing ( ft ), $D_{f}=$ factored dead load ( psf ), $\mathrm{L}_{\mathrm{f}}=$ factored live load ( psf ), $A$ and $B$ are coefficients given in the table

## Floor Span Tables: 50 psf Live Load, 45 psf Dead Load, 7/8" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


50 PSF LIVE LOAD, 45 PSF DEAD LOAD: 7/8" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  |
|  |  | 12" oc | 16" oc | 19.2" oc | 24 " oc | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16 " oc | 19.2" oc | $24^{\prime \prime}$ oc | 12" oc | 16 " oc | 19.2" oc | 24" oc |
| PWI 20S,LPI 20Plus | 9-1/2" | 16'-3" | 14'-5" | 13'-2" | 11'-9" | 16'-7" | 14'-4" | 13'-1" | 11'-2" | 16'-3" | 14'-5" | 13'-2" | 11'-9" | 16'-7" | 14'-4" | 13'-1" | 11'-2" |
|  | 11-7/8" | 19'-4" | 16'-9" | 15'-3" | 13'-8" | 19'-3" | 16'-8" | 14'-11" | 11'-11" | 19'-4" | 16'-9" | 15'-3" | 13'-8" | 19'-3" | 16'-8" | 14'-11" | 11'-11" |
|  | 14" | 20'-11" | 18'-2" | 16'-6" | 14'-9" | 20'-10" | 18'-1" | 15'-9" | 12'-7" | 20'-11" | 18'-2" | 16'-6" | 14'-9" | 20'-10" | 18'-1" | 15'-9" | 12'-7" |
|  | $16^{\prime \prime}$ | 22'-6" | 19'-5" | 17'-9" | 15'-10" | 22'-5" | 19'-4" | 16'-7" | 13'-2" | $22^{\prime \prime}$-6" | 19'-5" | 17'-9" | 15'-10" | 22'-5" | 19'-4" | 16'-7" | 13'-2" |
| PWI 32S,LPI 32Plus | 9-1/2" | 17'-2" | 15'-7" | 14'-5" | 12'-10" | 18'-2" | 15'-8" | 14'-0" | 11'-2" | 17'-2" | 15'-7" | 14'-5" | 12'-10" | 18'-2" | 15'-8" | 14'-0" | 11'-2" |
|  | 11-7/8" | 20'-5" | 18'-0" | 16'-5" | 14'-8" | 20'-9" | 17'-11" | 14'-11" | 11-11" | 20'-5" | 18'-0" | 16'-5" | 14'-8" | 20'-9" | 17'-11" | 14'-11" | 11'-11" |
|  | $14 "$ | 22'-7" | 19'-9" | 18'-0" | 16'-1" | 22'9" | 19'-0" | 15'-9" | 12'-7" | 22'-10" | 19'-9" | 18'-0" | 16'-1" | 22'-9" | 19'-0" | 15'-9" | 12'-7" |
|  | 16" | 24'-7" | 21-3" | 19'-5" | 17'-4" | 24'-6" | 19'-11" | 16'-7" | 13'-2" | 24'-7" | 21-3" | 19'-5" | 17'-4" | 24'-6" | 19'-11" | 16'-7" | 13'-2" |
| $\begin{aligned} & \text { PWI 36L, } \\ & \text { LPI } 36 \end{aligned}$ | 11-7/8" | 21'-0" | 19'-4" | 18'-3" | 16'-11" | 22'-0" | 20'-5" | 17'-4" | 13'-10" | 21'-3" | 19'-4" | 18'-3" | 16'-11" | 22'-7" | 20'-11" | 17'-4" | 13'-10" |
|  | 14" | 23'-3" | 21'7" | 20'-7" | 17'-3" | 24'-5" | 20'-11" | 17'-4" | 13'-10" | 23'-11" | 21'-11" | 20'-7" | 17'-3" | 25'-1" | 20'-11" | 17'-4" | 13'-10" |
|  | 16" | 25'-3" | 23'-5" | 21'-8" | 17'-3" | 26'-6" | 20'-11" | 17'-4" | 13'-10" | 25'-11" | 24'-2" | 21-8" | 17'-3" | 27'-3" | 20'-11" | 17'-4" | 13'-10" |
|  | 18" | 27'-1" | 25'-1" | 23'-10" | 21'-2" | 27'-11" | 20'-10" | 17'-4" | 13'-10" | 27'-10" | 25'-11" | 24'-8" | 21-2" | 27'-11" | 20'-10" | 17'-4" | 13'-10" |
| PWI 42S, LPI 42Plus | 9-1/2" | 19'-2" | 17'-5" | 16'-5" | 15'-3" | 20'-1" | 18'-8" | 16'-1" | 12'-10" | 19'-2" | 17'-5" | 16'-5" | 15'-3" | 20'7" | 18'-11" | 16'-1" | 12'-10" |
|  | 11-7/8" | 22'-2" | 20'-6" | 19'-6" | 18'-0" | 23'-3" | $21^{\prime \prime}-6{ }^{\prime \prime}$ | 19'-6" | 15'-7" | 22'-8" | 20'-10" | 19'-7" | 18'-0" | 23'-10" | 22'-1" | 19'-6" | 15'-7" |
|  | 14" | 24'-8" | 22'-10" | 21'-8" | 19'-11" | 25'-10" | 23'-11" | 21'-2" | 16'-11" | $25^{\prime}-2{ }^{\prime \prime}$ | 23'-5" | 22'-3" | 19'-11" | 26'-5" | 24'-7" | 21'-2" | 16'-11" |
|  | $16^{\prime \prime}$ | 26'-10" | 24'-10" | 23'-7" | 21'-8" | 28'-2' | 26'-1" | 22'-5" | 17'-11" | 27'-5" | 25'-6" | 24'-3" | 21-8" | 28'-10" | 26'-9" | 22'-5" | 17'-11" |
|  | 18" | 28'6" | 26'-5" | 25'-2" | 23'-4" | 30'-0" | 27-10" | 25'-6" | 20'-4" | 29'-2" | 27-2" | 25'-10" | 23'-4" | 30'-9" | 28'-7" | 25'-6" | 20'-4" |
|  | 20" | 30'-6" | 28'-3" | 26'-10" | 24'-7" | 32'-2" | 29'-9" | 26'-3" | 20'-11" | 31'-2' | 29'-0" | 27'-6" | 24'-7" | 33'-3' | 30'-2" | 26'-3" | 20'-11" |
|  | 24" | 34'-11" | 31'-8" | 30'0" | 26'-10" | 37-5" | 31'-8" | 26'-4" | 21'-0" | 36-0" | 32'-9" | 30'-0" | 26'-10" | 38'-0" | 31-8" | 26'-4" | 21-0" |
| PWI 52S, LPI 52Plus | 11-7/8" | 22'-9" | 21'-1" | 20'-1" | 18'-10" | 23'-10" | 22'-1" | 21-0" | 19'-0" | 23'-3" | 21'-7" | 20'-4" | 18'-10" | 24'-4" | 22-8" | 21'6" | 19'-0" |
|  | 14" | 25'-3" | $23^{\prime}-5{ }^{\prime \prime}$ | 22'-3" | 20'-11" | 26'-6" | 24'-6" | 23'-4" | 20'-3" | 25'-9" | 23'-11" | 22'-10" | 21'-5" | 27'-1" | 25'-2" | 23'-11" | 20'-3" |
|  | 16" | $27^{\prime}-6{ }^{\prime \prime}$ | 25'-5" | 24'-2" | 22'-9" | 28'-10" | 26'-8" | 25'-5" | 21'-1" | 28'-1" | 26'-1" | 24'-10" | 23'-4" | 29'-5" | 27-4" | 26'-1" | 21'-1" |
| PWI 56L, LPI 56 | 11-7/8" | 23'-3" | 21'-6" | 20'-5" | 19'-3" | 24'-4" | 22'-7" | 21'-5" | 18'-4" | 23'-8" | 22'-0" | 20'-10" | 19'-4" | 24'-10" | 23'-1" | 21-11" | 18'-4" |
|  | 14" | 25'-9" | 23'-10" | 22'-8" | 21'-3" | 27'-0" | 25'-0" | 23'-9" | 19'-3" | 26'-3" | 24'-4" | 23'-2" | 21'-6" | 27'-7" | 25'-7" | 24'-2" | 19'-3" |
|  | 16" | 27'-11" | 25'-10" | 24'-7" | 22'-9" | 29'-4" | 27'-2" | 25'-3" | 20'-2" | 28'-6" | 26'-6" | 25'-2" | 22'-9" | 30'-0" | 27'-10" | 25-3" | 20'-2" |
|  | 18" | 30'-0" | 27'-9" | 26'-4" | 24'-9" | 31'-7" | 29'-3" | 26'-5" | 21-1" | 30'-7" | 28'-4" | 27'-0" | 25'-5" | 32'-5" | 29'-11" | 26'-5" | 21'-1" |
|  | $24 "$ | 37-1" | 33'-5" | 31'-4" | 29'-5" | 39'-9" | 33'-2" | 27-7" | 22'-0" | 38'-1" | 34'-7" | 32-4" | 30-4" | 40'-11" | 33'-2" | 27-7" | 22'-0" |

NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2^{\prime \prime}$ gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F32 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: L/480 on live load and L/240 on total load based on composite action with the glued floor sheathing. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to $16^{\prime \prime}$ deep and $2-1 / 2^{\prime \prime}$ for joists 18 " and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for $1-$-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

| UPLIFT COEFFICIENTS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(I b)=L^{*} s^{*}\left(A * D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $s=$ joist spacing ( ft ), $D_{f}=$ factored dead load ( psf ), $\mathrm{L}_{\mathrm{f}}=$ factored live load ( psf ), $A$ and $B$ are coefficients given in the table

