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**P3 | JOIST**

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**USER GUIDE**

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**CANADA** 

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## THE PERFECT PRODUCT FOR EVERY PROJECT

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Our P3 Joist conform to the APA's performance standards. We rigorously verify and test our products to ensure that they perform predictably and safely. Simple to specify. Easy to install. Less confusion.

# P3 JOIST

Interfor has made it easy to make the right choice for residential and non-residential floor and roof joist products. P3 Joist are produced in accordance with Interfor's reports, ASTM D5055 and ASTM D7247. All code reports can be downloaded from our website [www.interfor.com](http://www.interfor.com).

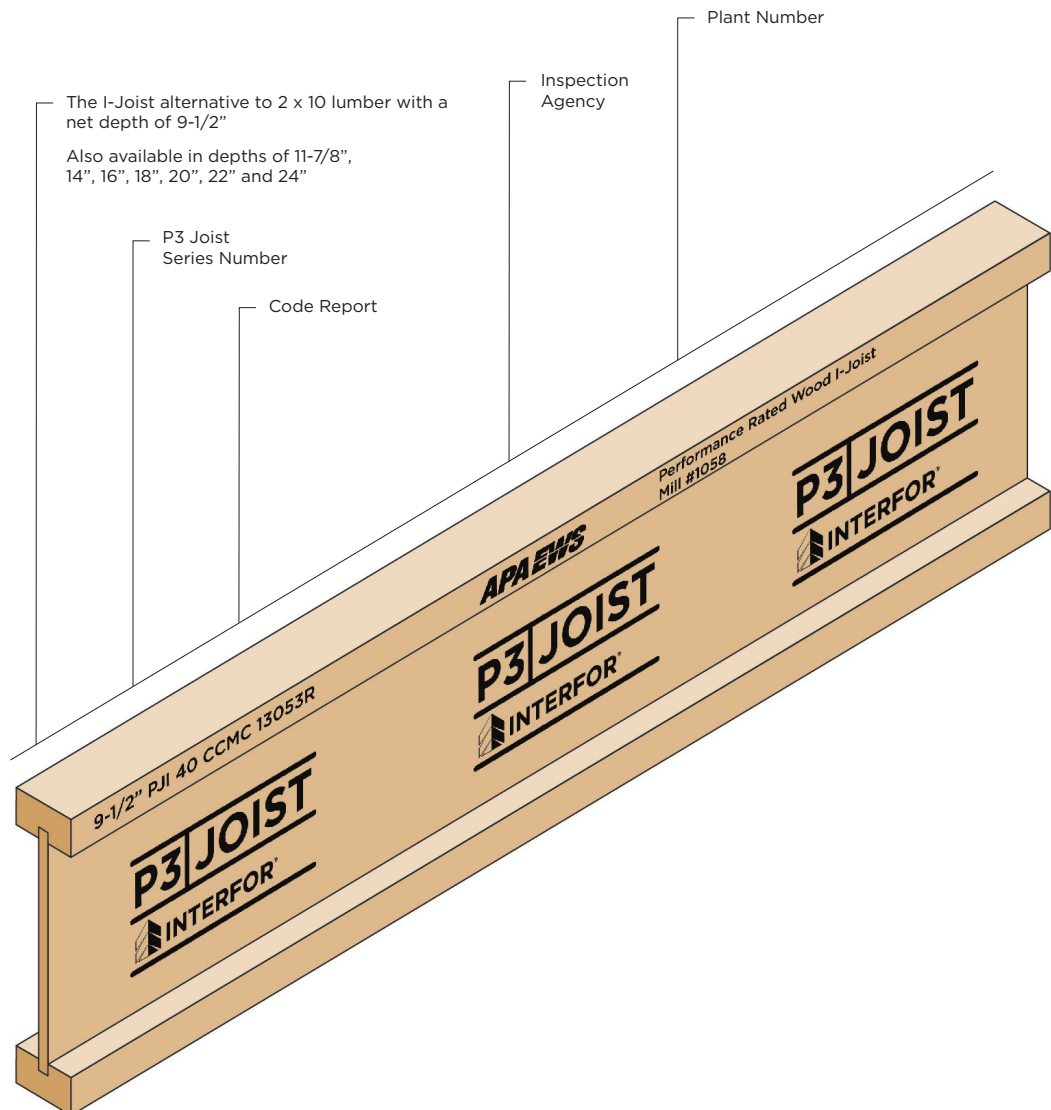
P3 Joist provide a high performance alternative to dimension lumber joists for floor and roof applications. This guide will help you efficiently use P3 Joist by leading you through the simple steps of product selection, specification, and installation.

The APA trademark signifies that the I-Joist manufacturer is committed to the strict quality standards of Engineered Wood Systems (EWS) – a related corporation of APA – and that P3 Joist are manufactured in conformance with ASTM D5055. APA's rigorous program of quality verification and testing is designed to assure predictable product performance.

This guide explains floor and roof systems. Review by a design professional is required for applications beyond the scope of this document.

Simple to specify. Easy to install. Less confusion. P3 Joist's the right choice for residential and non-residential floor and roof construction.

## P3 Joist Labeling Example



## P3 JOIST (continued)

### Storage and Handling Guidelines

1. Store, stack, and handle P3 Joists in a vertical and level position only.
2. Do not store P3 Joist in direct contact with the ground; do not store P3 Joists flatwise.
3. Protect P3 Joist from weather, and use stickers to separate bundles.
4. To protect P3 Joist further from dirt and weather, do not open bundles until time of installation.
5. When lifting P3 Joist with a crane on the job site, take a few simple precautions to prevent damage to the P3 Joist and to prevent injury to your work crew.
  - Lift P3 Joists in bundles as shipped by the supplier.
  - Orient the bundles so that the webs of the P3 Joist are vertical.
  - Lift the bundles at the 5th points, using a spreader bar if necessary.
6. Do not twist or apply loads to the P3 Joist when horizontal.
7. Never use or try to repair a damaged P3 Joist.

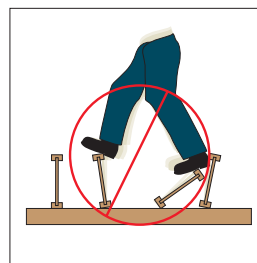
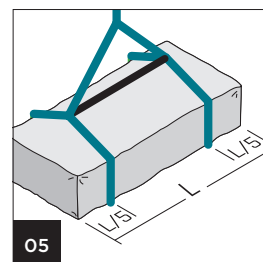
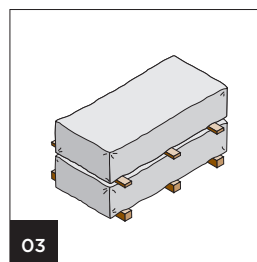
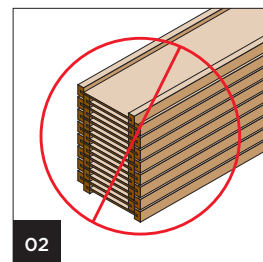
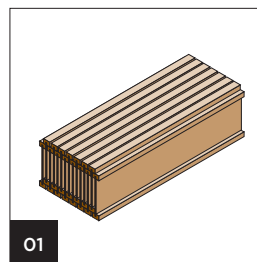
### Safety Precautions

**WARNING** P3 Joists are not stable until completely installed and will not carry any load until fully braced and sheathed.

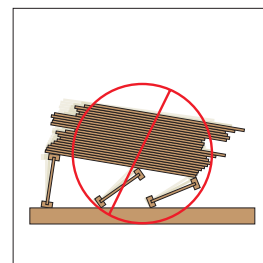
#### Avoid Accidents by Following These Important Guidelines.

1. Brace and nail each P3 Joist as it is installed, using hangers, blocking panels, rim board, and/or cross-bridging at joist ends. When P3 Joists are applied continuously over interior supports and a load-bearing wall is planned at the location, blocking will be required at the interior supports.
2. When the building is completed, the floor sheathing will provide lateral support for the top flanges of the P3 Joists. Until this sheathing is applied, temporary bracing, often called struts, or temporary sheathing must be applied to prevent P3 Joist rollover or buckling.
  - Temporary bracing or struts **must be** 1 x 4" minimum, at least 8' long, spaced no more than 8' on center, and secured with a minimum of two 8d nails fastened to the top surface of each P3 Joist. Nail bracing to a lateral restraint at the end of each bay. Lap ends of adjoining bracing over at least two P3 Joists.
  - Or, sheathing (temporary or permanent) can be nailed to the top flange of the first 4' of the P3 Joists at the end of the bay.
3. For cantilevered P3 Joists, brace top and bottom flanges, and brace ends with closure panels, rim board, or cross-bridging.
4. Install and nail permanent sheathing to each P3 Joist before placing loads on the floor system. Then, stack building materials over beams or walls only.
5. For temporary construction loads such as dry wall stacking, see APA Publication J735A (Temporary Construction Loads Over I-Joist Roofs).

**Failure to follow applicable building codes and span ratings, failure to use allowable hole sizes and locations, or failure to use web stiffeners when required can result in serious accidents. Follow these installation guidelines carefully.**



Do not allow workers to walk on P3 Joists until joists are fully installed and braced, or serious injuries can result.

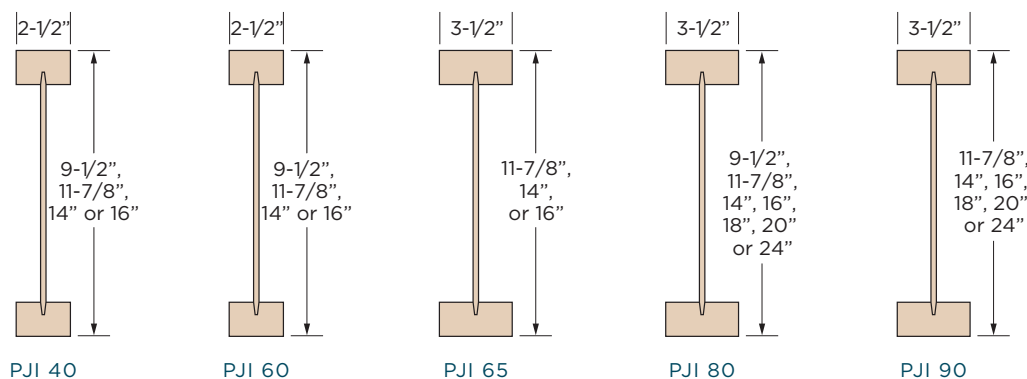


Never stack building materials over unsheathed P3 Joists. Stack only over beams or walls.

# Selecting a P3 JOIST

## Product Description

The P3 Joist is an "I"-shaped engineered wood structural member designed for use in residential and non-residential floor and roof construction. P3 Joists are prefabricated using SPF MSR lumber flanges and OSB web, which are bonded together with exterior-type adhesives. P3 Joists are designed in accordance with the CCMC vibration procedure for residential floor applications, a criteria which provides superior floor performance. P3 Joist are limited to a L/480 maximum live load deflection for residential and non-residential floor applications. P3 Joists are identified by their depth followed by a designation such as PJI 40 which relates to the joist strength and stiffness. P3 Joist are manufactured to strict tolerances with the following characteristics.



- **Flanges** are MSR 2x3's and 2x4's
- **Webs** are OSB, and all are classified as Exposure 1 or Exterior and are 3/8" in thickness or greater.
- All P3 Joists are assembled using exterior-type adhesives that meet ASTM D2559 and ASTM D7247.
- P3 Joist are available in seven depths: 9-1/2", 11-7/8", 14", 16", 18", 20" and 24".
- P3 Joist of the same depth are manufactured with various flange widths; flange width is an important design consideration when specifying hangers.
- P3 Joist are manufactured up to 64' in length. These lengths are cut to used lengths such as 16' to 36' in 2' increments for jobsite delivery. Check local supplier for availability.
- P3 Joists are evaluated for performance and compliance to the National Building Code of Canada by CCMC under evaluation CCMC 13053-R and also have an Ontario Minister's Ruling #07 16 174.

# Allowable Floor Spans

## Maximum Allowable Spans

The specific PJI designation needed for your application is easily determined by selecting the span needed and then by choosing the PJI that meets your span, spacing, and uniform loading criteria.

Tables 1 and 1a are for simple or multiple span applications respectively. The use of these tables will provide maximum spans for the indicated spacing and span conditions.

To illustrate the selection of a P3 Joist product, assume a design simple span of 15'-10" for 40/15 loading. For architectural reasons limit the P3 Joist depth to 11-7/8" and P3 Joist spacing to 19.2" on center with 5/8" plywood subfloor. From the 11-7/8" entry in Table 1, look down the 19.2" o.c. spacing column. Select PJI 40 11-7/8" P3 Joist.

While any of the P3 Joists shown in Tables 1 and 1a may be available in a specific market area, availability of any P3 Joist product should be verified prior to final product selection.

The allowable spans in the tables in this user guide indicate the allowable simple and multiple spans for various joist spacings under typical residential uniform floor loads (40 psf live load and 15 psf dead load) for glued-nailed systems.

Floor sheathing **must be field glued** to the P3 Joist flanges using approved construction adhesives to achieve the P3 Joist allowable spans.

Use of these span tables is limited to uniform load conditions and P3 Joist floor spans shall not exceed these allowable spans. P3 Joist can be used for other applications such as roofs and ceilings to support line loads or concentrated loads, etc., when properly engineered.

### NOTES

- Design in accordance with CSA O86-19 and CCMC vibration concluding report dated September 4, 1997.
- Web stiffeners are not required for P3 Joists up to 16" deep. **Joists 18" and deeper require stiffeners at each support.**
- Use in dry service conditions only.
- Provide lateral support at points of bearing to prevent twisting of joists.
- Uniform load deflection criteria is L/480 on live load and L/240 on total load calculated.
- Elastomeric adhesives for gluing of the subfloor shall conform to CGSB Standard CAN-CGSB-71.26-M88
- Minimum end bearing length to be 1-3/4" and 3-1/2" for intermediate bearing supports.
- Vibration spans are based on 19/32" OSB or 5/8" Canadian Softwood Plywood for joist spacing of 12" to 19.2" and on 23/32" OSB or 3/4" Canadian Softwood Plywood for joists spaced at 24" o/c. No ceiling, concrete topping, or bridging elements.**
- Spans listed are clear distances between supports.
- Designs are also valid for CSA-O86-14, NBC 2020 and NBC 2015.

**TABLE 1**  
**Allowable Spans for P3 Floor Joist**  
Single span only - Glued & Nailed subfloor

| Load  |       | Series | Depth  | Maximum Floor Span (ft - in) |        |        |        |
|-------|-------|--------|--------|------------------------------|--------|--------|--------|
|       |       |        |        | Glued & Nailed subfloor      |        |        |        |
| Live  | Dead  |        |        | On center spacing (in)       |        |        |        |
| (psf) | (psf) |        | (in)   | 12                           | 16     | 19.2   | 24     |
| 40    | 15    | PJI 40 | 9 1/2  | 15-6"                        | 14-8"  | 14-2"  | 14-2"  |
|       |       |        | 11 7/8 | 17-5"                        | 16-5"  | 15-11" | 16-0"  |
|       |       |        | 14     | 19-3"                        | 17-10" | 17-3"  | 17-5"  |
|       |       |        | 16     | 20-11"                       | 19-5"  | 18-7"  | 18-10" |
|       |       | PJI 60 | 9 1/2  | 16-0"                        | 15-1"  | 14-7"  | 14-9"  |
|       |       |        | 11 7/8 | 18-0"                        | 16-11" | 16-5"  | 16-6"  |
|       |       |        | 14     | 20-0"                        | 18-7"  | 17-10" | 17-11" |
|       |       |        | 16     | 21-10"                       | 20-3"  | 19-5"  | 19-7"  |
|       |       | PJI 65 | 11 7/8 | 18-7"                        | 17-4"  | 16-9"  | 16-11" |
|       |       |        | 14     | 20-8"                        | 19-1"  | 18-3"  | 18-5"  |
|       |       |        | 16     | 22-6"                        | 20-9"  | 19-11" | 20-0"  |
|       |       | PJI 80 | 9 1/2  | 16-11"                       | 15-11" | 15-5"  | 15-6"  |
|       |       |        | 11 7/8 | 19-4"                        | 17-11" | 17-3"  | 17-5"  |
|       |       |        | 14     | 21-6"                        | 19-11" | 19-0"  | 19-2"  |
|       |       |        | 16     | 23-5"                        | 21-8"  | 20-8"  | 20-10" |
|       |       |        | 18     | 25-3"                        | 23-4"  | 22-3"  | 22-5"  |
|       |       |        | 20     | 27-0"                        | 24-11" | 23-9"  | 23-11" |
|       |       |        | 24     | 30-3"                        | 27-11" | 26-8"  | 26-9"  |
|       |       | PJI 90 | 11 7/8 | 19-9"                        | 18-3"  | 17-7"  | 17-8"  |
|       |       |        | 14     | 22-0"                        | 20-3"  | 19-5"  | 19-6"  |
|       |       |        | 16     | 23-11"                       | 22-1"  | 21-1"  | 21-3"  |
|       |       |        | 18     | 25-9"                        | 23-9"  | 22-8"  | 22-10" |
|       |       |        | 20     | 27-6"                        | 25-5"  | 24-3"  | 24-4"  |
|       |       | 24     | 30-10" | 28-6"                        | 27-2"  | 27-3"  |        |

**TABLE 1 A**  
**Allowable Spans for P3 Floor Joist**  
Multiple spans only - Glued & Nailed subfloor

| Load  |       | Series | Depth  | Maximum Floor Span (ft - in) |                        |        |        |
|-------|-------|--------|--------|------------------------------|------------------------|--------|--------|
|       |       |        |        | Glued & Nailed subfloor      |                        |        |        |
| Live  | Dead  |        |        |                              | On center spacing (in) |        |        |
| (psf) | (psf) |        | (in)   | 12                           | 16                     | 19.2   | 24     |
| 40    | 15    | PJI 40 | 9 1/2  | 16-1"                        | 15-2"                  | 14-8"  | 14-10" |
|       |       |        | 11 7/8 | 18-2"                        | 17-0"                  | 16-6"  | 16-7"  |
|       |       |        | 14     | 20-2"                        | 18-8"                  | 17-11" | 18-1"  |
|       |       |        | 16     | 22-0"                        | 20-5"                  | 19-6"  | 19-8"  |
|       |       | PJI 60 | 9 1/2  | 16-7"                        | 15-7"                  | 15-1"  | 15-3"  |
|       |       |        | 11 7/8 | 18-11"                       | 17-7"                  | 17-0"  | 17-1"  |
|       |       |        | 14     | 21-0"                        | 19-6"                  | 18-8"  | 18-10" |
|       |       |        | 16     | 22-11"                       | 21-3"                  | 20-4"  | 20-6"  |
|       |       | PJI 65 | 11 7/8 | 19-6"                        | 18-0"                  | 17-4"  | 17-6"  |
|       |       |        | 14     | 21-8"                        | 20-0"                  | 19-2"  | 19-4"  |
|       |       |        | 16     | 23-7"                        | 21-10"                 | 20-11" | 21-0"  |
|       |       | PJI 80 | 9 1/2  | 17-7"                        | 16-6"                  | 15-11" | 16-1"  |
|       |       |        | 11 7/8 | 20-4"                        | 18-9"                  | 18-0"  | 18-1"  |
|       |       |        | 14     | 22-7"                        | 20-11"                 | 20-0"  | 20-1"  |
|       |       |        | 16     | 24-8"                        | 22-9"                  | 21-9"  | 21-11" |
|       |       |        | 18     | 26-6"                        | 24-6"                  | 23-5"  | 23-6"  |
|       |       |        | 20     | 28-5"                        | 26-2"                  | 25-0"  | 25-2"  |
|       |       |        | 24     | 31-11"                       | 29-5"                  | 28-0"  | 28-2"  |
|       |       | PJI 90 | 11 7/8 | 20-9"                        | 19-2"                  | 18-4"  | 18-6"  |
|       |       |        | 14     | 23-1"                        | 21-4"                  | 20-4"  | 20-6"  |
|       |       |        | 16     | 25-2"                        | 23-2"                  | 22-2"  | 22-3"  |
|       |       |        | 18     | 27-1"                        | 25-0"                  | 23-10" | 24-0"  |
|       |       |        | 20     | 29-0"                        | 26-9"                  | 25-6"  | 25-8"  |
|       |       | 24     | 32-9"  | 30-0"                        | 28-7"                  | 28-8"  |        |

\*For other type floor assemblies, please visit [www.interfor.com](http://www.interfor.com)

## Allowable Floor Uniform Load Capacities

**TABLE 2**

### P3 Floor Joist — PJI 40

Allowable Uniform Loads (PLF)

| Clear<br>Span<br>(ft) | 9-1/2"                                  |       |                |                           | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|-----------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                       | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                       | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           |
|                       | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           |
| 8                     | 288                                     | 384   | -              | 419                       | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       |
| 9                     | 215                                     | 287   | -              | 374                       | 343                                     | -     | -              | 374                       | -                                       | -     | -              | 374                       | -                                       | -     | -              | 374                       |
| 10                    | 164                                     | 219   | 328            | 338                       | 265                                     | -     | -              | 338                       | -                                       | -     | -              | 338                       | -                                       | -     | -              | 338                       |
| 11                    | 128                                     | 170   | 256            | 285                       | 208                                     | 277   | -              | 308                       | 291                                     | -     | -              | 308                       | -                                       | -     | -              | 308                       |
| 12                    | 101                                     | 135   | 202            | 240                       | 166                                     | 221   | -              | 283                       | 233                                     | -     | -              | 283                       | -                                       | -     | -              | 283                       |
| 13                    | 81                                      | 108   | 163            | 205                       | 134                                     | 179   | -              | 261                       | 190                                     | 253   | -              | 261                       | 251                                     | -     | -              | 261                       |
| 14                    | 66                                      | 88    | 133            | 178                       | 110                                     | 146   | 220            | 230                       | 156                                     | 208   | -              | 243                       | 207                                     | -     | -              | 243                       |
| 15                    | 55                                      | 73    | 110            | 155                       | 91                                      | 121   | 182            | 201                       | 130                                     | 173   | -              | 227                       | 173                                     | -     | -              | 227                       |
| 16                    | 45                                      | 61    | 91             | 137                       | 76                                      | 102   | 153            | 177                       | 109                                     | 145   | -              | 213                       | 145                                     | 194   | -              | 213                       |
| 17                    | 38                                      | 51    | 77             | 121                       | 64                                      | 86    | 129            | 157                       | 92                                      | 123   | 185            | 190                       | 123                                     | 165   | -              | 201                       |
| 18                    | 32                                      | 43    | 65             | 108                       | 55                                      | 73    | 110            | 140                       | 79                                      | 105   | 158            | 169                       | 105                                     | 141   | -              | 190                       |
| 19                    | 28                                      | 37    | 56             | 97                        | 47                                      | 63    | 94             | 126                       | 68                                      | 90    | 136            | 152                       | 91                                      | 121   | -              | 176                       |
| 20                    | 24                                      | 32    | 48             | 88                        | 41                                      | 54    | 82             | 114                       | 59                                      | 78    | 118            | 137                       | 79                                      | 105   | 158            | 159                       |
| 21                    | 21                                      | 28    | 42             | 80                        | 35                                      | 47    | 71             | 104                       | 51                                      | 68    | 102            | 125                       | 69                                      | 92    | 138            | 145                       |
| 22                    | 18                                      | 24    | 37             | 73                        | 31                                      | 41    | 62             | 94                        | 45                                      | 60    | 90             | 114                       | 60                                      | 81    | 121            | 132                       |
| 23                    | 16                                      | 21    | 32             | 67                        | 27                                      | 36    | 55             | 86                        | 39                                      | 53    | 79             | 104                       | 53                                      | 71    | 107            | 121                       |
| 24                    | 14                                      | 19    | 28             | 61                        | 24                                      | 32    | 48             | 79                        | 35                                      | 47    | 70             | 96                        | 47                                      | 63    | 95             | 111                       |
| 25                    | 12                                      | 17    | 25             | 56                        | 21                                      | 28    | 43             | 73                        | 31                                      | 41    | 62             | 88                        | 42                                      | 56    | 84             | 102                       |
| 26                    | 11                                      | 15    | 22             | 52                        | 19                                      | 25    | 38             | 68                        | 28                                      | 37    | 56             | 82                        | 37                                      | 50    | 75             | 95                        |
| 27                    | 10                                      | 13    | 20             | 48                        | 17                                      | 23    | 34             | 63                        | 25                                      | 33    | 50             | 76                        | 33                                      | 45    | 67             | 88                        |
| 28                    | 9                                       | 12    | 18             | 45                        | 15                                      | 20    | 31             | 58                        | 22                                      | 30    | 45             | 70                        | 30                                      | 40    | 61             | 82                        |
| 29                    | 8                                       | 11    | 16             | 42                        | 14                                      | 18    | 28             | 54                        | 20                                      | 27    | 40             | 66                        | 27                                      | 36    | 55             | 76                        |
| 30                    | 7                                       | 10    | 15             | 39                        | 12                                      | 17    | 25             | 51                        | 18                                      | 24    | 37             | 61                        | 25                                      | 33    | 50             | 71                        |
| 31                    | 6                                       | 9     | 13             | 37                        | 11                                      | 15    | 23             | 48                        | 16                                      | 22    | 33             | 58                        | 22                                      | 30    | 45             | 67                        |

See notes under Table 6A

**TABLE 3**

### P3 Floor Joist — PJI 60

Allowable Uniform Loads (PLF)

| Clear Span<br>(ft) | 9-1/2"                                  |       |                |                           | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|--------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                    | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                    | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           |
|                    | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           |
| 8                  | 330                                     | -     | -              | 419                       | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       |
| 9                  | 248                                     | 331   | -              | 374                       | -                                       | -     | -              | 374                       | -                                       | -     | -              | 374                       | -                                       | -     | -              | 374                       |
| 10                 | 190                                     | 254   | -              | 338                       | 305                                     | -     | -              | 338                       | -                                       | -     | -              | 338                       | -                                       | -     | -              | 338                       |
| 11                 | 149                                     | 198   | 298            | 308                       | 241                                     | -     | -              | 308                       | -                                       | -     | -              | 308                       | -                                       | -     | -              | 308                       |
| 12                 | 118                                     | 158   | 237            | 283                       | 193                                     | 257   | -              | 283                       | 272                                     | -     | -              | 283                       | -                                       | -     | -              | 283                       |
| 13                 | 95                                      | 127   | 191            | 261                       | 157                                     | 209   | -              | 261                       | 222                                     | -     | -              | 261                       | -                                       | -     | -              | 261                       |
| 14                 | 78                                      | 104   | 156            | 243                       | 129                                     | 172   | -              | 243                       | 183                                     | -     | -              | 243                       | 243                                     | -     | -              | 243                       |
| 15                 | 64                                      | 86    | 129            | 215                       | 107                                     | 143   | 214            | 227                       | 153                                     | 204   | -              | 227                       | 203                                     | -     | -              | 227                       |
| 16                 | 54                                      | 72    | 108            | 189                       | 90                                      | 120   | 180            | 213                       | 129                                     | 172   | -              | 213                       | 172                                     | -     | -              | 213                       |
| 17                 | 45                                      | 61    | 91             | 168                       | 76                                      | 101   | 152            | 201                       | 109                                     | 146   | -              | 201                       | 146                                     | 195   | -              | 201                       |
| 18                 | 39                                      | 52    | 78             | 150                       | 65                                      | 86    | 130            | 190                       | 94                                      | 125   | 188            | 190                       | 125                                     | 167   | -              | 190                       |
| 19                 | 33                                      | 44    | 67             | 135                       | 56                                      | 74    | 112            | 175                       | 81                                      | 108   | 162            | 180                       | 108                                     | 144   | -              | 180                       |
| 20                 | 28                                      | 38    | 57             | 122                       | 48                                      | 64    | 97             | 158                       | 70                                      | 93    | 140            | 171                       | 94                                      | 126   | -              | 171                       |
| 21                 | 25                                      | 33    | 50             | 110                       | 42                                      | 56    | 84             | 143                       | 61                                      | 81    | 122            | 163                       | 82                                      | 110   | -              | 163                       |
| 22                 | 22                                      | 29    | 44             | 101                       | 37                                      | 49    | 74             | 131                       | 53                                      | 71    | 107            | 156                       | 72                                      | 96    | 145            | 156                       |
| 23                 | 19                                      | 25    | 38             | 92                        | 32                                      | 43    | 65             | 120                       | 47                                      | 63    | 95             | 144                       | 64                                      | 85    | 128            | 149                       |
| 24                 | 17                                      | 22    | 34             | 85                        | 29                                      | 38    | 58             | 110                       | 42                                      | 56    | 84             | 132                       | 56                                      | 75    | 113            | 143                       |
| 25                 | 15                                      | 20    | 30             | 78                        | 25                                      | 34    | 51             | 101                       | 37                                      | 50    | 75             | 122                       | 50                                      | 67    | 101            | 137                       |
| 26                 | 13                                      | 18    | 27             | 72                        | 23                                      | 30    | 46             | 94                        | 33                                      | 44    | 67             | 113                       | 45                                      | 60    | 90             | 131                       |
| 27                 | 12                                      | 16    | 24             | 67                        | 20                                      | 27    | 41             | 87                        | 30                                      | 40    | 60             | 105                       | 40                                      | 54    | 81             | 122                       |
| 28                 | 10                                      | 14    | 21             | 62                        | 18                                      | 24    | 37             | 81                        | 27                                      | 36    | 54             | 98                        | 36                                      | 49    | 73             | 113                       |
| 29                 | 9                                       | 13    | 19             | 58                        | 16                                      | 22    | 33             | 75                        | 24                                      | 32    | 49             | 91                        | 33                                      | 44    | 66             | 106                       |
| 30                 | 8                                       | 11    | 17             | 54                        | 15                                      | 20    | 30             | 71                        | 22                                      | 29    | 44             | 85                        | 30                                      | 40    | 60             | 99                        |
| 31                 | 8                                       | 10    | 16             | 51                        | 13                                      | 18    | 27             | 66                        | 20                                      | 27    | 40             | 80                        | 27                                      | 36    | 55             | 92                        |

See notes under Table 6A

Allowable Floor Uniform Load Capacities (continued)

