

Deep Depth TJI[®] 360 • TJI[®] 560 TJI[®] 560D JOISTS

Featuring Trus Joist[®] TJI[®] Joists for Floor and Roof Applications

- Uniform and Predictable
- Resource Efficient
- Resists Bowing, Twisting, and Shrinking
- Available in Long Lengths
- Limited Product Warranty





The products in this guide are readily available through our nationwide network of distributors and dealers. For more information on other applications or other Trus Joist® products, contact your Weyerhaeuser representative.

Code Evaluations:
ICC ES ESR-1153; ESR-1387

TABLE OF CONTENTS

Design Properties	3
Floor Span Tables	3
Allowable Holes	4
TJI® Joist Floor Framing	5
Floor Details	6-7
Floor Load Tables	7
Cantilevers	8-9
Roof Span Table	10
Roof Load Tables	10
Roof Framing	11
Roof Details	12-13
Framing Connectors	14-15



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SFI-00008

Why Choose Trus Joist® TJI® Joists?

- Engineered for strength and consistency
- Efficient installation saves time and labor
- Longer lengths allow more versatile floor plans
- Less jobsite waste
- Fewer red tags and callbacks



TJI® Joist Available Sizes

As a complement to our standard size TJI® joist series, Weyerhaeuser offers deep depth TJI® joists in the following sizes:

Flange Widths: 2⁵/₁₆" and 3¹/₂"

Depths: 18", 20", 22", and 24"

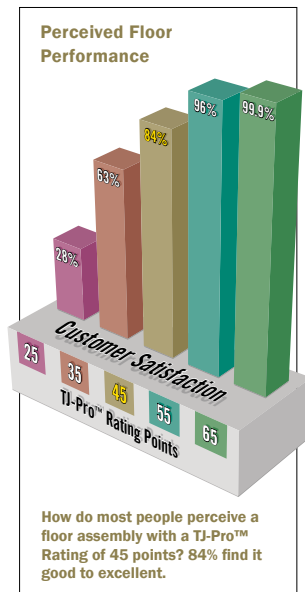
For standard depth TJI® joists, see the Trus Joist® TJI® Joist Specifier's Guide (TJ-4000) or contact your Weyerhaeuser representative.

TJ-PRO™ RATINGS TAKE THE GUESSWORK OUT OF FLOOR PERFORMANCE

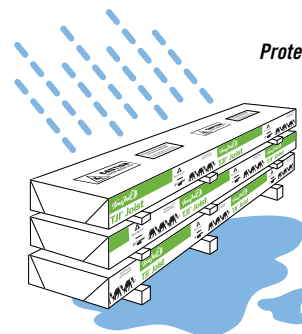
Trus Joist® TJ-Pro™ Ratings are generated by a sophisticated computer model designed to predict floor performance and evaluate the relationship between the cost and the "feel" of any given floor system. The methodology is based on extensive laboratory research, more than one million installations, and the combined expertise of some of the best engineers in the field. TJ-Pro™ Ratings go beyond deflection criteria to consider job-specific needs and expectations. In many cases, using TJ-Pro™ Ratings will offer a system that improves performance while actually reducing costs!

TJ-PRO™ RATING ADVANTAGES

- Works as part of Forte® and Javelin® software
- Provides a method for predicting floor performance
- Takes perceptions of the homeowner into account
- Provides cost comparison



PRODUCT STORAGE



Protect product from sun and water

CAUTION:
Wrap is slippery when wet or icy

Align stickers directly over support blocks

Use support blocks at 10' on-center to keep bundles out of mud and water

DESIGN PROPERTIES

Design Properties (100% Load Duration)

Depth	TJI	Basic Properties				Reaction Properties					
		Joist Weight (lbs/ft)	Maximum Resistive Moment ⁽¹⁾ (ft-lbs)	Joist Only EI x 10 ⁶ (lbs-in. ²)	Maximum Vertical Shear (lbs)	1 3/4" End Reaction (lbs)		3 1/2" Intermediate Reaction (lbs)		5 1/4" Intermediate Reaction (lbs)	
						No Web Stiffeners	With Web Stiffeners ⁽²⁾	No Web Stiffeners	With Web Stiffeners ⁽²⁾	No Web Stiffeners	With Web Stiffeners ⁽²⁾
18"	360	3.7	9,465	1,085	2,425	1,080	1,440	2,460	2,815	3,000	3,360
	560	4.8	14,550	1,631	3,030	1,265	1,740	3,000	3,475	3,455	3,930
	560D	5.0	14,785	1,661	3,030	1,265	1,895	3,000	3,630	3,455	4,085
20"	360	4.0	10,515	1,376	2,660	1,080	1,440	2,460	2,815	3,000	3,360
	560	5.1	16,165	2,064	3,345	1,265	1,740	3,000	3,475	3,455	3,930
	560D	5.3	16,435	2,105	3,345	1,265	2,055	3,000	3,790	3,455	4,245
22"	560D	5.6	18,075	2,606	3,605	NA ⁽³⁾	2,215	NA ⁽³⁾	4,740	NA ⁽³⁾	5,195
24"	560D	5.8	19,700	3,165	3,200	NA ⁽³⁾	2,215	NA ⁽³⁾	5,055	NA ⁽³⁾	5,510