## Floor Span Tables: 100 psf Live Load, 35 psf Dead Load, 7/8" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


100 PSF LIVE LOAD, 35 PSF DEAD LOAD: 7/8" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  |
|  |  | 12" oc | 16 " oc | 19.2" oc | 24" oc | 12" oc | 16 " oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24 " oc | 12" oc | 16" oc | 19.2" oc | 24" oc |
| PWI 20S,LPI 20Plus | 9-1/2" | 12'-8" | 11'-6" | 10'-9" | 9'-1" | 13'-8" | 11'-4" | 9'-5" | 7'-6" | 12'-8" | 11'-6" | 10'-9" | 9'-1" | 13'-8" | 11'-4" | 9'-5" | 7'-6" |
|  | 11-7/8" | 15'-1" | 13'-8" | 12'-6" | 10'-3" | 15'-10" | 12'-1" | 10'-0" | 8'-0" | 15'-1" | 13'-8" | 12'-6" | 10'-3" | 15'-10" | 12'-1" | 10'-0" | 8'-0" |
|  | $14{ }^{\prime}$ | 17'-3" | 14'-11" | 13'7" | 11'-3" | 17'-1" | 12'-9" | 10'-7" | 8'-5" | 17'-3" | 14'-11" | 13'-7" | 11-3" | 17'-1" | 12'-9" | 10'-7" | 8'-5" |
|  | 16" | 18'-5" | 16'-0" | 14'-7" | 12'-2" | 18'-0" | 13'-5" | 11'-2" | 8'-10" | 18'-5" | 16'-0" | 14'-7" | 12'-2" | 18'-0" | 13'-5" | 11'-2" | 8'-10" |
| PWI 32S,LPI 32Plus | 9-1/2" | 13'-3" | 12'-0" | 11'-4" | 9'-1" | 14'-4" | 11'-4" | 9'-5" | 7'-6" | $13^{\prime \prime}-3^{\prime \prime}$ | 12'-0" | 11'-4" | 9'-1" | 14'-4" | 11'-4" | 9'-5" | 7'-6" |
|  | 11-7/8" | 15'-10" | 14'-4" | 12'-10" | 10'-3" | 16'-2" | 12'-1" | 10'-0" | 8'-0" | 15'-10" | 14'-4" | 12'-10" | 10'-3" | 16'-2' | 12'-1" | 10'-0" | 8'-0" |
|  | $14{ }^{\prime \prime}$ | 18'-0" | 16'-3" | 14'-2" | 11'-3" | 17'-1" | 12'-9" | 10'-7" | 8'-5" | 18'-0" | 16'-3" | 14'-2" | 11-3" | 17'-1" | 12'-9" | 10'-7" | 8'-5" |
|  | 16" | 19'-11" | 17'-6" | 15'-3" | 12'-2" | 18'-0" | 13'-5" | 11'-2" | 8'-10" | 19'-11" | 17'-6" | 15'-3' | 12'-2" | 18'-0" | 13'-5" | 11'-2" | 8'-10" |
| $\begin{aligned} & \text { PWI } 36 \mathrm{~L}, \\ & \text { LPI } 36 \end{aligned}$ | 11-7/8" | 16'-6" | 14'-11" | 14'-0" | 11-7" | 17'-11" | 14'-1" | 11'-8" | 9'-4" | 16'-6" | 14'-11" | 14'-0" | 11'-7" | 17'-11" | 14'-1" | 11'-8" | 9'-4" |
|  | $14 "$ | 18'-8" | 16'-11" | 14'-7" | 11'-7" | 18'-10" | 14'-1" | 11'-8" | 9'-4" | 18'-8" | 16'-11" | 14'-7" | 11'-7" | 18'-10" | 14'-1" | 11'-8" | 9'-4" |
|  | 16 " | 20'-8" | 17'-7" | 14'-7" | 11'-7" | 18'-10" | 14'-1" | 11'-8" | 9'-4" | 20'-8" | 17'-7" | 14'-7" | 11'-7" | 18'-10" | 14'-1" | 11'-8" | 9'-4" |
|  | 18" | 22'-5" | 20'-4" | 17'-10" | 14'-2" | 18'-10" | 14'-0" | 11'-8" | 9'-3" | 22-5" | 20'-4" | 17'-10" | 14'-2" | 18'-10" | 14'-0" | 11'-8" | $9^{9}-3^{\prime \prime}$ |
| $\begin{array}{\|c\|} \hline \text { PWI 42S, } \\ \text { LPI 42Plus } \end{array}$ | 9-1/2" | 14'-11" | 13'-6" | 12'-8" | 10'-7" | 16'-1" | 13'-1" | 10'-11" | 8'-9" | 14'-11" | 13'-6" | 12'-8" | 10'-7" | 16'-1" | 13'-1" | 10'-11" | 8'-9" |
|  | 11-7/8" | 17'-9" | 16'-1" | 15'-1" | 12'-1" | 19'-3" | 15'-10" | 13'-3" | 10'-7" | 17'-9" | 16'-1" | 15'-1" | 12'-1" | 19'-3" | 15'-10" | 13'-3" | 10'-7" |
|  | 14" | 20'-3" | 18'-4" | 16'-9" | 13'-4" | 21'-11" | 17'-2" | 14'-3" | 11-4" | 20'-3" | 18'-4" | 16'-9" | 13'-4" | 21-11" | 17'-2" | 14'-3" | 11'-4" |
|  | 16" | 22'-5" | 20'-4" | 18'-4" | 14'-7" | 24'-4" | 18'-2" | 15'-2" | 12'-1" | 22-5" | 20'-4" | 18'-4" | 14'-7" | 24'-4" | 18'-2" | 15'-2" | 12'-1" |
|  | 18" | 24'-2" | 21-11" | 20'-8" | 18'-4" | 26'-4" | 20'-8" | 17'-2" | 13'-8" | 24'-2" | 21'-11" | 20'-8" | 18'-4" | 26'-4" | 20'-8" | 17'-2" | 13'-8" |
|  | 20" | 26'-2" | 23'-9" | 22'-4" | 19'-6" | 28'-5" | 21'-3" | 17'-8" | 14'-1" | 26'-2" | 23'-9" | 22'-4" | 19'-6" | 28'-5" | 21'-3" | 17'-8" | 14'-1" |
|  | 24" | 30'-0" | 27'-1" | 24'-8" | 21'-7" | 28'-7" | 21'-4" | 17'-9" | 14'-2" | 30'-0" | 27'-1" | 24'-8" | 21-7" | 28'-7" | 21'-4" | 17'-9" | 14'-2" |
| $\begin{aligned} & \text { PWI 52S, } \\ & \text { LPI 52Plus } \end{aligned}$ | 11-7/8" | 18'-6" | 16'-9" | 15'-9" | 14'-7" | 20'-1" | 18'-2" | 16'-1" | 12'-9" | 18'-6" | 16'-9" | 15'-9" | 14'-7" | 20'-1" | 18'-2" | 16'-1" | 12'-9" |
|  | 14" | 20'-11" | 19'-0" | 17'-10" | 16'-0" | 22'-9" | 20'-7" | 17'-1" | 13'-8" | 20'-11" | 19'-0" | 17'-10" | 16'-0" | 22'-9" | 20'-7" | 17-1" | 13'-8" |
|  | $16^{\prime \prime}$ | 23'-2" | 21'-0" | 19'-9" | 17'-3" | 25'-2" | 21'-5" | 17'-9" | 14'-2" | 23'-2" | 21'-0" | 19'-9" | 17'-3" | 25'-2" | 21'-5" | 17'-9" | 14'-2" |
| $\begin{aligned} & \text { PWI 56L, } \\ & \text { LPI } 56 \end{aligned}$ | 11-7/8" | 18'-11" | 17'-1" | 16'-1" | 13'-6" | 20'-6" | 18'-6" | 15'-6" | 12'-4" | 18'-11" | 17'-1" | 16'-1" | 13'-6" | 20'-6" | 18'-6" | 15'-6" | 12'-4" |
|  | 14" | 21'-5" | 19'-5" | 18'-2" | 14'-5" | 23'-3" | 19'-7" | 16'-3" | 13'-0" | 21'-5" | 19'-5" | 18'-2" | 14'-5" | 23'-3" | 19'-7" | 16'-3" | 13'-0" |
|  | 16" | 23'-8" | 21'-5" | 19'-2" | 15'-3" | 25'-9" | 20'-6" | 17'-0" | 13'-7" | 23'-8" | 21'-5" | 19'-2" | 15'-3" | 25'-9" | 20'-6" | 17'-0" | 13'-7" |
|  | 18" | 25'-9" | 23'-4" | 21'-10" | 18'-3" | 28'-0" | 21'-5" | 17'-9" | 14'-2" | 25'-9" | 23'-4" | 21'-10" | 18'-3" | 28'-0" | 21'-5" | 17'-9" | 14'-2" |
|  | $24 "$ | 31'-10" | 28'-9" | 27-0" | 22'-1" | 29'-11" | 22-4" | 18'-7" | 14'-10" | 31'-10" | 28'-9" | 27'-0" | 22'-1" | 29'-11" | 22'-4" | 18'-7" | 14'-10" |

NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached $1 / 2^{\prime \prime}$ gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F32 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: L/480 on live load and L/240 on total load based on composite action with the glued floor sheathing. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to $16^{\prime \prime}$ deep and $2-1 / 2^{\prime \prime}$ for joists 18 " and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for I-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

## UPLIFT COEFFICIENTS

| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(\mathrm{Ib})=L^{*} s^{*}\left(A^{*} D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $\mathrm{s}=$ joist spacing ( ft ), $D_{f}=$ factored dead load ( psf ), $\mathrm{L}_{\mathrm{f}}=$ factored live load ( psf ), $A$ and $B$ are coefficients given in the table

## Floor Span Tables: 100 psf Live Load, 45 psf Dead Load, 7/8" OSB Sheathing

## TO USE:

1. Select the appropriate table based on the floor system construction.
2. Select the Simple Span or Continuous Span section of the table, as required.
3. Find a span that meets or exceeds the required clear span
4. Read the corresponding joist series, depth and spacing.

CAUTION: For floor systems that require both Simple Span and Continuous Span joists, it is a good idea to check both before selecting a joist. Some conditions are controlled by Continuous Span rather than Simple Span.