TABLE 4  
P3 Floor Joist — PJI 65  
Allowable Uniform Loads (PLF)

| Clear Span<br>(ft) | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|--------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                    | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                    | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           |
|                    | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           |
| 8                  | -                                       | -     | -              | 427                       | -                                       | -     | -              | 459                       | -                                       | -     | -              | 460                       |
| 9                  | -                                       | -     | -              | 381                       | -                                       | -     | -              | 410                       | -                                       | -     | -              | 410                       |
| 10                 | 337                                     | -     | -              | 344                       | -                                       | -     | -              | 370                       | -                                       | -     | -              | 370                       |
| 11                 | 268                                     | -     | -              | 314                       | -                                       | -     | -              | 337                       | -                                       | -     | -              | 337                       |
| 12                 | 215                                     | 287   | -              | 288                       | 300                                     | -     | -              | 310                       | -                                       | -     | -              | 310                       |
| 13                 | 175                                     | 234   | -              | 266                       | 246                                     | -     | -              | 286                       | -                                       | -     | -              | 286                       |
| 14                 | 145                                     | 193   | -              | 248                       | 204                                     | -     | -              | 266                       | -                                       | -     | -              | 266                       |
| 15                 | 120                                     | 161   | -              | 232                       | 170                                     | 227   | -              | 248                       | 224                                     | -     | -              | 248                       |
| 16                 | 101                                     | 135   | 203            | 217                       | 144                                     | 192   | -              | 233                       | 190                                     | -     | -              | 233                       |
| 17                 | 86                                      | 115   | 172            | 205                       | 122                                     | 163   | -              | 220                       | 162                                     | 216   | -              | 220                       |
| 18                 | 73                                      | 98    | 147            | 193                       | 105                                     | 140   | -              | 207                       | 139                                     | 186   | -              | 207                       |
| 19                 | 63                                      | 84    | 127            | 177                       | 90                                      | 121   | 181            | 197                       | 120                                     | 160   | -              | 197                       |
| 20                 | 55                                      | 73    | 110            | 160                       | 78                                      | 105   | 157            | 187                       | 105                                     | 140   | -              | 187                       |
| 21                 | 48                                      | 64    | 96             | 145                       | 69                                      | 92    | 138            | 175                       | 92                                      | 122   | -              | 178                       |
| 22                 | 42                                      | 56    | 84             | 133                       | 60                                      | 80    | 121            | 160                       | 80                                      | 107   | 161            | 170                       |
| 23                 | 37                                      | 49    | 74             | 121                       | 53                                      | 71    | 107            | 146                       | 71                                      | 95    | 143            | 163                       |
| 24                 | 33                                      | 44    | 66             | 112                       | 47                                      | 63    | 95             | 134                       | 63                                      | 84    | 127            | 156                       |
| 25                 | 29                                      | 39    | 58             | 103                       | 42                                      | 56    | 84             | 124                       | 56                                      | 75    | 113            | 144                       |
| 26                 | 26                                      | 35    | 52             | 95                        | 37                                      | 50    | 75             | 115                       | 50                                      | 67    | 101            | 133                       |
| 27                 | 23                                      | 31    | 47             | 88                        | 34                                      | 45    | 68             | 106                       | 45                                      | 60    | 91             | 124                       |
| 28                 | 21                                      | 28    | 42             | 82                        | 30                                      | 40    | 61             | 99                        | 41                                      | 54    | 82             | 115                       |
| 29                 | 19                                      | 25    | 38             | 77                        | 27                                      | 37    | 55             | 92                        | 37                                      | 49    | 74             | 107                       |
| 30                 | 17                                      | 23    | 34             | 72                        | 25                                      | 33    | 50             | 86                        | 33                                      | 45    | 67             | 100                       |
| 31                 | 15                                      | 21    | 31             | 67                        | 22                                      | 30    | 45             | 81                        | 30                                      | 41    | 61             | 94                        |

See notes under Table 6A

Allowable Floor Uniform Load Capacities (continued)

TABLE 5  
P3 Floor Joist — PJI 80  
Allowable Uniform Loads (PLF)

| Clear Span<br>(ft) | 9-1/2"                                  |       |                |                           | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|--------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                    | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                    | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           |
|                    | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           |
| 8                  | 415                                     | -     | -              | 420                       | -                                       | -     | -              | 427                       | -                                       | -     | -              | 459                       | -                                       | -     | -              | 497                       |
| 9                  | 317                                     | -     | -              | 375                       | -                                       | -     | -              | 381                       | -                                       | -     | -              | 410                       | -                                       | -     | -              | 443                       |
| 10                 | 246                                     | 328   | -              | 338                       | -                                       | -     | -              | 344                       | -                                       | -     | -              | 370                       | -                                       | -     | -              | 400                       |
| 11                 | 194                                     | 259   | -              | 308                       | 308                                     | -     | -              | 314                       | -                                       | -     | -              | 337                       | -                                       | -     | -              | 365                       |
| 12                 | 156                                     | 208   | -              | 283                       | 249                                     | -     | -              | 288                       | -                                       | -     | -              | 310                       | -                                       | -     | -              | 335                       |
| 13                 | 126                                     | 169   | 253            | 262                       | 204                                     | -     | -              | 266                       | 284                                     | -     | -              | 286                       | -                                       | -     | -              | 310                       |
| 14                 | 104                                     | 139   | 208            | 243                       | 169                                     | 225   | -              | 248                       | 237                                     | -     | -              | 266                       | -                                       | -     | -              | 288                       |
| 15                 | 86                                      | 115   | 173            | 227                       | 141                                     | 188   | -              | 232                       | 199                                     | -     | -              | 249                       | 261                                     | -     | -              | 269                       |
| 16                 | 72                                      | 97    | 145            | 213                       | 119                                     | 159   | -              | 217                       | 168                                     | 224   | -              | 234                       | 222                                     | -     | -              | 253                       |
| 17                 | 61                                      | 82    | 123            | 201                       | 101                                     | 135   | 203            | 205                       | 144                                     | 192   | -              | 220                       | 190                                     | -     | -              | 238                       |
| 18                 | 52                                      | 70    | 105            | 190                       | 87                                      | 116   | 174            | 193                       | 123                                     | 165   | -              | 208                       | 163                                     | 218   | -              | 225                       |
| 19                 | 45                                      | 60    | 90             | 180                       | 75                                      | 100   | 150            | 183                       | 107                                     | 142   | -              | 197                       | 142                                     | 189   | -              | 213                       |
| 20                 | 39                                      | 52    | 78             | 171                       | 65                                      | 87    | 130            | 174                       | 93                                      | 124   | 186            | 187                       | 124                                     | 165   | -              | 203                       |
| 21                 | 34                                      | 45    | 68             | 157                       | 57                                      | 76    | 114            | 166                       | 81                                      | 108   | 163            | 179                       | 108                                     | 145   | -              | 193                       |
| 22                 | 30                                      | 40    | 60             | 143                       | 50                                      | 66    | 100            | 159                       | 71                                      | 95    | 143            | 171                       | 96                                      | 128   | -              | 184                       |
| 23                 | 26                                      | 35    | 53             | 131                       | 44                                      | 59    | 88             | 152                       | 63                                      | 84    | 127            | 163                       | 85                                      | 113   | 170            | 177                       |
| 24                 | 23                                      | 31    | 47             | 121                       | 39                                      | 52    | 78             | 146                       | 56                                      | 75    | 113            | 156                       | 75                                      | 100   | 151            | 169                       |
| 25                 | 20                                      | 27    | 41             | 111                       | 34                                      | 46    | 69             | 140                       | 50                                      | 67    | 100            | 150                       | 67                                      | 90    | 135            | 163                       |
| 26                 | 18                                      | 24    | 37             | 103                       | 31                                      | 41    | 62             | 134                       | 45                                      | 60    | 90             | 145                       | 60                                      | 80    | 121            | 156                       |
| 27                 | 16                                      | 22    | 33             | 96                        | 28                                      | 37    | 56             | 124                       | 40                                      | 54    | 81             | 139                       | 54                                      | 72    | 109            | 151                       |
| 28                 | 15                                      | 20    | 30             | 89                        | 25                                      | 33    | 50             | 115                       | 36                                      | 48    | 73             | 134                       | 49                                      | 65    | 98             | 145                       |
| 29                 | 13                                      | 18    | 27             | 83                        | 22                                      | 30    | 45             | 108                       | 33                                      | 44    | 66             | 130                       | 44                                      | 59    | 89             | 140                       |
| 30                 | 12                                      | 16    | 24             | 77                        | 20                                      | 27    | 41             | 101                       | 30                                      | 40    | 60             | 121                       | 40                                      | 54    | 81             | 136                       |
| 31                 | 11                                      | 14    | 22             | 73                        | 18                                      | 25    | 37             | 94                        | 27                                      | 36    | 54             | 114                       | 36                                      | 49    | 73             | 131                       |

See notes under Table 6A

Allowable Floor Uniform Load Capacities (continued)

TABLE 5A  
P3 Floor Joist — PJI 80 with Web Stiffeners  
Allowable Uniform Loads (PLF)

| Clear Span<br>(ft) | 18"                                     |       |                |                           | 20"                                     |       |                |                           | 24"                                     |       |                |                           |
|--------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                    | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                    | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           |
|                    | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           |
| 8                  | -                                       | -     | -              | 601                       | -                                       | -     | -              | 601                       | -                                       | -     | -              | 601                       |
| 9                  | -                                       | -     | -              | 536                       | -                                       | -     | -              | 536                       | -                                       | -     | -              | 536                       |
| 10                 | -                                       | -     | -              | 484                       | -                                       | -     | -              | 484                       | -                                       | -     | -              | 484                       |
| 11                 | -                                       | -     | -              | 441                       | -                                       | -     | -              | 441                       | -                                       | -     | -              | 441                       |
| 12                 | -                                       | -     | -              | 405                       | -                                       | -     | -              | 405                       | -                                       | -     | -              | 405                       |
| 13                 | -                                       | -     | -              | 375                       | -                                       | -     | -              | 375                       | -                                       | -     | -              | 375                       |
| 14                 | -                                       | -     | -              | 349                       | -                                       | -     | -              | 349                       | -                                       | -     | -              | 349                       |
| 15                 | -                                       | -     | -              | 326                       | -                                       | -     | -              | 326                       | -                                       | -     | -              | 326                       |
| 16                 | 278                                     | -     | -              | 306                       | -                                       | -     | -              | 306                       | -                                       | -     | -              | 306                       |
| 17                 | 239                                     | -     | -              | 288                       | -                                       | -     | -              | 288                       | -                                       | -     | -              | 288                       |
| 18                 | 206                                     | -     | -              | 272                       | 255                                     | -     | -              | 272                       | -                                       | -     | -              | 272                       |
| 19                 | 179                                     | 239   | -              | 258                       | 222                                     | -     | -              | 258                       | -                                       | -     | -              | 258                       |
| 20                 | 157                                     | 209   | -              | 245                       | 194                                     | -     | -              | 245                       | -                                       | -     | -              | 245                       |
| 21                 | 138                                     | 184   | -              | 234                       | 171                                     | 228   | -              | 234                       | -                                       | -     | -              | 234                       |
| 22                 | 121                                     | 162   | -              | 223                       | 151                                     | 202   | -              | 223                       | 218                                     | -     | -              | 223                       |
| 23                 | 108                                     | 144   | -              | 214                       | 134                                     | 179   | -              | 214                       | 195                                     | -     | -              | 214                       |
| 24                 | 96                                      | 128   | 192            | 205                       | 120                                     | 160   | -              | 205                       | 174                                     | -     | -              | 205                       |
| 25                 | 86                                      | 114   | 172            | 197                       | 107                                     | 143   | -              | 197                       | 156                                     | -     | -              | 197                       |
| 26                 | 77                                      | 103   | 154            | 189                       | 96                                      | 128   | -              | 189                       | 140                                     | 187   | -              | 189                       |
| 27                 | 69                                      | 92    | 139            | 182                       | 87                                      | 116   | 174            | 182                       | 127                                     | 169   | -              | 182                       |
| 28                 | 62                                      | 83    | 125            | 176                       | 78                                      | 105   | 157            | 176                       | 115                                     | 153   | -              | 176                       |
| 29                 | 57                                      | 76    | 114            | 170                       | 71                                      | 95    | 142            | 170                       | 104                                     | 139   | -              | 170                       |
| 30                 | 51                                      | 69    | 103            | 159                       | 65                                      | 86    | 130            | 164                       | 95                                      | 127   | -              | 164                       |
| 31                 | 47                                      | 63    | 94             | 149                       | 59                                      | 79    | 118            | 159                       | 87                                      | 116   | -              | 159                       |
| 32                 | 43                                      | 57    | 86             | 140                       | 54                                      | 72    | 108            | 154                       | 79                                      | 106   | -              | 154                       |
| 33                 | 39                                      | 52    | 79             | 132                       | 49                                      | 66    | 99             | 146                       | 73                                      | 97    | 146            | 149                       |
| 34                 | 36                                      | 48    | 72             | 124                       | 45                                      | 61    | 91             | 137                       | 67                                      | 89    | 134            | 145                       |
| 35                 | 33                                      | 44    | 67             | 117                       | 42                                      | 56    | 84             | 130                       | 62                                      | 82    | 124            | 141                       |
| 36                 | 30                                      | 41    | 61             | 111                       | 38                                      | 51    | 77             | 123                       | 57                                      | 76    | 114            | 137                       |
| 37                 | 28                                      | 38    | 57             | 105                       | 35                                      | 47    | 71             | 116                       | 53                                      | 70    | 106            | 133                       |
| 38                 | 26                                      | 35    | 53             | 99                        | 33                                      | 44    | 66             | 110                       | 49                                      | 65    | 98             | 130                       |
| 39                 | 24                                      | 32    | 49             | 94                        | 30                                      | 41    | 61             | 104                       | 45                                      | 61    | 91             | 124                       |
| 40                 | 22                                      | 30    | 45             | 90                        | 28                                      | 38    | 57             | 99                        | 42                                      | 56    | 85             | 118                       |
| 41                 | 21                                      | 28    | 42             | 85                        | 26                                      | 35    | 53             | 95                        | 39                                      | 52    | 79             | 113                       |
| 42                 | 19                                      | 26    | 39             | 81                        | 25                                      | 33    | 50             | 90                        | 37                                      | 49    | 74             | 107                       |
| 43                 | 18                                      | 24    | 37             | 78                        | 23                                      | 31    | 46             | 86                        | 34                                      | 46    | 69             | 102                       |
| 44                 | 17                                      | 23    | 34             | 74                        | 21                                      | 29    | 43             | 82                        | 32                                      | 43    | 64             | 98                        |

See notes under Table 6A

## Allowable Floor Uniform Load Capacities (continued)

**TABLE 6**

### P3 Floor Joist — PJI 90

Allowable Uniform Loads (PLF)

| Clear Span<br>(ft) | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|--------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                    | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                    | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           |
|                    | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           |
| 8                  | -                                       | -     | -              | 427                       | -                                       | -     | -              | 459                       | -                                       | -     | -              | 497                       |
| 9                  | -                                       | -     | -              | 381                       | -                                       | -     | -              | 410                       | -                                       | -     | -              | 443                       |
| 10                 | -                                       | -     | -              | 344                       | -                                       | -     | -              | 370                       | -                                       | -     | -              | 400                       |
| 11                 | -                                       | -     | -              | 314                       | -                                       | -     | -              | 337                       | -                                       | -     | -              | 365                       |
| 12                 | 267                                     | -     | -              | 288                       | -                                       | -     | -              | 310                       | -                                       | -     | -              | 335                       |
| 13                 | 219                                     | -     | -              | 266                       | -                                       | -     | -              | 286                       | -                                       | -     | -              | 310                       |
| 14                 | 182                                     | 243   | -              | 248                       | 253                                     | -     | -              | 266                       | -                                       | -     | -              | 288                       |
| 15                 | 152                                     | 203   | -              | 232                       | 213                                     | -     | -              | 249                       | -                                       | -     | -              | 269                       |
| 16                 | 129                                     | 172   | -              | 217                       | 181                                     | -     | -              | 234                       | 237                                     | -     | -              | 253                       |
| 17                 | 110                                     | 146   | -              | 205                       | 155                                     | 206   | -              | 220                       | 203                                     | -     | -              | 238                       |
| 18                 | 94                                      | 125   | 188            | 193                       | 133                                     | 178   | -              | 208                       | 175                                     | -     | -              | 225                       |
| 19                 | 81                                      | 108   | 163            | 183                       | 115                                     | 154   | -              | 197                       | 152                                     | 203   | -              | 213                       |
| 20                 | 70                                      | 94    | 141            | 174                       | 100                                     | 134   | -              | 187                       | 133                                     | 177   | -              | 203                       |
| 21                 | 62                                      | 82    | 124            | 166                       | 88                                      | 117   | 176            | 179                       | 117                                     | 156   | -              | 193                       |
| 22                 | 54                                      | 72    | 109            | 159                       | 77                                      | 103   | 155            | 171                       | 103                                     | 137   | -              | 184                       |
| 23                 | 48                                      | 64    | 96             | 152                       | 68                                      | 91    | 137            | 163                       | 91                                      | 122   | -              | 177                       |
| 24                 | 42                                      | 57    | 85             | 146                       | 61                                      | 81    | 122            | 156                       | 81                                      | 108   | 163            | 169                       |
| 25                 | 38                                      | 50    | 76             | 140                       | 54                                      | 72    | 109            | 150                       | 72                                      | 97    | 145            | 163                       |
| 26                 | 34                                      | 45    | 68             | 134                       | 49                                      | 65    | 98             | 145                       | 65                                      | 87    | 130            | 156                       |
| 27                 | 30                                      | 40    | 61             | 130                       | 44                                      | 58    | 88             | 139                       | 58                                      | 78    | 117            | 151                       |
| 28                 | 27                                      | 36    | 55             | 125                       | 39                                      | 53    | 79             | 134                       | 53                                      | 70    | 106            | 145                       |
| 29                 | 25                                      | 33    | 50             | 121                       | 36                                      | 48    | 72             | 130                       | 48                                      | 64    | 96             | 140                       |
| 30                 | 22                                      | 30    | 45             | 117                       | 32                                      | 43    | 65             | 125                       | 43                                      | 58    | 87             | 136                       |
| 31                 | 20                                      | 27    | 41             | 113                       | 29                                      | 39    | 59             | 121                       | 39                                      | 53    | 79             | 131                       |

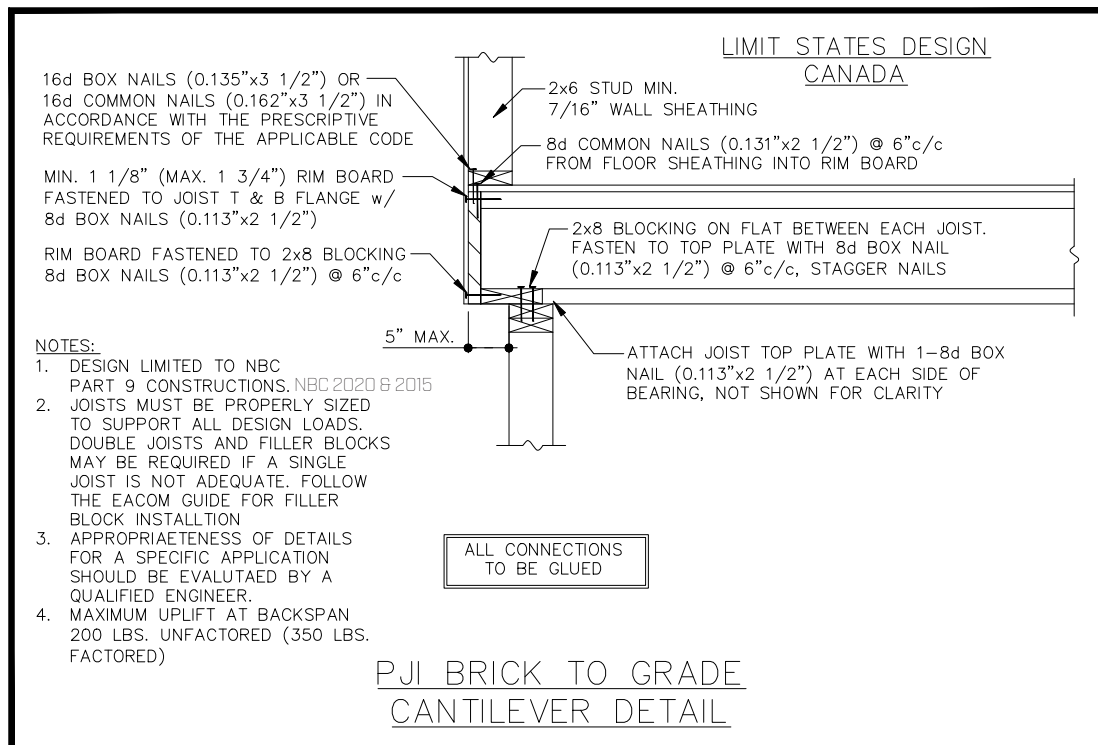


Figure 1: PJI Brick Cantilever Detail

## Allowable Floor Uniform Load Capacities (continued)

**TABLE 6A**

### **P3 Floor Joist — PJI 90 With Web Stiffeners**

Allowable Uniform Loads (PLF)

| Clear<br>Span<br>(ft) | 18"                                     |       |                |                           | 20"                                     |       |                |                           | 24"                                     |       |                |                           |
|-----------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                       | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                       | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           | Live                                    |       | Total<br>L/240 |                           |
|                       | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           | L/480                                   | L/360 |                |                           |
| 8                     | -                                       | -     | -              | 601                       | -                                       | -     | -              | 601                       | -                                       | -     | -              | 601                       |
| 9                     | -                                       | -     | -              | 536                       | -                                       | -     | -              | 536                       | -                                       | -     | -              | 536                       |
| 10                    | -                                       | -     | -              | 484                       | -                                       | -     | -              | 484                       | -                                       | -     | -              | 484                       |
| 11                    | -                                       | -     | -              | 441                       | -                                       | -     | -              | 441                       | -                                       | -     | -              | 441                       |
| 12                    | -                                       | -     | -              | 405                       | -                                       | -     | -              | 405                       | -                                       | -     | -              | 405                       |
| 13                    | -                                       | -     | -              | 375                       | -                                       | -     | -              | 375                       | -                                       | -     | -              | 375                       |
| 14                    | -                                       | -     | -              | 349                       | -                                       | -     | -              | 349                       | -                                       | -     | -              | 349                       |
| 15                    | -                                       | -     | -              | 326                       | -                                       | -     | -              | 326                       | -                                       | -     | -              | 326                       |
| 16                    | 298                                     | -     | -              | 306                       | -                                       | -     | -              | 306                       | -                                       | -     | -              | 306                       |
| 17                    | 256                                     | -     | -              | 288                       | -                                       | -     | -              | 288                       | -                                       | -     | -              | 288                       |
| 18                    | 222                                     | -     | -              | 272                       | -                                       | -     | -              | 272                       | -                                       | -     | -              | 272                       |
| 19                    | 193                                     | 257   | -              | 258                       | 238                                     | -     | -              | 258                       | -                                       | -     | -              | 258                       |
| 20                    | 169                                     | 225   | -              | 245                       | 209                                     | -     | -              | 245                       | -                                       | -     | -              | 245                       |
| 21                    | 149                                     | 198   | -              | 234                       | 184                                     | -     | -              | 234                       | -                                       | -     | -              | 234                       |
| 22                    | 131                                     | 175   | -              | 223                       | 163                                     | 217   | -              | 223                       | -                                       | -     | -              | 223                       |
| 23                    | 116                                     | 155   | -              | 214                       | 145                                     | 193   | -              | 214                       | 209                                     | -     | -              | 214                       |
| 24                    | 104                                     | 139   | -              | 205                       | 129                                     | 172   | -              | 205                       | 187                                     | -     | -              | 205                       |
| 25                    | 93                                      | 124   | 186            | 197                       | 116                                     | 154   | -              | 197                       | 168                                     | -     | -              | 197                       |
| 26                    | 83                                      | 111   | 167            | 189                       | 104                                     | 139   | -              | 189                       | 151                                     | -     | -              | 189                       |
| 27                    | 75                                      | 100   | 151            | 182                       | 94                                      | 125   | -              | 182                       | 137                                     | -     | -              | 182                       |
| 28                    | 68                                      | 91    | 136            | 176                       | 85                                      | 113   | 170            | 176                       | 124                                     | 165   | -              | 176                       |
| 29                    | 61                                      | 82    | 123            | 170                       | 77                                      | 103   | 154            | 170                       | 113                                     | 150   | -              | 170                       |
| 30                    | 56                                      | 75    | 112            | 164                       | 70                                      | 94    | 141            | 164                       | 103                                     | 137   | -              | 164                       |
| 31                    | 51                                      | 68    | 102            | 159                       | 64                                      | 85    | 128            | 159                       | 94                                      | 125   | -              | 159                       |
| 32                    | 47                                      | 62    | 94             | 154                       | 58                                      | 78    | 117            | 154                       | 86                                      | 115   | -              | 154                       |
| 33                    | 43                                      | 57    | 86             | 149                       | 54                                      | 72    | 108            | 149                       | 79                                      | 105   | -              | 149                       |
| 34                    | 39                                      | 52    | 79             | 145                       | 49                                      | 66    | 99             | 145                       | 73                                      | 97    | -              | 145                       |
| 35                    | 36                                      | 48    | 72             | 141                       | 45                                      | 61    | 91             | 141                       | 67                                      | 89    | 134            | 141                       |
| 36                    | 33                                      | 44    | 67             | 135                       | 42                                      | 56    | 84             | 137                       | 62                                      | 83    | 124            | 137                       |
| 37                    | 31                                      | 41    | 62             | 128                       | 39                                      | 52    | 78             | 133                       | 57                                      | 76    | 115            | 133                       |
| 38                    | 28                                      | 38    | 57             | 122                       | 36                                      | 48    | 72             | 130                       | 53                                      | 71    | 106            | 130                       |
| 39                    | 26                                      | 35    | 53             | 115                       | 33                                      | 44    | 67             | 126                       | 49                                      | 66    | 99             | 126                       |
| 40                    | 24                                      | 33    | 49             | 110                       | 31                                      | 41    | 62             | 122                       | 46                                      | 61    | 92             | 123                       |
| 41                    | 23                                      | 30    | 46             | 104                       | 29                                      | 38    | 58             | 116                       | 43                                      | 57    | 86             | 120                       |
| 42                    | 21                                      | 28    | 43             | 100                       | 27                                      | 36    | 54             | 110                       | 40                                      | 53    | 80             | 117                       |
| 43                    | 20                                      | 26    | 40             | 95                        | 25                                      | 33    | 50             | 105                       | 37                                      | 50    | 75             | 115                       |
| 44                    | 18                                      | 25    | 37             | 91                        | 23                                      | 31    | 47             | 100                       | 35                                      | 47    | 70             | 112                       |

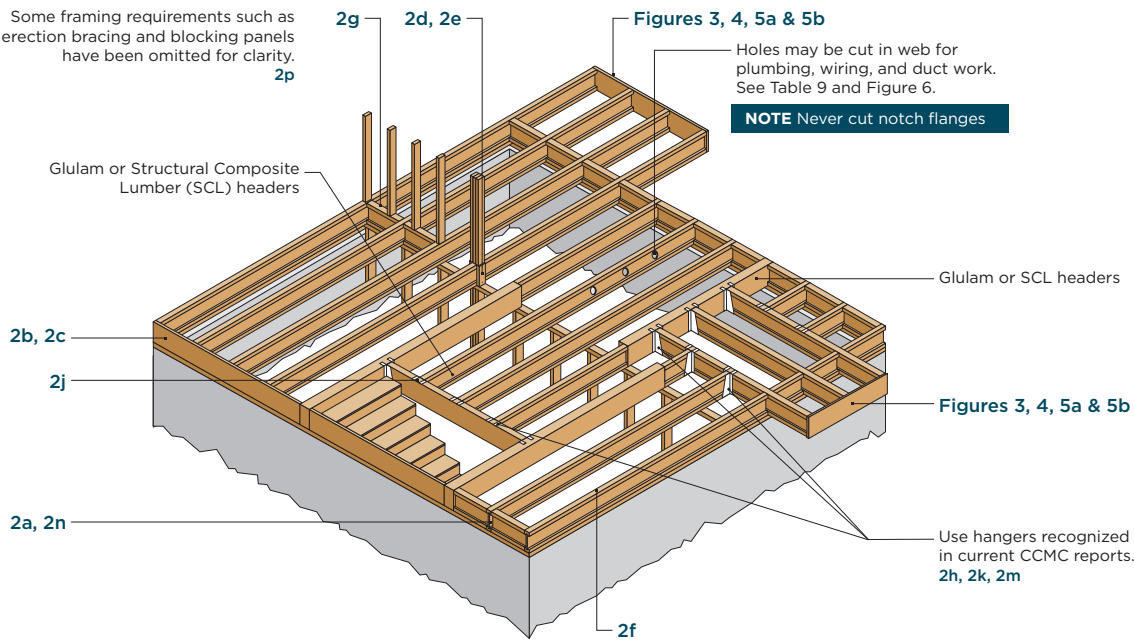
#### **NOTES for Tables 2, 3, 4, 5, 5A, 6 and 6A**

1. Clear span is the distance between the face of the supports.
2. The load values are for standard term load duration and dry service conditions only. The dead load must not exceed the live load.
3. The load values represent the worst case of simple span or multiple span single member applications.
4. Design of continuous spans is based on the longest span. The shortest span must not be less than 50% of the longest span.
5. Provide continuous lateral support for top & bottom flanges. Provide lateral support at points of bearing to prevent twisting of joist.
6. The unfactored load columns are based on deflection only. The factored load column is based on strength only. Unfactored live load (either L/480 or L/360), unfactored total load and factored load must be checked. Where the unfactored load column is blank, the factored load column governs.
7. Provide minimum 1-3/4" bearing at end supports and 3-1/2" bearing at interior supports.
8. Web stiffeners are not required for the joists in tables 2, 3, 4, 5, and 6.
9. Web stiffeners are required for all joists at each bearing support in Table 5A and 6A.
10. The loads have been calculated in accordance with CSA 086-19 and NBC 2020. The loads are also valid for CSA-086-14 and NBC 2015.
11. Vibration is not included in the design criteria for this table.

# Floor Framing and Construction Details

**FIGURE 2**  
**Typical P3 Floor Joist Framing and Construction Details**

All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.



P3 PJI Joist blocking panel

Attach P3 Joist to top plate per 2b.

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

| Blocking Panel or Rim Joist | Maximum Factored Uniform Vertical Load* (plf) |
|-----------------------------|-----------------------------------------------|
| P3 PJI Joist (9-1/2" - 18") | 2900                                          |

\*The uniform vertical load capacity is limited to a joist depth of 18" or less and is based on the standard term load duration. It shall not be used in the design of a bending member such as joist, header, or rafter. For concentrated vertical load transfer capacity, see 2d.