- (1) **Caution:** Do not increase joist moment design properties by a repetitive-member-use factor.
 (2) See detail W on page 5 for web stiffener requirements and nailing information.
 (3) Web stiffeners are required at all bearing locations for 22" and 24" TJI® 560D joists.

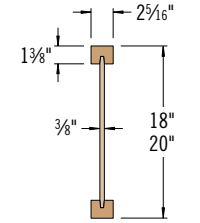
General Notes

- Design reaction includes all loads on the joist. Design shear is computed at the inside face of supports and includes all loads on the span(s). Allowable shear may sometimes be increased at interior supports in accordance with ICC ES ESR-1153, and these increases are reflected in span tables.
- The following formulas approximate the uniform load deflection of Δ (inches):

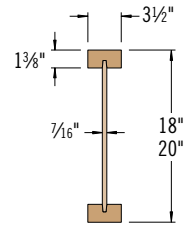
$$\Delta = \frac{22.5 wL^4}{EI} + \frac{2.67 wL^2}{d \times 10^5} \quad \text{For TJI® 360 Joists}$$

$$\Delta = \frac{22.5 wL^4}{EI} + \frac{2.29 wL^2}{d \times 10^5} \quad \text{For TJI® 560 and 560D Joists}$$

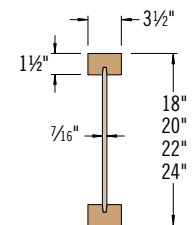
w = uniform load in pounds per linear foot d = out-to-out depth of the joist in inches
 L = span in feet EI = value from table above



TJI® 360 Joist



TJI® 560 Joist



TJI® 560D Joist

TJI® joists are intended for dry-use applications

Some TJI® joist series may not be available in your region. Contact your Weyerhaeuser representative for information.

FLOOR SPAN TABLES

L/480 Live Load Deflection

Depth	TJI®	40 PSF Live Load / 10 PSF Dead Load			40 PSF Live Load / 25 PSF Dead Load		
		16" o.c.	19.2" o.c.	24" o.c.	16" o.c.	19.2" o.c.	24" o.c.
18"	360	28'-8"	26'-10" ⁽¹⁾	21'-5" ⁽¹⁾	24'-9" ⁽¹⁾	20'-7" ⁽¹⁾	16'-6" ⁽¹⁾
	560, 560D	32'-5"	30'-7" ⁽¹⁾	25'-2" ⁽¹⁾	29'-1"⁽¹⁾	24'-2" ⁽¹⁾	19'-4" ⁽¹⁾
20"	360	31'-0" ⁽¹⁾	26'-10" ⁽¹⁾	21'-5" ⁽¹⁾	24'-9" ⁽¹⁾	20'-7" ⁽¹⁾	16'-6" ⁽¹⁾
	560, 560D	35'-1"	31'-6" ⁽¹⁾	25'-2" ⁽¹⁾	29'-1" ⁽¹⁾	24'-2" ⁽¹⁾	19'-4" ⁽¹⁾
22"	560D	37'-11"	35'-9"	33'-2"	37'-11"	35'-9"	29'-0"
24"	560D	40'-6"	38'-1"	35'-5"	40'-6"	38'-1"	31'-0"

How to Use These Tables

- Determine the appropriate live load deflection criteria.
- Identify the live and dead load condition.
- Select on-center spacing.
- Scan down the column until you meet or exceed the span of your application.
- Select TJI® joist and depth.

L/360 Live Load Deflection (Minimum Criteria per Code)

Depth	TJI®	40 PSF Live Load / 10 PSF Dead Load			40 PSF Live Load / 25 PSF Dead Load		
		16" o.c.	19.2" o.c.	24" o.c.	16" o.c.	19.2" o.c.	24" o.c.
18"	360	31'-9" ⁽¹⁾	26'-10" ⁽¹⁾	21'-5" ⁽¹⁾	24'-9" ⁽¹⁾	20'-7" ⁽¹⁾	16'-6" ⁽¹⁾
	560, 560D	35'-11" ⁽¹⁾	31'-6" ⁽¹⁾	25'-2" ⁽¹⁾	29'-1"⁽¹⁾	24'-2" ⁽¹⁾	19'-4" ⁽¹⁾
20"	360	32'-3" ⁽¹⁾	26'-10" ⁽¹⁾	21'-5" ⁽¹⁾	24'-9" ⁽¹⁾	20'-7" ⁽¹⁾	16'-6" ⁽¹⁾
	560, 560D	37'-10" ⁽¹⁾	31'-6" ⁽¹⁾	25'-2" ⁽¹⁾	29'-1" ⁽¹⁾	24'-2" ⁽¹⁾	19'-4" ⁽¹⁾
22"	560D	42'-0"	39'-7"	36'-10"	40'-8"	36'-4"	29'-0"
24"	560D	44'-9"	42'-3"	39'-3"	42'-6"	38'-9"	31'-0"