100 PSF LIVE LOAD, 45 PSF DEAD LOAD: 7/8" OSB SHEATHING, GLUED \& NAILED

| Series | Depth | No Direct Attached Ceiling |  |  |  |  |  |  |  | Direct Attached 1/2" Gypsum Ceiling |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  | Maximum Simple Spans |  |  |  | Maximum Continuous Spans |  |  |  |
|  |  | 12" oc | 16 " oc | 19.2" oc | 24 " oc | 12" oc | 16 " oc | 19.2" oc | 24" oc | 12" oc | 16" oc | 19.2" oc | 24" oc | 12" oc | 16 " oc | 19.2" oc | 24" oc |
| $\begin{array}{\|c\|} \hline \text { PWI 20S, } \\ \text { LPI 20Plus } \end{array}$ | 9-1/2" | 12'-8" | 11-6" | 10'-6" | 8'-6" | 13'-3" | 10'-8" | 8'-10" | 7'-0" | 12'-8" | 11'-6" | 10'-6" | 8'-6" | 13'-3" | 10'-8" | 8'-10" | 7'-0" |
|  | 11-7/8" | 15'-1" | 13'-4" | 12'-1" | 9'-7" | 15'-3" | 11-4" | 9'-5" | 7'-6" | 15'-1" | 13'-4" | 12'-1" | 9'-7" | 15'-3" | 11'-4" | 9'-5" | 7'-6" |
|  | 14" | 16'-8" | 14'-5" | 13'-2" | 10'-7" | 16'-1" | 12'-0" | 9'-11' | 7'-11" | 16'-8" | 14'-5" | 13'-2" | 10'-7" | 16'-1" | 12'-0" | 9'-11" | 7'-11" |
|  | $16^{\prime \prime}$ | 17'-11" | 15'-6" | 14'-1" | 11'-5" | 16'-10" | 12'-7" | 10'-5" | $8^{\prime}-4^{\prime \prime}$ | 17'-11" | 15'-6" | 14'-1" | 11'-5" | 16'-10" | 12'-7" | 10'-5" | 8'-4" |
| PWI 32S,LPI 32Plus | 9-1/2" | 13'-3" | 12'-0" | 10'-8" | 8'-6" | 14'-4" | 10'-8" | 8'-10" | 7'0" | 13'-3" | 12'-0" | 10'-8" | 8'-6" | 14'-4" | 10'-8" | 8'-10" | 7'0" |
|  | 11-7/8" | 15'-10" | 14'-4" | 12'-1" | 9'-7" | 15'-3" | 11'-4" | 9'-5" | 7'-6" | 15'-10" | 14'-4" | 12'-1" | 9'-7" | 15'-3" | 11'-4" | $9{ }^{\prime}-5{ }^{\prime \prime}$ | 7'-6" |
|  | 14" | 18'-0" | 15'-9" | 13'-3" | 10'-7" | 16'-1" | 12'-0" | 9'-11' | 7'-11" | 18'-0" | 15'-9" | 13'-3" | 10'-7" | 16'-1" | 12-0" | 9'-11" | 7-11" |
|  | 16" | 19'-7" | 16'-11" | 14'-4" | 11'-5" | 16'-10" | 12'-7" | 10'-5" | $8^{\prime}-4^{\prime \prime}$ | 19'-7" | 16'-11" | 14'-4" | 11'-5" | 16'-10" | 12'-7" | 10'-5" | 8'-4" |
| PWI 36 L,LPI 36 | 11-7/8" | 16'-6" | 14'-11" | 13'-8" | 10'-10" | 17'-8" | 13'-2" | 10'-11" | 8'-9" | 16'-6" | 14'-11" | 13'-8" | 10'-10" | 17'-8" | 13'-2" | 10'-11" | 8'-9" |
|  | $14 "$ | 18'-8" | 16'-6" | 13'-8" | 10'-10" | 17'-8" | 13'-2" | 10'-11" | 8'-9" | 18'-8" | 16'-6" | 13'-8" | 10'-10" | 17'-8" | 13'-2" | 10'-11" | 8'-9" |
|  | 16" | 20'-8" | 16'-6" | 13'-8" | 10'-10" | 17'-8" | 13'-2" | 10'-11" | 8'-9" | 20'-8" | 16'-6" | 13'-8" | 10'-10" | 17'-8" | 13'-2" | 10'-11" | 8'-9" |
|  | 18" | 22'-5" | 20'-2" | 16'-9" | 13'-4" | 17'-8" | 13'-2" | 10'-11" | $8^{\prime}-8^{\prime \prime}$ | 22'-5" | 20'-2" | 16'-9" | 13'-4" | 17'-8" | 13'-2" | 10'-11" | 8'-8" |
| PWI 42S,LPI 42Plus | 9-1/2" | 14-11" | 13'-6" | 12'-6" | 9'-11" | 16'-1" | 12-3" | 10'-3" | 8'-2" | 14'-11" | 13'-6" | 12'-6" | 9'-11" | 16'-1" | 12'-3" | 10'-3" | 8'-2" |
|  | 11-7/8" | 17'-9" | 16'-1" | 14'-3" | 11'-4" | 19'-3" | 14'-11" | 12'-5" | 9'-11" | 17'-9" | 16'-1" | 14'-3" | 11'-4" | 19'-3" | 14'-11" | 12'-5" | 9'-11" |
|  | 14" | 20'-3" | 18'-4" | 15'-9" | 12'-6" | 21'-7" | 16'-1" | 13'-5" | 10'-8" | 20'-3" | 18'-4" | 15'-9" | 12'-6" | 21'-7" | 16'-1" | 13'-5" | 10'-8" |
|  | $16^{\prime \prime}$ | 22'-5" | 20'-4" | 17'-2" | 13'-8" | 22'-10" | 17'-1" | 14'-2" | 11'-4" | 22'-5" | 20'-4" | 17'-2" | 13'-8" | 22'-10" | 17'-1" | 14'-2" | 11'-4" |
|  | 18" | 24'-2" | 21'-11" | 20'-8" | 17'-2" | 25'-11" | 19'-5" | 16'-1" | 12'-10" | 24'-2" | 21-11" | 20'-8" | 17'-2" | 25'-11" | 19'-5" | 16'-1" | 12'-10" |
|  | 201 | 26'-2" | 23'-9" | 21'-11" | 18'-3" | 26'-8" | 19'-11" | 16'-7" | 13'-2" | 26'-2" | 23'-9" | 21'-11" | 18'-3" | 26'-8" | 19'-11" | 16'-7" | 13'-2" |
|  | 24" | 30'-0" | 26'-3" | 23'-11" | 20'-3" | 26'-10" | 20'-0" | 16'-8" | 13'-3" | 30'-0" | 26'-3" | 23'-11" | 20'-3" | 26'-10" | 20'-0" | 16'-8" | 13'-3" |
| $\begin{array}{\|l\|} \hline \text { PWI 52S, } \\ \text { LPI 52Plus } \end{array}$ | 11-7/8" | 18'-6" | 16'-9" | 15'-9" | 13'-9" | 20'-1" | 18'-1" | 15'-1" | 12'-0" | 18'-6" | 16'-9" | 15'-9" | 13'-9" | 20'-1" | 18'-1" | 15'-1" | 12'-0" |
|  | 14" | 20'-11" | 19'-0" | 17'-10" | 15'-0" | 22'-9" | 19'-4" | 16'-1" | 12'-10" | 20'-11" | 19'-0" | 17'-10" | 15'-0" | 22'-9" | 19'-4" | 16'-1" | 12'-10" |
|  | 16" | 23'-2" | 21'0" | 19'-9" | 16'-2" | 25'-2" | 20'-1" | 16'-8" | 13'-4" | 23'-2" | 21'-0" | 19'-9" | 16'-2' | 25'-2" | 20'-1" | 16'-8" | 13'-4" |
| PWI 56L,LPI 56 | 11-7/8" | 18'-11" | 17'-1" | 15'-11" | 12'-8" | 20'-6" | 17'-6" | 14'-6" | 11'-7" | 18'-11" | 17'-1" | 15'-11" | 12'-8" | 20'-6" | 17'-6" | 14'-6" | 11'-7" |
|  | $14 "$ | 21'-5" | 19'-5" | 17'-0" | 13'-6" | 23'-3" | 18'-4" | 15'-3" | 12'-2" | 21'-5" | 19'-5" | 17'-0" | 13'-6" | 23'-3" | 18'-4" | 15'-3" | 12'-2" |
|  | 16" | 23'-8" | 21'-5" | 18'-0" | 14'-4" | 25'-9" | 19'-3" | 16'-0" | 12'-9" | 23'-8" | 21'-5" | 18'-0" | 14'-4" | 25'-9" | 19'-3" | 16'-0" | 12'-9" |
|  | 18" | 25'-9" | 23'-4" | 21'6" | 17'-2" | 26'-10" | 20'-1" | 16'-8" | 13'-3" | 25'-9" | 23'-4" | 21'-6" | 17-2" | 26'-10" | 20'-1" | 16'-8" | 13'-3" |
|  | $24 "$ | 31'-10" | 28'-9" | 26'-0" | 20'-9" | 28'-1" | 21'-0" | 17'-5" | 13'-11" | 31'-10" | 28'-9" | 26'-0" | 20'-9" | 28'-1" | 21-0" | 17'-5" | 13'-11" |

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform floor loads listed. Concentrated load cases, where required, shall be evaluated by the designer.
2. The spans listed are the clear distance between supports. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span.

Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists.
3. Vibration has been checked in accordance with CSA 086-19: A.5.4.5.2.b with glued \& nailed floor sheathing, with or without a direct attached 1/2" gypsum ceiling, as indicated in the table.
4. The floor sheathing shall be 1 F32 rated OSB conforming to CSA 0325 and shall be glued to the joists with an elastomeric adhesive conforming to CGSB Standard CAN-CGSB-71.26-M88.
5. Uniform load deflection is limited to the following: L/480 on live load and $\mathrm{L} / 240$ on total load based on composite action with the glued floor sheathing. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to $16^{\prime \prime}$ deep and $2-1 / 2^{\prime \prime}$ for joists 18 " and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners are not required for the spans in these tables except where bold. For spans in bold, web stiffeners shall be installed at all supports.
8. Web fillers are required for $l$-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide lateral support at points of bearing to prevent twisting of joists.
10. Use in dry service conditions only.
11. For conditions not covered or for additional information contact your Pacific Woodtech distributor.

## UPLIFT COEFFICIENTS

| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(\mathrm{Ib})=L^{*} s^{*}\left(A^{*} D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span ( ft ), $\mathrm{s}=$ joist spacing ( ft ), $D_{f}=$ factored dead load ( psf ), $\mathrm{L}_{\mathrm{f}}=$ factored live load ( psf ), $A$ and $B$ are coefficients given in the table

## TO USE:

1. Select the appropriate set of tables based on roof pitch.
2. Select the section of that table that corresponds to the specified roof live or snow load.
3. Find a span that meets or exceeds the design span
4. Read the corresponding series, depth and spacing.