**2a** **BLOCKING PANEL AT END SUPPORT DETAIL**

APA Rim Board

One 2-1/2" face nail at each side at bearing

One 2-1/2" nail at top and bottom flange

Attach APA Rim Board to top plate using 2-1/2" common or box toenails @ 6" o.c.

| Blocking Panel or Rim Joist | Maximum Factored Uniform Vertical Load* (plf) |
|-----------------------------|-----------------------------------------------|
| 1-1/8" APA Rim Board Plus   | 7033                                          |
| 1-1/8" APA Rim Board        | 7033                                          |
| 1" APA Rim Board            | 4785                                          |

\*The uniform vertical load capacity is limited to a rim board depth of 16" or less and is based on standard term load duration. It shall not be used in the design of a bending member such as joist, header, or rafter. For concentrated vertical load transfer capacity, see 2d.

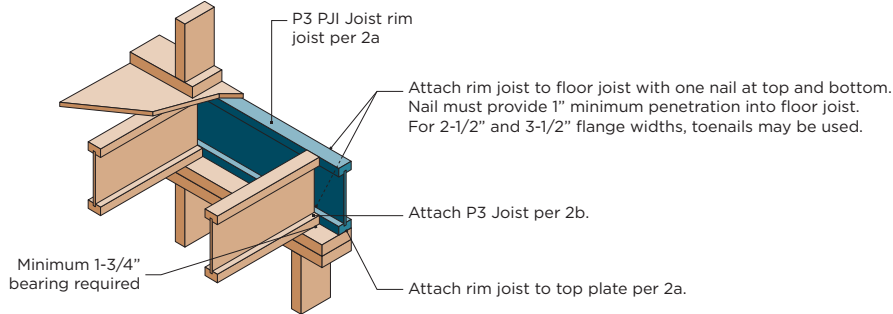
To avoid splitting flange, start nails at least 1-1/2" from end of P3 Joist. Nails may be driven at an angle to avoid splitting of bearing plate.

**2b** **RIM BOARD DETAIL**

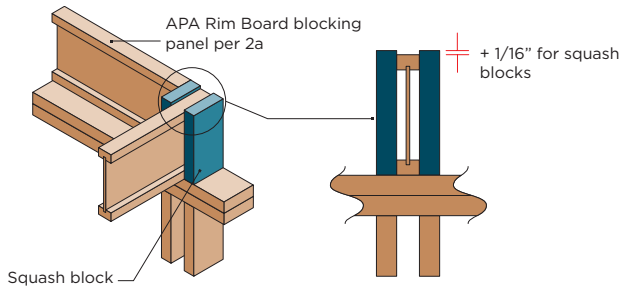
FIGURE 2 (CONTINUED)

Typical P3 Floor Joist Framing and Construction Details

All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.



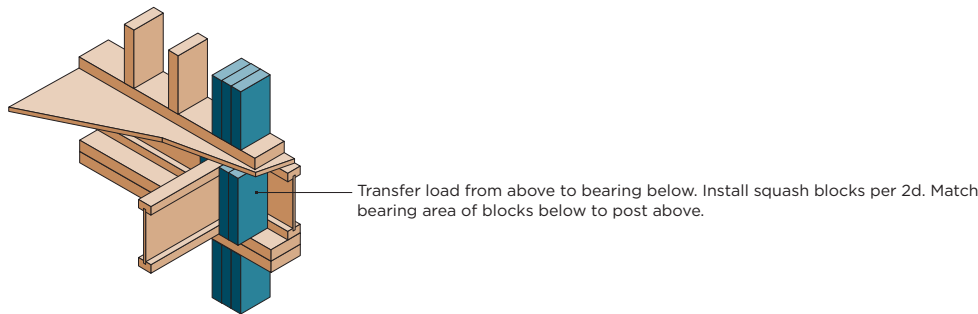
2c P3 JOIST AS RIM JOIST DETAIL



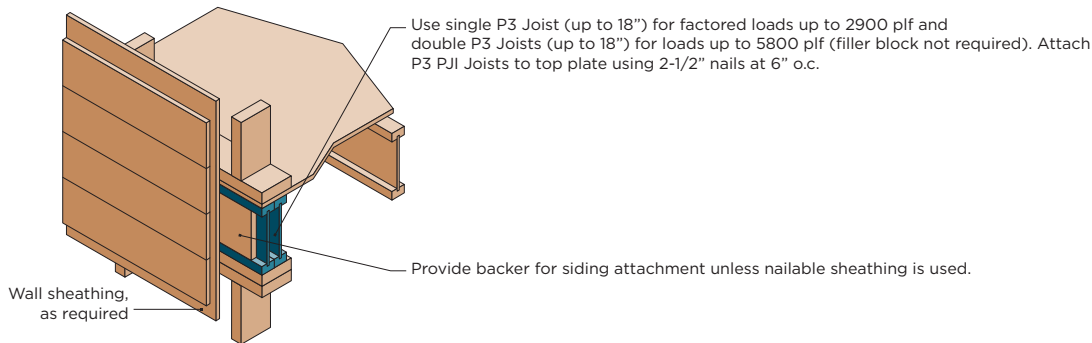
| Pair of Squash Blocks                                              | Maximum Factored Vertical Load per Pair of Squash Blocks (lb) |             |
|--------------------------------------------------------------------|---------------------------------------------------------------|-------------|
|                                                                    | 3-1/2" wide                                                   | 5-1/2" wide |
| 2x lumber                                                          | 5800                                                          | 9500        |
| 1-1/8" APA Rim Board, Rim Board Plus, or Rated Sturd-I-Floor 48 oc | 4500                                                          | 5800        |
| 1" APA Rim Board or Rated Sturd-I-Floor 32 oc                      | 4000                                                          | 5800        |

Provide lateral bracing per 2a, 2b, or 2c.

2d SQUASH BLOCK DETAIL



2e LOAD TRANSFER WITH PASS THRU BLOCKING DETAIL



2f PARALLEL END P3 JOIST DETAIL

APA Rim Board may be used in lieu of P3 Joist. Backer is not required when APA Rim Board is used.

**FIGURE 2 (CONTINUED)**  
**Typical P3 Floor Joist Framing and Construction Details**

All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.

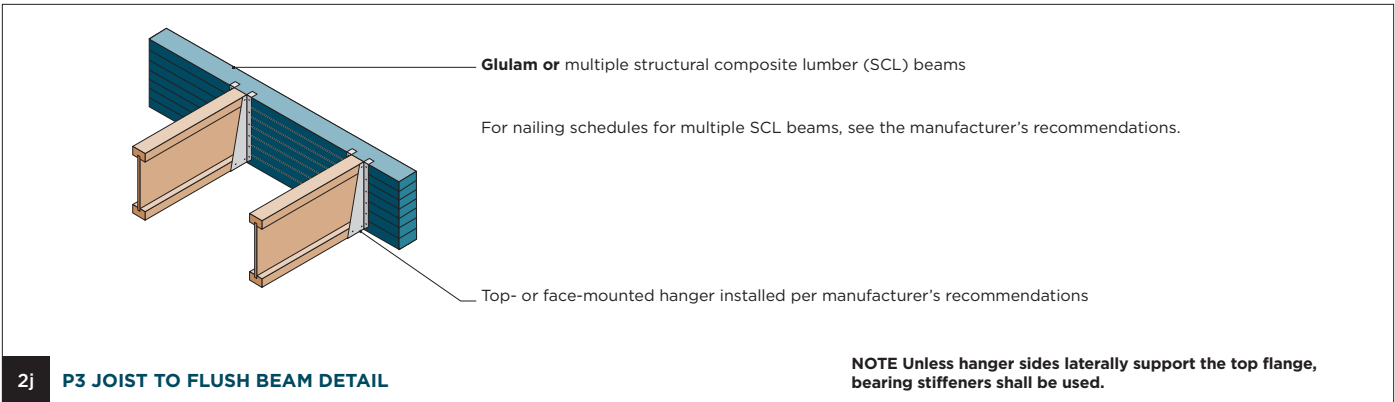
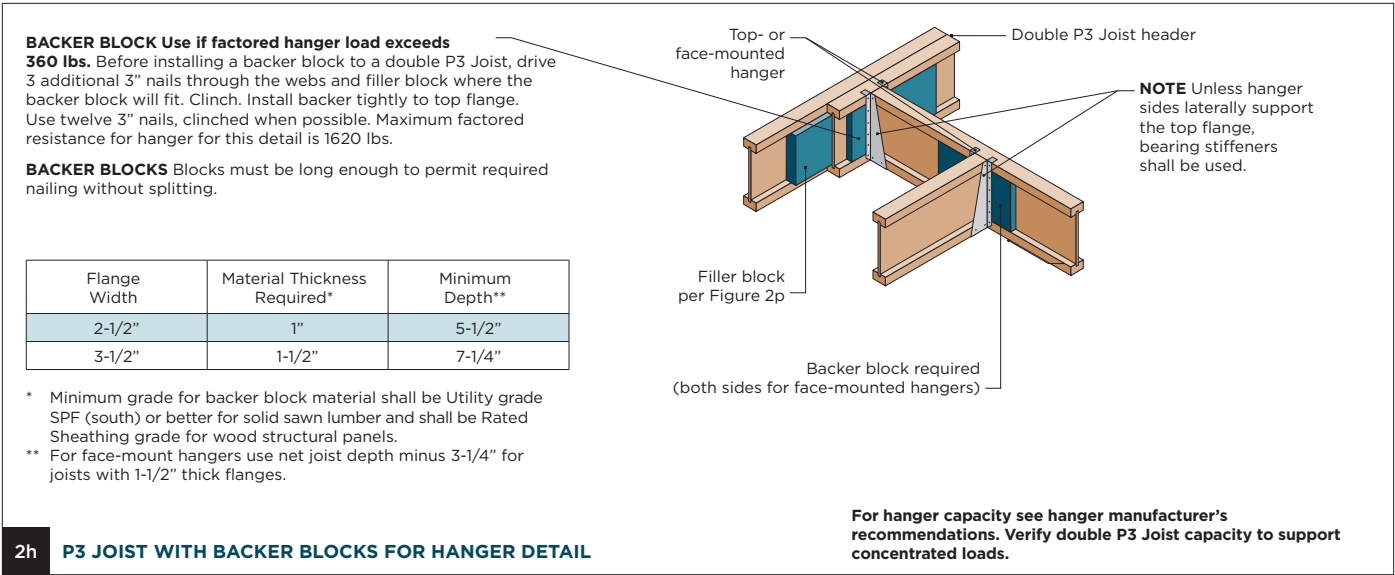
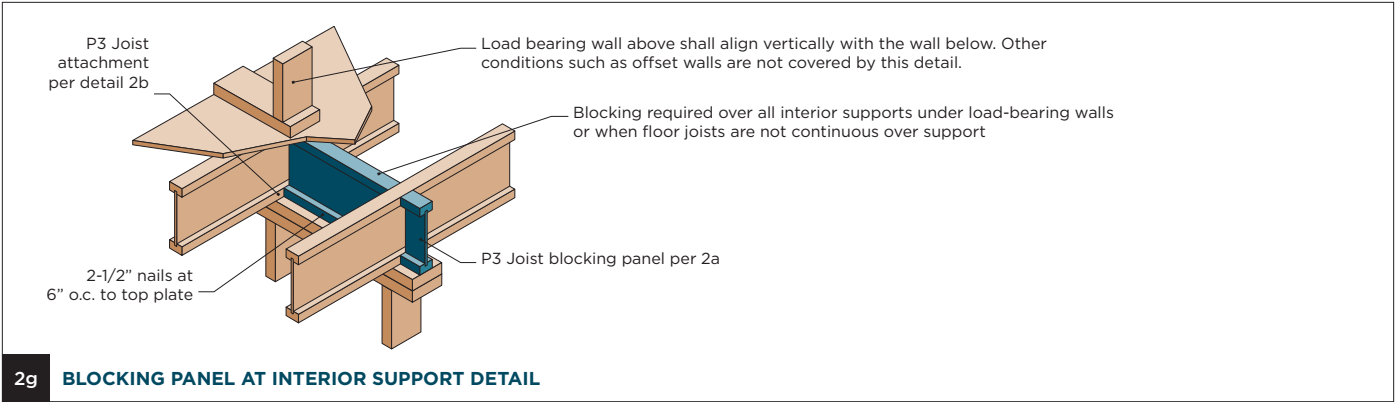
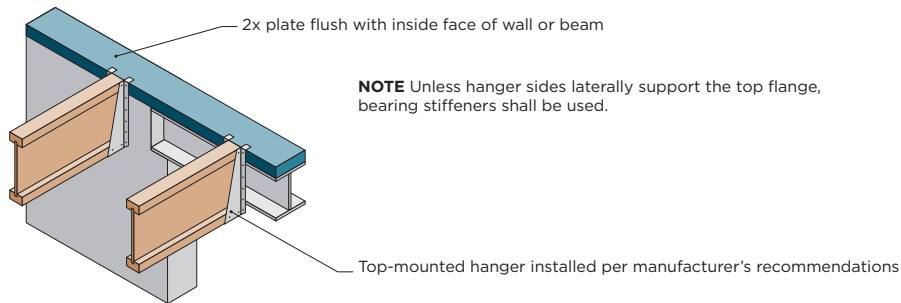


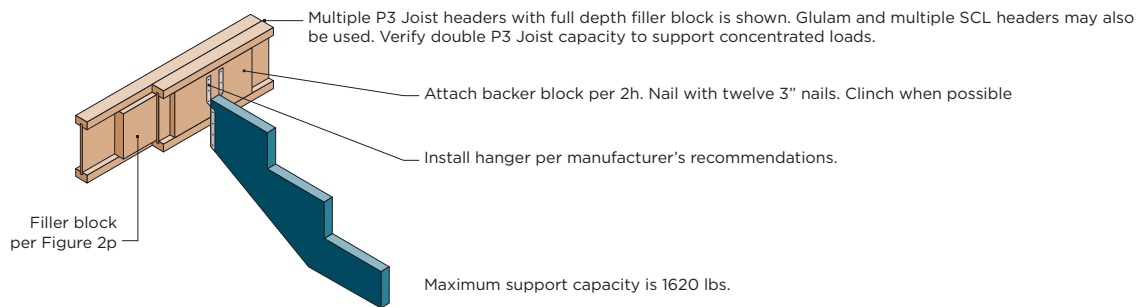
FIGURE 2 (CONTINUED)

Typical P3 Floor Joist Framing and Construction Details

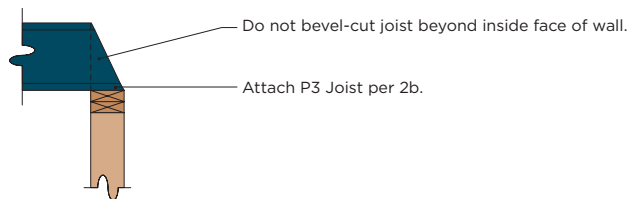
All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.



2k P3 JOIST WITH TOP MOUNT HANGER DETAIL



2m STAIR STRINGER TO P3 JOIST DETAIL



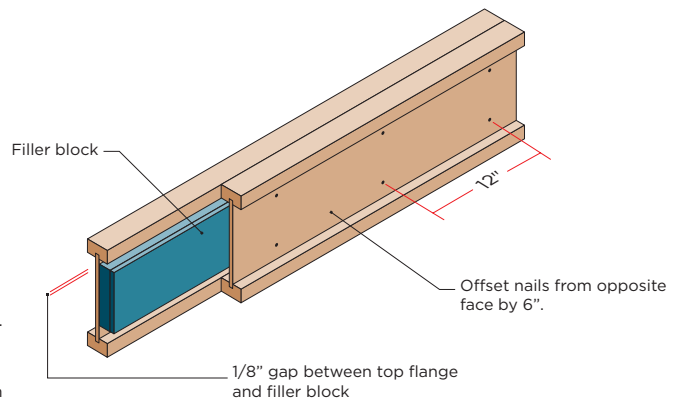
2n BEVEL-CUT P3 JOIST DETAIL

NOTE Blocking is required at bearing for lateral support. Not shown for clarity

| Flange Width | Net Depth | Filler Block Size |
|--------------|-----------|-------------------|
| 2-1/2"       | 9-1/2"    | 2-1/8" x 6"       |
|              | 11-7/8"   | 2-1/8" x 8"       |
|              | 14"       | 2-1/8" x 10"      |
|              | 16"       | 2-1/8" x 12"      |
| 3-1/2"       | 11-7/8"   | 3" x 8"           |
|              | 14"       | 3" x 10"          |
|              | 16"       | 3" x 12"          |
| 3-1/2"       | 18"       | 3" x 14"          |
|              | 20"       | 3" x 16"          |
|              | 24"       | 3" x 20"          |

NOTES

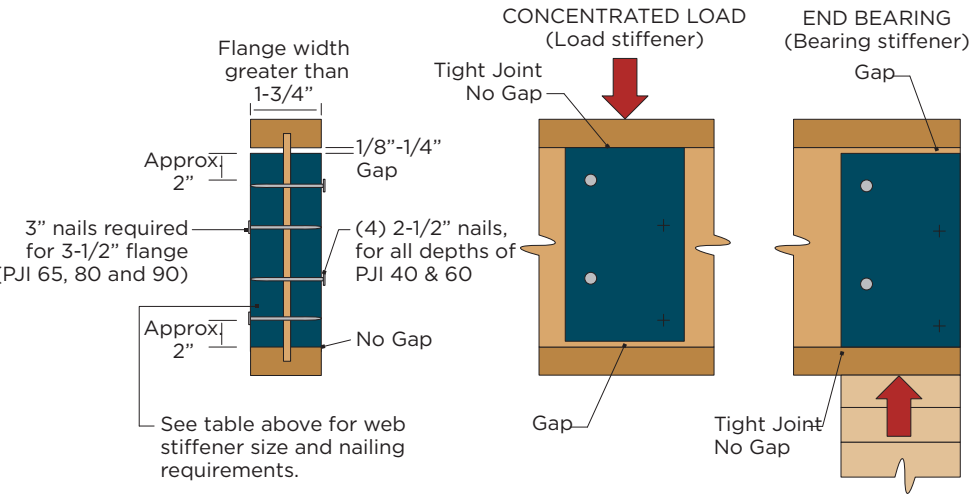
1. Support back of I-Joist web during nailing to prevent damage to web/flange connection.
2. Leave a 1/8" gap between top of filler block and bottom of top P3 Joist flange.
3. Filler block is required between joists for full length of span.
4. Nail joists together with two rows of 3" nails at 12" o.c. (clinched when possible) on each side of the double P3 Joist. Total of 4 nails per foot required. If nails can be clinched, only 2 nails per foot are required.
5. The maximum load that may be applied to one side of the double joist using this detail is 860 lbs./ft.



2p DOUBLE P3 JOIST CONSTRUCTION DETAIL

# Web Stiffener Installation Details

FIGURE 2W



## Minimum Nailing Requirements for Web Stiffeners

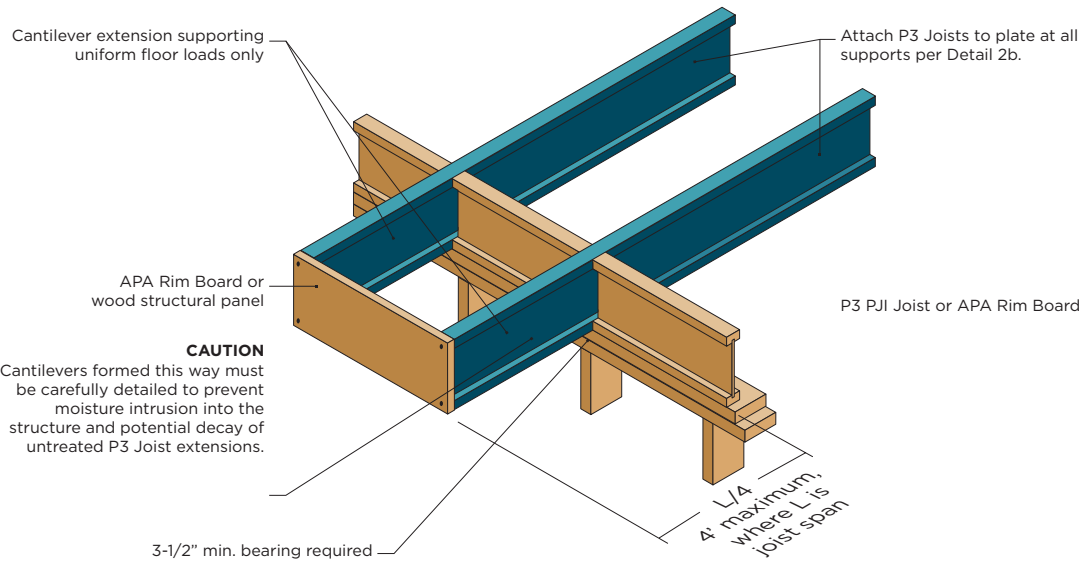
### Stiffener Size and Nailing Requirement

| Joist Dept        | 2-1/2" Wide Flange<br>8d (2-1/2") nails | 3-1/2" Wide Flange<br>10d (3") nails |
|-------------------|-----------------------------------------|--------------------------------------|
| 9-1/2"            | 4                                       | -                                    |
| 11-7/8"           | 4                                       | 4                                    |
| 14"               | 4                                       | 4                                    |
| 16"               | 4                                       | 4                                    |
| 18"               | -                                       | 6                                    |
| 20"               | -                                       | 6                                    |
| 22"               | -                                       | 8                                    |
| 24"               | -                                       | 8                                    |
| Minimum Stiffener | 1" x 2-5/16" (width)                    | 1-1/2" x 2-5/16" (width)             |

- Web stiffeners are required:
  - When sides of the hangers do not laterally brace the top flange of each P3 Joist;
  - When P3 Joists are designed to support concentrated loads greater than 1500 lbs. that are applied to the P3 Joist's top flange between supports. In these applications only, the gap between the web stiffener and the flange shall be at the bottom flange;
  - For all engineered applications with end-reactions greater than 1500 lbs. **A design analysis must be performed for all engineered applications with end-reactions greater than 1500 lbs.**
- When used at end bearings, install web stiffeners tightly against the bottom flange of the P3 Joist. Leave a minimum 1/8" gap between the top of the stiffener and the bottom of the top flange. See Figure 2W.
- Web stiffeners may be supplied by the distributor for field installation or may be cut in the field as required.

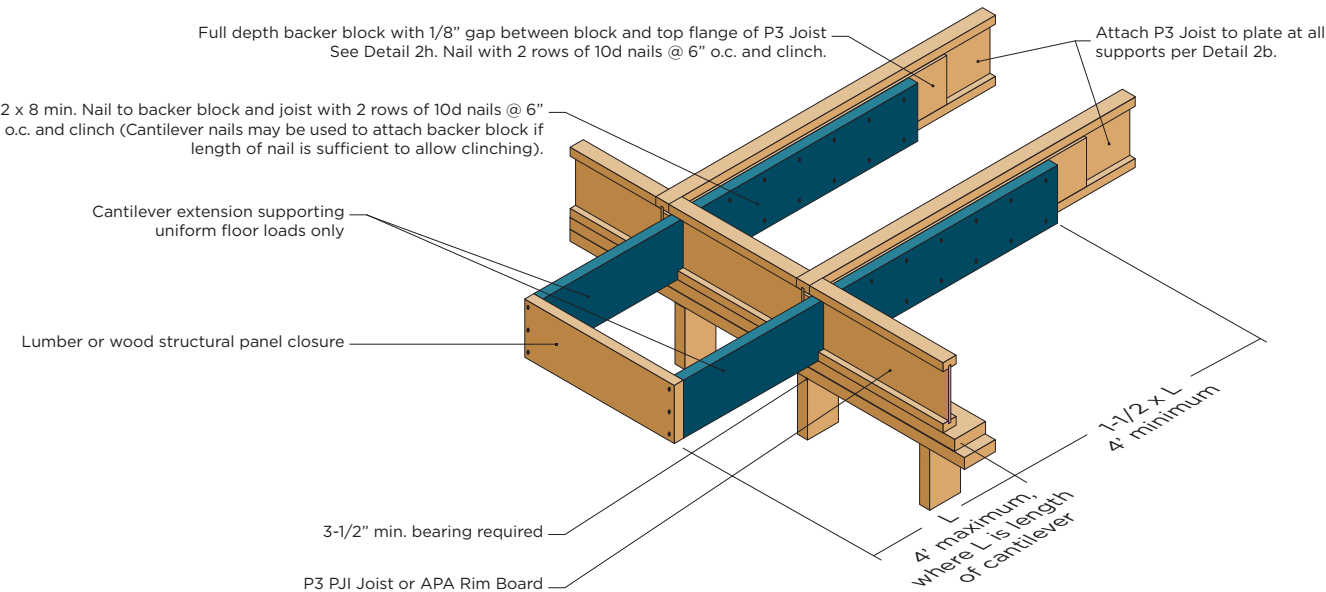
# Cantilever Details for Interior Balconies (No Wall Load)

FIGURE 3



# Lumber Cantilever Details For Balconies (No Wall Load)

FIGURE 4



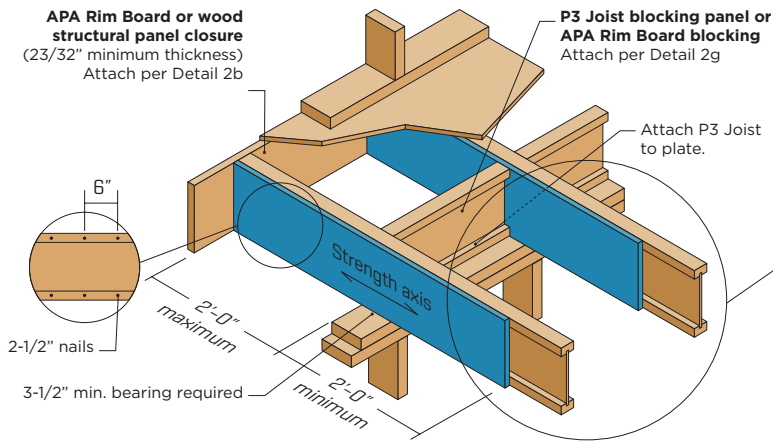
**NOTES** All nails shown in the details above are assumed to be common nails unless otherwise noted. Individual components are not shown to scale for clarity.

# Cantilever Detail for Vertical Building Offset (Concentrated Wall Load)

**FIGURE 5A**

## Method 1

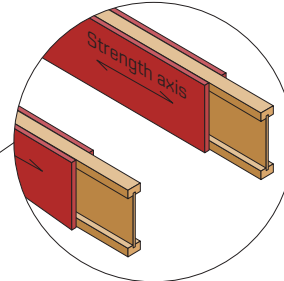
Sheathing Reinforcement One Side



## Method 2

Sheathing Reinforcement Two Sides

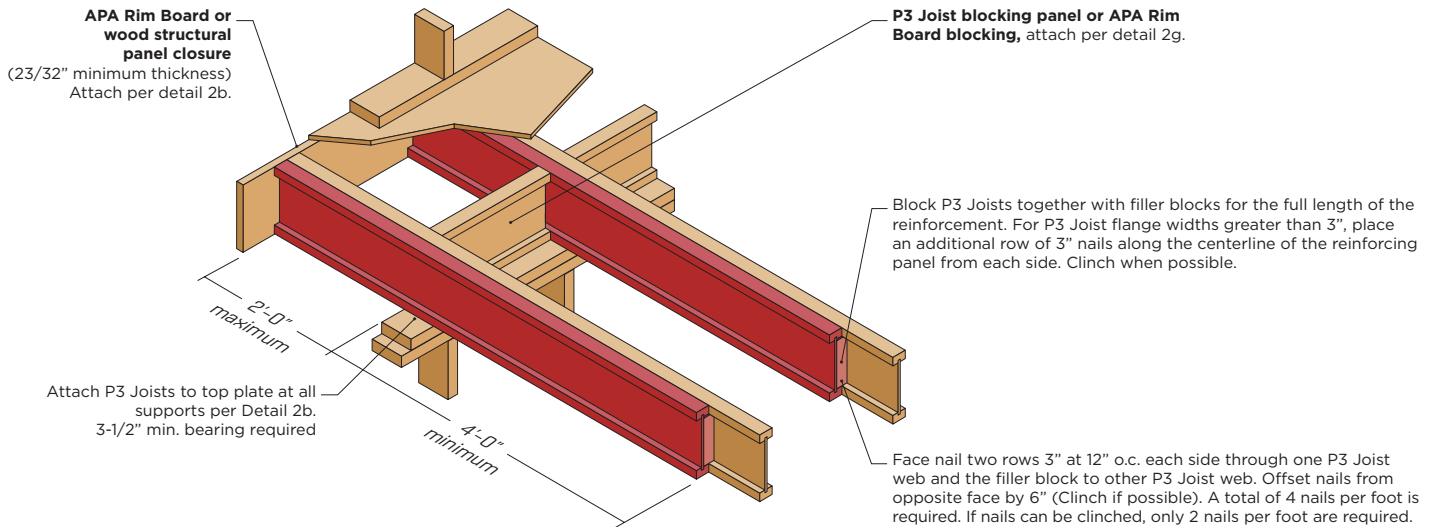
Use same installation as Method 1, but reinforce both sides of the P3 Joist with sheathing or APA Rim Board.



**NOTE** APA RATED SHEATHING 48/24 (minimum thickness 23/32") required on sides of joist. Depth shall match the full height of the joist. Nail top and bottom flange with 2-1/2" nails at 6" o.c. Install with face grain running horizontally. Attach P3 Joist to plate at all supports per Detail 2b.

**FIGURE 5B**

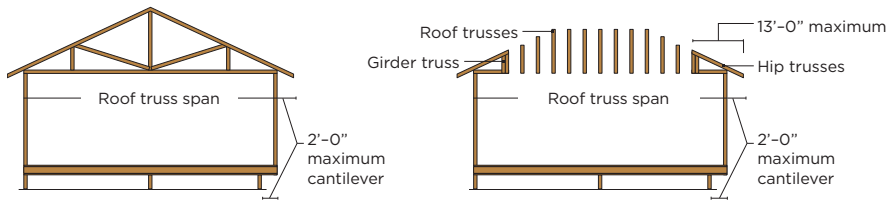
Double P3 Joists



**NOTES** All nails shown in the details above are assumed to be common nails unless otherwise noted. Individual components are not shown to scale for clarity.