- (1) Web stiffeners are required at intermediate supports of continuous-span joists when the intermediate bearing length is less than 5 1/4" and the span on either side of the intermediate bearing is greater than the following spans:

Depth	TJI®	40 PSF Live Load / 10 PSF Dead Load			40 PSF Live Load / 25 PSF Dead Load		
		16" o.c.	19.2" o.c.	24" o.c.	16" o.c.	19.2" o.c.	24" o.c.
18" and 20"	360	29'-4"	24'-5"	19'-6"	22'-7"	18'-9"	15'-0"
	560, 560D	35'-10"	29'-10"	23'-10"	27'-7"	22'-11"	18'-4"

- Long term deflection under dead load, which includes the effect of creep, has not been considered. **Bold italic** spans reflect initial dead load deflection exceeding 0.33".

General Notes

- Tables are based on:
 - Uniform loads.
 - More restrictive of simple or continuous span.
 - Clear distance between supports
 - 18" and 20" TJI® joists:** Minimum bearing length of 1 3/4" end (no web stiffeners) and 3 1/2" intermediate.
 - 22" and 24" TJI® joists:** Minimum bearing length of 1 3/4" end and 3 1/2" intermediate; web stiffeners required at all bearings.
- Assumed composite action with a single layer of 24" on-center span-rated, glue-nailed floor panels for deflection only. **Spans shall be reduced 6" when floor panels are nailed only.**
- Spans generated from Weyerhaeuser software may exceed the spans shown in these tables because software reflects actual design conditions.
- For multi-family applications and other loading conditions not shown, refer to Weyerhaeuser software or to the load tables on page 7.

Live load deflection is not the only factor that affects how a floor will perform. To more accurately predict floor performance, use our TJI-Pro™ Ratings.

ALLOWABLE HOLES

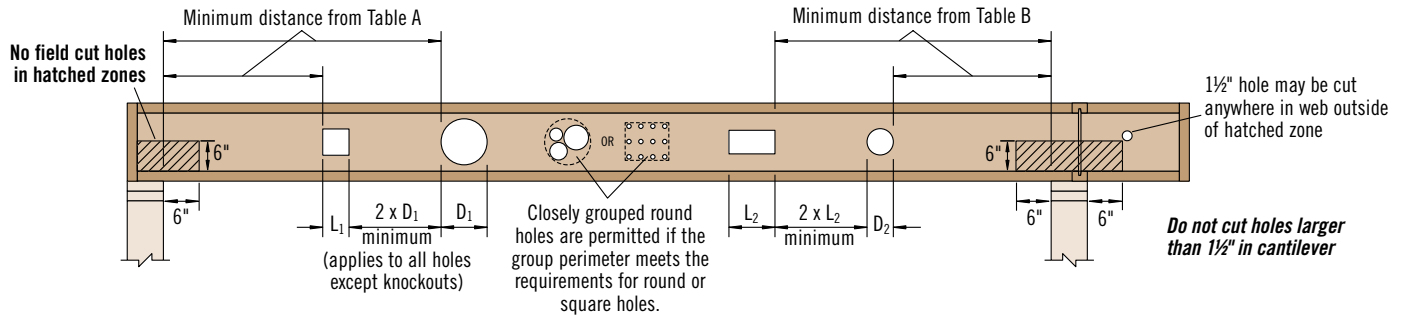


Table A—End Support (Minimum distance from edge of hole to inside face of nearest end support)