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform snow and dead loads shown. These spans have not been evaluated for wind, snow drift or concentrated loads. The designer shall evaluate all required conditions.
2. The spans listed are the horizontal clear distance between supports and are valid for simple or continuous span applications. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table on page 17 to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists due solely to gravity loads. Uplift due to wind may require additional restraint.
3. Uniform load deflection is limited to the following: $\mathrm{L} / 360$ on live load and $\mathrm{L} / 180$ on total load. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
4. For deflection, the specified snow loads are reduced by the serviceability limit states Importance Factor ( $l_{S}=0.9$ ).
5. These tables do not reflect any additional stiffness provided by the roof sheathing.
6. The spans are based on an end bearing length of $1-3 / 4$ " for joists up to 16 " deep and $2-1 / 2^{\prime \prime}$ for joists 18 " and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners shall be installed at all supports for joists 18 " and deeper (shown in bold) and for all depths when using a "bird's mouth" detail.
8. Web fillers are required for $1-$-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide continuous lateral support for compression flange. Provide lateral support at points of bearing to prevent twisting of the joist.
10. Roof joists shall have a minimum pitch of $1 / 4^{\prime \prime}$ per foot $(1 / 4: 12)$ for positive drainage.
11. Roof applications in high wind areas require special analysis which may reduce spans and require special connectors to resist uplift.
12. Use in dry service conditions only.
13. For conditions not covered or for additional information contact your Pacific Woodtech distributor.


## ACTUAL DEFLECTION

BASED ON SPAN AND LIMIT

| Span (ft) | L/360 | $\mathrm{L} / 240$ | $\mathrm{~L} / 180$ |
| :---: | :---: | :---: | :---: |
| $10^{\prime}$ | $5 / 16^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | $11 / 16^{\prime \prime}$ |
| $12^{\prime}$ | $3 / 8^{\prime \prime}$ | $5 / 8^{\prime \prime}$ | $13 / 16^{\prime \prime}$ |
| $14^{\prime}$ | $7 / 16^{\prime \prime}$ | $11 / 16^{\prime \prime}$ | $15 / 16^{\prime \prime}$ |
| $16^{\prime}$ | $9 / 16^{\prime \prime}$ | $13 / 16^{\prime \prime}$ | $1-1 / 16^{\prime \prime}$ |
| $18^{\prime}$ | $5 / 8^{\prime \prime}$ | $7 / 8^{\prime \prime}$ | $1-3 / 16^{\prime \prime}$ |
| $20^{\prime}$ | $11 / 16^{\prime \prime}$ | $1^{\prime \prime}$ | $1-5 / 16^{\prime \prime}$ |
| $22^{\prime}$ | $3 / 4^{\prime \prime}$ | $1-1 / 8^{\prime \prime}$ | $1-7 / 16^{\prime \prime}$ |
| $24^{\prime}$ | $13 / 16^{\prime \prime}$ | $1-3 / 16^{\prime \prime}$ | $1-5 / 8^{\prime \prime}$ |
| $26^{\prime}$ | $7 / 8^{\prime \prime}$ | $1-5 / 16^{\prime \prime}$ | $1-3 / 4^{\prime \prime}$ |
| $28^{\prime}$ | $15 / 16^{\prime \prime}$ | $1-3 / 8^{\prime \prime}$ | $1-7 / 8^{\prime \prime}$ |
| $30^{\prime}$ | $1{ }^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $2{ }^{\prime \prime}$ |

[^0]

# Roof Span Tables: Low Pitch (6:12 or less) for 40 and 60 psf Load 

## TO USE:

1. Select the appropriate set of tables based on roof pitch.
2. Select the section of that table that corresponds to the specified roof live or snow load.
3. Find a span that meets or exceeds the design span.
4. Read the corresponding series, depth and spacing.

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform snow and dead loads shown. These spans have not been evaluated for wind, snow drift or concentrated loads. The designer shall evaluate all required conditions.
2. The spans listed are the horizontal clear distance between supports and are valid for simple or continuous span applications. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists due solely to gravity loads. Uplift due to wind may require additional restraint.
3. Uniform load deflection is limited to the following: L/360 on live load and L/180 on total load. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
4. For deflection, the specified snow loads are reduced by the serviceability limit states Importance Factor ( $l_{S}=0.9$ ).
5. These tables do not reflect any additional stiffness provided by the roof sheathing.
6. The spans are based on an end bearing length of $1-3 / 4^{\prime \prime}$ for joists up to 16 " deep and 2-1/2" for joists $18^{\prime \prime}$ and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners shall be installed at all supports for joists 18 " and deeper (shown in bold) and for all depths when using a "bird's mouth" detail.
8. Web fillers are required for I-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web
9. Provide continuous lateral support for compression flange. Provide lateral support at points of bearing to prevent twisting of the joist.
10. Roof joists shall have a minimum pitch of $1 / 4$ " per foot $(1 / 4: 12)$ for positive drainage.
11. Roof applications in high wind areas require special analysis which may reduce spans and require special connectors to resist uplift.
12. Use in dry service conditions only.
13. For conditions not covered or for additional information contact your Pacific Woodtech distributor.


## UPLIFT COEFFICIENTS

| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(\mathrm{lb})=\mathrm{L}^{*} \mathrm{~s}^{*}\left(\mathrm{~A} * \mathrm{D}_{\mathrm{f}}-\mathrm{L}_{\mathrm{f}}\right) / \mathrm{B}$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span (ft), $s=$ joist spacing (ft), $D_{f}=$ factored dead load (psf), $L_{f}=$ factored live load (psf), $A$ and $B$ are coefficients given in the table

## TO USE:

1. Select the appropriate set of tables based on roof pitch.
2. Select the section of that table that corresponds to the specified roof live or snow load.
3. Find a span that meets or exceeds the design span.
4. Read the corresponding series, depth and spacing.

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform snow and dead loads shown. These spans have not been evaluated for wind, snow drift or concentrated loads. The designer shall evaluate all required conditions.
2. The spans listed are the horizontal clear distance between supports and are valid for simple or continuous span applications. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table on page 19 to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists due solely to gravity loads. Uplift due to wind may require additional restraint.
3. Uniform load deflection is limited to the following: $\mathrm{L} / 360$ on live load and $\mathrm{L} / 180$ on total load. Long term deflection (creep) has not been considered. The desíner shall evaluate live and total load deflection, and creep in the final design of the member.
4. For deflection, the specified snow loads are reduced by the serviceability limit states Importance Factor ( $l_{S}=0.9$ ).
5. These tables do not reflect any additional stiffness provided by the roof sheathing.
6. The spans are based on an end bearing length of $1-3 / 4$ " for joists up to 16 " deep and $2-1 / 2^{\prime \prime}$ for joists 18 " and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners shall be installed at all supports for joists 18 " and deeper (shown in bold) and for all depths when using a "bird's mouth" detail.
8. Web fillers are required for $1-$-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide continuous lateral support for compression flange. Provide lateral support at points of bearing to prevent twisting of the joist.
10. Roof joists shall have a minimum pitch of $1 / 4^{\prime \prime}$ per foot $(1 / 4: 12)$ for positive drainage.
11. Roof applications in high wind areas require special analysis which may reduce spans and require special connectors to resist uplift.
12. Use in dry service conditions only.
13. For conditions not covered or for additional information contact your Pacific Woodtech distributor.


## ACTUAL DEFLECTION

BASED ON SPAN AND LIMIT

| Span (ft) | L/360 | $\mathrm{L} / 240$ | $\mathrm{~L} / 180$ |
| :---: | :---: | :---: | :---: |
| $10^{\prime}$ | $5 / 16^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | $11 / 16^{\prime \prime}$ |
| $12^{\prime}$ | $3 / 8^{\prime \prime}$ | $5 / 8^{\prime \prime}$ | $13 / 16^{\prime \prime}$ |
| $14^{\prime}$ | $7 / 16^{\prime \prime}$ | $11 / 16^{\prime \prime}$ | $15 / 16^{\prime \prime}$ |
| $16^{\prime}$ | $9 / 16^{\prime \prime}$ | $13 / 16^{\prime \prime}$ | $1-1 / 16^{\prime \prime}$ |
| $18^{\prime}$ | $5 / 8^{\prime \prime}$ | $7 / 8^{\prime \prime}$ | $1-3 / 16^{\prime \prime}$ |
| $20^{\prime}$ | $11 / 16^{\prime \prime}$ | $1^{\prime \prime}$ | $1-5 / 16^{\prime \prime}$ |
| $22^{\prime}$ | $3 / 4^{\prime \prime}$ | $1-1 / 8^{\prime \prime}$ | $1-7 / 16^{\prime \prime}$ |
| $24^{\prime}$ | $13 / 16^{\prime \prime}$ | $1-3 / 16^{\prime \prime}$ | $1-5 / 8^{\prime \prime}$ |
| $26^{\prime}$ | $7 / 8^{\prime \prime}$ | $1-5 / 16^{\prime \prime}$ | $1-3 / 4^{\prime \prime}$ |
| $28^{\prime}$ | $15 / 16^{\prime \prime}$ | $1-3 / 8^{\prime \prime}$ | $1-7 / 8^{\prime \prime}$ |
| $30^{\prime}$ | $1{ }^{\prime \prime}$ | $1-1 / 2^{\prime \prime}$ | $2{ }^{\prime \prime}$ |

[^1]

# Roof Span Tables: High Pitch (6:12 to 12:12) for 40 and 60 psf Load 

## TO USE:

1. Select the appropriate set of tables based on roof pitch.
2. Select the section of that table that corresponds to the specified roof live or snow load.
3. Find a span that meets or exceeds the design span.
4. Read the corresponding series, depth and spacing.

## NOTES:

1. Joist spans have been calculated in accordance with CSA 086 for the specified uniform snow and dead loads shown. These spans have not been evaluated for wind, snow drift or concentrated loads. The designer shall evaluate all required conditions.
2. The spans listed are the horizontal clear distance between supports and are valid for simple or continuous span applications. Continuous spans are based on the longest span. The shortest span shall not be less than $50 \%$ of the longest span. Refer to the Uplift Coefficients table below to determine the required uplift restraint for the end of the shorter span of continuous, unequal span joists due solely to gravity loads. Uplift due to wind may require additional restraint.
3. Uniform load deflection is limited to the following: $\mathrm{L} / 360$ on live load and $\mathrm{L} / 180$ on total load. Long term deflection (creep) has not been considered. The designer shall evaluate live and total load deflection, and creep in the final design of the member.
4. For deflection, the specified snow loads are reduced by the serviceability limit states Importance Factor ( $l_{S}=0.9$ ).
5. These tables do not reflect any additional stiffness provided by the roof sheathing.
6. The spans are based on an end bearing length of $1-3 / 4$ " for joists up to 16 " deep and $2-1 / 2^{\prime \prime}$ for joists 18 " and deeper. An interior bearing length of at least $3-1 / 2^{\prime \prime}$ is required. The spans are limited to the bearing resistance of an SPF wall plate.
7. Web stiffeners shall be installed at all supports for joists 18 " and deeper (shown in bold) and for all depths when using a "bird's mouth" detail.
8. Web fillers are required for $1-$-Joists seated in hangers that do not laterally support the top flange or for hangers that require nailing into the web.
9. Provide continuous lateral support for compression flange. Provide lateral support at points of bearing to prevent twisting of the joist.
10. Roof joists shall have a minimum pitch of $1 / 4^{\prime \prime}$ per foot $(1 / 4: 12)$ for positive drainage.
11. Roof applications in high wind areas require special analysis which may reduce spans and require special connectors to resist uplift.
12. Use in dry service conditions only.
13. For conditions not covered or for additional information contact your Pacific Woodtech distributor.