## Cantilever Details for Vertical Building Offset (Concentrated Wall Load)

**FIGURE 5C**



See Table below for APA PRI reinforcement requirements at cantilever.

For hip roofs with the hip trusses running parallel to the cantilevered floor joists, the P3 Joists reinforcement requirements for a span of 26 ft. shall be permitted to be used.

Source: APA

## Cantilever Reinforcement Methods

**TABLE 7**  
**P3 Joist Cantilever Reinforcement Methods Allowed**

| Joist Depth<br>(in.) | Roof<br>Truss Span<br>(ft) | ROOF LOADINGS                                                 |      |      |      |                                                               |      |      |      |                                                               |      |      |      |
|----------------------|----------------------------|---------------------------------------------------------------|------|------|------|---------------------------------------------------------------|------|------|------|---------------------------------------------------------------|------|------|------|
|                      |                            | TL = 35 psf<br>LL not to exceed 20 psf<br>Joist Spacing (in.) |      |      |      | TL = 45 psf<br>LL not to exceed 30 psf<br>Joist Spacing (in.) |      |      |      | TL = 55 psf<br>LL not to exceed 40 psf<br>Joist Spacing (in.) |      |      |      |
|                      |                            | 12                                                            | 16   | 19.2 | 24   | 12                                                            | 16   | 19.2 | 24   | 12                                                            | 16   | 19.2 | 24   |
| 9-1/2                | 26                         | N                                                             | N    | N    | 1, 2 | N                                                             | N    | 1, 2 | 2    | N                                                             | 1, 2 | 2    | X    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | N    | 1, 2 | 2    | N                                                             | 1, 2 | 2    | X    |
|                      | 30                         | N                                                             | N    | 2    | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 2    | X    |
|                      | 32                         | N                                                             | N    | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | X    | N                                                             | 1, 2 | 2    | X    |
|                      | 34                         | N                                                             | N    | 1, 2 | 2    | N                                                             | 1, 2 | 2    | X    | N                                                             | 2    | X    | X    |
|                      | 36                         | N                                                             | N    | 1, 2 | 2    | N                                                             | 1, 2 | 2    | X    | N                                                             | 2    | X    | X    |
| 11-7/8               | 26                         | N                                                             | N    | N    | 1, 2 | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 2    | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 2    | 2    |
| 14                   | 26                         | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    | 1, 2                                                          | 1, 2 | 2    | X    |
|                      | 28                         | N                                                             | N    | N    | 1, 2 | N                                                             | N    | N    | 1, 2 | N                                                             | N    | 1, 2 | 1, 2 |
|                      | 30                         | N                                                             | N    | N    | 1, 2 | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | N    | 1, 2 | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | N    | 1, 2 | N                                                             | N    | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 34                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 36                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
| 16                   | 26                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 28                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 30                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 | 1, 2 | 2    |
|                      | 32                         | N                                                             | N    | 1, 2 | 1, 2 | N                                                             | 1, 2 | 1, 2 | 2    | N                                                             | 1, 2 |      |      |

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## Typical Floor Framing Installation Notes

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1. Installation of P3 Joist shall be in accordance with Figure 2.
2. Except for cutting joist to length, P3 Joist flanges should **NEVER** be cut, drilled, or notched.
3. Concentrated loads should be applied only to the top surface of the top flange. At no time should concentrated loads be suspended from the bottom flange with the exception of light loads such as ceiling fans, light fixtures, etc.
4. P3 Joists must be protected from the weather prior to installation.
5. P3 Joists must not be used in applications where they will be permanently exposed to weather or will reach a moisture content greater than 16% such as in swimming pool or hot tub areas. They must not be installed where they will remain in direct contact with concrete or masonry.
6. End-bearing length must be at least 1-3/4". For multiple span joists, intermediate bearing length must be at least 3-1/2".
7. Ends of floor joists shall be restrained to prevent rollover. Use Certified Rim Board or P3 Joist blocking panels.
8. P3 Joists installed beneath bearing walls perpendicular to the joists require full depth blocking panels, Certified Rim Board, or squash blocks (cripple blocks) in order to transfer gravity loads from above the floor system to the wall or foundation below. See note 2g page 14.
9. For P3 Joists up to 18" deep installed as rim board directly beneath bearing walls parallel to the joists, the maximum factored vertical load using a single P3 Joist is 2900 plf and is 5800 plf if double P3 Joists are used. Full bearing is required under P3 Joist used as rim board.
10. Continuous lateral support of the P3 Joist's compression flange is required to prevent rotation and buckling. In simple span uses, lateral support of the top flange is normally supplied by the floor sheathing. In multiple span or cantilever applications, bracing of the P3 Joist's bottom flange is also required at interior supports of multiple-span joists and at the end support next to the cantilever extension. The ends of all cantilever extensions must be laterally braced as shown in Figure 3 or 4.
11. Nails installed perpendicular to the wide face of the flange shall be spaced in accordance with the applicable building code requirements or approved building plans but should not be closer than 2" o.c. per row.
12. Figure 2 details show only P3 Joist-specific fastener requirements. For other fastener requirements, see the applicable building code.
13. For Fire-Resistance ratings, typical Sound Transmission-Class (STC), and typical Impact Insulation Class (IIC), refer to National Building Code of Canada 2015 or NBC 2020 Table A-9.10.3.1.B. assembly numbers F3 to F21.

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## Web Hole Rules and Specifications

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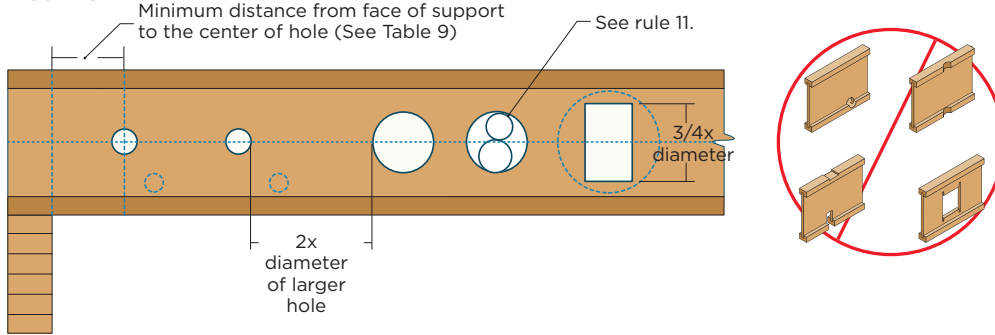
One of the benefits of using P3 Joists in residential floor construction is that holes may be cut in the joist webs to accommodate electrical wiring, plumbing lines, and other mechanical systems, thereby minimizing the depth of the floor system.

### Rules for Cutting Holes in P3 Joist

1. The distance between the inside edge of the support and the center line of any hole shall be in compliance with the requirements of Table 9.
2. P3 Joist top and bottom flanges must **NEVER** be cut, notched, or otherwise modified.
3. Whenever possible field-cut holes should be centered on the middle of the web.
4. The maximum size hole that can be cut into a P3 Joist web shall equal the clear distance between the flanges of the P3 Joist minus 1/4". A minimum of 1/8" should always be maintained between the top or bottom of the hole and the adjacent P3 Joist flange.
5. The sides of square holes or longest sides of rectangular holes should not exceed three-fourths of the diameter of the maximum round hole permitted at that location.
6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole **(or twice the length of the longest side of the longest rectangular hole)** and each hole must be sized and located in compliance with the requirements of Table 9.
7. Holes measuring 1-1/2" shall be permitted anywhere in a cantilevered section of a P3 Joist. Holes of greater size may be permitted subject to verification.
8. A 1-1/2" hole can be placed anywhere in the web provided that it meets the requirements of rule 6 above.
9. All holes shall be cut in a workman-like manner in accordance with the restrictions listed above and as illustrated in Figure 6.
10. Limit of 3 maximum size holes per span.
11. A group of round holes at approximately the same location shall be permitted if they meet the requirements for a single round hole circumscribed around them.

# P3 Joist Typical Holes

FIGURE 6



## Cutting the Holes

- **Never** drill, cut, or notch the flange. **Never** over-cut the web.
- Holes in webs should be cut with a sharp saw.
- For rectangular holes avoid over cutting the corners as this can cause unnecessary stress concentrations. Slightly rounding the corners is recommended. Starting the rectangular hole by drilling a 1" diameter hole in each of the 4 corners and then making the cuts between the holes is another good method to minimize damage to I-Joist.

TABLE 9

## Location Of Circular Holes In P3 Joist Webs

Simple or Multiple Spans for Dead Loads up to 15 psf and Live Loads up to 40 psf, 2,3,4

| Joist Depth | Joist  | Minimum Distance from Inside Face of Any Support to Center of Hole [ft-in] |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-------------|--------|----------------------------------------------------------------------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |        | Round Hole Diameter (in)                                                   |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |        | SAF(5)                                                                     | 2     | 3     | 4      | 5      | 6      | 6 1/4  | 7      | 8      | 8 5/8  | 9      | 10     | 10 3/4 | 11     | 12     | 12 3/4 |
| 9.5         | PJI-40 | 14'-2"                                                                     | 0'-7" | 0'-8" | 1'-5"  | 3'-0"  | 4'-8"  | 5'-2"  | -      | -      | -      | -      | -      | -      | -      | -      | -      |
|             | PJI-60 | 15'-3"                                                                     | 0'-7" | 0'-8" | 1'-8"  | 3'-3"  | 5'-0"  | 5'-5"  | -      | -      | -      | -      | -      | -      | -      | -      | -      |
|             | PJI-80 | 15'-6"                                                                     | 0'-7" | 0'-8" | 2'-2"  | 3'-10" | 5'-7"  | 6'-0"  | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| 11.875      | PJI-40 | 16'-0"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 1'-3"  | 2'-8"  | 3'-1"  | 4'-2"  | 5'-10" | 6'-11" | -      | -      | -      | -      | -      | -      |
|             | PJI-60 | 16'-6"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 1'-7"  | 3'-0"  | 3'-5"  | 4'-7"  | 6'-2"  | 7'-3"  | -      | -      | -      | -      | -      | -      |
|             | PJI-65 | 16'-11"                                                                    | 0'-7" | 0'-8" | 0'-8"  | 1'-10" | 3'-3"  | 3'-8"  | 4'-10" | 6'-6"  | 7'-7"  | -      | -      | -      | -      | -      | -      |
|             | PJI-80 | 17'-5"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 2'-0"  | 3'-6"  | 3'-11" | 5'-1"  | 6'-10" | 7'-11" | -      | -      | -      | -      | -      | -      |
|             | PJI-90 | 17'-8"                                                                     | 0'-7" | 0'-8" | 0'-10" | 2'-3"  | 3'-9"  | 4'-2"  | 5'-4"  | 7'-1"  | 8'-2"  | -      | -      | -      | -      | -      | -      |
| 14          | PJI-40 | 17'-5"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 1'-2"  | 1'-6"  | 2'-7"  | 4'-0"  | 4'-11" | 5'-5"  | 7'-1"  | 8'-4"  | -      | -      | -      |
|             | PJI-60 | 17'-11"                                                                    | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 1'-8"  | 2'-0"  | 3'-0"  | 4'-5"  | 5'-5"  | 6'-0"  | 7'-7"  | 8'-11" | -      | -      | -      |
|             | PJI-65 | 18'-5"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 2'-0"  | 2'-4"  | 3'-4"  | 4'-10" | 5'-9"  | 6'-4"  | 8'-0"  | -      | -      | -      | -      |
|             | PJI-80 | 19'-2"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-10" | 2'-2"  | 2'-6"  | 3'-7"  | 5'-1"  | 6'-1"  | 6'-8"  | 8'-4"  | -      | -      | -      | -      |
|             | PJI-90 | 18'-6"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 1'-1"  | 2'-5"  | 2'-9"  | 3'-10" | 5'-4"  | 6'-4"  | 6'-11" | 8'-8"  | -      | -      | -      | -      |
| 16          | PJI-40 | 18'-8"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-9"  | 0'-10" | 1'-4"  | 2'-7"  | 3'-5"  | 4'-0"  | 5'-5"  | 6'-6"  | 6'-11" | 8'-6"  | -      |
|             | PJI-60 | 19'-8"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-9"  | 0'-10" | 1'-10" | 3'-2"  | 4'-0"  | 4'-6"  | 5'-11" | 7'-1"  | 7'-6"  | 9'-1"  | -      |
|             | PJI-65 | 20'-0"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-11" | 1'-2"  | 2'-2"  | 3'-6"  | 4'-4"  | 4'-11" | 6'-4"  | 7'-6"  | 7'-10" | 9'-6"  | -      |
|             | PJI-80 | 20'-10"                                                                    | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 1'-0"  | 1'-4"  | 2'-4"  | 3'-8"  | 4'-7"  | 5'-2"  | 6'-8"  | 7'-10" | 8'-3"  | 9'-11" | -      |
|             | PJI-90 | 21'-3"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 1'-3"  | 1'-7"  | 2'-7"  | 4'-0"  | 4'-10" | 5'-5"  | 6'-11" | 8'-1"  | 8'-6"  | 10'-3" | -      |
| 18          | PJI-80 | 22'-5"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-9"  | 0'-10" | 0'-10" | 1'-4"  | 2'-3"  | 2'-9"  | 4'-3"  | 5'-4"  | 5'-9"  | 7'-4"  | 8'-7"  |
|             | PJI-90 | 22'-10"                                                                    | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-9"  | 0'-10" | 0'-10" | 1'-8"  | 2'-6"  | 3'-1"  | 4'-6"  | 5'-8"  | 6'-1"  | 7'-8"  | 8'-11" |
| 20          | PJI-80 | 23'-11"                                                                    | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-9"  | 0'-10" | 0'-10" | 0'-10" | 1'-5"  | 1'-11" | 3'-3"  | 4'-4"  | 4'-8"  | 6'-1"  | 7'-2"  |
|             | PJI-90 | 24'-4"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-9"  | 0'-10" | 0'-10" | 0'-11" | 1'-9"  | 2'-3"  | 3'-7"  | 4'-8"  | 5'-0"  | 6'-5"  | 7'-6"  |
| 24          | PJI-80 | 25'-6"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-9"  | 0'-10" | 0'-10" | 0'-10" | 0'-11" | 0'-11" | 0'-11" | 0'-12" | 1'-3"  | 2'-5"  | 3'-4"  |
|             | PJI-90 | 27'-3"                                                                     | 0'-7" | 0'-8" | 0'-8"  | 0'-9"  | 0'-9"  | 0'-10" | 0'-10" | 0'-10" | 0'-11" | 1'-0"  | 2'-2"  | 3'-0"  | 3'-4"  | 4'-7"  | 5'-6"  |

## NOTES

1. Above tables may be used for P3 Joist spacing of 24" on center or less.
2. Hole location distance is measured from inside face of supports to center of hole.
3. Distances in this chart are based on uniformly loaded joists.
4. Hole sizes and/or locations that fall outside of the scope of this table may be acceptable based on analysis of actual hole size, span, spacing, and loading conditions.
5. SAF stands for Span Adjustment Factor. SAF is used as defined below.

## OPTIONAL

Table 9 is based on the P3 Joist being used at their maximum span. If the P3 Joist are placed at less than their full allowable span, the maximum distance from the centerline of the hole to the face of any support (D) as given above may be reduced as follows.

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

Where:  $D_{\text{reduced}}$  = Distance from the inside face of any support to center of hole is reduced for less-than-maximum span applications (ft). The reduced distance shall not be less than 6" from the face of support to edge of the hole.

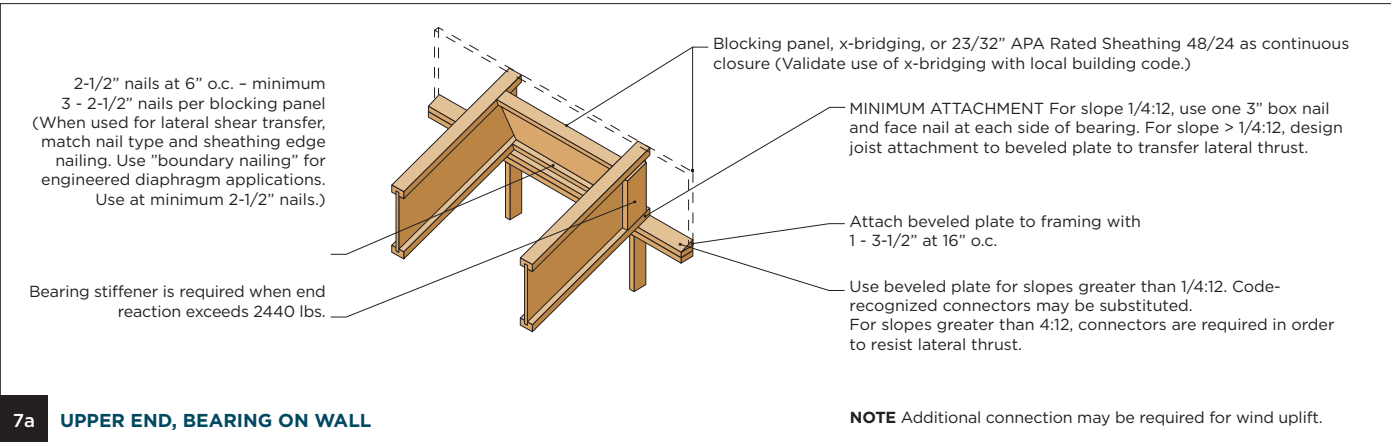
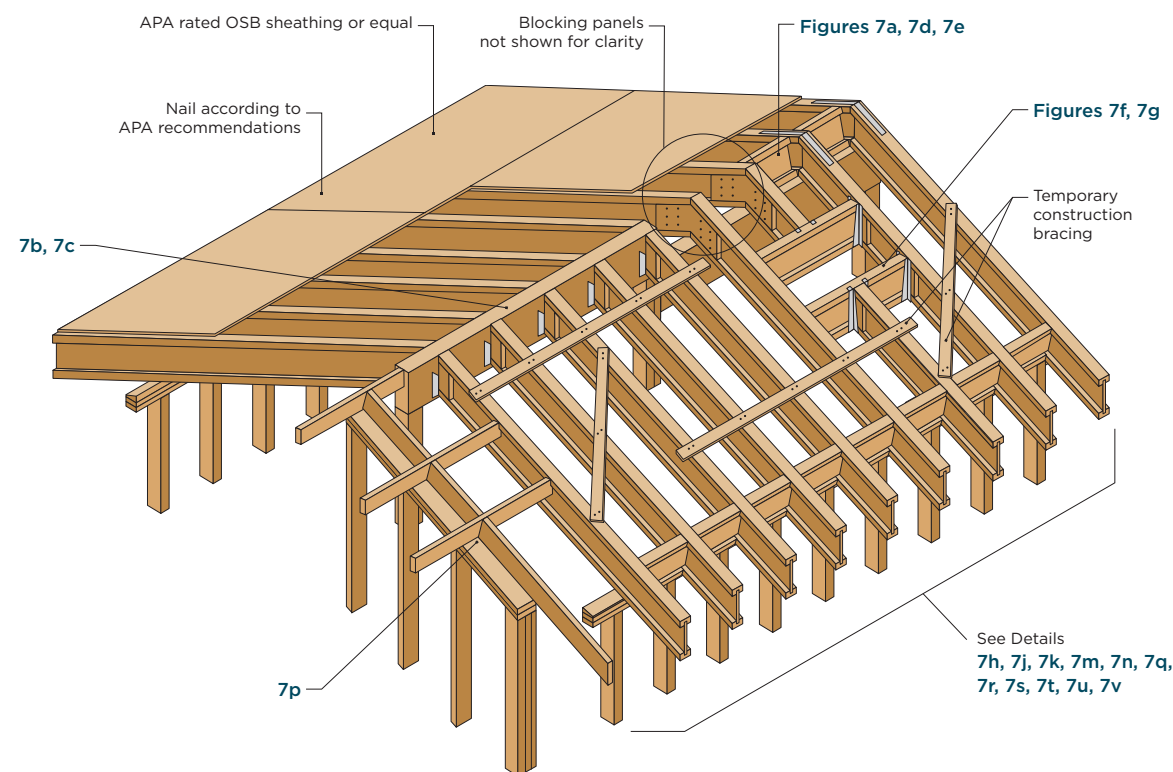
$L_{\text{actual}}$  = The actual measured span distance between the inside faces of supports (ft)

SAF = Span Adjustment Factor is given in the table above.

D = The minimum distance from the inside face of any support to center of hole from Table 9 above

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

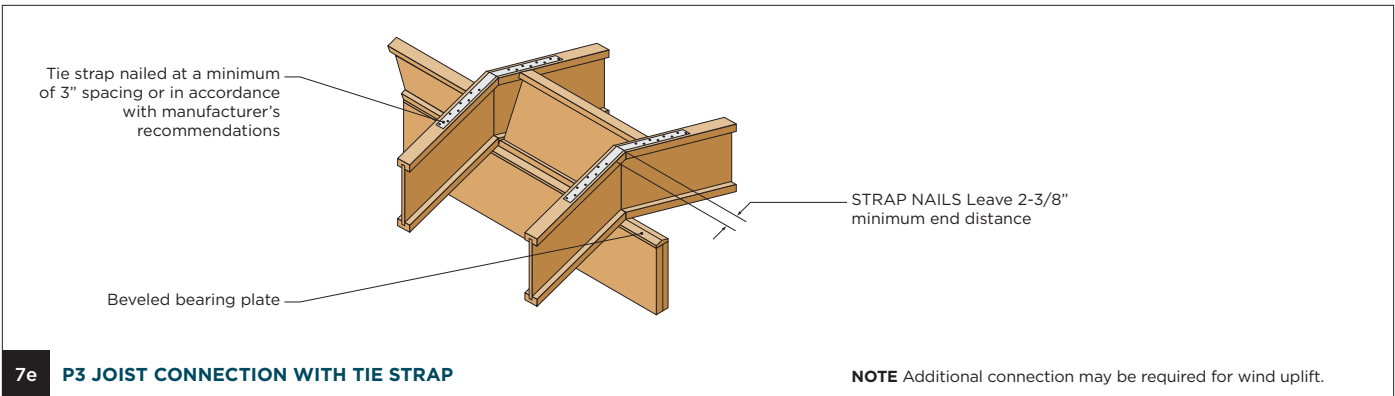
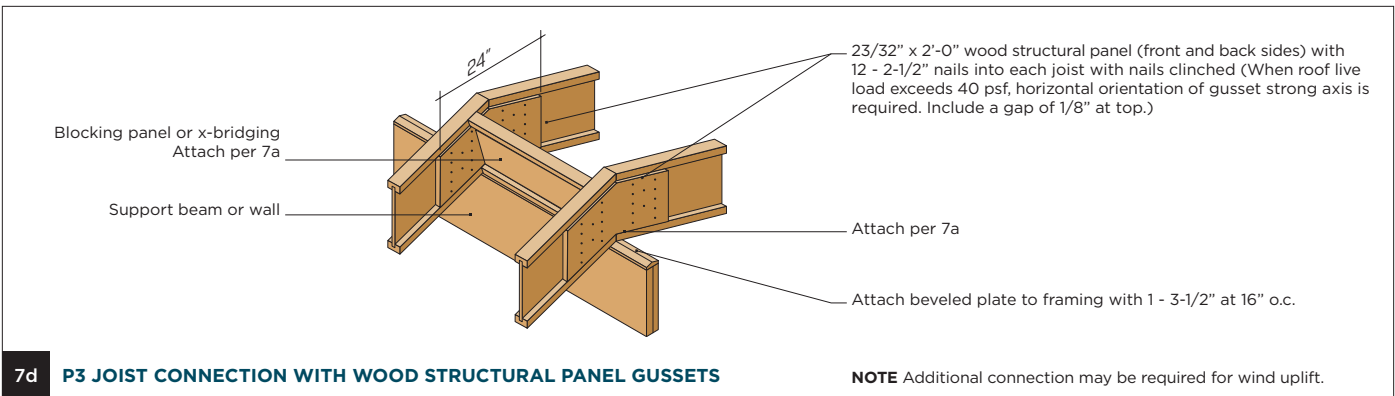
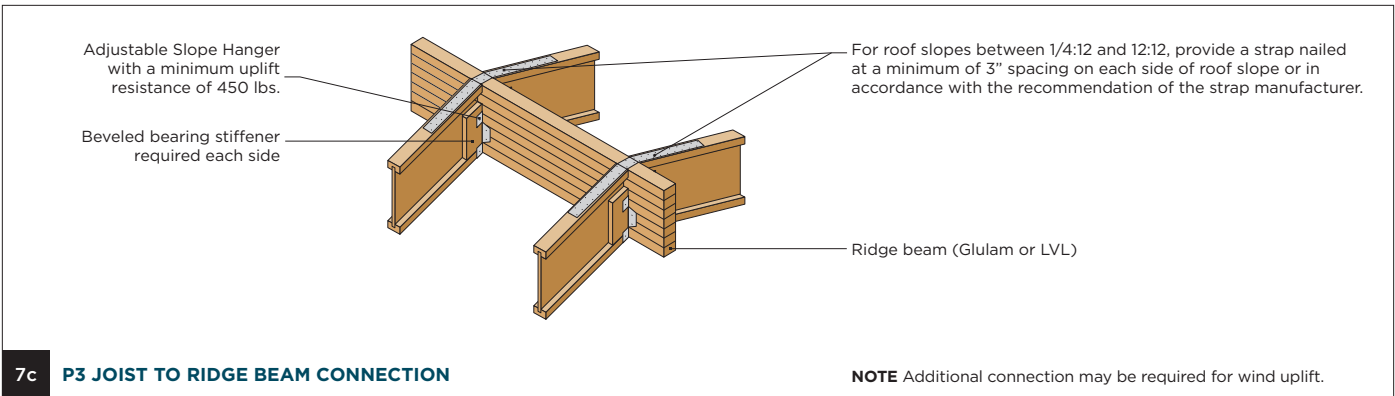
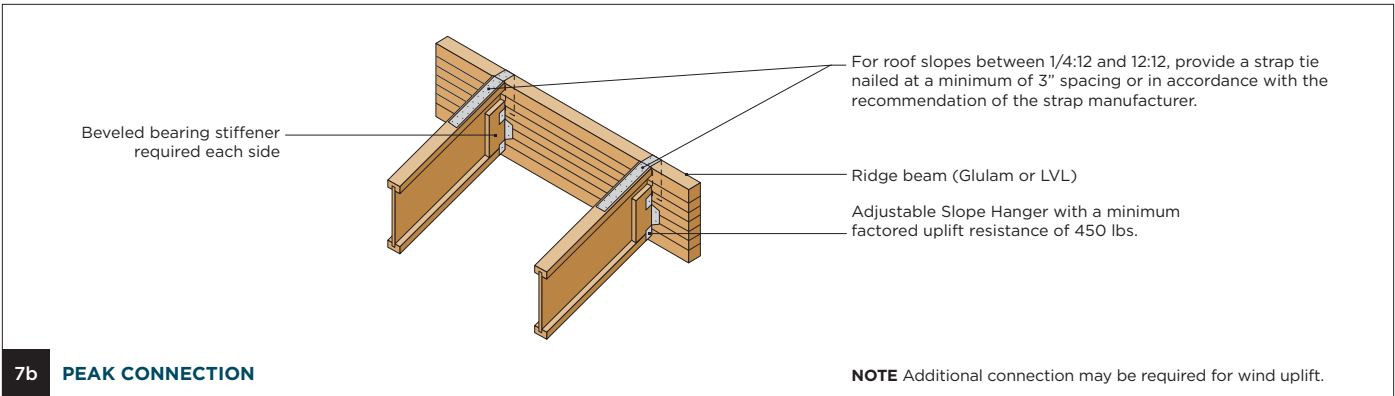
# Typical P3 Joist Roof Framing and Construction Details



**FIGURE 7 (CONTINUED)**

**Typical P3 Joist Roof Framing and Construction Details**

All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.

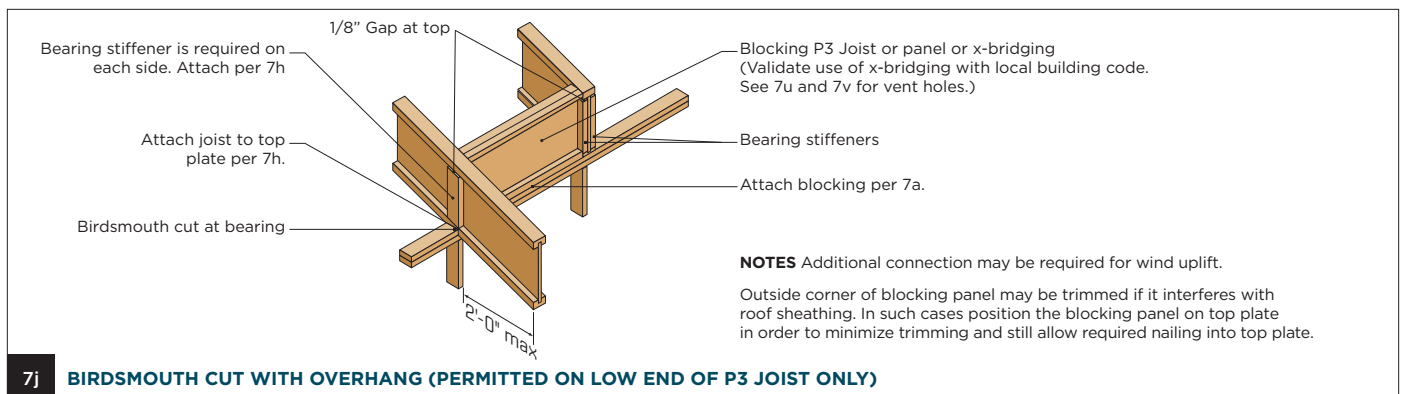
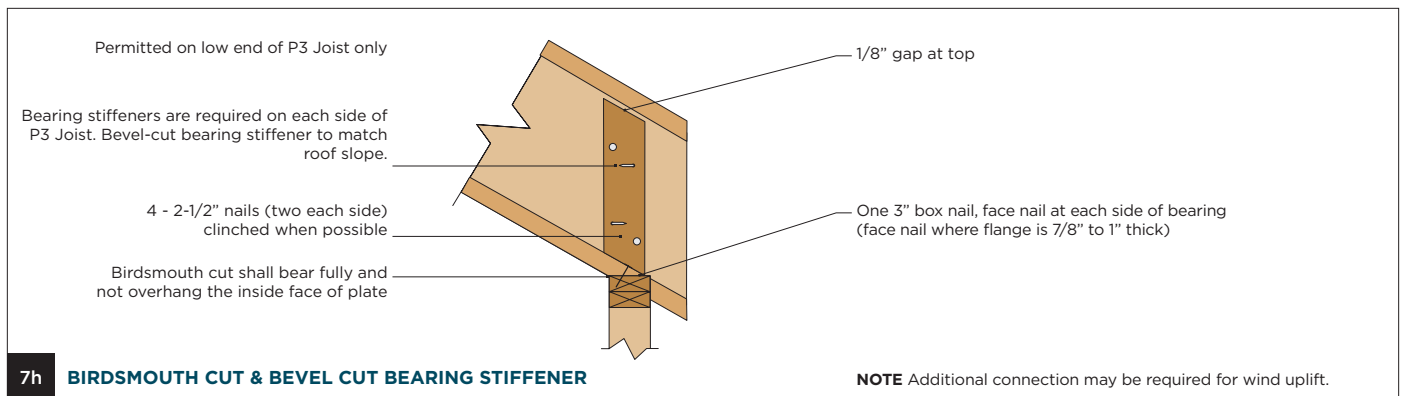
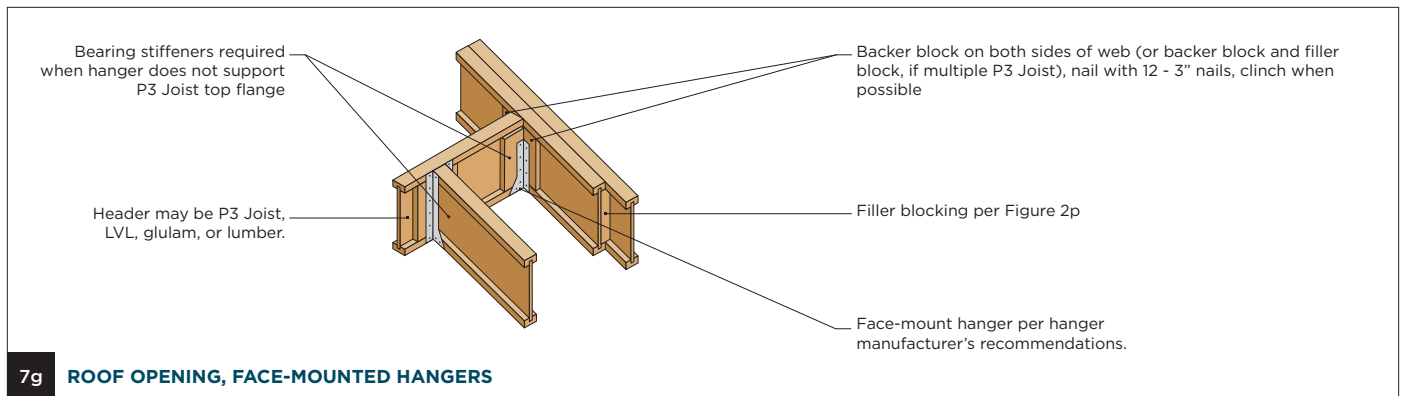
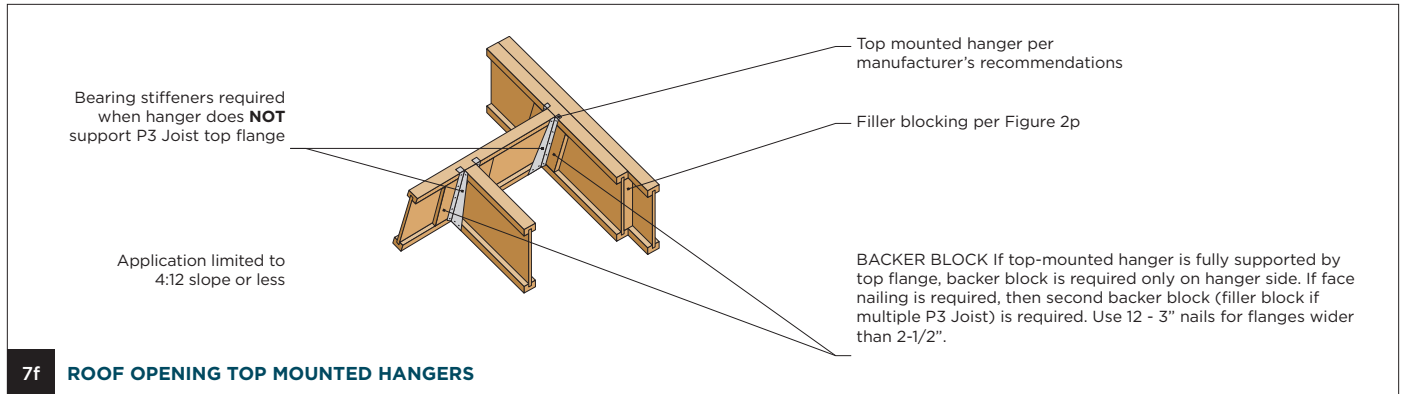


Source: APA

**FIGURE 7 (CONTINUED)**

**Typical P3 Joist Roof Framing and Construction Details**

All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.

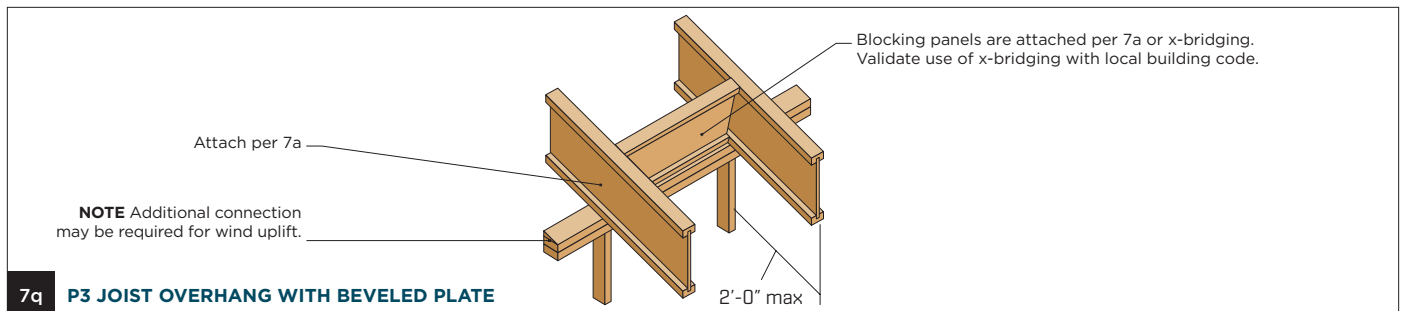
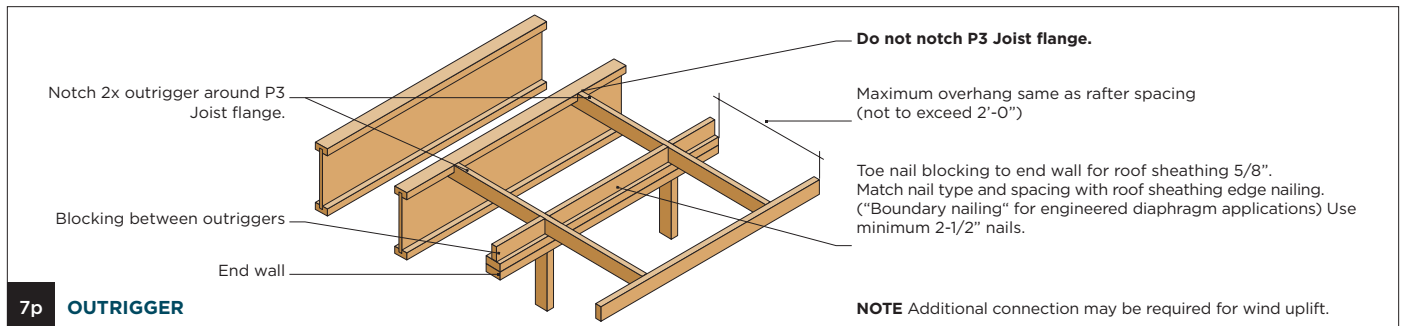
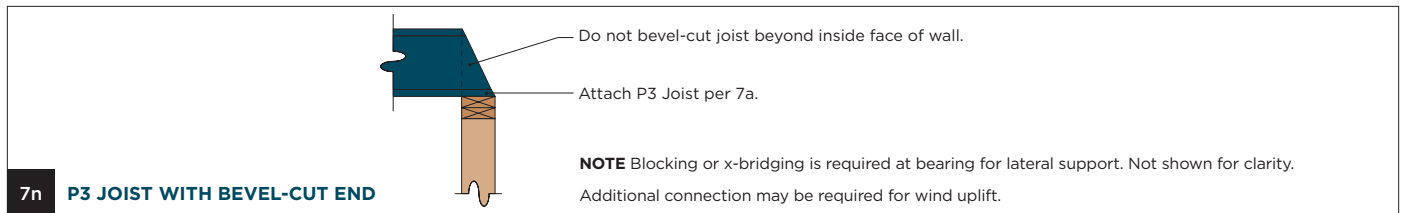
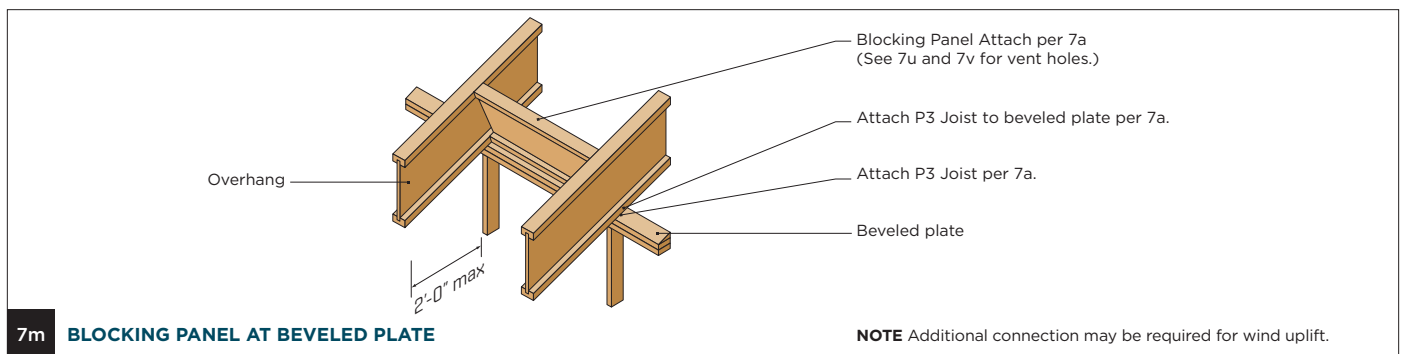
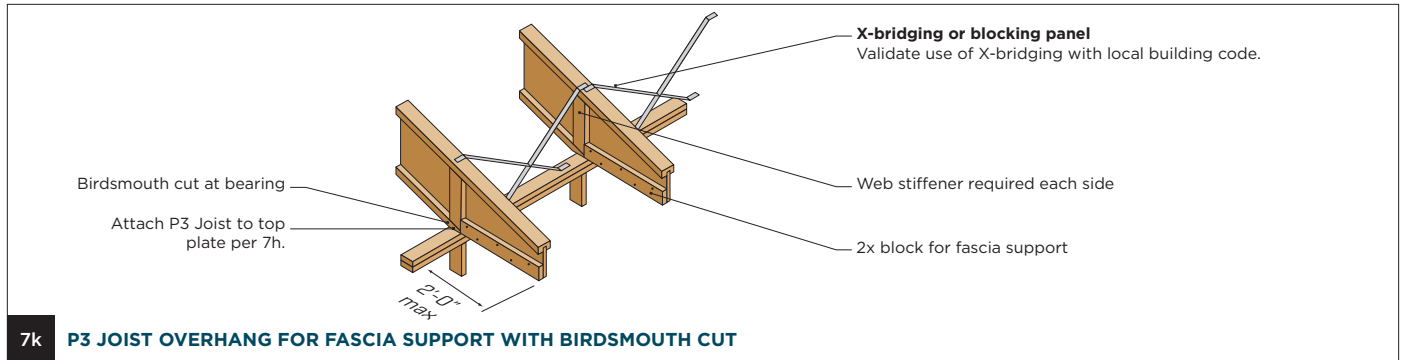


Source: APA

**FIGURE 7 (CONTINUED)**

**Typical P3 Joist Roof Framing and Construction Details**

All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.

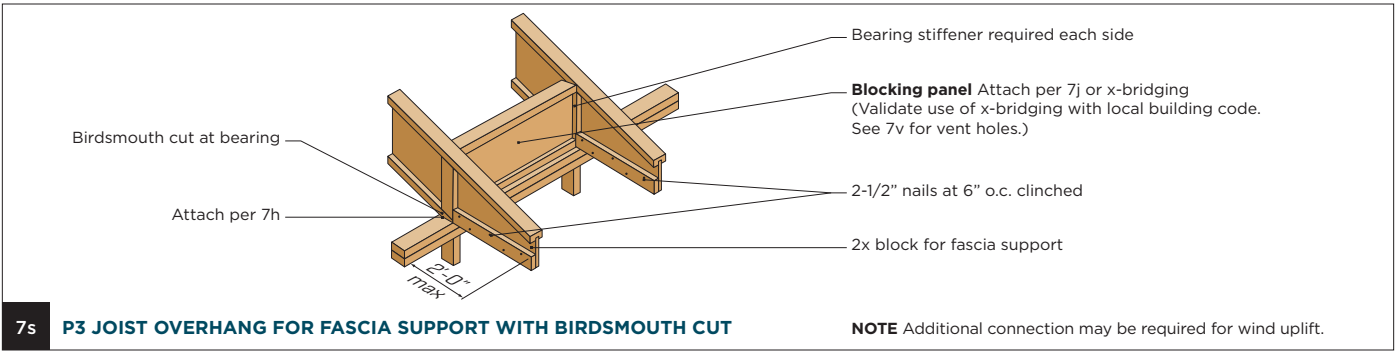
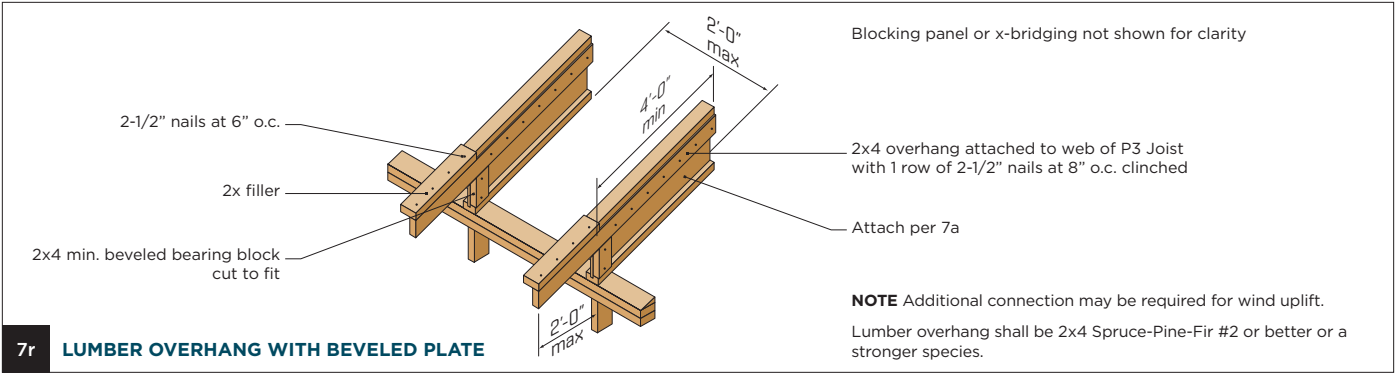


Source: APA

FIGURE 7 (CONTINUED)

Typical P3 Joist Roof Framing and Construction Details

All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.



Slope Spans for Roofs

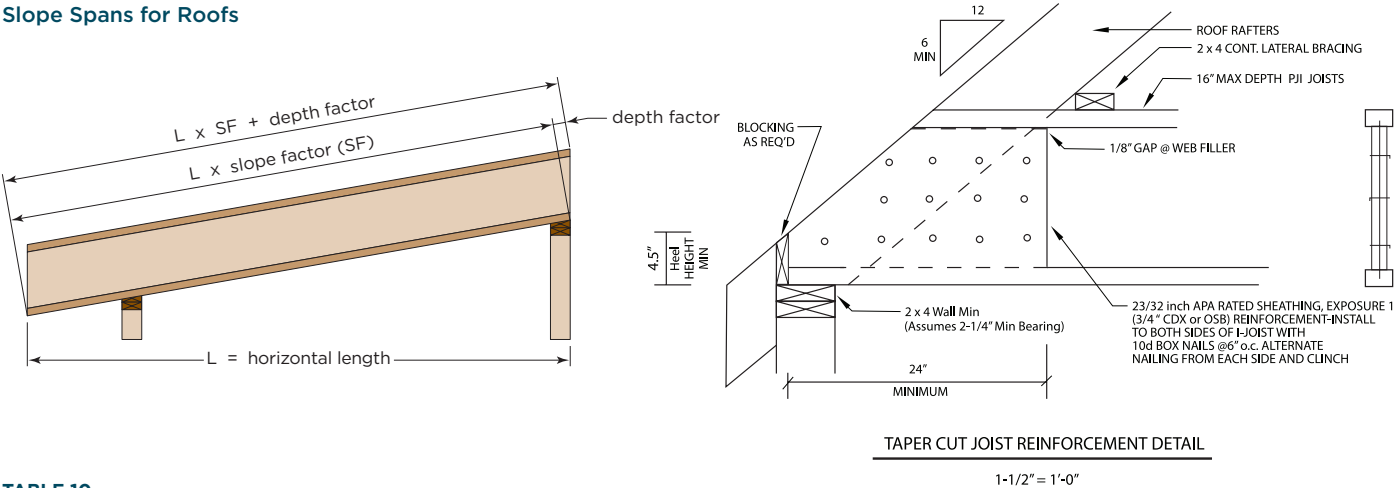


TABLE 10  
Slope Factor and Depth Factor Table

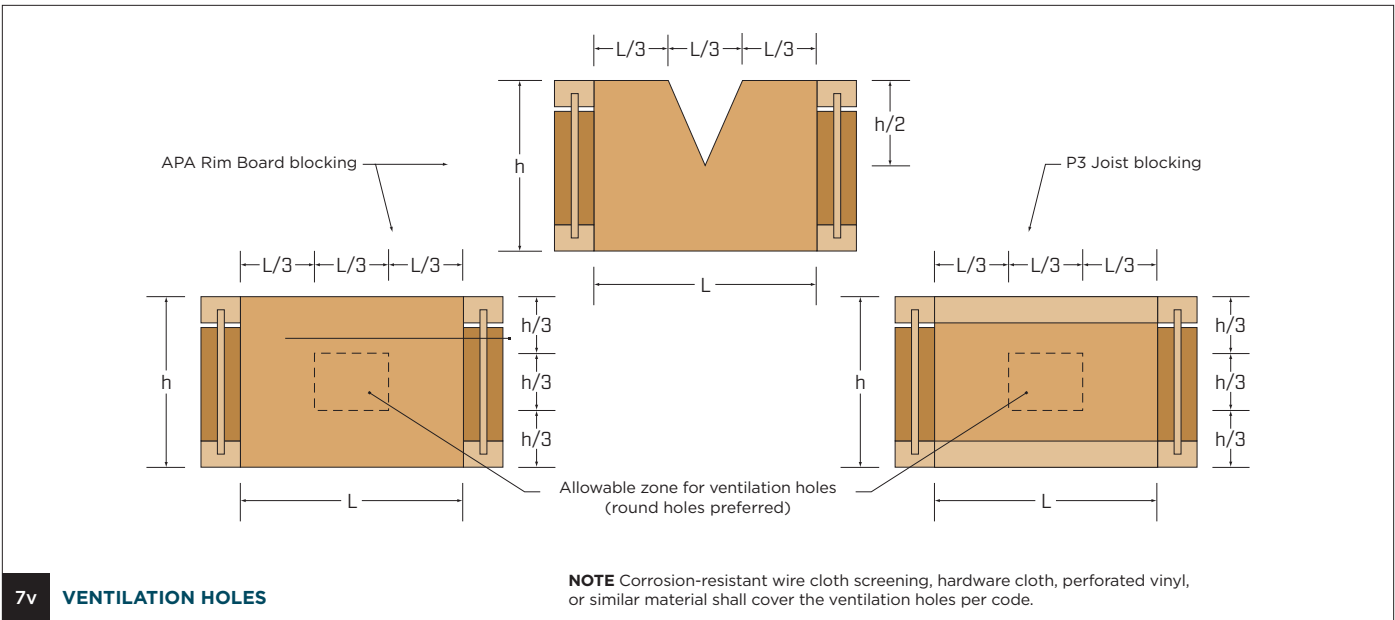
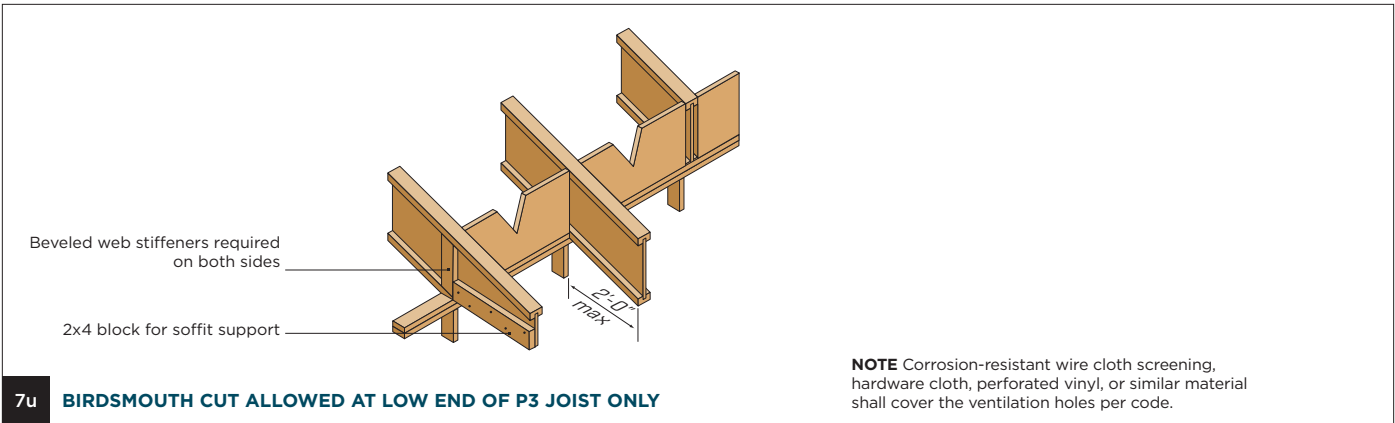
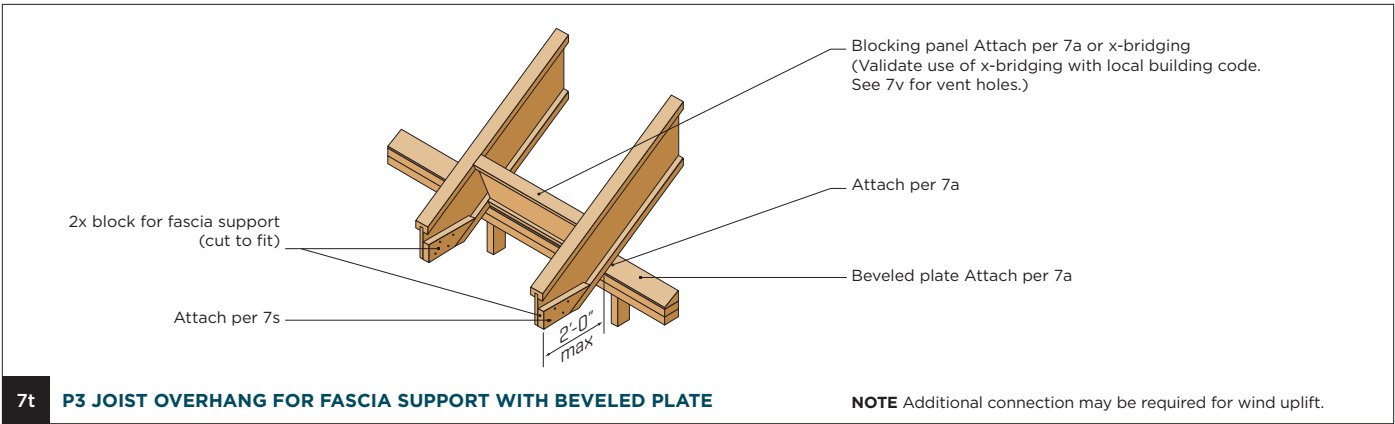
| Slope        |         | 2.5:12 | 3:12   | 3.5:12 | 4:12   | 4.5:12 | 5:12   | 6:12   | 7:12    | 8:12    | 9:12    | 10:12   | 11:12   | 12:12   |
|--------------|---------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| Slope Factor |         | 1.021  | 1.031  | 1.042  | 1.054  | 1.068  | 1.083  | 1.118  | 1.158   | 1.202   | 1.250   | 1.302   | 1.357   | 1.414   |
|              |         |        |        |        |        |        |        |        |         |         |         |         |         |         |
| Depth Factor | 9-1/2"  | 2"     | 2-3/8" | 2-7/8" | 3-1/4" | 3-5/8" | 4"     | 4-3/4" | 5-5/8"  | 6-3/8"  | 7-1/4"  | 8"      | 8-3/4"  | 9-1/2"  |
|              | 11-7/8" | 2-1/2" | 3"     | 3-1/2" | 4"     | 4-1/2" | 5"     | 6"     | 7"      | 8"      | 9"      | 10"     | 11"     | 11-7/8" |
|              | 14"     | 3"     | 3-1/2" | 4-1/8" | 4-3/4" | 5-1/4" | 5-7/8" | 7"     | 8-1/4"  | 9-3/8"  | 10-1/2" | 11-3/4" | 12-7/8" | 14"     |
|              | 16"     | 3-3/8" | 4"     | 4-3/4" | 5-3/8" | 6"     | 6-3/4" | 8"     | 9-3/8"  | 10-3/4" | 12"     | 13-3/8" | 14-3/4" | 16"     |
|              | 18"     | 3-3/4" | 4-1/2" | 5-1/4" | 6"     | 6-3/4" | 7-1/2" | 9"     | 10-1/2" | 12"     | 13-1/2" | 15"     | 16-1/2" | 18"     |
|              | 20"     | 4-1/4" | 5"     | 5-7/8" | 6-3/4" | 7-1/2" | 8-3/8" | 10"    | 11-3/4" | 13-3/8" | 15"     | 16-3/4" | 18-3/8" | 20"     |
|              | 22"     | 4-5/8" | 5-1/2" | 6-1/2" | 7-3/8" | 8-1/4" | 9-1/4" | 11"    | 12-7/8" | 14-3/4" | 16-1/2" | 18-3/8" | 20-1/4" | 22"     |
|              | 24"     | 5"     | 6"     | 7"     | 8"     | 9"     | 10"    | 12"    | 14"     | 16"     | 18"     | 20"     | 22"     | 24"     |

Source: APA

FIGURE 7 (CONTINUED)

Typical P3 Joist Roof Framing and Construction Details

All nails shown in the details below are assumed to be common nails unless otherwise noted. Framing lumber is assumed to be Spruce-Pine-Fir. Individual components are not shown to scale for clarity.