## UPLIFT COEFFICIENTS

| Short span / Long span | 0.50 | 0.55 | 0.60 | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 | 0.90 | 0.95 | 1.00 |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coefficient A | 0.375 | 0.709 | 1.088 | 1.514 | 1.989 | 2.516 | 3.096 | 3.732 | 4.427 | 5.182 | 6.000 |
| Coefficient B | 6.00 | 6.82 | 7.68 | 8.58 | 9.52 | 10.5 | 11.52 | 12.58 | 13.68 | 14.82 | 16.00 |

## NOTE:

For joists continuous over two or more spans, where the short span is at least $50 \%$ of the long span, the end of the short span shall be anchored to resist any uplift force as indicated by a negative value from the following:

Factored Uplift Force $(I b)=L^{*} s^{*}\left(A * D_{f}-L_{f}\right) / B$ (a negative value represents uplift that must be restrained)
Where $L=$ longest span (ft), $s=$ joist spacing (ft), $D_{f}=$ factored dead load (psf), $L_{f}=$ factored live load (psf), $A$ and $B$ are coefficients given in the table

## Web Hole Specifications: Circular Holes



TO USE:

1. Select the required series and depth.

2 Select the column corresponding to the required hole diameter. For diameters between those listed, use the next largest value.
3. Read the minimum distance from the inside face of bearing to the center of the circular hole.
4. Double check the distance to the other support, using the appropriate support condition.

| Series | Depth | Circular Hole Diameter |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $2{ }^{\prime \prime}$ | 3" | 4" | 5" | $6 "$ | 7" | 8" | $9 "$ | 10" | 11" | 12" | $13^{\prime \prime}$ | 14" | 15" | $16^{\prime \prime}$ | 17" | 18" |
| PWI 20S, LPI 20Plus | 9-1/2" | 1'-0" | 1'-0" | 1'-6" | 2'-1" | 2'-9" | - | - | - | - | - | - | - | - | - | - | - | - |
|  | 11-7/8" | $1^{\prime}-0^{\prime \prime}$ | 1-5" | $1^{-1} 11^{\prime \prime}$ | 2'-6" | $3^{\prime}-1{ }^{\prime \prime}$ | $3^{\prime}-8{ }^{\prime \prime}$ | $4^{\prime}-3{ }^{\prime \prime}$ | - | - | - | - | - | - | - | - | - | - |
|  | 14" | 1'-4" | 1'-10" | 2'-4" | 2'-9" | 3'-3" | 3'-9" | $4^{\prime}-3$ " | 4'-9" | 5'-4" | - | - | - | - | - | - | - | - |
|  | 16" | $1^{1}-9{ }^{\prime \prime}$ | $2^{\prime}-2$ " | 2'-7" | 3'-1" | $3^{\prime}-6{ }^{\prime \prime}$ | $4^{\prime}-0 \prime \prime$ | $4^{\prime}-5{ }^{\prime \prime}$ | 4'-11" | $5^{\prime}-4{ }^{\prime \prime}$ | $5^{\prime}-11^{\prime \prime}$ | $6^{\prime}-6{ }^{\prime \prime}$ | - | - | - | - | - | - |
| PWI 32S, LPI 32Plus | 9-1/2" | 1'-0" | 1'-1" | 1'-9" | 2'-7" | $3^{\prime}-4{ }^{\prime \prime}$ | - | - | - | - | - | - | - | - | - | - | - | - |
|  | 11-7/8" | 1'-1" | $1^{1}-8$ " | 2'-4" | $3^{\prime}-0{ }^{\prime \prime}$ | $3^{\prime}-8{ }^{\prime \prime}$ | $4^{\prime}-3$ " | 4'-11" | - | - | - | - | - | - | - | - | - | - |
|  | $14 "$ | $1^{\prime}-8{ }^{\prime \prime}$ | 2'-3" | 2'-10" | 3'-5" | 3'-11" | 4'-6" | 5'-1" | 5'-8" | 6'-4" | - | - | - | - | - | - | - | - |
|  | 16" | $2^{\prime}-3^{\prime \prime}$ | 2'-9" | $3^{\prime}-3^{\prime \prime}$ | $3^{\prime \prime}-10^{\prime \prime}$ | $4^{\prime}-4{ }^{\prime \prime}$ | 4'-10" | $5^{\prime}-5{ }^{\prime \prime}$ | $5^{\prime}-11^{\prime \prime}$ | $6^{\prime}-5{ }^{\prime \prime}$ | 7'-1" | 7'-10" | - | - | - | - | - | - |
| PWI 36L, LPI 36 | 11-7/8" | $1^{\prime \prime}-0 \mid$ | 2'-1" | 3'-2" | 4'-3" | 5'-3" | 6'-4" | 7'-5" | - | - | - | - | - | - | - | - | - | - |
|  | 14" | 1'-10" | 2'-9" | 3'-9" | $4^{\prime}-8{ }^{\prime \prime}$ | $5^{\prime}-8{ }^{\prime \prime}$ | $6^{\prime \prime}-8{ }^{\prime \prime}$ | 7'-8" | 8'-8" | 9'-9" | - | - | - | - | - | - | - | - |
|  | 16" | 2'-3" | 3'-1" | 4'-0" | 4'-11" | 5'-10" | 6'-10" | 7'-9" | 8'-9" | 9'-10" | 10'-11" | 12'-0" | - | - | - | - | - | - |
|  | 18" | $1^{\prime}-0^{\prime \prime}$ | $1^{1}-0$ " | 1'-0" | $1^{1}-1{ }^{\prime \prime}$ | 1'-9" | $2^{\prime}-6{ }^{\prime \prime}$ | $3^{\prime}-7{ }^{\prime \prime}$ | $4^{\prime}-11^{\prime \prime}$ | $6^{\prime}-2{ }^{\prime \prime}$ | 7'-7" | $8^{\prime \prime}-11^{\prime \prime}$ | 10'-6" | 12'-3" | - | - | - | - |
| PWI 42S, LPI 42Plus | 9-1/2" | $1^{1}-3{ }^{\prime \prime}$ | 2'-3" | 3'-3" | 4'-3" | 5'-3" | - | - | - | - | - | - | - | - | - | - | - | - |
|  | 11-7/8" | $3^{\prime \prime}-3^{\prime \prime}$ | 4'-0" | $4^{\prime}-10^{\prime \prime}$ | 5'-7" | $6^{\prime}-4 \prime$ | 7'-1' | 7'-11" | - | - | - | - | - | - | - | - | - | - |
|  | 14" | 4'-8" | 5'-3" | 5'-10" | 6'-5" | 7'-0" | 7'-8" | 8'-5" | 9'-3" | 10'-2" | - | - | - | - | - | - | - | - |
|  | $16{ }^{\prime \prime}$ | $5^{\prime}-8{ }^{\prime \prime}$ | $6^{\prime}-2{ }^{\prime \prime}$ | 6'-9" | 7'-3" | 7'-9" | $8^{\prime \prime}-4{ }^{\prime \prime}$ | 8'-11" | 9'-8" | 10'-7" | 11'-5" | 12'-5" | - | - | - | - | - | - |
|  | 18" | $1^{\prime}-0 /$ | $1^{\prime \prime}-2^{\prime \prime}$ | 1'-9" | 2'-7" | 3'-6" | $4^{\prime}-6{ }^{\prime \prime}$ | 5'-5" | 6'-5" | 7'-5" | 8'-5" | 9'-9" | 11'-6" | 13'-7" | - | - | - | - |
|  | 20" | $1^{\prime}-4 "$ | $1^{\prime \prime-9 "}$ | 2'-3" | 2'-11" | $3^{\prime}-9{ }^{\prime \prime}$ | $4^{\prime}-7{ }^{\prime \prime}$ | 5'-6" | $6^{\prime}-4{ }^{\prime \prime}$ | $7{ }^{\text {'-2" }}$ | $8^{\prime}-1{ }^{\prime \prime}$ | 9'-1" | 10'-4" | 11'-11" | 14'-1" | $16^{\prime}-4 "$ | - | - |
|  | 24" | 2'-6" | 2'-10" | 3'-3" | 3'-7" | $4^{\prime}-4 "$ | 5'-1" | 5'-10" | $6^{\prime}-7{ }^{\prime \prime}$ | 7'-3" | 8'-0" | 8'-9" | 9'-7" | 10'-5" | 11'-6" | 12'-11" | 14'-7" | 16'-10" |
| PWI 52S, LPI 52Plus | 11-7/8" | 5'-3" | 5'-9" | 6'-4" | $6^{\prime}-11^{\prime \prime}$ | 7'-6" | $8^{\prime}-2{ }^{\prime \prime}$ | 8'-9" | - | - | - | - | - | - | - | - | - | - |
|  | 14" | $6^{\prime}-5$ " | 6'-11" | 7'-5" | 8'-0" | 8'-7" | $9^{\prime}-2$ " | 9'-9" | 10'-5" | 11'-0" | - | - | - | - | - | - | - | - |
|  | 16" | $7^{\prime \prime}-5^{\prime \prime}$ | 7'-11" | $8^{\prime}-4{ }^{\prime \prime}$ | $8^{\prime \prime} 111^{\prime \prime}$ | $9^{\prime}-6{ }^{\prime \prime}$ | 10'-1" | 10'-8" | 11'-4" | 12'-0" | 12'-7" | 13'-4" | - | - | - | - | - | - |
| PWI 56L, <br> LPI 56 | 11-7/8" | 3'-7" | 4'-7" | 5'-6" | 6'-6" | 7'-6" | 8'-6" | $9^{\prime}-7{ }^{\prime \prime}$ | - | - | - | - | - | - | - | - | - | - |
|  | $14 "$ | $4^{\prime}-8{ }^{\prime \prime}$ | 5'-7" | $6^{\prime}-5{ }^{\prime \prime}$ | $7^{\prime \prime}-4 "$ | 8'-3" | $9^{\prime}-3^{\prime \prime}$ | 10'-2" | 11'-2" | 12'-4" | - | - | - | - | - | - | - | - |
|  | 16" | 5'-10" | 6'-8" | 7'-6" | 8'-4" | 9'-3" | 10'-1" | 10'-11" | 11'-9" | 12'-9" | 13'-10" | 15'-4" | - | - | - | - | - | - |
|  | 18" | 2'-1" | 2'-9" | $3^{\prime}-5$ " | $4^{\prime}-2{ }^{\prime \prime}$ | $5^{\prime}-3^{\prime \prime}$ | $6^{\prime \prime-6 "}$ | 7'-9" | 8'-11" | 10'-3" | 11'-6" | 12'-10" | 14'-1" | 15'-10" | - | - |  | - |
|  | 24" | $4^{\prime}-6{ }^{\prime \prime}$ | 5'-0" | 5'-5" | $6^{\prime}-0{ }^{\prime \prime}$ | 7'-0" | 8'-0" | 9'-0" | 9'-11" | 10'-11" | 11'-11" | 13'-1" | 14'-2" | 15'-4" | 16'-6" | 17'-8" | 18'-11" | 20'-6" |