## Allowable Roof Spans – Simple Span

**TABLE 11**

**Simple Span** Live Load = 20 psf Dead Load = 15 psf

| Series   | Depth  | Slope of 1/4:12 to 4:12 |          |         | Slope of 4:12 to 8:12 |          |         | Slope of 8:12 to 12:12 |          |         |
|----------|--------|-------------------------|----------|---------|-----------------------|----------|---------|------------------------|----------|---------|
|          |        | 16" oc                  | 19.2" oc | 24" oc  | 16" oc                | 19.2" oc | 24" oc  | 16" oc                 | 19.2" oc | 24" oc  |
| PJI 40   | 9-1/2  | 21'-1"                  | 19'-10"  | 18'-4"  | 20'-3"                | 19'-0"   | 17'-7"  | 19'-0"                 | 17'-10"  | 16'-6"  |
|          | 11-7/8 | 25'-4"                  | 23'-9"   | 21'-6"  | 24'-3"                | 22'-10"  | 20'-11" | 22'-10"                | 21'-5"   | 19'-10" |
|          | 14     | 28'-9"                  | 26'-5"   | 23'-8"  | 27'-7"                | 25'-9"   | 23'-0"  | 25'-11"                | 24'-4"   | 22'-2"  |
|          | 16     | 31'-3"                  | 28'-6"   | 25'-6"  | 30'-5"                | 27'-9"   | 24'-9"  | 28'-9"                 | 26'-9"   | 23'-11" |
| PJI 60   | 9-1/2  | 22'-5"                  | 21'-1"   | 19'-6"  | 21'-6"                | 20'-2"   | 18'-8"  | 20'-2"                 | 19'-0"   | 17'-7"  |
|          | 11-7/8 | 26'-11"                 | 25'-3"   | 23'-4"  | 25'-10"               | 24'-3"   | 22'-5"  | 24'-3"                 | 22'-9"   | 21'-1"  |
|          | 14     | 30'-8"                  | 28'-10"  | 26'-8"  | 29'-5"                | 27'-7"   | 25'-7"  | 27'-7"                 | 25'-11"  | 24'-0"  |
|          | 16     | 34'-1"                  | 32'-0"   | 29'-8"  | 32'-8"                | 30'-8"   | 28'-5"  | 30'-8"                 | 28'-10"  | 26'-9"  |
| PJI-65   | 11-7/8 | 28'-2"                  | 26'-5"   | 24'-5"  | 27'-0"                | 25'-4"   | 23'-6"  | 25'-4"                 | 23'-10"  | 22'-1"  |
|          | 14     | 32'-0"                  | 30'-1"   | 27'-10" | 30'-8"                | 28'-10"  | 26'-8"  | 28'-10"                | 27'-1"   | 25'-1"  |
|          | 16     | 35'-6"                  | 33'-4"   | 30'-2"  | 34'-0"                | 31'-11"  | 29'-5"  | 31'-11"                | 30'-0"   | 27'-10" |
| PJI 80   | 9-1/2  | 25'-0"                  | 23'-6"   | 21'-8"  | 24'-0"                | 22'-6"   | 20'-10" | 22'-0"                 | 21'-2"   | 19'-7"  |
|          | 11-7/8 | 29'-11"                 | 28'-1"   | 26'-0"  | 28'-9"                | 27'-0"   | 24'-11" | 27'-0"                 | 25'-4"   | 23'-6"  |
|          | 14     | 34'-1"                  | 32'-0"   | 29'-7"  | 32'-8"                | 30'-8"   | 28'-5"  | 30'-8"                 | 28'-10"  | 26'-8"  |
|          | 16     | 37'-10"                 | 35'-6"   | 32'-10" | 36'-3"                | 34'-1"   | 31'-6"  | 34'-1"                 | 32'-0"   | 29'-8"  |
| PJI 80ws | 18     | 41'-3"                  | 38'-9"   | 35'-10" | 39'-7"                | 37'-2"   | 34'-5"  | 37'-2"                 | 34'-11"  | 32'-4"  |
|          | 20     | 44'-8"                  | 41'-11"  | 38'-10" | 42'-10"               | 40'-3"   | 37'-3"  | 40'-3"                 | 37'-10"  | 35'-0"  |
|          | 24     | 51'-2"                  | 48'-1"   | 43'-9"  | 49'-1"                | 46'-2"   | 42'-7"  | 46'-1"                 | 43'-4"   | 40'-2"  |
| PJI 90   | 11-7/8 | 30'-11"                 | 29'-0"   | 26'-10" | 29'-8"                | 27'-10"  | 25'-9"  | 27'-10"                | 26'-2"   | 24'-2"  |
|          | 14     | 35'-1"                  | 32'-11"  | 30'-6"  | 33'-8"                | 31'-7"   | 29'-3"  | 31'-7"                 | 29'-8"   | 27'-6"  |
|          | 16     | 38'-10"                 | 36'-6"   | 33'-9"  | 37'-3"                | 35'-0"   | 32'-5"  | 35'-0"                 | 32'-11"  | 30'-6"  |
| PJI 90ws | 18     | 42'-6"                  | 39'-11"  | 36'-11" | 40'-9"                | 38'-3"   | 35'-5"  | 38'-3"                 | 36'-0"   | 33'-4"  |
|          | 20     | 46'-0"                  | 43'-2"   | 40'-0"  | 44'-1"                | 41'-5"   | 38'-4"  | 41'-5"                 | 38'-11"  | 36'-1"  |
|          | 24     | 52'-9"                  | 49'-6"   | 45'-10" | 50'-7"                | 47'-6"   | 44'-0"  | 47'-6"                 | 44'-7"   | 41'-4"  |



**TABLE 12**

**Simple Span** Live Load = 30 psf Dead Load = 15 psf

| Series   | Depth  | Slope of 1/4:12 to 4:12 |          |         | Slope of 4:12 to 8:12 |          |         | Slope of 8:12 to 12:12 |          |        |
|----------|--------|-------------------------|----------|---------|-----------------------|----------|---------|------------------------|----------|--------|
|          |        | 16" oc                  | 19.2" oc | 24" oc  | 16" oc                | 19.2" oc | 24" oc  | 16" oc                 | 19.2" oc | 24" oc |
| PJI 40   | 9-1/2  | 18'-4"                  | 17'-2"   | 15'-11" | 17'-7"                | 16'-6"   | 15'-3"  | 16'-8"                 | 15'-8"   | 14'-6" |
|          | 11-7/8 | 22'-0"                  | 20'-8"   | 18'-10" | 21'-1"                | 19'-10"  | 18'-4"  | 20'-0"                 | 18'-10"  | 17'-5" |
|          | 14     | 25'-0"                  | 23'-2"   | 20'-8"  | 24'-0"                | 22'-6"   | 20'-3"  | 22'-9"                 | 21'-5"   | 19'-8" |
|          | 16     | 27'-4"                  | 24'-11"  | 22'-3"  | 26'-8"                | 24'-5"   | 21'-10" | 25'-3"                 | 23'-9"   | 21'-2" |
| PJI 60   | 9-1/2  | 19'-6"                  | 18'-3"   | 16'-10" | 18'-8"                | 17'-6"   | 16'-2"  | 17'-9"                 | 16'-8"   | 15'-5" |
|          | 11-7/8 | 23'-4"                  | 21'-11"  | 20'-3"  | 22'-5"                | 21'-0"   | 19'-6"  | 21'-3"                 | 20'-0"   | 18'-6" |
|          | 14     | 26'-8"                  | 25'-0"   | 23'-1"  | 25'-7"                | 24'-0"   | 22'-2"  | 24'-3"                 | 22'-10"  | 21'-1" |
|          | 16     | 29'-8"                  | 27'-10"  | 25'-9"  | 28'-5"                | 26'-8"   | 24'-8"  | 27'-0"                 | 25'-4"   | 23'-5" |
| PJI-65   | 11-7/8 | 24'-5"                  | 22'-11"  | 21'-2"  | 23'-6"                | 22'-0"   | 20'-4"  | 22'-3"                 | 20'-11"  | 19'-4" |
|          | 14     | 27'-10"                 | 26'-1"   | 24'-1"  | 26'-8"                | 25'-1"   | 23'-2"  | 25'-4"                 | 23'-9"   | 22'-0" |
|          | 16     | 30'-10"                 | 28'-11"  | 26'-5"  | 29'-7"                | 27'-9"   | 25'-8"  | 28'-1"                 | 26'-4"   | 24'-5" |
| PJI 80   | 9-1/2  | 21'-8"                  | 20'-4"   | 18'-10" | 20'-10"               | 19'-7"   | 18'-1"  | 19'-9"                 | 18'-7"   | 17'-2" |
|          | 11-7/8 | 26'-0"                  | 24'-5"   | 22'-6"  | 24'-11"               | 23'-5"   | 21'-8"  | 23'-8"                 | 22'-3"   | 20'-7" |
|          | 14     | 29'-7"                  | 27'-9"   | 25'-8"  | 28'-5"                | 26'-8"   | 24'-8"  | 27'-0"                 | 25'-4"   | 23'-5" |
|          | 16     | 32'-10"                 | 30'-10"  | 28'-6"  | 31'-6"                | 29'-7"   | 27'-4"  | 29'-11"                | 28'-1"   | 26'-0" |
| PJI 80ws | 18     | 35'-10"                 | 33'-8"   | 31'-1"  | 34'-5"                | 32'-3"   | 29'-10" | 32'-8"                 | 30'-8"   | 28'-5" |
|          | 20     | 38'-10"                 | 36'-5"   | 33'-8"  | 37'-3"                | 35'-0"   | 32'-4"  | 35'-4"                 | 33'-3"   | 30'-9" |
|          | 24     | 44'-6"                  | 41'-9"   | 38'-4"  | 42'-9"                | 40'-1"   | 37'-1"  | 40'-7"                 | 38'-1"   | 35'-3" |
| PJI 90   | 11-7/8 | 26'-10"                 | 25'-2"   | 23'-3"  | 25'-9"                | 24'-2"   | 22'-4"  | 24'-5"                 | 22'-11"  | 21'-3" |
|          | 14     | 30'-6"                  | 28'-7"   | 26'-5"  | 29'-3"                | 27'-5"   | 25'-5"  | 27'-9"                 | 26'-1"   | 24'-2" |
|          | 16     | 33'-9"                  | 31'-8"   | 29'-3"  | 32'-5"                | 30'-5"   | 28'-2"  | 30'-9"                 | 28'-11"  | 26'-9" |
| PJI 90ws | 18     | 36'-11"                 | 34'-8"   | 32'-0"  | 35'-5"                | 33'-3"   | 30'-9"  | 33'-8"                 | 31'-7"   | 29'-3" |
|          | 20     | 40'-0"                  | 37'-6"   | 34'-8"  | 38'-4"                | 36'-0"   | 33'-4"  | 36'-5"                 | 34'-3"   | 31'-8" |
|          | 24     | 45'-10"                 | 43'-0"   | 39'-9"  | 44'-0"                | 41'-3"   | 38'-3"  | 41'-9"                 | 39'-3"   | 36'-4" |



## Allowable Roof Spans—Simple Span (continued)

**TABLE 13**

**Simple Span** Live Load = 40 psf Dead Load = 15 psf

| Series   | Depth  | Slope of 1/4:12 to 4:12 |          |         | Slope of 4:12 to 8:12 |          |         | Slope of 8:12 to 12:12 |          |         |
|----------|--------|-------------------------|----------|---------|-----------------------|----------|---------|------------------------|----------|---------|
|          |        | 16" oc                  | 19.2" oc | 24" oc  | 16" oc                | 19.2" oc | 24" oc  | 16" oc                 | 19.2" oc | 24" oc  |
| PJI 40   | 9-1/2  | 16'-7"                  | 15'-6"   | 14'-4"  | 15'-11"               | 14'-11"  | 13'-9"  | 15'-1"                 | 14'-2"   | 13'-1"  |
|          | 11-7/8 | 19'-11"                 | 18'-8"   | 16'-11" | 19'-1"                | 17'-11"  | 16'-7"  | 18'-2"                 | 17'-0"   | 15'-9"  |
|          | 14     | 22'-7"                  | 20'-10"  | 18'-7"  | 21'-9"                | 20'-4"   | 18'-4"  | 20'-7"                 | 19'-4"   | 17'-10" |
|          | 16     | 24'-8"                  | 22'-5"   | 20'-1"  | 24'-1"                | 22'-1"   | 19'-9"  | 22'-11"                | 21'-6"   | 19'-3"  |
| PJI 60   | 9-1/2  | 17'-7"                  | 16'-6"   | 15'-3"  | 16'-11"               | 15'-10"  | 14'-8"  | 16'-1"                 | 15'-1"   | 13'-11" |
|          | 11-7/8 | 21'-1"                  | 19'-10"  | 18'-4"  | 20'-3"                | 19'-0"   | 17'-7"  | 19'-3"                 | 18'-1"   | 16'-9"  |
|          | 14     | 24'-1"                  | 22'-7"   | 20'-11" | 23'-2"                | 21'-8"   | 20'-1"  | 22'-0"                 | 20'-8"   | 19'-1"  |
|          | 16     | 26'-10"                 | 25'-2"   | 23'-3"  | 25'-9"                | 24'-2"   | 22'-4"  | 24'-5"                 | 22'-11"  | 21'-3"  |
| PJI-65   | 11-7/8 | 22'-1"                  | 20'-9"   | 19'-2"  | 21'-3"                | 19'-11"  | 18'-5"  | 20'-2"                 | 18'-11"  | 17'-6"  |
|          | 14     | 25'-2"                  | 23'-7"   | 21'-9"  | 24'-2"                | 22'-8"   | 20'-11" | 22'-11"                | 21'-6"   | 19'-11" |
|          | 16     | 27'-11"                 | 26'-2"   | 23'-10" | 26'-9"                | 25'-1"   | 23'-3"  | 25'-5"                 | 23'-10"  | 22'-1"  |
| PJI 80   | 9-1/2  | 19'-7"                  | 18'-4"   | 16'-11" | 18'-10"               | 17'-8"   | 16'-4"  | 17'-11"                | 16'-10"  | 15'-6"  |
|          | 11-7/8 | 23'-6"                  | 22'-0"   | 20'-4"  | 22'-7"                | 21'-2"   | 19'-7"  | 21'-5"                 | 20'-2"   | 18'-7"  |
|          | 14     | 26'-9"                  | 25'-1"   | 23'-2"  | 25'-8"                | 24'-1"   | 22'-3"  | 24'-5"                 | 22'-11"  | 21'-2"  |
|          | 16     | 29'-8"                  | 27'-10"  | 25'-9"  | 28'-6"                | 26'-9"   | 24'-9"  | 27'-1"                 | 25'-5"   | 23'-6"  |
| PJI 80ws | 18     | 32'-5"                  | 30'-5"   | 28'-1"  | 31'-1"                | 29'-2"   | 27'-0"  | 29'-7"                 | 27'-9"   | 25'-8"  |
|          | 20     | 35'-1"                  | 32'-11"  | 30'-5"  | 33'-9"                | 31'-8"   | 29'-3"  | 32'-0"                 | 30'-1"   | 27'-10" |
|          | 24     | 40'-3"                  | 37'-9"   | 34'-6"  | 38'-8"                | 36'-4"   | 33'-7"  | 36'-9"                 | 34'-6"   | 31'-11" |
| PJI 90   | 11-7/8 | 24'-3"                  | 22'-9"   | 21'-0"  | 23'-3"                | 21'-10"  | 20'-2"  | 22'-2"                 | 20'-9"   | 19'-2"  |
|          | 14     | 27'-7"                  | 25'-10"  | 23'-10" | 26'-6"                | 24'-10"  | 22'-11" | 25'-2"                 | 23'-7"   | 21'-10" |
|          | 16     | 30'-6"                  | 28'-7"   | 26'-5"  | 29'-4"                | 27'-6"   | 25'-5"  | 27'-10"                | 26'-2"   | 24'-2"  |
| PJI 90ws | 18     | 33'-5"                  | 31'-4"   | 28'-11" | 32'-1"                | 30'-1"   | 27'-10" | 30'-6"                 | 28'-7"   | 26'-5"  |
|          | 20     | 36'-2"                  | 33'-11"  | 31'-4"  | 34'-9"                | 32'-7"   | 30'-1"  | 33'-0"                 | 31'-0"   | 28'-8"  |
|          | 24     | 41'-6"                  | 38'-11"  | 35'-11" | 39'-10"               | 37'-4"   | 34'-7"  | 37'-10"                | 35'-6"   | 32'-10" |



## Allowable Roof Spans—Simple Span (continued)

**TABLE 14**

**Simple Span** Live Load = 50 psf Dead Load = 15 psf

| Series   | Depth  | Slope of 1/4:12 to 4:12 |          |         | Slope of 4:12 to 8:12 |          |         | Slope of 8:12 to 12:12 |          |         |
|----------|--------|-------------------------|----------|---------|-----------------------|----------|---------|------------------------|----------|---------|
|          |        | 16" oc                  | 19.2" oc | 24" oc  | 16" oc                | 19.2" oc | 24" oc  | 16" oc                 | 19.2" oc | 24" oc  |
| PJI 40   | 9-1/2  | 15'-4"                  | 14'-4"   | 13'-3"  | 14'-8"                | 13'-9"   | 12'-9"  | 14'-0"                 | 13'-1"   | 12'-1"  |
|          | 11-7/8 | 18'-5"                  | 17'-3"   | 15'-6"  | 17'-8"                | 16'-7"   | 15'-3"  | 16'-9"                 | 15'-9"   | 14'-7"  |
|          | 14     | 20'-11"                 | 19'-1"   | 17'-1"  | 20'-1"                | 18'-10"  | 16'-10" | 19'-1"                 | 17'-11"  | 16'-6"  |
|          | 16     | 22'-3"                  | 20'-7"   | 18'-5"  | 22'-3"                | 20'-3"   | 18'-1"  | 21'-2"                 | 19'-11"  | 17'-9"  |
| PJI 60   | 9-1/2  | 16'-3"                  | 15'-3"   | 14'-1"  | 15'-7"                | 14'-8"   | 13'-6"  | 14'-10"                | 13'-11"  | 12'-10" |
|          | 11-7/8 | 19'-6"                  | 18'-4"   | 16'-11" | 18'-9"                | 17'-7"   | 16'-3"  | 17'-10"                | 16'-9"   | 15'-5"  |
|          | 14     | 22'-3"                  | 20'-11"  | 19'-3"  | 21'-5"                | 20'-1"   | 18'-6"  | 20'-4"                 | 19'-1"   | 17'-8"  |
|          | 16     | 24'-9"                  | 23'-3"   | 21'-2"  | 23'-10"               | 22'-4"   | 20'-7"  | 22'-7"                 | 21'-3"   | 19'-7"  |
| PJI-65   | 11-7/8 | 20'-5"                  | 19'-2"   | 17'-8"  | 19'-7"                | 18'-5"   | 17'-0"  | 18'-8"                 | 17'-6"   | 16'-2"  |
|          | 14     | 23'-3"                  | 21'-9"   | 20'-1"  | 22'-4"                | 20'-11"  | 19'-4"  | 21'-3"                 | 19'-11"  | 18'-5"  |
|          | 16     | 25'-9"                  | 24'-2"   | 21'-2"  | 24'-9"                | 23'-3"   | 21'-5"  | 23'-6"                 | 22'-1"   | 20'-5"  |
| PJI 80   | 9-1/2  | 18'-1"                  | 16'-11"  | 15'-8"  | 17'-5"                | 16'-4"   | 15'-1"  | 16'-7"                 | 15'-6"   | 14'-4"  |
|          | 11-7/8 | 21'-8"                  | 20'-4"   | 18'-9"  | 20'-10"               | 19'-7"   | 18'-1"  | 19'-10"                | 18'-7"   | 17'-2"  |
|          | 14     | 24'-9"                  | 23'-2"   | 21'-5"  | 23'-9"                | 22'-3"   | 20'-7"  | 22'-7"                 | 21'-2"   | 19'-7"  |
|          | 16     | 27'-5"                  | 25'-9"   | 23'-4"  | 26'-5"                | 24'-9"   | 22'-10" | 25'-1"                 | 23'-6"   | 21'-9"  |
| PJI 80ws | 18     | 30'-0"                  | 28'-1"   | 25'-11" | 28'-9"                | 27'-0"   | 24'-11" | 27'-4"                 | 25'-8"   | 23'-9"  |
|          | 20     | 32'-6"                  | 30'-5"   | 28'-1"  | 31'-2"                | 29'-3"   | 27'-0"  | 29'-8"                 | 27'-10"  | 25'-9"  |
|          | 24     | 37'-3"                  | 34'-11"  | 31'-8"  | 35'-9"                | 33'-7"   | 31'-0"  | 34'-0"                 | 31'-11"  | 29'-6"  |
| PJI 90   | 11-7/8 | 22'-5"                  | 21'-0"   | 19'-4"  | 21'-6"                | 20'-2"   | 18'-7"  | 20'-6"                 | 19'-2"   | 17'-9"  |
|          | 14     | 25'-5"                  | 23'-10"  | 22'-0"  | 24'-6"                | 22'-11"  | 21'-2"  | 23'-3"                 | 21'-10"  | 20'-2"  |
|          | 16     | 28'-3"                  | 26'-5"   | 23'-4"  | 27'-1"                | 25'-5"   | 23'-6"  | 25'-9"                 | 24'-2"   | 22'-4"  |
| PJI 90ws | 18     | 30'-10"                 | 28'-11"  | 26'-8"  | 29'-8"                | 27'-10"  | 25'-8"  | 28'-2"                 | 26'-5"   | 24'-6"  |
|          | 20     | 33'-5"                  | 31'-4"   | 28'-11" | 32'-1"                | 30'-1"   | 27'-10" | 30'-6"                 | 28'-8"   | 26'-6"  |
|          | 24     | 38'-4"                  | 35'-11"  | 33'-2"  | 36'-10"               | 34'-7"   | 31'-11" | 35'-0"                 | 32'-10"  | 30'-5"  |



### NOTES for Tables 11, 12, 13 and 14

1. The maximum tabulated span is the horizontal clear distance between bearing supports, and applicable to single span, or single span + 2ft. overhang roof construction. The live load deflection is limited to  $L/360$ , and total load deflection is limited to  $L/180$ .
2. Design is as per NBC 2020 and CSA 086-19 with a load duration factor (LDF) of 1.0.
3. Minimum bearing lengths must be 1-3/4" for end bearings and 3-1/2" for interior bearings.
4. Web stiffeners are required for all PJI Joists in the span tables if the Joist is over 16" deep.
5. Web stiffeners are required for I-Joists seated in hangers where the top flange is not laterally supported.
6. Lateral support must be provided at all bearing locations to prevent lateral displacement and rotation.
7. I-Joists shall be used in a dry, well ventilated environment where the average moisture content will not exceed 15% over a year period and does not exceed 19% at any time.
8. Point loads from above over bearing supports shall be properly transferred by squash blocks or pass-thru framing.
9. Continuous lateral support must be provided for the top and bottom flanges on the compression edge. Continuous lateral support is considered to be a maximum unbraced length of 24". This is normally provided by sheathing and/or framing members, which must be adequately anchored to the member and supporting structure.
10. Designs are also valid for CSA-086-14 and NBC 2015.

# Allowable Roof Uniform Load Capacities

**TABLE 15**

## **P3 Joist — PJI 40**

Allowable uniform loads (PLF) Roof

| Clear Span<br>(ft) | 9-1/2"                                  |       |                |                           | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|--------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                    | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                    | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           |
|                    | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           |
| 8                  | 384                                     | -     | -              | 419                       | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       |
| 9                  | 287                                     | -     | -              | 374                       | -                                       | -     | -              | 374                       | -                                       | -     | -              | 374                       | -                                       | -     | -              | 374                       |
| 10                 | 219                                     | 328   | -              | 338                       | -                                       | -     | -              | 338                       | -                                       | -     | -              | 338                       | -                                       | -     | -              | 338                       |
| 11                 | 170                                     | 256   | -              | 285                       | 277                                     | -     | -              | 308                       | -                                       | -     | -              | 308                       | -                                       | -     | -              | 308                       |
| 12                 | 135                                     | 202   | -              | 240                       | 221                                     | -     | -              | 283                       | -                                       | -     | -              | 283                       | -                                       | -     | -              | 283                       |
| 13                 | 108                                     | 163   | -              | 205                       | 179                                     | -     | -              | 261                       | 253                                     | -     | -              | 261                       | -                                       | -     | -              | 261                       |
| 14                 | 88                                      | 133   | 177            | 178                       | 146                                     | 220   | -              | 230                       | 208                                     | -     | -              | 243                       | -                                       | -     | -              | 243                       |
| 15                 | 73                                      | 110   | 146            | 155                       | 121                                     | 182   | -              | 201                       | 173                                     | -     | -              | 227                       | -                                       | -     | -              | 227                       |
| 16                 | 61                                      | 91    | 122            | 137                       | 102                                     | 153   | -              | 177                       | 145                                     | -     | -              | 213                       | 194                                     | -     | -              | 213                       |
| 17                 | 51                                      | 77    | 103            | 121                       | 86                                      | 129   | -              | 157                       | 123                                     | 185   | -              | 190                       | 165                                     | -     | -              | 201                       |
| 18                 | 43                                      | 65    | 87             | 108                       | 73                                      | 110   | -              | 140                       | 105                                     | 158   | -              | 169                       | 141                                     | -     | -              | 190                       |
| 19                 | 37                                      | 56    | 75             | 97                        | 63                                      | 94    | 126            | 126                       | 90                                      | 136   | -              | 152                       | 121                                     | -     | -              | 176                       |
| 20                 | 32                                      | 48    | 65             | 88                        | 54                                      | 82    | 109            | 114                       | 78                                      | 118   | -              | 137                       | 105                                     | 158   | -              | 159                       |
| 21                 | 28                                      | 42    | 56             | 80                        | 47                                      | 71    | 95             | 104                       | 68                                      | 102   | -              | 125                       | 92                                      | 138   | -              | 145                       |
| 22                 | 24                                      | 37    | 49             | 73                        | 41                                      | 62    | 83             | 94                        | 60                                      | 90    | -              | 114                       | 81                                      | 121   | -              | 132                       |
| 23                 | 21                                      | 32    | 43             | 67                        | 36                                      | 55    | 73             | 86                        | 53                                      | 79    | -              | 104                       | 71                                      | 107   | -              | 121                       |
| 24                 | 19                                      | 28    | 38             | 61                        | 32                                      | 48    | 65             | 79                        | 47                                      | 70    | 94             | 96                        | 63                                      | 95    | -              | 111                       |
| 25                 | 17                                      | 25    | 34             | 56                        | 28                                      | 43    | 57             | 73                        | 41                                      | 62    | 83             | 88                        | 56                                      | 84    | -              | 102                       |
| 26                 | 15                                      | 22    | 30             | 52                        | 25                                      | 38    | 51             | 68                        | 37                                      | 56    | 74             | 82                        | 50                                      | 75    | -              | 95                        |
| 27                 | 13                                      | 20    | 27             | 48                        | 23                                      | 34    | 46             | 63                        | 33                                      | 50    | 67             | 76                        | 45                                      | 67    | -              | 88                        |
| 28                 | -                                       | -     | -              | -                         | 20                                      | 31    | 41             | 58                        | 30                                      | 45    | 60             | 70                        | 40                                      | 61    | 81             | 82                        |
| 29                 | -                                       | -     | -              | -                         | 18                                      | 28    | 37             | 54                        | 27                                      | 40    | 54             | 66                        | 36                                      | 55    | 73             | 76                        |
| 30                 | -                                       | -     | -              | -                         | 17                                      | 25    | 34             | 51                        | 24                                      | 37    | 49             | 61                        | 33                                      | 50    | 66             | 71                        |
| 31                 | -                                       | -     | -              | -                         | 15                                      | 23    | 31             | 48                        | 22                                      | 33    | 44             | 58                        | 30                                      | 45    | 60             | 67                        |
| 32                 | -                                       | -     | -              | -                         | 14                                      | 21    | 28             | 45                        | 20                                      | 30    | 41             | 54                        | 27                                      | 41    | 55             | 63                        |
| 33                 | -                                       | -     | -              | -                         | 12                                      | 19    | 25             | 42                        | 18                                      | 28    | 37             | 51                        | 25                                      | 38    | 50             | 59                        |
| 34                 | -                                       | -     | -              | -                         | 11                                      | 17    | 23             | 40                        | 17                                      | 25    | 34             | 48                        | 23                                      | 34    | 46             | 56                        |

### **NOTES for Tables 15, 16, 17, 18, 18A, 19 and 19A**

1. Clear sloped span is the distance between the face of the supports (measured on the sloped length).
2. The load values are for standard term load duration and dry service conditions only. The dead load must not exceed the live/snow load.
3. The load values above represent the worst case of simple or multiple spans member applications.
4. Design of continuous spans is based on the longest span. The shortest span must not be less than 50% of the longest span.
5. Provide continuous lateral support for top & bottom flanges. Provide lateral support at points of bearing to prevent twisting of joist.
6. The unfactored load columns are based on deflection only. The factored load column is based on strength only. Unfactored live/snow load (either L/360 or L/240), unfactored total load, and total factored load must be checked. Where the unfactored load column is blank, the total factored load column governs.
7. Provide min. 1-3/4" bearing at end supports and 3-1/2" bearing at interior support minimum.
8. **Web stiffeners are required at each support for depths > 16".**
9. The loads have been calculated in accordance with CSA 086-19 and NBC 2020.
10. Loads are also valid for CSA-086-14 and NBC 2015.

Allowable Roof Uniform Load Capacities (continued)

TABLE 16  
P3 Joist — PJI 60  
Allowable uniform loads (PLF) Roof

| Clear Span<br>(ft) | 9-1/2"                                  |       |                |                           | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|--------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                    | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                    | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           |
|                    | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           |
| 8                  | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       | -                                       | -     | -              | 419                       |
| 9                  | 331                                     | -     | -              | 374                       | -                                       | -     | -              | 374                       | -                                       | -     | -              | 374                       | -                                       | -     | -              | 374                       |
| 10                 | 254                                     | -     | -              | 338                       | -                                       | -     | -              | 338                       | -                                       | -     | -              | 338                       | -                                       | -     | -              | 338                       |
| 11                 | 198                                     | 298   | -              | 308                       | -                                       | -     | -              | 308                       | -                                       | -     | -              | 308                       | -                                       | -     | -              | 308                       |
| 12                 | 158                                     | 237   | -              | 283                       | 257                                     | -     | -              | 283                       | -                                       | -     | -              | 283                       | -                                       | -     | -              | 283                       |
| 13                 | 127                                     | 191   | 255            | 261                       | 209                                     | -     | -              | 261                       | -                                       | -     | -              | 261                       | -                                       | -     | -              | 261                       |
| 14                 | 104                                     | 156   | 208            | 243                       | 172                                     | -     | -              | 243                       | -                                       | -     | -              | 243                       | -                                       | -     | -              | 243                       |
| 15                 | 86                                      | 129   | 172            | 215                       | 143                                     | 214   | -              | 227                       | 204                                     | -     | -              | 227                       | -                                       | -     | -              | 227                       |
| 16                 | 72                                      | 108   | 144            | 189                       | 120                                     | 180   | -              | 213                       | 172                                     | -     | -              | 213                       | -                                       | -     | -              | 213                       |
| 17                 | 61                                      | 91    | 122            | 168                       | 101                                     | 152   | -              | 201                       | 146                                     | -     | -              | 201                       | 195                                     | -     | -              | 201                       |
| 18                 | 52                                      | 78    | 104            | 150                       | 86                                      | 130   | 173            | 190                       | 125                                     | 188   | -              | 190                       | 167                                     | -     | -              | 190                       |
| 19                 | 44                                      | 67    | 89             | 135                       | 74                                      | 112   | 149            | 175                       | 108                                     | 162   | -              | 180                       | 144                                     | -     | -              | 180                       |
| 20                 | 38                                      | 57    | 77             | 122                       | 64                                      | 97    | 129            | 158                       | 93                                      | 140   | -              | 171                       | 126                                     | -     | -              | 171                       |
| 21                 | 33                                      | 50    | 67             | 110                       | 56                                      | 84    | 113            | 143                       | 81                                      | 122   | -              | 163                       | 110                                     | -     | -              | 163                       |
| 22                 | 29                                      | 44    | 58             | 101                       | 49                                      | 74    | 99             | 131                       | 71                                      | 107   | 143            | 156                       | 96                                      | 145   | -              | 156                       |
| 23                 | 25                                      | 38    | 51             | 92                        | 43                                      | 65    | 87             | 120                       | 63                                      | 95    | 126            | 144                       | 85                                      | 128   | -              | 149                       |
| 24                 | 22                                      | 34    | 45             | 85                        | 38                                      | 58    | 77             | 110                       | 56                                      | 84    | 112            | 132                       | 75                                      | 113   | -              | 143                       |
| 25                 | 20                                      | 30    | 40             | 78                        | 34                                      | 51    | 68             | 101                       | 50                                      | 75    | 100            | 122                       | 67                                      | 101   | 135            | 137                       |
| 26                 | 18                                      | 27    | 36             | 72                        | 30                                      | 46    | 61             | 94                        | 44                                      | 67    | 89             | 113                       | 60                                      | 90    | 121            | 131                       |
| 27                 | 16                                      | 24    | 32             | 67                        | 27                                      | 41    | 55             | 87                        | 40                                      | 60    | 80             | 105                       | 54                                      | 81    | 108            | 122                       |
| 28                 | -                                       | -     | -              | -                         | 24                                      | 37    | 49             | 81                        | 36                                      | 54    | 72             | 98                        | 49                                      | 73    | 98             | 113                       |
| 29                 | -                                       | -     | -              | -                         | 22                                      | 33    | 44             | 75                        | 32                                      | 49    | 65             | 91                        | 44                                      | 66    | 88             | 106                       |
| 30                 | -                                       | -     | -              | -                         | 20                                      | 30    | 40             | 71                        | 29                                      | 44    | 59             | 85                        | 40                                      | 60    | 80             | 99                        |
| 31                 | -                                       | -     | -              | -                         | 18                                      | 27    | 37             | 66                        | 27                                      | 40    | 54             | 80                        | 36                                      | 55    | 73             | 92                        |
| 32                 | -                                       | -     | -              | -                         | 16                                      | 25    | 33             | 62                        | 24                                      | 37    | 49             | 75                        | 33                                      | 50    | 67             | 87                        |
| 33                 | -                                       | -     | -              | -                         | 15                                      | 23    | 30             | 58                        | 22                                      | 33    | 45             | 70                        | 30                                      | 45    | 61             | 82                        |
| 34                 | -                                       | -     | -              | -                         | 14                                      | 21    | 28             | 55                        | 20                                      | 31    | 41             | 66                        | 28                                      | 42    | 56             | 77                        |

See notes under Table 15

## Allowable Roof Uniform Load Capacities (continued)

**TABLE 17**

### **P3 Joist — PJI 65**

Allowable uniform loads (PLF) Roof

| Clear<br>Span<br>(ft) | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|-----------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                       | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                       | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           |
|                       | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           |
| 8                     | -                                       | -     | -              | 427                       | -                                       | -     | -              | 459                       | -                                       | -     | -              | 460                       |
| 9                     | -                                       | -     | -              | 381                       | -                                       | -     | -              | 410                       | -                                       | -     | -              | 410                       |
| 10                    | -                                       | -     | -              | 344                       | -                                       | -     | -              | 370                       | -                                       | -     | -              | 370                       |
| 11                    | -                                       | -     | -              | 314                       | -                                       | -     | -              | 337                       | -                                       | -     | -              | 337                       |
| 12                    | 287                                     | -     | -              | 288                       | -                                       | -     | -              | 310                       | -                                       | -     | -              | 310                       |
| 13                    | 234                                     | -     | -              | 266                       | -                                       | -     | -              | 286                       | -                                       | -     | -              | 286                       |
| 14                    | 193                                     | -     | -              | 248                       | -                                       | -     | -              | 266                       | -                                       | -     | -              | 266                       |
| 15                    | 161                                     | -     | -              | 232                       | 227                                     | -     | -              | 248                       | -                                       | -     | -              | 248                       |
| 16                    | 135                                     | 203   | -              | 217                       | 192                                     | -     | -              | 233                       | -                                       | -     | -              | 233                       |
| 17                    | 115                                     | 172   | -              | 205                       | 163                                     | -     | -              | 220                       | 216                                     | -     | -              | 220                       |
| 18                    | 98                                      | 147   | -              | 193                       | 140                                     | -     | -              | 207                       | 186                                     | -     | -              | 207                       |
| 19                    | 84                                      | 127   | 169            | 177                       | 121                                     | 181   | -              | 197                       | 160                                     | -     | -              | 197                       |
| 20                    | 73                                      | 110   | 147            | 160                       | 105                                     | 157   | -              | 187                       | 140                                     | -     | -              | 187                       |
| 21                    | 64                                      | 96    | 128            | 145                       | 92                                      | 138   | -              | 175                       | 122                                     | -     | -              | 178                       |
| 22                    | 56                                      | 84    | 112            | 133                       | 80                                      | 121   | -              | 160                       | 107                                     | 161   | -              | 170                       |
| 23                    | 49                                      | 74    | 99             | 121                       | 71                                      | 107   | 142            | 146                       | 95                                      | 143   | -              | 163                       |
| 24                    | 44                                      | 66    | 88             | 112                       | 63                                      | 95    | 126            | 134                       | 84                                      | 127   | -              | 156                       |
| 25                    | 39                                      | 58    | 78             | 103                       | 56                                      | 84    | 113            | 124                       | 75                                      | 113   | -              | 144                       |
| 26                    | 35                                      | 52    | 70             | 95                        | 50                                      | 75    | 101            | 115                       | 67                                      | 101   | -              | 133                       |
| 27                    | 31                                      | 47    | 62             | 88                        | 45                                      | 68    | 90             | 106                       | 60                                      | 91    | 121            | 124                       |
| 28                    | 28                                      | 42    | 56             | 82                        | 40                                      | 61    | 81             | 99                        | 54                                      | 82    | 109            | 115                       |
| 29                    | 25                                      | 38    | 51             | 77                        | 37                                      | 55    | 74             | 92                        | 49                                      | 74    | 99             | 107                       |
| 30                    | 23                                      | 34    | 46             | 72                        | 33                                      | 50    | 67             | 86                        | 45                                      | 67    | 90             | 100                       |
| 31                    | 21                                      | 31    | 42             | 67                        | 30                                      | 45    | 61             | 81                        | 41                                      | 61    | 82             | 94                        |
| 32                    | 19                                      | 28    | 38             | 63                        | 27                                      | 41    | 55             | 76                        | 37                                      | 56    | 75             | 88                        |
| 33                    | 17                                      | 26    | 35             | 59                        | 25                                      | 38    | 51             | 71                        | 34                                      | 51    | 68             | 83                        |
| 34                    | 16                                      | 24    | 32             | 56                        | 23                                      | 35    | 46             | 67                        | 31                                      | 47    | 63             | 78                        |

See notes under table 15

Allowable Roof Uniform Load Capacities (continued)

TABLE 18  
P3 Joist — PJI 80  
Allowable uniform loads (PLF) Roof

| Clear Span<br>Span<br>(ft) | 9-1/2"                                  |       |                |                           | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|----------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                            | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                            | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           |
|                            | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           |
| 8                          | -                                       | -     | -              | 420                       | -                                       | -     | -              | 427                       | -                                       | -     | -              | 459                       | -                                       | -     | -              | 497                       |
| 9                          | -                                       | -     | -              | 375                       | -                                       | -     | -              | 381                       | -                                       | -     | -              | 410                       | -                                       | -     | -              | 443                       |
| 10                         | 328                                     | -     | -              | 338                       | -                                       | -     | -              | 344                       | -                                       | -     | -              | 370                       | -                                       | -     | -              | 400                       |
| 11                         | 259                                     | -     | -              | 308                       | -                                       | -     | -              | 314                       | -                                       | -     | -              | 337                       | -                                       | -     | -              | 365                       |
| 12                         | 208                                     | -     | -              | 283                       | -                                       | -     | -              | 288                       | -                                       | -     | -              | 310                       | -                                       | -     | -              | 335                       |
| 13                         | 169                                     | 253   | -              | 262                       | -                                       | -     | -              | 266                       | -                                       | -     | -              | 286                       | -                                       | -     | -              | 310                       |
| 14                         | 139                                     | 208   | -              | 243                       | 225                                     | -     | -              | 248                       | -                                       | -     | -              | 266                       | -                                       | -     | -              | 288                       |
| 15                         | 115                                     | 173   | -              | 227                       | 188                                     | -     | -              | 232                       | -                                       | -     | -              | 249                       | -                                       | -     | -              | 269                       |
| 16                         | 97                                      | 145   | 194            | 213                       | 159                                     | -     | -              | 217                       | 224                                     | -     | -              | 234                       | -                                       | -     | -              | 253                       |
| 17                         | 82                                      | 123   | 164            | 201                       | 135                                     | 203   | -              | 205                       | 192                                     | -     | -              | 220                       | -                                       | -     | -              | 238                       |
| 18                         | 70                                      | 105   | 140            | 190                       | 116                                     | 174   | -              | 193                       | 165                                     | -     | -              | 208                       | 218                                     | -     | -              | 225                       |
| 19                         | 60                                      | 90    | 121            | 180                       | 100                                     | 150   | -              | 183                       | 142                                     | -     | -              | 197                       | 189                                     | -     | -              | 213                       |
| 20                         | 52                                      | 78    | 105            | 171                       | 87                                      | 130   | 174            | 174                       | 124                                     | 186   | -              | 187                       | 165                                     | -     | -              | 203                       |
| 21                         | 45                                      | 68    | 91             | 157                       | 76                                      | 114   | 152            | 166                       | 108                                     | 163   | -              | 179                       | 145                                     | -     | -              | 193                       |
| 22                         | 40                                      | 60    | 80             | 143                       | 66                                      | 100   | 133            | 159                       | 95                                      | 143   | -              | 171                       | 128                                     | -     | -              | 184                       |
| 23                         | 35                                      | 53    | 70             | 131                       | 59                                      | 88    | 118            | 152                       | 84                                      | 127   | -              | 163                       | 113                                     | 170   | -              | 177                       |
| 24                         | 31                                      | 47    | 62             | 121                       | 52                                      | 78    | 104            | 146                       | 75                                      | 113   | 150            | 156                       | 100                                     | 151   | -              | 169                       |
| 25                         | 27                                      | 41    | 55             | 111                       | 46                                      | 69    | 93             | 140                       | 67                                      | 100   | 134            | 150                       | 90                                      | 135   | -              | 163                       |
| 26                         | 24                                      | 37    | 49             | 103                       | 41                                      | 62    | 83             | 134                       | 60                                      | 90    | 120            | 145                       | 80                                      | 121   | -              | 156                       |
| 27                         | 22                                      | 33    | 44             | 96                        | 37                                      | 56    | 74             | 124                       | 54                                      | 81    | 108            | 139                       | 72                                      | 109   | 145            | 151                       |
| 28                         | -                                       | -     | -              | -                         | 33                                      | 50    | 67             | 115                       | 48                                      | 73    | 97             | 134                       | 65                                      | 98    | 131            | 145                       |
| 29                         | -                                       | -     | -              | -                         | 30                                      | 45    | 61             | 108                       | 44                                      | 66    | 88             | 130                       | 59                                      | 89    | 119            | 140                       |
| 30                         | -                                       | -     | -              | -                         | 27                                      | 41    | 55             | 101                       | 40                                      | 60    | 80             | 121                       | 54                                      | 81    | 108            | 136                       |
| 31                         | -                                       | -     | -              | -                         | 25                                      | 37    | 50             | 94                        | 36                                      | 54    | 73             | 114                       | 49                                      | 73    | 98             | 131                       |
| 32                         | -                                       | -     | -              | -                         | 23                                      | 34    | 46             | 88                        | 33                                      | 50    | 66             | 107                       | 45                                      | 67    | 90             | 124                       |
| 33                         | -                                       | -     | -              | -                         | 21                                      | 31    | 42             | 83                        | 30                                      | 45    | 61             | 100                       | 41                                      | 61    | 82             | 116                       |
| 34                         | -                                       | -     | -              | -                         | 19                                      | 28    | 38             | 78                        | 28                                      | 42    | 56             | 94                        | 37                                      | 56    | 75             | 110                       |

See notes under Table 15

Slope Factor

| roof slope / 12       | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| unfactored live load  | 0.986 | 0.970 | 0.949 | 0.923 | 0.894 | 0.864 | 0.832 | 0.800 | 0.768 | 0.737 | 0.707 |
| unfactored total load | 0.973 | 0.941 | 0.900 | 0.852 | 0.800 | 0.746 | 0.692 | 0.640 | 0.590 | 0.543 | 0.500 |
| factored loads        | 0.986 | 0.970 | 0.949 | 0.923 | 0.894 | 0.864 | 0.832 | 0.800 | 0.768 | 0.737 | 0.707 |

Allowable Roof Uniform Load Capacities (continued)

TABLE 18A  
P3 Joist — PJI 80 with Web Stiffeners  
Allowable uniform loads (PLF) Roof

| Clear Span<br>(ft) | 18"                                     |       |                |                           | 20"                                     |       |                |                           | 24"                                     |       |                |                           |
|--------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                    | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                    | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           |
|                    | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           |
| 12                 | -                                       | -     | -              | 405                       | -                                       | -     | -              | 405                       | -                                       | -     | -              | 405                       |
| 13                 | -                                       | -     | -              | 375                       | -                                       | -     | -              | 375                       | -                                       | -     | -              | 375                       |
| 14                 | -                                       | -     | -              | 349                       | -                                       | -     | -              | 349                       | -                                       | -     | -              | 349                       |
| 15                 | -                                       | -     | -              | 326                       | -                                       | -     | -              | 326                       | -                                       | -     | -              | 326                       |
| 16                 | -                                       | -     | -              | 306                       | -                                       | -     | -              | 306                       | -                                       | -     | -              | 306                       |
| 17                 | -                                       | -     | -              | 288                       | -                                       | -     | -              | 288                       | -                                       | -     | -              | 288                       |
| 18                 | -                                       | -     | -              | 272                       | -                                       | -     | -              | 272                       | -                                       | -     | -              | 272                       |
| 19                 | 239                                     | -     | -              | 258                       | -                                       | -     | -              | 258                       | -                                       | -     | -              | 258                       |
| 20                 | 209                                     | -     | -              | 245                       | -                                       | -     | -              | 245                       | -                                       | -     | -              | 245                       |
| 21                 | 184                                     | -     | -              | 234                       | 228                                     | -     | -              | 234                       | -                                       | -     | -              | 234                       |
| 22                 | 162                                     | -     | -              | 223                       | 202                                     | -     | -              | 223                       | -                                       | -     | -              | 223                       |
| 23                 | 144                                     | -     | -              | 214                       | 179                                     | -     | -              | 214                       | -                                       | -     | -              | 214                       |
| 24                 | 128                                     | 192   | -              | 205                       | 160                                     | -     | -              | 205                       | -                                       | -     | -              | 205                       |
| 25                 | 114                                     | 172   | -              | 197                       | 143                                     | -     | -              | 197                       | -                                       | -     | -              | 197                       |
| 26                 | 103                                     | 154   | -              | 189                       | 128                                     | -     | -              | 189                       | 187                                     | -     | -              | 189                       |
| 27                 | 92                                      | 139   | -              | 182                       | 116                                     | 174   | -              | 182                       | 169                                     | -     | -              | 182                       |
| 28                 | 83                                      | 125   | 167            | 176                       | 105                                     | 157   | -              | 176                       | 153                                     | -     | -              | 176                       |
| 29                 | 76                                      | 114   | 152            | 170                       | 95                                      | 142   | -              | 170                       | 139                                     | -     | -              | 170                       |
| 30                 | 69                                      | 103   | 138            | 159                       | 86                                      | 130   | -              | 164                       | 127                                     | -     | -              | 164                       |
| 31                 | 63                                      | 94    | 126            | 149                       | 79                                      | 118   | 158            | 159                       | 116                                     | -     | -              | 159                       |
| 32                 | 57                                      | 86    | 115            | 140                       | 72                                      | 108   | 144            | 154                       | 106                                     | -     | -              | 154                       |
| 33                 | 52                                      | 79    | 105            | 132                       | 66                                      | 99    | 132            | 146                       | 97                                      | 146   | -              | 149                       |
| 34                 | 48                                      | 72    | 97             | 124                       | 61                                      | 91    | 122            | 137                       | 89                                      | 134   | -              | 145                       |
| 35                 | 44                                      | 67    | 89             | 117                       | 56                                      | 84    | 112            | 130                       | 82                                      | 124   | -              | 141                       |
| 36                 | 41                                      | 61    | 82             | 111                       | 51                                      | 77    | 103            | 123                       | 76                                      | 114   | -              | 137                       |
| 37                 | 38                                      | 57    | 76             | 105                       | 47                                      | 71    | 95             | 116                       | 70                                      | 106   | -              | 133                       |
| 38                 | 35                                      | 53    | 70             | 99                        | 44                                      | 66    | 88             | 110                       | 65                                      | 98    | -              | 130                       |
| 39                 | 32                                      | 49    | 65             | 94                        | 41                                      | 61    | 82             | 104                       | 61                                      | 91    | 122            | 124                       |
| 40                 | 30                                      | 45    | 60             | 90                        | 38                                      | 57    | 76             | 99                        | 56                                      | 85    | 113            | 118                       |
| 41                 | 28                                      | 42    | 56             | 85                        | 35                                      | 53    | 71             | 95                        | 52                                      | 79    | 105            | 113                       |
| 42                 | 26                                      | 39    | 52             | 81                        | 33                                      | 50    | 66             | 90                        | 49                                      | 74    | 98             | 107                       |
| 43                 | 24                                      | 37    | 49             | 78                        | 31                                      | 46    | 62             | 86                        | 46                                      | 69    | 92             | 102                       |
| 44                 | 23                                      | 34    | 46             | 74                        | 29                                      | 43    | 58             | 82                        | 43                                      | 64    | 86             | 98                        |

See notes under Table 15

Slope Factor

| roof slope / 12       | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| unfactored live load  | 0.986 | 0.970 | 0.949 | 0.923 | 0.894 | 0.864 | 0.832 | 0.800 | 0.768 | 0.737 | 0.707 |
| unfactored total load | 0.973 | 0.941 | 0.900 | 0.852 | 0.800 | 0.746 | 0.692 | 0.640 | 0.590 | 0.543 | 0.500 |
| factored loads        | 0.986 | 0.970 | 0.949 | 0.923 | 0.894 | 0.864 | 0.832 | 0.800 | 0.768 | 0.737 | 0.707 |

## Allowable Roof Uniform Load Capacities (continued)

**TABLE 19**

### **P3 Joist — PJI 90**

Allowable uniform loads (PLF) Roof

| Clear<br>Span<br>(ft) | 11-7/8"                                 |       |                |                           | 14"                                     |       |                |                           | 16"                                     |       |                |                           |
|-----------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                       | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                       | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           |
|                       | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           |
| 8                     | -                                       | -     | -              | 427                       | -                                       | -     | -              | 459                       | -                                       | -     | -              | 497                       |
| 9                     | -                                       | -     | -              | 381                       | -                                       | -     | -              | 410                       | -                                       | -     | -              | 443                       |
| 10                    | -                                       | -     | -              | 344                       | -                                       | -     | -              | 370                       | -                                       | -     | -              | 400                       |
| 11                    | -                                       | -     | -              | 314                       | -                                       | -     | -              | 337                       | -                                       | -     | -              | 365                       |
| 12                    | -                                       | -     | -              | 288                       | -                                       | -     | -              | 310                       | -                                       | -     | -              | 335                       |
| 13                    | -                                       | -     | -              | 266                       | -                                       | -     | -              | 286                       | -                                       | -     | -              | 310                       |
| 14                    | 243                                     | -     | -              | 248                       | -                                       | -     | -              | 266                       | -                                       | -     | -              | 288                       |
| 15                    | 203                                     | -     | -              | 232                       | -                                       | -     | -              | 249                       | -                                       | -     | -              | 269                       |
| 16                    | 172                                     | -     | -              | 217                       | -                                       | -     | -              | 234                       | -                                       | -     | -              | 253                       |
| 17                    | 146                                     | -     | -              | 205                       | 206                                     | -     | -              | 220                       | -                                       | -     | -              | 238                       |
| 18                    | 125                                     | 188   | -              | 193                       | 178                                     | -     | -              | 208                       | -                                       | -     | -              | 225                       |
| 19                    | 108                                     | 163   | -              | 183                       | 154                                     | -     | -              | 197                       | 203                                     | -     | -              | 213                       |
| 20                    | 94                                      | 141   | -              | 174                       | 134                                     | -     | -              | 187                       | 177                                     | -     | -              | 203                       |
| 21                    | 82                                      | 124   | 165            | 166                       | 117                                     | 176   | -              | 179                       | 156                                     | -     | -              | 193                       |
| 22                    | 72                                      | 109   | 145            | 159                       | 103                                     | 155   | -              | 171                       | 137                                     | -     | -              | 184                       |
| 23                    | 64                                      | 96    | 128            | 152                       | 91                                      | 137   | -              | 163                       | 122                                     | -     | -              | 177                       |
| 24                    | 57                                      | 85    | 114            | 146                       | 81                                      | 122   | -              | 156                       | 108                                     | 163   | -              | 169                       |
| 25                    | 50                                      | 76    | 101            | 140                       | 72                                      | 109   | 145            | 150                       | 97                                      | 145   | -              | 163                       |
| 26                    | 45                                      | 68    | 91             | 134                       | 65                                      | 98    | 130            | 145                       | 87                                      | 130   | -              | 156                       |
| 27                    | 40                                      | 61    | 81             | 130                       | 58                                      | 88    | 117            | 139                       | 78                                      | 117   | -              | 151                       |
| 28                    | 36                                      | 55    | 73             | 125                       | 53                                      | 79    | 106            | 134                       | 70                                      | 106   | 141            | 145                       |
| 29                    | 33                                      | 50    | 66             | 121                       | 48                                      | 72    | 96             | 130                       | 64                                      | 96    | 128            | 140                       |
| 30                    | 30                                      | 45    | 60             | 117                       | 43                                      | 65    | 87             | 125                       | 58                                      | 87    | 116            | 136                       |
| 31                    | 27                                      | 41    | 55             | 113                       | 39                                      | 59    | 79             | 121                       | 53                                      | 79    | 106            | 131                       |
| 32                    | 25                                      | 37    | 50             | 108                       | 36                                      | 54    | 72             | 118                       | 48                                      | 73    | 97             | 127                       |
| 33                    | 23                                      | 34    | 46             | 102                       | 33                                      | 49    | 66             | 114                       | 44                                      | 66    | 89             | 123                       |
| 34                    | 21                                      | 31    | 42             | 96                        | 30                                      | 45    | 61             | 111                       | 40                                      | 61    | 81             | 120                       |

See notes under Table 19A

## Allowable Roof Uniform Load Capacities (continued)

**TABLE 19A**

### **P3 Joist — PJI 90 with Web Stiffeners**

Allowable uniform loads (PLF) Roof

| Clear<br>Span<br>(ft) | 18"                                     |       |                |                           | 20"                                     |       |                |                           | 24"                                     |       |                |                           |
|-----------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|-----------------------------------------|-------|----------------|---------------------------|
|                       | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load | Unfactored Loads<br>Based on Deflection |       |                | Factored<br>Total<br>Load |
|                       | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           | Live                                    |       | Total<br>L/180 |                           |
|                       | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           | L/360                                   | L/240 |                |                           |
| 12                    | -                                       | -     | -              | 405                       | -                                       | -     | -              | 405                       | -                                       | -     | -              | 405                       |
| 13                    | -                                       | -     | -              | 375                       | -                                       | -     | -              | 375                       | -                                       | -     | -              | 375                       |
| 14                    | -                                       | -     | -              | 349                       | -                                       | -     | -              | 349                       | -                                       | -     | -              | 349                       |
| 15                    | -                                       | -     | -              | 326                       | -                                       | -     | -              | 326                       | -                                       | -     | -              | 326                       |
| 16                    | -                                       | -     | -              | 306                       | -                                       | -     | -              | 306                       | -                                       | -     | -              | 306                       |
| 17                    | -                                       | -     | -              | 288                       | -                                       | -     | -              | 288                       | -                                       | -     | -              | 288                       |
| 18                    | -                                       | -     | -              | 272                       | -                                       | -     | -              | 272                       | -                                       | -     | -              | 272                       |
| 19                    | 257                                     | -     | -              | 258                       | -                                       | -     | -              | 258                       | -                                       | -     | -              | 258                       |
| 20                    | 225                                     | -     | -              | 245                       | -                                       | -     | -              | 245                       | -                                       | -     | -              | 245                       |
| 21                    | 198                                     | -     | -              | 234                       | -                                       | -     | -              | 234                       | -                                       | -     | -              | 234                       |
| 22                    | 175                                     | -     | -              | 223                       | 217                                     | -     | -              | 223                       | -                                       | -     | -              | 223                       |
| 23                    | 155                                     | -     | -              | 214                       | 193                                     | -     | -              | 214                       | -                                       | -     | -              | 214                       |
| 24                    | 139                                     | -     | -              | 205                       | 172                                     | -     | -              | 205                       | -                                       | -     | -              | 205                       |
| 25                    | 124                                     | 186   | -              | 197                       | 154                                     | -     | -              | 197                       | -                                       | -     | -              | 197                       |
| 26                    | 111                                     | 167   | -              | 189                       | 139                                     | -     | -              | 189                       | -                                       | -     | -              | 189                       |
| 27                    | 100                                     | 151   | -              | 182                       | 125                                     | -     | -              | 182                       | -                                       | -     | -              | 182                       |
| 28                    | 91                                      | 136   | -              | 176                       | 113                                     | 170   | -              | 176                       | 165                                     | -     | -              | 176                       |
| 29                    | 82                                      | 123   | 165            | 170                       | 103                                     | 154   | -              | 170                       | 150                                     | -     | -              | 170                       |
| 30                    | 75                                      | 112   | 150            | 164                       | 94                                      | 141   | -              | 164                       | 137                                     | -     | -              | 164                       |
| 31                    | 68                                      | 102   | 137            | 159                       | 85                                      | 128   | -              | 159                       | 125                                     | -     | -              | 159                       |
| 32                    | 62                                      | 94    | 125            | 154                       | 78                                      | 117   | -              | 154                       | 115                                     | -     | -              | 154                       |
| 33                    | 57                                      | 86    | 115            | 149                       | 72                                      | 108   | 144            | 149                       | 105                                     | -     | -              | 149                       |
| 34                    | 52                                      | 79    | 105            | 145                       | 66                                      | 99    | 132            | 145                       | 97                                      | -     | -              | 145                       |
| 35                    | 48                                      | 72    | 97             | 141                       | 61                                      | 91    | 122            | 141                       | 89                                      | 134   | -              | 141                       |
| 36                    | 44                                      | 67    | 89             | 135                       | 56                                      | 84    | 112            | 137                       | 83                                      | 124   | -              | 137                       |
| 37                    | 41                                      | 62    | 83             | 128                       | 52                                      | 78    | 104            | 133                       | 76                                      | 115   | -              | 133                       |
| 38                    | 38                                      | 57    | 76             | 122                       | 48                                      | 72    | 96             | 130                       | 71                                      | 106   | -              | 130                       |
| 39                    | 35                                      | 53    | 71             | 115                       | 44                                      | 67    | 89             | 126                       | 66                                      | 99    | -              | 126                       |
| 40                    | 33                                      | 49    | 66             | 110                       | 41                                      | 62    | 83             | 122                       | 61                                      | 92    | 123            | 123                       |
| 41                    | 30                                      | 46    | 61             | 104                       | 38                                      | 58    | 77             | 116                       | 57                                      | 86    | 115            | 120                       |
| 42                    | 28                                      | 43    | 57             | 100                       | 36                                      | 54    | 72             | 110                       | 53                                      | 80    | 107            | 117                       |
| 43                    | 26                                      | 40    | 53             | 95                        | 33                                      | 50    | 67             | 105                       | 50                                      | 75    | 100            | 115                       |
| 44                    | 25                                      | 37    | 50             | 91                        | 31                                      | 47    | 63             | 100                       | 47                                      | 70    | 94             | 112                       |

#### **NOTES for Tables 15, 16, 17, 18, 18A, 19 and 19A**

1. Clear sloped span is the distance between the face of the supports (measured on the sloped length).
2. The load values are for standard term load duration and dry service conditions only. The dead load must not exceed the live/snow load.
3. The load values above represent the worst case of simple or multiple spans member applications.
4. Design of continuous spans is based on the longest span. The shortest span must not be less than 50% of the longest span.
5. Provide continuous lateral support for top & bottom flanges. Provide lateral support at points of bearing to prevent twisting of joist.
6. The unfactored load columns are based on deflection only. The factored load column is based on strength only. Unfactored live/snow load (either L/360 or L/240), unfactored total load, and total factored load must be checked. Where the unfactored load column is blank, the total factored load column governs.
7. Provide min. 1-3/4" bearing at end supports and 3-1/2" bearing at interior support minimum.
8. **Web stiffeners are required at each support for depths > 16".**
9. The loads have been calculated in accordance with CSA O86-19 and NBC 2020
10. Loads are also valid for CSA O86-14 and NBC 2015.