## DESIGN ASSUMPTIONS:

1. The hole locations listed above are valid for joists supporting only uniform loads. The specified uniform dead load shall not exceed the specified uniform live load. These tables have NOT been evaluated for concentrated loads.
2. Hole location is measured from the inside face of bearing to the center of a circular hole, from the closest support.
3. Verify that the joist selected will work for the span and loading conditions needed before checking hole location.
4. The maximum hole depth for circular holes is the I-joist Depth less 4", except the maximum hole depth is 6 " for $9-1 / 2^{\prime \prime}$ PWI joists, and 8 " for $11-7 / 8^{\prime \prime}$ PWI joists.
5. Holes cannot be located in the span where designated "-", without further analysis by a design professional.

## NOTES:

1. Holes may be placed anywhere within the depth of the joist. A minimum $1 / 4$ " clear distance is required between the hole and the flanges.
2. Round holes up to $1-1 / 2^{\prime \prime}$ diameter may be placed anywhere in the web.
3. Perforated "knockouts" may be neglected when locating web holes.
4. Holes larger than $1-1 / 2^{\prime \prime}$ are not permitted in cantilevers without special engineering.
5. Multiple holes shall have a clear separation along the length of the joist of at least twice the larger dimension of the larger adjacent hole, or a minimum of $12^{\prime \prime}$ center-to-center, whichever is greater.
6. Multiple holes may be spaced closer provided they fit within the boundary of an acceptable larger hole. Example: two 3" round holes aligned parallel to the joist length may be spaced 2" apart (clear distance) provided that a $3^{\prime \prime}$ high by 8 " long rectangle or an $8^{\prime \prime}$ diameter round hole are acceptable for the joist depth at that location and completely encompass the holes.
7. For conditions not covered in this table, use PWT's design software or contact your local Pacific Woodtech distributor for more information.


TO USE:

1. Select the required series and depth.
2. Select the column corresponding to the required hole dimension. For dimensions between those listed, use the next largest value.
3. Read the minimum distance from the inside face of bearing to the nearest edge of the square or rectangular hole.
4. Double check the distance to the other support, using the appropriate support condition.

| Series | Depth | Maximum Hole Dimension: Depth or Width |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2" | 3 " | 4" | 5" | $6{ }^{\prime \prime}$ | 7" | $8{ }^{\prime \prime}$ | 9" | 10" | 11" | 12" | 13" | 14" | 15" | $16{ }^{\prime \prime}$ | 17" | 18" |
| PWI 20S, LPI 20Plus | 9-1/2" | 2'-11" | 3'-6" | 4'-1" | 4'-10" | 6'-1" | 6'-5" | 6'-10" | 7'-2" | 7'-7" | 8'-0" | 8'-5' | 8'-11" | 9'-6" | 10'-2" | 10'-10" | - | - |
|  | 11-7/8" | 3'-11" | 4'-5" | 5'-0" | 5'-9" | 6'-9" | 8'-1" | 9'-8" | 10'-2" | 10'-8" | 11'-3" | 11'-11" | 12'-7" | $13^{\prime}-5^{\prime \prime}$ | 14'-4" | - | - | - |
|  | 14" | $1^{\prime}-3 "$ | 2'-0" | 2'-8" | 3'-5" | 4'-1" | 4'-11" | 5'-10" | 7'-3" | 9'-5" | 10'-4" | 11'-4" | 12-4" | 13'-4" | 14'-5" | 15'-10" | 17'-6" | - |
|  | $16 "$ | $1^{\prime}-8{ }^{\prime \prime}$ | 2'-4" | $3^{\prime}-0^{\prime \prime}$ | 3'-9" | 4'-5" | 5'-2" | 5'-11' | 7'-0" | 8'-7" | 11'-0" | 14'-6" | 15'-9" | 17'-1" | 18'-9" | 20'-9" | - | - |
| PWI 32S, LPI 32Plus | 9-1/2" | 3'-7" | 4'-2" | 4'-10" | 5'-10" | 7'-1" | 7'-5" | 7'-9" | 8'-1" | 8'-5" | 8'-10" | 9'-4" | 9'-10" | 10'-5" | 11'-1" | 11'-10" | - | - |
|  | 11-7/8" | 4'-7" | 5'-2' | 5'-10" | 6'-8" | 7'-10" | 9'-2" | 10'-8" | 11'-2" | 11'-8" | 12'-4" | $13^{\prime}-0^{\prime \prime}$ | 13'-8" | 14'-7" | 15'-8" | - | - | - |
|  | $14 "$ | 1'-7" | 2'-5" | 3'-3" | 4'-1" | 5'-0" | 5'-10" | 7'-0" | 8'-8" | 11'-1" | 11'-10" | 12'-8" | 13'-5" | 14'-6" | 15'-8" | 17'-0" | 18'-10" | - |
|  | 16" | 2'-1" | 2'-11" | 3'-9" | 4'-7" | 5'-5" | 6'-2" | 7'-2" | 8'-6" | 10'-5" | 12'-11" | 15'-9" | 16'-11" | 18'-5" | 20'-0" | 22'-2" | - | - |
| PWI 36L, LPI 36 | 11-7/8" | 6'-9" | 7'-3" | 7'-11" | 8'-7" | 9'-4" | 10'-4" | 11'-7" | 12'-1" | 12'-7" | 13'-3" | 13'-10" | 14'-8" | 15'-7" | 16'-8" | - | - | - |
|  | 14" | 3'-10" | 4'-9" | 5'-8" | $6^{\prime}-7{ }^{\prime \prime}$ | 7'-7" | 8'-7" | 9'-7" | 10'-9" | 12'-5" | 13'-1" | 13'-9" | 14'-7" | 15'-6" | 16'-9" | 18'-1" | 19'-11" | - |
|  | 16 " | 4'-6" | 5'-5" | 6'-4" | 7'-3" | 8'-3" | 9'-3" | 10'-4" | 11'-6" | 12'-9" | 14'-7" | 17'-0" | 18'-2" | 19'-7" | 21'-3" | 23'-3" | - | - |
|  | 18" | 1'-0" | $1^{\prime}-1$ " | 1'-10" | 2'-7" | $3^{\prime}-10^{\prime \prime}$ | 5'-3" | $6^{\prime}-8{ }^{\prime \prime}$ | 8'-2' | 9'-8' | 11'-6" | 13'-5" | 16'-0' | 20'-1" | 22'-5" | $25^{\prime}-7{ }^{\prime \prime}$ | - | - |
| PWI 42S, LPI 42Plus | 9-1/2" | 5'-5" | 6'-3" | 7'-0" | 7'-11' | 8'-11" | 9'-3" | $9^{\prime}-7{ }^{\prime \prime}$ | 9'-11" | 10'-4" | 10'-10" | 11'-4" | 11'-11" | 12'-7" | 13'-4" | 14'-3" | - | - |
|  | 11-7/8" | 7'-6" | 8'-3" | 8'-11" | 9'-8" | 10'-7" | 11'-9" | 13'-2" | 13'-8" | 14'-3" | 14'-11" | 15'-8" | 16'-7" | 17'-6" | 18'-9" | - | - | - |
|  | 14" | 4'-7" | 5'-5' | 6'-4" | 7'-2" | 8'-3" | 9'-6" | 10'-10" | 12'-3" | 14'-2" | 14'-10" | 15'-8" | 16'-7" | 17'-8" | 18'-11" | 20'-6" | 22'-6" | - |
|  | 16" | 5'-7" | 6'-5" | 7'-2" | 8'-0" | 8'-11" | 10'-2" | 11'-7" | 13'-0" | 14'-6" | 16'-8" | 19'-6" | 20'-10" | 22'-3" | 24'-1" | 26'-4" | - | - |
|  | 18" | 1'-9" | $2^{\prime}-7{ }^{\prime \prime}$ | 3'-7" | 4'-8" | 5'-8" | 6'-8' | 7'-9' | 8'-11" | 10'-6" | 12'-8" | 15'-0" | 17'-11" | 22'-5" | 24'-11" | 28'-6" | - | - |
|  | $\begin{aligned} & 20^{\prime \prime} \\ & 24 " \end{aligned}$ | $\begin{aligned} & 2^{\prime}-4 " \\ & 3^{\prime \prime}-6 " \end{aligned}$ | $\begin{aligned} & 3^{\prime}-2 " \\ & 4^{\prime \prime}-4 " \end{aligned}$ | $\begin{aligned} & 4^{\prime}-2 " 1 \\ & 5^{\prime}-3 " \end{aligned}$ | $\begin{aligned} & 5^{\prime}-1 " \\ & 6^{\prime \prime}-1 " \end{aligned}$ | $\begin{aligned} & 6^{\prime}-0 " \\ & 7^{\prime}-0 " \end{aligned}$ | $\begin{gathered} 7^{\prime}-0 " \\ 7 '-10^{\prime \prime} \end{gathered}$ | $\begin{aligned} & 8^{\prime}-0 " \\ & 8^{\prime \prime}-9 " \end{aligned}$ | $\begin{aligned} & 9^{\prime}-1 " \\ & 9^{\prime \prime}-8^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 10^{\prime}-6 " \\ & 10^{\prime}-10 " \end{aligned}$ | $\begin{aligned} & 12^{\prime}-4 " \\ & 12^{\prime}-3 " \end{aligned}$ | $\begin{gathered} 14 \text { '-10" } \\ 14^{\prime}-1 " \end{gathered}$ | $\begin{aligned} & 17 '-4 " \\ & 16^{\prime}-8 " \end{aligned}$ | $\begin{aligned} & 20^{\prime}-7{ }^{\prime \prime} \\ & 19^{\prime}-8 \end{aligned}$ | $\begin{aligned} & 25^{\prime}-5 " \\ & 22^{\prime \prime}-9 " \end{aligned}$ | 26'-10" | 32'-3" | - |
| PWI 52S, LPI 52Plus | 11-7/8" | 8'-5" | 9'-0" | 9'-7" | 10'-5" | 11-3" | 12'-5" | 13'-10" | 14'-5" | 15'-0" | 15'-8" | 16'-6" | 17'-4" | 18'-5" | 19'-8" | - | - | - |
|  | $14 "$ | 6'-3' | 7'-1" | 7'-10" | 8'-9" | 9'-8" | 10'-6" | 11'-7" | 13'-0" | 14'-10" | 15'-7" | 16'-5" | 17'-4" | 18'-6" | 19'-10" | 21'-6" | 23'-5" | - |
|  | $16^{\prime \prime}$ | 7'-4' | 8'-0" | 8'-10" | 9'-9" | 10'-8" | 11'-8" | 12'-8" | 13'-11" | 15'-6" | 17'-6" | 20'-5" | 21'-8" | 23'-3" | 25'-2' | $27^{\prime}-4 \prime$ | - | - |
| PWI 56L, LPI 56 | 11-7/8" | 8'-10" | 9'-5" | 10'-1" | 10'-11" | 11'-10" | 13'-0" | 14'-6" | 15'-2" | 15'-9" | 16'-6" | 17'-4" | 18'-3" | 19'-3" | 20'-5" | - | - | - |
|  | 14" | 6'-7" | 7'-5' | 8'-3" | 9'-2" | 10'-1' | 11'-1' | 12'-2" | 13'-8" | 15'-7" | 16'-4" | 17'-3" | 18'-2" | 19'-5" | 20'-9" | $22^{\prime}-6{ }^{\prime \prime}$ | 24'-4" | - |
|  | $16 "$ | 7'-11" | 8'-10" | 9'-8" | 10'-6" | 11'-4" | 12'-3" | 13'-3" | 14'-7" | 16'-2" | 18'-2" | 21'-3" | 22'-8" | 24'-3" | 26'-2" | 28'-3' | - | - |
|  | 18" | $3^{\prime}-4 \prime \prime$ | 4'-2" | 5'-4" | 6'-8" | 8'-0" | $9^{\prime}-4{ }^{\prime \prime}$ | 10'-8" | 12'-1" | 13'-5" | 15'-0" | 17'-1" | 20'-1" | 25'-2" | 27'-10" | 31'-1' | - | - |
|  | 24" | 5'-10" | 6'-11" | 8'-2" | 9'-4" | 10'-6" | 11'-8" | 13'-0" | 14'-4" | 15'-9" | 17'-2" | 18'-7" | 20'-5" | 22'-8" | 25'-6" | 29'-6" | $34^{\prime}-7{ }^{\prime \prime}$ | - |