# P3 Joist Design Properties

**TABLE 20**  
Factored Resistance for P3 Joists<sup>1</sup>

| Series | Depth (in) | El <sup>2</sup><br>(10 <sup>6</sup> lbf-in. <sup>2</sup> ) | Mr <sup>3</sup><br>(lbf-ft) | Vr <sup>4</sup><br>(lbf) | K <sup>5</sup><br>(10 <sup>6</sup> lbf) | Self Weight<br>(plf) | Factored Vertical<br>Bearing (lbf/ft) |
|--------|------------|------------------------------------------------------------|-----------------------------|--------------------------|-----------------------------------------|----------------------|---------------------------------------|
| PJI 40 | 9-1/2      | 193                                                        | 4,549                       | 2,210                    | 4.94                                    | 2.6                  | 2,900                                 |
|        | 11-7/8     | 330                                                        | 5,896                       | 2,557                    | 6.18                                    | 2.9                  | 2,900                                 |
|        | 14         | 482                                                        | 7,102                       | 2,865                    | 7.28                                    | 3.1                  | 2,900                                 |
|        | 16         | 657                                                        | 8,233                       | 3,157                    | 8.32                                    | 3.4                  | 2,900                                 |
| PJI 60 | 9-1/2      | 231                                                        | 6,287                       | 2,210                    | 4.94                                    | 2.6                  | 2,900                                 |
|        | 11-7/8     | 396                                                        | 8,150                       | 2,557                    | 6.18                                    | 2.9                  | 2,900                                 |
|        | 14         | 584                                                        | 9,805                       | 2,865                    | 7.28                                    | 3.1                  | 2,900                                 |
|        | 16         | 799                                                        | 11,368                      | 3,157                    | 8.32                                    | 3.4                  | 2,900                                 |
| PJI 65 | 11-7/8     | 454                                                        | 8,265                       | 2,557                    | 6.18                                    | 3.3                  | 2,900                                 |
|        | 14         | 664                                                        | 9,956                       | 2,865                    | 7.28                                    | 3.6                  | 2,900                                 |
|        | 16         | 901                                                        | 11,548                      | 3,157                    | 8.32                                    | 3.8                  | 2,900                                 |
|        |            |                                                            |                             |                          |                                         |                      |                                       |
| PJI 80 | 9-1/2      | 321                                                        | 8,940                       | 2,218                    | 4.94                                    | 3.4                  | 2,900                                 |
|        | 11-7/8     | 547                                                        | 11,593                      | 2,604                    | 6.18                                    | 3.6                  | 2,900                                 |
|        | 14         | 802                                                        | 13,954                      | 2,944                    | 7.28                                    | 3.8                  | 2,900                                 |
|        | 16         | 1,092                                                      | 16,183                      | 3,267                    | 8.32                                    | 4.0                  | 2,900                                 |
|        | 18         | 1,413                                                      | 18,295                      | 3,867                    | 9.36                                    | 4.3                  | 2,900                                 |
|        | 20         | 1,790                                                      | 20,258                      | 4,025                    | 10.4                                    | 4.5                  | 2,494                                 |
| PJI 90 | 24         | 2,687                                                      | 24,100                      | 4,341                    | 12.48                                   | 4.9                  | 2,016                                 |
|        | 11-7/8     | 601                                                        | 14,162                      | 2,604                    | 6.18                                    | 3.6                  | 2,900                                 |
|        | 14         | 877                                                        | 17,056                      | 2,944                    | 7.28                                    | 3.8                  | 2,900                                 |
|        | 16         | 1,187                                                      | 19,784                      | 3,267                    | 8.32                                    | 4.0                  | 2,900                                 |
|        | 18         | 1,546                                                      | 22,362                      | 3,867                    | 9.36                                    | 4.3                  | 2,900                                 |
|        | 20         | 1,957                                                      | 24,757                      | 4,025                    | 10.4                                    | 4.5                  | 2,494                                 |
|        | 24         | 2,934                                                      | 29,455                      | 4,341                    | 12.48                                   | 4.9                  | 2,016                                 |

## NOTES

- The tabulated values are design values for standard duration of load. All values, except El and K, shall be permitted to be adjusted for other load durations as permitted by the code.
  - Bending stiffness (El) of the P3 Joist
  - Factored Moment resistances of the P3 Joist which shall not be increased by any code-allowed repetitive member use factor.
  - Factored Shear resistance (V<sub>r</sub>) of the P3 Joist
  - Coefficient of shear deflection (K) of the P3 Joist (For calculating uniform load and center-point load deflections of the P3 Joist in a simple-span application, use Equations 1 and 2).
    - Uniform Load:  

$$\delta = \frac{5\omega L^4}{384EI} + \frac{\omega L^2}{K}$$
    - Center-Point Load:  

$$\delta = \frac{P L^3}{48EI} + \frac{2P}{K}$$
- Where:  $\delta$  = calculated deflection (in)  
 $\omega$  = unfactored uniform load (lbf/in)  
 $L$  = design span (in)  
 $P$  = concentrated load (lbf)  
 $EI$  = bending stiffness of the P3 Joist (lbf-in<sup>2</sup>)  
 $K$  = coefficient of shear deflection (lbf)

# Reaction Capacities for P3 Joist

**TABLE 21**  
Factored Reaction Values for P3 Joist<sup>1</sup>

| Series | Depth  | End Reaction (d) (lbf) |       |                |       | Intermediate Reaction (c) (lbf) |       |                |       |
|--------|--------|------------------------|-------|----------------|-------|---------------------------------|-------|----------------|-------|
|        |        | 1.75" Bearing          |       | 4" Bearing     |       | 3.5" Bearing                    |       | 5.5" Bearing   |       |
|        |        | Web Stiffeners         |       | Web Stiffeners |       | Web Stiffeners                  |       | Web Stiffeners |       |
|        |        | No                     | Yes   | No             | Yes   | No                              | Yes   | No             | Yes   |
| PJI 40 | 9-1/2  | 1,886                  | 2,012 | 1,989          | 2,210 | 4,349                           | 4,577 | 5,122          | 5,122 |
|        | 11-7/8 | 1,894                  | 2,304 | 2,257          | 2,557 | 4,349                           | 4,806 | 5,122          | 5,327 |
|        | 14     | 1,894                  | 2,557 | 2,494          | 2,865 | 4,349                           | 5,011 | 5,122          | 5,501 |
|        | 16     | 1,894                  | 2,762 | 2,715          | 3,157 | 4,349                           | 5,209 | 5,122          | 5,674 |
| PJI 60 | 9-1/2  | 1,886                  | 2,012 | 1,989          | 2,210 | 4,349                           | 4,577 | 5,122          | 5,122 |
|        | 11-7/8 | 1,894                  | 2,304 | 2,257          | 2,557 | 4,349                           | 4,806 | 5,122          | 5,327 |
|        | 14     | 1,894                  | 2,557 | 2,494          | 2,865 | 4,349                           | 5,011 | 5,122          | 5,501 |
|        | 16     | 1,894                  | 2,762 | 2,715          | 3,157 | 4,349                           | 5,209 | 5,122          | 5,674 |
| PJI 65 | 11-7/8 | 1,894                  | 2,304 | 2,257          | 2,557 | 4,435                           | 5,209 | 5,138          | 5,659 |
|        | 14     | 1,894                  | 2,557 | 2,494          | 2,865 | 4,767                           | 5,453 | 5,422          | 5,911 |
|        | 16     | 1,894                  | 2,762 | 2,715          | 3,157 | 5,154                           | 5,682 | 5,682          | 6,156 |
|        |        |                        |       |                |       |                                 |       |                |       |
| PJI 80 | 9-1/2  | 2,060                  | 2,218 | 2,218          | 2,218 | 4,356                           | 4,933 | 5,122          | 5,367 |
|        | 11-7/8 | 2,076                  | 2,510 | 2,510          | 2,604 | 4,435                           | 5,209 | 5,138          | 5,659 |
|        | 14     | 2,091                  | 2,778 | 2,549          | 2,944 | 4,767                           | 5,453 | 5,422          | 5,911 |
|        | 16     | 2,099                  | 3,023 | 2,573          | 3,267 | 5,154                           | 5,682 | 5,682          | 6,156 |
|        | 18     | 2,115                  | 3,038 | 2,604          | 3,867 | 5,051                           | 6,235 | 5,761          | 6,866 |
|        | 20     | 2,131                  | 3,425 | 2,628          | 4,025 | 5,051                           | 6,235 | 5,761          | 6,866 |
| PJI 90 | 24     | 2,155                  | 4,199 | 2,683          | 4,341 | 5,051                           | 6,235 | 5,761          | 6,866 |
|        | 11-7/8 | 2,076                  | 2,510 | 2,510          | 2,604 | 4,435                           | 5,209 | 5,138          | 5,659 |
|        | 14     | 2,091                  | 2,778 | 2,549          | 2,944 | 4,767                           | 5,453 | 5,422          | 5,911 |
|        | 16     | 2,099                  | 3,023 | 2,573          | 3,267 | 5,154                           | 5,682 | 5,682          | 6,156 |
|        | 18     | 2,115                  | 3,038 | 2,604          | 3,867 | 5,051                           | 6,235 | 5,761          | 6,866 |
|        | 20     | 2,131                  | 3,425 | 2,628          | 4,025 | 5,051                           | 6,235 | 5,761          | 6,866 |
|        | 24     | 2,155                  | 4,199 | 2,683          | 4,341 | 5,051                           | 6,235 | 5,761          | 6,866 |

## NOTES

- The tabulated values are factored resistances for standard term duration of load. All values shall be permitted to be adjusted for other load durations as permitted by the code.
- For end reaction values above 2,450 lbf, bearing stiffeners are required.

# P3 Joists Framing Connectors — Single P3 Joists

TABLE 22

| Joist Height                   | Top Flange |       |               |                           |                     |        |      | Snap In Face Mount      |       |               |        |                     |              |        | Face Mount Hanger |       |               |                           |                     |      |      | SIMPSON    |
|--------------------------------|------------|-------|---------------|---------------------------|---------------------|--------|------|-------------------------|-------|---------------|--------|---------------------|--------------|--------|-------------------|-------|---------------|---------------------------|---------------------|------|------|------------|
|                                | Model      | B Dim | Fastener Type |                           | Factored Resistance |        |      | Model                   | B Dim | Fastener Type |        | Factored Resistance |              |        | Model             | B Dim | Fastener Type |                           | Factored Resistance |      |      | Strong-Tie |
|                                |            |       | Header        | Joist                     | Uplift (115)        | Normal |      |                         |       | Uplift (115)  | Normal |                     | Uplift (115) | Normal |                   |       |               |                           |                     |      |      |            |
|                                |            |       |               |                           |                     | DF/SP  | SPF  |                         |       |               | DF/SP  | SPF                 |              | DF/SP  | SPF               |       | DF/SP         | SPF                       |                     |      |      |            |
| P3 Joist 40, 60 Width = 2-1/2" |            |       |               |                           |                     |        |      |                         |       |               |        |                     |              |        |                   |       |               |                           |                     |      |      |            |
| 9-1/2                          | LT259      | 2     | 6-3"          | 1-#8x1-1/4ws <sup>4</sup> | 105                 | 2560   | 1725 | IUS2.56/9.5             | 2     | 8-3"          | —      | 175                 | 2385         | 1690   | LF259             | 2     | 10-3"         | 1-#8x1-1/4ws <sup>4</sup> | 105                 | 2525 | 2155 |            |
| 11-7/8                         | LT251188   | 2     | 6-3"          | 1-#8x1-1/4ws <sup>4</sup> | 105                 | 2560   | 1725 | IUS2.56/11.88           | 2     | 10-3"         | —      | 175                 | 2565         | 1820   | LF2511            | 2     | 12-3"         | 1-#8x1-1/4ws <sup>4</sup> | 105                 | 2880 | 2270 |            |
| 14                             | LT2514     | 2     | 6-3"          | 1-#8x1-1/4ws <sup>4</sup> | 105                 | 2560   | 1725 | IUS2.56/14              | 2     | 12-3"         | —      | 175                 | 2565         | 1820   | LF2514            | 2     | 14-3"         | 1-#8x1-1/4ws <sup>4</sup> | 105                 | 3235 | 2385 |            |
| 16                             | LT2516     | 2     | 6-3"          | 1-#8x1-1/4ws <sup>4</sup> | 100                 | 2560   | 1725 | IUS2.56/16              | 2     | 14-3"         | —      | 175                 | 2725         | 1935   | MIU2.56/16        | 2-1/2 | 24-3"         | 2-10dx1-1/2               | 375                 | 4930 | 3485 |            |
| P3 Joist 80 Width = 3-1/2"     |            |       |               |                           |                     |        |      |                         |       |               |        |                     |              |        |                   |       |               |                           |                     |      |      |            |
| 11-7/8                         | LT351188   | 2     | 6-3"          | 2-#8x1-1/4ws <sup>4</sup> | 105                 | 2560   | 1725 | IUS3.56/11.88           | 2     | 12-3"         | —      | 175                 | 2375         | 1695   | LF3511            | 2     | 12-3"         | 2-#8x1-1/4ws <sup>4</sup> | 105                 | 2880 | 2270 |            |
| 14                             | LT3514     | 2     | 6-3"          | 2-#8x1-1/4ws <sup>4</sup> | 105                 | 2560   | 1725 | IUS3.56/14              | 2     | 12-3"         | —      | 175                 | 2375         | 1695   | LF3514            | 2     | 14-3"         | 2-#8x1-1/4ws <sup>4</sup> | 105                 | 3235 | 2385 |            |
| 16                             | LT3516     | 2     | 6-3"          | 2-#8x1-1/4ws <sup>4</sup> | 100                 | 2560   | 1725 | IUS3.56/16              | 2     | 14-3"         | —      | 175                 | 2375         | 1695   | MIU3.56/16        | 2-1/2 | 24-3-1/2"     | 2-10dx1-1/2               | 375                 | 4930 | 3485 |            |
| 18                             | MIT418     | 2-1/2 | 8-3-1/2"      | 2-10dx1-1/2               | 265                 | 3490   | 2420 | No IUS for these depths |       |               |        |                     |              |        | MIU3.56/18        | 2-1/2 | 26-3-1/2"     | 2-10dx1-1/2               | 375                 | 4930 | 3485 |            |
| 20                             | MIT420     | 2-1/2 | 8-3-1/2"      | 2-10dx1-1/2               | 265                 | 3490   | 2420 |                         |       |               |        |                     |              |        | MIU3.56/20        | 2-1/2 | 28-3-1/2"     | 2-10dx1-1/2               | 375                 | 4930 | 3485 |            |
| 22                             | HIT422     | 3     | 10-3-1/2"     | 2-10dx1-1/2               | 320                 | 3725   | 2705 |                         |       |               |        |                     |              |        | MIU3.56/20        | 2-1/2 | 28-3-1/2"     | 2-10dx1-1/2               | 375                 | 4930 | 3485 |            |
|                                |            |       |               |                           |                     |        |      |                         |       |               |        |                     |              |        |                   |       |               |                           |                     |      |      |            |

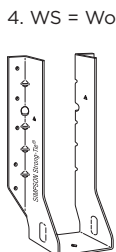
1,WS = wood screw

TABLE 23

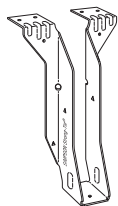
| Joist Height                   | 45° Skew                                                      |       |               |           |                     |        |      | Adjustable Height                                             |       |               |           |                     |        |      | Field Slope and Skew                                          |       |               |            |                     |        |      |
|--------------------------------|---------------------------------------------------------------|-------|---------------|-----------|---------------------|--------|------|---------------------------------------------------------------|-------|---------------|-----------|---------------------|--------|------|---------------------------------------------------------------|-------|---------------|------------|---------------------|--------|------|
|                                | Model                                                         | B Dim | Fastener Type |           | Factored Resistance |        |      | Model                                                         | B Dim | Fastener Type |           | Factored Resistance |        |      | Model                                                         | B Dim | Fastener Type |            | Factored Resistance |        |      |
|                                |                                                               |       | Header        | Joist     | Uplift (115)        | Normal |      |                                                               |       | Header        | Joist     | Uplift (115)        | Normal |      |                                                               |       | Header        | Joist      | Uplift (115)        | Normal |      |
|                                |                                                               |       |               |           |                     | DF/ SP | SPF  |                                                               |       |               |           |                     | DF/ SP | SPF  |                                                               |       |               |            |                     | DF/ SP | SPF  |
| P3 Joist 40, 60 Width = 2-1/2" |                                                               |       |               |           |                     |        |      |                                                               |       |               |           |                     |        |      |                                                               |       |               |            |                     |        |      |
| 9-1/2                          | SUR/ L2.56/9                                                  | 3-3⁄8 | 14-3-½"       | 2-10dx1-½ | 385                 | 3950   | 2805 | THAI322                                                       | 2-¼   | 6-3"          | 2-10dx1-½ | —                   | 2810   | 2385 | LSSUH310                                                      | 3-½   | 14-3-½"       | 12-10dx1-½ | 1155                | 2345   | 1665 |
| 11-7/8                         | SUR/ L2.56/11                                                 | 3-3⁄8 | 16-3-½"       | 2-10dx1-½ | 385                 | 3950   | 2805 | THAI322                                                       | 2-¼   | 6-3"          | 2-10dx1-½ | —                   | 2810   | 2385 | LSSUH310                                                      | 3-½   | 14-3-½"       | 12-10dx1-½ | 1155                | 2345   | 1665 |
| 14                             | SUR/ L2.56/14                                                 | 3-3⁄8 | 18-3-½"       | 2-10dx1-½ | 385                 | 3950   | 2805 | THAI322                                                       | 2-¼   | 6-3"          | 2-10dx1-½ | —                   | 2810   | 2385 | LSSUH310                                                      | 3-½   | 14-3-½"       | 12-10dx1-½ | 1155                | 2345   | 1665 |
| 16                             | SUR/ L2.56/14                                                 | 3-3⁄8 | 18-3-½"       | 2-10dx1-½ | 385                 | 3950   | 2805 | See Wood Construction Connectors Catalog for hanger selection |       |               |           |                     |        |      | LSSUH310                                                      | 3-½   | 14-3-½"       | 12-10dx1-½ | 1155                | 2345   | 1665 |
| P3 Joist 80 Width = 3-1/2"     |                                                               |       |               |           |                     |        |      |                                                               |       |               |           |                     |        |      |                                                               |       |               |            |                     |        |      |
| 11-7/8                         | SUR/L410                                                      | 2-5⁄8 | 14-3-½"       | 6-3-½"    | 1540                | 4065   | 2875 | THAI422                                                       | 2-¼   | 6-3"          | 2-10dx1-½ | —                   | 2810   | 2385 | LSSU410                                                       | 3-½   | 14-3-½"       | 12-10dx1-½ | 1155                | 2345   | 1665 |
| 14                             | SUR/L414                                                      | 2-5⁄8 | 18-3-½"       | 8-3-½"    | 2090                | 4095   | 2895 | THAI422                                                       | 2-¼   | 6-3"          | 2-10dx1-½ | —                   | 2810   | 2385 | LSSU410                                                       | 3-½   | 14-3-½"       | 12-10dx1-½ | 1155                | 2345   | 1665 |
| 16                             | SUR/L414                                                      | 2-5⁄8 | 18-3-½"       | 8-3-½"    | 2090                | 4095   | 2895 | See Wood Construction Connectors Catalog for hanger selection |       |               |           |                     |        |      | See Wood Construction Connectors Catalog for hanger selection |       |               |            |                     |        |      |
| 18                             | SUR/L414                                                      | 2-5⁄8 | 18-3-½"       | 8-3-½"    | 2090                | 4095   | 2895 |                                                               |       |               |           |                     |        |      |                                                               |       |               |            |                     |        |      |
| 20                             | SUR/L414                                                      | 2-5⁄8 | 18-3-½"       | 8-3-½"    | 2090                | 4095   | 2895 |                                                               |       |               |           |                     |        |      |                                                               |       |               |            |                     |        |      |
| 22                             | See Wood Construction Connectors Catalog for hanger selection |       |               |           |                     |        |      |                                                               |       |               |           |                     |        |      |                                                               |       |               |            |                     |        |      |
| 24                             |                                                               |       |               |           |                     |        |      |                                                               |       |               |           |                     |        |      |                                                               |       |               |            |                     |        |      |

## NOTES

1. All nails are common wire nails unless noted otherwise.
2. Hangers that are marked by green shading in tables require web stiffeners. The I-Joist manufacturer may require web stiffeners for hangers that are not marked by shading.
3. THAI hangers require a minimum of 4 top and 2 face nails installed
4. WS = Wood Screw



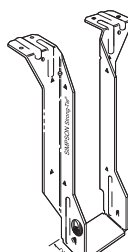
LF



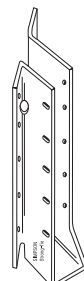
LT



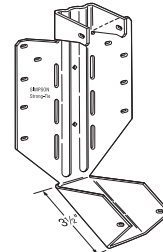
IUS



MIT



SUL



LSSU

**LF** – 18 gauge  
**LT** – 18 gauge

The LF and LT series feature fast and easy installation. No web stiffeners are required.

**IUS** – 18 gauge

The IUS is a hybrid hanger that incorporates the advantages of face-mount and top-flange hangers. Joist nails are not required.

**MIT** – 16 gauge

The MIT's Positive Angle Nailing helps eliminate splitting of the I-joists' bottom flange. It features uplift capacity and extended seat design.

**SUR/L** – 16 gauge  
**SURI/LI** – 16 gauge

All models are skewed 45°. The installation of these hangers does not require a beveled end cut. Web stiffeners are required when used with I-joists.

**LSSUH310, LSSU410** – 16 gauge

LSSU models provide uplift capacity and can be field sloped and/or skewed to 45°. Web stiffeners are required when used with I-joists.

# P3 Joists Framing Connectors — Double P3 Joists

TABLE 24

SIMPSON

Strong-Tie

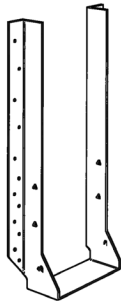
| Joist Height                                           | Top Flange  |       |               |           |                     |        |              | Face Mount |       |               |              |                     |        |       | 45° Skew                                                      |       |               |           |                     |       |      |
|--------------------------------------------------------|-------------|-------|---------------|-----------|---------------------|--------|--------------|------------|-------|---------------|--------------|---------------------|--------|-------|---------------------------------------------------------------|-------|---------------|-----------|---------------------|-------|------|
|                                                        | Model       | B Dim | Fastener Type |           | Factored Resistance |        |              | Model      | B Dim | Fastener Type |              | Factored Resistance |        |       | Model                                                         | B Dim | Fastener Type |           | Factored Resistance |       |      |
|                                                        |             |       | Header        | Joist     | Uplift (115)        | Normal | Uplift (115) |            |       | Normal        | Uplift (115) | Normal              | Header | Joist |                                                               |       | Uplift (115)  | Normal    |                     |       |      |
|                                                        |             |       |               |           |                     | DF/SP  |              |            |       |               |              |                     |        |       |                                                               |       |               |           | SPF                 | DF/SP | SPF  |
| Double PJI 40, 60 Joist Width = 5"                     |             |       |               |           |                     |        |              |            |       |               |              |                     |        |       |                                                               |       |               |           |                     |       |      |
| 9-1/2                                                  | MIT39.5-2   | 2-½   | 8-3-½"        | 2-10dx1-½ | 265                 | 3490   | 2420         | MIU5.12/9  | 2-½   | 16-3-½"       | 2-10dx1-½    | 375                 | 4550   | 3230  | HSUR/L5.12/9                                                  | 2-¾   | 12-3-½"       | 2-10dx1-½ | 195                 | 2995  | 2350 |
| 11-7/8                                                 | MIT311.88-2 | 2-½   | 8-3-½"        | 2-10dx1-½ | 265                 | 3490   | 2420         | MIU5.12/11 | 2-½   | 20-3-½"       | 2-10dx1-½    | 375                 | 4550   | 3230  | HSUR/L5.12/11                                                 | 2-¾   | 16-3-½"       | 2-10dx1-½ | 195                 | 4190  | 2965 |
| 14                                                     | MIT314-2    | 2-½   | 8-3-½"        | 2-10dx1-½ | 265                 | 3490   | 2420         | MIU5.12/14 | 2-½   | 22-3-½"       | 2-10dx1-½    | 375                 | 4930   | 3485  | HSUR/L5.12/11                                                 | 2-¾   | 16-3-½"       | 2-10dx1-½ | 195                 | 4190  | 2965 |
| 16                                                     | MIT5.12/16  | 2-½   | 8-3-½"        | 2-10dx1-½ | 265                 | 3490   | 2420         | MIU5.12/16 | 2-½   | 24-3-½"       | 2-10dx1-½    | 375                 | 4930   | 3485  | HSUR/L5.12/11                                                 | 2-¾   | 16-3-½"       | 2-10dx1-½ | 195                 | 4190  | 2965 |
| Double PJI 80 Joist Width = 7" web stiffeners required |             |       |               |           |                     |        |              |            |       |               |              |                     |        |       |                                                               |       |               |           |                     |       |      |
| 11-7/8                                                 | B7.12/11.88 | 2-½   | 14-3-½"       | 8-3-½"    | 1170                | 5940   | 3910         | HU412-2    | 2-½   | 22-3-½"       | 8-3-½"       | 2280                | 5780   | 4690  | HU412-2X <sup>3</sup>                                         | 2-½   | 22-3-½"       | 8-3-½"    | 1710                | 3755  | 3050 |
| 14                                                     | B7.12/14    | 2-½   | 14-3-½"       | 8-3-½"    | 1170                | 5940   | 3910         | HU414-2    | 2-½   | 26-3-½"       | 12-3-½"      | 3420                | 7025   | 5780  | HU412-2X <sup>3</sup>                                         | 2-½   | 26-3-½"       | 12-3-½"   | 2565                | 4565  | 3755 |
| 16                                                     | B7.12/16    | 2-½   | 14-3-½"       | 8-3-½"    | 1170                | 5940   | 3910         | HU414-2    | 2-½   | 26-3-½"       | 12-3-½"      | 3420                | 7025   | 5780  | HU412-2X <sup>3</sup>                                         | 2-½   | 26-3-½"       | 12-3-½"   | 2565                | 4565  | 3755 |
| 18                                                     | B7.12/18    | 2-½   | 14-3-½"       | 8-3-½"    | 1170                | 5940   | 3910         | HU414-2    | 2-½   | 26-3-½"       | 12-3-½"      | 3420                | 7025   | 5780  | HU412-2X <sup>3</sup>                                         | 2-½   | 26-3-½"       | 12-3-½"   | 2565                | 4565  | 3755 |
| 20                                                     | B7.12/20    | 2-½   | 14-3-½"       | 8-3-½"    | 1170                | 5940   | 3910         | HU414-2    | 2-½   | 26-3-½"       | 12-3-½"      | 3420                | 7025   | 5780  | HU412-2X <sup>3</sup>                                         | 2-½   | 26-3-½"       | 12-3-½"   | 2565                | 4565  | 3755 |
| 22                                                     | B7.12/22    | 2-½   | 14-3-½"       | 8-3-½"    | 1170                | 5940   | 3910         | HU414-2    | 2-½   | 26-3-½"       | 12-3-½"      | 3420                | 7025   | 5780  | See Wood Construction Connectors Catalog for hanger selection |       |               |           |                     |       |      |
| 24                                                     | B7.12/24    | 2-½   | 14-3-½"       | 8-3-½"    | 1170                | 5940   | 3910         | HU414-2    | 2-½   | 26-3-½"       | 12-3-½"      | 3420                | 7025   | 5780  |                                                               |       |               |           |                     |       |      |

TABLE 25

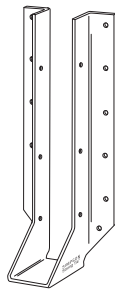
| Joist Height                       | Field Slope                                                   |       |               |            |                     |        |        | Adjustable Height                                             |       |               |              |                     |       |      |
|------------------------------------|---------------------------------------------------------------|-------|---------------|------------|---------------------|--------|--------|---------------------------------------------------------------|-------|---------------|--------------|---------------------|-------|------|
|                                    | Model                                                         | B Dim | Fastener Type |            | Factored Resistance |        |        | Model                                                         | B Dim | Fastener Type |              | Factored Resistance |       |      |
|                                    |                                                               |       | Header        | Joist      | Uplift (115)        | Normal | Header |                                                               |       | Joist         | Uplift (115) | Normal              |       |      |
|                                    |                                                               |       |               |            |                     | DF/SP  |        |                                                               |       |               |              | SPF                 | DF/SP | SPF  |
| Double PJI 40, 60 Joist Width = 5" |                                                               |       |               |            |                     |        |        |                                                               |       |               |              |                     |       |      |
| 9-1/2                              | LSU5.12 <sup>4</sup>                                          | 3-½   | 24-3-½"       | 16-10dx1-½ | 910                 | 2600   | 1845   | THAI-2 <sup>2</sup>                                           | 2-½   | 6-3"          | 2-10dx1-½    | —                   | 2800  | 2800 |
| 11-7/8                             | LSU5.12 <sup>4</sup>                                          | 3-½   | 24-3-½"       | 16-10dx1-½ | 910                 | 2600   | 1845   | THAI-2 <sup>2</sup>                                           | 2-½   | 6-3"          | 2-10dx1-½    | —                   | 2800  | 2800 |
| 14                                 | LSU5.12 <sup>4</sup>                                          | 3-½   | 24-3-½"       | 16-10dx1-½ | 910                 | 2600   | 1845   | THAI-2 <sup>2</sup>                                           | 2-½   | 6-3"          | 2-10dx1-½    | —                   | 2800  | 2800 |
| 16                                 | See Wood Construction Connectors Catalog for hanger selection |       |               |            |                     |        |        | See Wood Construction Connectors Catalog for hanger selection |       |               |              |                     |       |      |
| Double PJI 80 Joist Width = 7"     |                                                               |       |               |            |                     |        |        |                                                               |       |               |              |                     |       |      |
| 11-7/8 to 24                       | See Wood Construction Connectors Catalog for hanger selection |       |               |            |                     |        |        | See Wood Construction Connectors Catalog for hanger selection |       |               |              |                     |       |      |

## NOTES

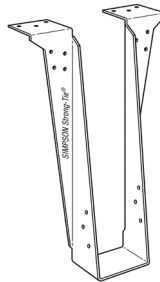
- Hangers that are marked by green shading in tables require web stiffeners. The I-Joist manufacturer may require web stiffeners for hangers that are not marked by shading.
- THAI hangers require a minimum of 4 top and 2 face nails installed. THAI-2 must be special ordered; specify hanger seat width between 3-1/8" and 5-5/16".
- Skewed option must be special ordered. Specify skew angle and direction (i.e. HU412-2X, SKR45).
- The LSU is field slopable only. Skew options must be special ordered from the factory.



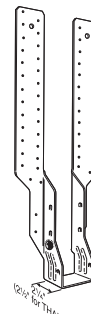
MIU



HU



B



THAI

### MIU - 16 gauge

The MIU series features 16 gauge steel and extra nailing for higher loads than the IUT.

### HU - 14 gauge

The HU series features uplift capacity and a large selection of sizes and load ranges. HU hangers have triangle holes that can be filled for increased loads. Web stiffeners are required when used with I-joists.

### B - 12 gauge

The B Series offer versatility for I-Joist and SCL lumber enhanced load capacity widens the range of application for these hangers.

### THAI - 18 gauge

This hanger has extra long straps and can be field-formed to give height adjustability and top-flange hanger convenience. Positive angle nailing helps eliminate splitting of the I-joist's bottom flange. Not all strap nail holes need to be filled for maximum nailing. Web stiffeners are required when used with I-joists.

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## P3 Products Warranty

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Interfor Corporation warrants that the P3 Products manufactured by us or any of our affiliates comply with our specifications, are free from manufacturing defects in materials and workmanship, and will meet or exceed our performance specifications when correctly stored, handled, installed, used and maintained in accordance with our instructions, including the instructions in our P3 Joist User Guides for Canada and the United States, which are available at [www.interfor.com/products](http://www.interfor.com/products). Checks, cracks or splits of any P3 Product resulting from the natural physical properties of wood, or any minor edge separation, are not covered by this Warranty unless the condition results in the P3 Product not complying with its specifications.

Please protect your investment! P3 Products must be protected from exposure to moisture. Exposure to moisture beyond incidental exposure during normal construction periods may cause P3 Product failure and will void this limited warranty.

Any Warranty claim must be made in writing to the address below, within thirty (30) days of discovery of the facts substantiating the claim. In support of such Warranty claim, the claimant must provide us with reasonable proof of P3 Product identification in the form of a sample, a photograph of the identifying stamp, or dated receipt. We must be given a reasonable opportunity to inspect the P3 Product. After inspection and verification, if we determine that there is a valid Warranty claim, we will pay to the owner of the structure an amount equal to the reasonable value of the defective P3 Product, or, at our option, we will replace the defective P3 Product. This Warranty does not cover any costs related to installing or removing any P3 Products or replacement products.

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