## DESIGN ASSUMPTIONS:

1. The hole locations listed above are valid for joists supporting only uniform loads. The specified uniform dead load shall not exceed the specified uniform live load.These tables have NOT been evaluated for concentrated loads.
2. Hole location is measured from the inside face of bearing to the nearest edge of a rectangular hole, from the closest support.
3. Verify that the joist selected will work for the span and loading conditions needed before checking hole location.
4. The maximum hole depth for rectangular holes is the I-joist Depth less 4", except the maximum hole depth is $6^{\prime \prime}$ for $9-1 / 2^{\prime \prime}$ PWI joists, and $8^{\prime \prime}$ for 11-7/8" PWI joists. Where the Maximum Hole Dimension exceeds the hole depth, the dimension refers to hole width and the depth of the hole is assumed to be the maximum for that joist depth. The maximum hole width is 18 ," regardless of I-joist Depth.
5. Holes cannot be located in the span where designated "-", without further analysis by a design professional.

## NOTES:

1. Holes may be placed anywhere within the depth of the joist. A minimum $1 / 4^{\prime \prime}$ clear distance is required between the hole and the flanges.
2. Round holes up to $1-1 / 2^{\prime \prime}$ diameter may be placed anywhere in the web.
3. Perforated "knockouts" may be neglected when locating web holes.
4. Holes larger than $1-1 / 2^{\prime \prime}$ are not permitted in cantilevers without special engineering.
5. Multiple holes shall have a clear separation along the length of the joist of at least twice the larger dimension of the larger adjacent hole, or a minimum of $12^{\prime \prime}$ center-to-center, whichever is greater.
6. Multiple holes may be spaced closer provided they fit within the boundary of an acceptable larger hole. Example: two $3^{1 "}$ round holes aligned parallel to the joist length may be spaced 2" apart (clear distance) provided that a $3^{\prime \prime}$ high by $8^{\prime \prime}$ long rectangle or an $8^{\prime \prime}$ diameter round hole are acceptable for the joist depth at that location and completely encompass the holes.
7. For conditions not covered in this table, use PWT's design software or contact your local Pacific Woodtech distributor for more information.

## Web Stiffeners

## WEB STIFFENER REQUIREMENTS

| Series | Depth | Minimum Thickness |  |  | Maximum Height |
| :---: | :---: | :---: | :---: | :---: | :---: |

* Nail Size is for common wire nails.



S3
SPRINKLER SUPPORT
Factored Assembly Capacity 375 lbs .


## NOTES:

1. Use three $16 \mathrm{~d}\left(3-1 / 2^{\prime \prime}\right)$ common nails to attach cross member to web.
2. Lag screw fastener for hanger should be located $2-1 / 2^{\prime \prime}$ from bottom of cross member for branch lines and 3 " for mains.
3. Consult NFPA 13 for lag screw dimensions and maximum supported pipe diameter.
4. Sprinkler support should be centered between the joists.
5. Spacing between joists is limited to 48 " oc.
6. Framing members to be SPF or better.


7. Use three $16 \mathrm{~d}\left(3-1 / 2^{\prime \prime}\right)$ common nails to attach cross member to web.
8. Lag screw fastener for rod should be located 2-1/2" from bottom of cross member for branch lines and 3 " for mains.
9. Consult NFPA 13 for lag screw dimensions and maximum supported pipe diameter.
10. Sprinkler support should be centered between joists.
11. Joist spacing is limited to 48 " oc.
12. Framing members to be SPF or better.


## NOTES:

1. Holes for bolts shall be between $1 / 32^{\prime \prime}$ and $1 / 16$ " greater than the diameter of the bolt.
2. Provide a flat washer and nut for bolts.
3. Bolts should be located $2-1 / 2$ " from bottom of block.
4. Consult NFPA 13 for maximum supported pipe diameter.
5. See product specific technical guide for hole sizes and location.
6. Framing members to be SPF or better.
s9
SPRINKLER SUPPORT
Factored Assembly Capacity 120 Ibs.


## NOTES:

1. Holes for bolts shall be between $1 / 32$ " and $1 / 16$ " greater than the diameter of the bolt.
2. Provide a flat washer and nut for bolts.
3. Bolts should be located $2-1 / 2^{\prime \prime}$ from bottom of block.
4. Consult NFPA 13 for maximum supported pipe diameter.
5. Side beam bracket per NFPA 13.
6. Framing members to be SPF or better.




WEB STIFFENERS AT INTERIOR SUPPORT
(When Required)


Verify stiffener requirements (see Web Stiffener detail)


Pacific Woodtech I-Joists shall be designed to carry all applied loads including walls from above that do not stack directly over the I-Joist support.





## I-JOIST HEADER CROSS SECTION



Filler Blocks: Fasten l-Joists together with filler blocks between the PWI webs:

- Filler blocks must be installed at any load that is not applied to the top of the member and equally to all plies. See Detail E5 for installation instructions.
- For joists supporting only top loads that are equally applied to both plies, filler blocks can be omitted.

Backer Blocks: Minimum 12" long backer blocks must be installed at all hangers and all concentrated loads that are not equally applied to each ply, center backer block on load.

- For a single I-joist header install backer blocks to both sides of the web.
- Backer blocks may be omitted for top-mount hangers supporting only downward loads not exceeding 250 lbs .
- Install backer blocks tight to top flange for top-mount hangers or top concentrated loads. Install tight to bottom flange for face-mount hangers.
- Attach using 10 nails ( 0.131 "x3-1/4" (min.), clinch where possible) spaced to avoid splitting, with half the nails to each side of the center of the supported hanger.
- Face mount hanger nails must be min. 3" long per manufacturer's specifications.

Filler and Backer Blocks:

- Refer to the I-Joist Filler Thickness table for the correct filler and backer block thickness.
- Filler and backer blocks shall consist of APA Rated wood structural panel (OSB or plywood), $2 \times$ lumber (SPF or better), or PWLVL or OSB Rim Board.
- Filler and backer blocks for members that are top-loaded only, or at hangers that do not require nailing into the web, shall be: at least 5-1/2" deep for I-joists up to 11-7/8" deep and at least 7-1/4" deep for I-joists deeper than 11-7/8". Otherwise, filler blocks shall fit the clear distance between flanges with a gap of at least $1 / 8^{\prime \prime}$, but not more than $1^{\prime \prime}$.
- For double PWIs that are not top loaded or have loads that are not applied equally to both plies, the max unfactored loads for standard duration: Concentrated Load = 1200 lbs., Uniform Load $=520$ plf. Loads may be increased with more nails and adjusted for other load durations. Contact the project's design professional or Pacific Woodtech ${ }^{\text {TM }}$ distributor if these conditions are not met.

Filler Block Depth Example:
Multiple filler blocks may be stacked vertically to achieve the filler depth for a 14 " deep I-joist (min. req. is $14^{\prime \prime}-3^{\prime \prime}-1^{\prime \prime}=10^{\prime \prime}$ ). One row of nails must be in each filler.
Backer Block Length Example:
Two pieces, example $2 \times 8$ (min.) lumber, that are cut to the proper height may be set vertically side-by-side to achieve the required minimum 12 " length.

bevel cut/fire cut

PWI blocking or other lateral support required at ends of 1 -Joist


## I-JOIST FILLER THICKNESS

| Series | Filler Block | Web Filler/Backer Block |
| :---: | :---: | :---: |
| PWI 20S, LPI 20Plus <br> PWI 32S, LPI 32Plus | $2-1 / 8^{\prime \prime}$ | $1^{\prime \prime}$ |
| PWI 36L, LPI 36 | $1-7 / 8^{\prime \prime}$ | $7 / 8^{\prime \prime}$ |
| PWI 42S, LPI 42Plus <br> PWI 52S, LPI 52Plus <br> PWI 56L, LPI 56 | $3 "$ | $1-1 / 2^{\prime \prime}$ |

## NOTES:

1. Backer blocks and filler blocks shall consist of APA Rated wood structural panel (OSB or plywood), or $2 x$ lumber (SPF or better).
2. PWLVL or OSB Rim Board may also be used.
3. Refer to the Notes for the I-Joist Header Cross-Section above for details on the required height and length, and nailing of the backer blocks and filler blocks.

emporary construction bracing required for lateral
support before decking is completed. Failure to
use bracing could result in serious injury or death
See Installation Guide for specifics.


## Rim Board

| FACTORED RIM BOARD RESISTANCE |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Material | Grade | Thickness | Vertical Load Resistance |  |  | Lateral Load ${ }^{4,5,6}$ Resistance, $\mathrm{f}_{\mathrm{H}}$ (plf) |
|  |  |  | Uniform |  | Concentrated |  |
|  |  |  | $\mathrm{d} \leq 16{ }^{\prime \prime}$ | $16^{\prime \prime}<\mathrm{d} \leq 24{ }^{\text {" }}$ | d $\leq 24$ " |  |
| OSB | APA C1/Rim Board ${ }^{7}$ | 1-1/8" | 7033 | 4640 | 5072 | 219 |

NOTES:

1. The Factored Vertical Load Resistance shall not be increased for short-term load duration.
2. The Factored Vertical Load Resistance is based on the resistance of the rim board and may need to be reduced based on the bearing resistance of the supporting wall plate or the attached floor sheathing.
3. The Factored Concentrated Vertical Load Resistance is assumed to be applied through a minimum 4-1/2" bearing length (3-stud post).
4. The Factored Lateral Load Resistance is based on a short-term load duration and shall not be increased.
5. The Factored Lateral Load Resistance is based on the connections specified in the Installation details below.
6. Additional framing connectors fastened to the face of the rim board may be used to increase lateral resistance for wind and seismic design.
7. APA C1 grade in product standard ANSI/APA PRR 410-2011 is equivalent to the rim board grade in product standard APA PRR-401C.

## FACTORED UNIFORM LOADS (PLF) FOR RIM BOARD HEADERS: MAXIMUM 4' CLEAR SPAN

| Material | Thickness | Rim Board Depth |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $9-1 / 2^{\prime \prime}$ | $11-7 / 8^{\prime \prime}$ | 2 -Ply $14^{\prime \prime}$ | 2 -Ply $16^{\prime \prime}$ |
| OSB | $1-1 / 8^{\prime \prime}$ | $620\left(3^{\prime \prime}\right)$ | $965\left(3^{\prime \prime}\right)$ | $2220\left(4-1 / 2^{\prime \prime}\right)$ | $2535\left(4-1 / 2^{\prime \prime}\right)$ |

## NOTES:

1. This table is for preliminary design for uniform gravity loads only. Final design should include a complete analysis of all loads and connections.
2. The factored load resistances are for a maximum 4' clear span with minimum bearings for each end (listed in parentheses) based on the bearing resistance of the rim board. For headers bearing on wood plates, the bearing length may need to be increased based on the ratio of the bearing resistance of the rim board divided by the bearing resistance of the plate species.
3. Standard load duration is assumed and shall be adjusted according to code.
4. Depths greater than $11-7 / 8$ " shall be used with a minimum of two plies, as shown. Depths of $11-7 / 8$ " and less may be used as a two-ply header by multiplying the resistance by two.
5. Multiple-ply headers shall be toe-nailed to the plate from both faces. Fasten the floor sheathing to the top of each ply to provide proper lateral support for each ply.
6. For multiple-ply headers supporting top-loads only, fasten plies together with minimum 2-1/2" nails (common wire or spiral) at a maximum spacing of 12 " oc. Use 2 rows of nails for $9-1 / 2^{\prime \prime}$ and $11-7 / 8$ ". Use 3 rows for depths 14" and greater. Clinch the nails where possible. For side-loaded multiple-ply headers, refer to the Connection Resistance For Side-Loaded 2-Ply Rim Board Headers table below for the required nailing and the maximum side load that can be applied.
7. The designer shall verify proper bearing for the header.
8. Joints in the rim are not allowed over openings and must be located at least 12 " from any opening.
9. Refer to the "APA Performance Rated Rim Boards - Limit States Design" (Form No. D340 CA) for additional information including uniform load resistance for smaller openings.

## CONNECTION RESISTANCE FOR SIDE-LOADED 2-PLY RIM BOARD HEADERS (PLF)

| Material | Thickness | Minimum Nail Size | 3 Rows of Nails at 6" oc | $\begin{gathered} 4 \text { Rows of Nails } \\ \text { at } 6^{\prime \prime} \text { oc } \end{gathered}$ | 5 Rows of Nails at 6" oc | 5 Rows of Nails at 6" oc |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OSB | 1-1/8" | 2-1/2" | 1280 | 1707 | 2134 | 2561 |

## NOTES:

1. This table represents the factored uniform side-load resistance of the connection for a 2 -ply header. The total factored uniform load, including top-load and side-load, shall not exceed the factored uniform load resistance of the header as tabulated above.
2. The tabulated side-load resistance is for standard load duration and shall be adjusted according to code.
3. Use 3 rows of nails for $9-1 / 2^{\prime \prime}$ and $11-7 / 8^{\prime \prime} ; 4$ rows for $14^{\prime \prime}$ and $16 " ; 5$ rows for 18 " and $20 " ; 6$ rows for 22 " and 24 " deep rim board.
4. Nails may be either common wire or spiral. The factored resistances are based on spiral nails. Clinch the nails where possible.
5. Headers consisting of more than 2 plies, alternate fastening or higher side loads are possible but require proper design of the connection.


## NOTE:

1. Additional framing connectors to the face of the rim board may be used to increase lateral capacity for wind and seismic design.
2. Trim the tongue or groove of the floor sheathing in accordance with the T\&G Trim Requirements table.


## W A R N I N G S

## The following conditions are NOT permitted!

Do not use visually damaged products without first checking
with your local Pacific Woodtech distributor or sales office.


## HANDLING \& STORAGE GUIDELINES

- WARNING: Failure to follow proper procedures for handling, storage and installation could result in unsatisfactory performance, unsafe structures and possible collapse.
- Keep Pacific Woodtech ${ }^{T M}$ products dry. These products are intended to resist the effects of moisture on structural performance from normal construction delays but are not intended for permanent exposure to the weather.
- Unload products carefully, by lifting. Support the bundles to reduce excessive bowing. Individual products should be handled in a manner which prevents physical damage during measuring, cutting, erection, etc. I-Joists shall be handled vertically and not flatwise.
- Keep products stored in wrapped and strapped bundles, stacked no more than 10' high. Support and separate bundles with $2 \times 4$ (or larger) stickers spaced no more than 10' apart. Keep stickers in line vertically.
- Product must not be stored in contact with the ground, or have prolonged exposure to the weather.

- Use forklifts and cranes carefully to avoid damaging product.
- Do not use a visually damaged product. Call your local Pacific Woodtech distributor for assistance when damaged products are encountered.
- For satisfactory performance, Pacific Woodtech I-Joists and LVL must be used under dry, covered and well-ventilated interior conditions in which the average equilibrium moisture content (MC) of lumber is $15 \%$ or less over a year and does not exceed $19 \%$ at any time.
- For built-up members, Pacific Woodtech I-Joists and LVL shall be dry before nailing or bolting to avoid trapping moisture.
- Pacific Woodtech I-Joists and LVL shall not be used for unintended purposes such as ramps and planks.


## Pacific Woodtech I-Joists

PWI 20S, LPI 20Plus
Width: 2-1/2"
Depths: 9-1/2", 11-7/8", 14", 16 "
Web Thickness: 3/8"
Flange Material: Solid Sawn
Flange Depth: 1-1/2"
Lengths: Up to 64' in $2^{\prime}$ increments

## PWI 42S, LPI 42Plus

Width: 3-1/2"
Depths: 9-1/2", 11-7/8", 14", 16", 18", 20", 24"
Web Thickness: $3 / 8^{\prime \prime}$ or $7 / 16^{\prime \prime}$
Flange Material: Solid Sawn
Flange Depth: 1-1/2"
Lengths: Up to 64' in 2' increments

PWI 32S, LPI 32Plus
Width: 2-1/2"
Depths: 9-1/2", 11-7/8", 14", 16" Web Thickness: 3/8"
Flange Material: Solid Sawn
Flange Depth: 1-1/2"
Lengths: Up to $64^{\prime}$ in $2^{\prime}$ increments

## PWI 52S, LPI 52Plus

Width: 3-1/2"
Depths: 11-7/8", 14", 16"
Web Thickness: 7/16"
Flange Material: Solid Sawn
Flange Depth: 1-1/2"
Lengths: Up to 64' in $2^{\prime}$ increments

PWI 36L, LPI 36
Width: 2-1/4"
Depths: 11-7/8", 14", 16", 18"
Web Thickness: $3 / 8^{\prime \prime}$
Flange Material: LVL
Flange Depth: 1-1/2"
Lengths: Up to 64' in 2' increments

## PWI 56L, LPI 56

Width: 3-1/2"
Depths: 11-7/8", 14", 16", 18", 24"
Web Thickness: 7/16"
Flange Material: LVL
Flange Depth: 1-1/2"
Lengths: Up to $64^{\prime}$ 'in $2^{\prime}$ increments

## CODE EVALUATION

CCMC evaluation reports can be obtained at www.nrc-cnrc.gc.ca.
CCMC 12412-R
APA PR-L238C

For more information on the full line of Pacific Woodtech products or the nearest distributor, visit our web site at pacificwoodtech.com.
Phone: (800) 515-7570
E-mail: sales@pacificwoodtech.com
Pacific Woodtech products are manufactured at different locations in the United States and Canada.
Please verify availability with the Pacific Woodtech distributor in your area before specifying these products.


[^0]:    * Deflections rounded to the nearest $1 / 16$."

[^1]:    * Deflections rounded to the nearest 1/16."