Depth	TJI®	● Round Hole Size										■ Square or Rectangular Hole Size									
		4"	6"	7"	8"	10"	12"	14 3/4"	16 3/4"	18 3/4"	20"	4"	6"	7"	8"	10"	12"	14 3/4"	16 3/4"	18 3/4"	20"
18"	360	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	5'-6"	9'-6"				1'-0"	3'-0"	4'-6"	6'-0"	10'-0"	11'-0"	13'-6"			
	560	1'-0"	1'-0"	1'-0"	2'-0"	4'-6"	7'-0"	10'-6"				2'-0"	5'-0"	6'-6"	8'-0"	11'-0"	12'-0"	14'-0"			
	560D	1'-0"	1'-0"	2'-0"	3'-0"	5'-6"	7'-6"	11'-0"				2'-6"	5'-0"	6'-6"	8'-0"	10'-6"	11'-6"	13'-6"			
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	7'-0"	10'-0"			1'-0"	1'-6"	3'-0"	4'-6"	8'-0"	11'-6"	13'-6"	15'-6"		
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	4'-6"	8'-6"	11'-0"			1'-0"	3'-6"	5'-0"	7'-0"	10'-6"	13'-0"	14'-6"	15'-6"		
	560D	1'-0"	1'-0"	1'-0"	2'-0"	4'-0"	6'-0"	9'-0"	11'-6"			2'-0"	4'-6"	5'-6"	7'-0"	10'-0"	12'-6"	14'-0"	15'-0"		
22"	560D	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	4'-6"	7'-0"	9'-6"	12'-6"		1'-0"	3'-0"	4'-6"	6'-6"	14'-6"	15'-0"	16'-0"	16'-6"	17'-0"	
24"	560D	1'-0"	1'-0"	1'-6"	2'-0"	3'-6"	5'-0"	7'-6"	9'-0"	11'-6"	13'-0"	1'-6"	4'-0"	5'-6"	7'-0"	10'-0"	15'-0"	16'-0"	16'-6"	17'-0"	17'-0"

Table B—Intermediate or Cantilever Support (Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support)

Depth	TJI®	● Round Hole Size										■ Square or Rectangular Hole Size									
		4"	6"	7"	8"	10"	12"	14 3/4"	16 3/4"	18 3/4"	20"	4"	6"	7"	8"	10"	12"	14 3/4"	16 3/4"	18 3/4"	20"
18"	360	1'-0"	1'-0"	1'-6"	3'-0"	6'-0"	9'-0"	14'-6"				1'-0"	4'-0"	6'-6"	9'-0"	14'-6"	16'-6"	19'-0"			
	560	1'-0"	1'-0"	1'-0"	2'-0"	6'-0"	10'-0"	15'-6"				1'-0"	6'-0"	8'-6"	11'-6"	16'-6"	18'-0"	19'-6"			
	560D	1'-0"	1'-0"	1'-0"	2'-0"	6'-0"	10'-6"	16'-6"				1'-0"	5'-6"	8'-0"	11'-0"	16'-0"	17'-0"	19'-0"			
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	6'-0"	11'-0"	15'-0"			1'-0"	1'-6"	4'-0"	7'-0"	12'-6"	16'-6"	19'-0"	20'-6"		
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	5'-6"	11'-6"	15'-6"			1'-0"	3'-0"	6'-0"	8'-6"	14'-0"	17'-6"	19'-0"	20'-6"		
	560D	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	6'-0"	12'-0"	16'-0"			1'-0"	2'-6"	5'-0"	8'-0"	13'-6"	16'-6"	18'-6"	19'-6"		
22"	560D	1'-0"	1'-0"	2'-0"	3'-6"	5'-6"	8'-0"	11'-0"	14'-6"	17'-6"		2'-0"	6'-0"	8'-0"	10'-0"	19'-0"	20'-0"	21'-0"	21'-6"	22'-0"	
24"	560D	2'-0"	4'-0"	5'-0"	5'-6"	7'-6"	9'-0"	12'-0"	14'-0"	16'-6"	18'-0"	5'-0"	8'-0"	9'-6"	11'-0"	14'-6"	20'-0"	21'-0"	21'-6"	22'-0"	22'-0"

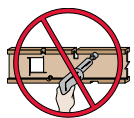
■ Rectangular holes based on measurement of longest side.

How to Use These Tables

- Using **Table A**, **Table B**, or both if required, determine the hole shape/size and select the TJI® joist and depth.
- Scan horizontally until you intersect the correct hole size column.
- Measurement shown is minimum distance from edge of hole to support.
- Maintain the required minimum distance from the end **and** the intermediate or cantilever support.

General Notes

- Holes may be located vertically anywhere within the web. Leave 1/8" of web (minimum) at top and bottom of hole.
- Knockouts are located in web at approximately 12" on-center; they do not affect hole placement.
- For simple span (5' minimum) uniformly loaded joists meeting the requirements of this guide, one maximum size round hole may be located at the center of the joist span **provided that no other holes occur in the joist**.
- Distances are based on the maximum uniform loads shown in this guide. For other load conditions or hole configurations, use Forte® software or contact your Weyerhaeuser representative.



DO NOT cut or notch flange.



DO NOT walk on joists until braced. **INJURY MAY RESULT.**



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



DO NOT walk on joists that are lying flat.

WARNING

Joists are unstable until braced laterally

Bracing Includes:

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

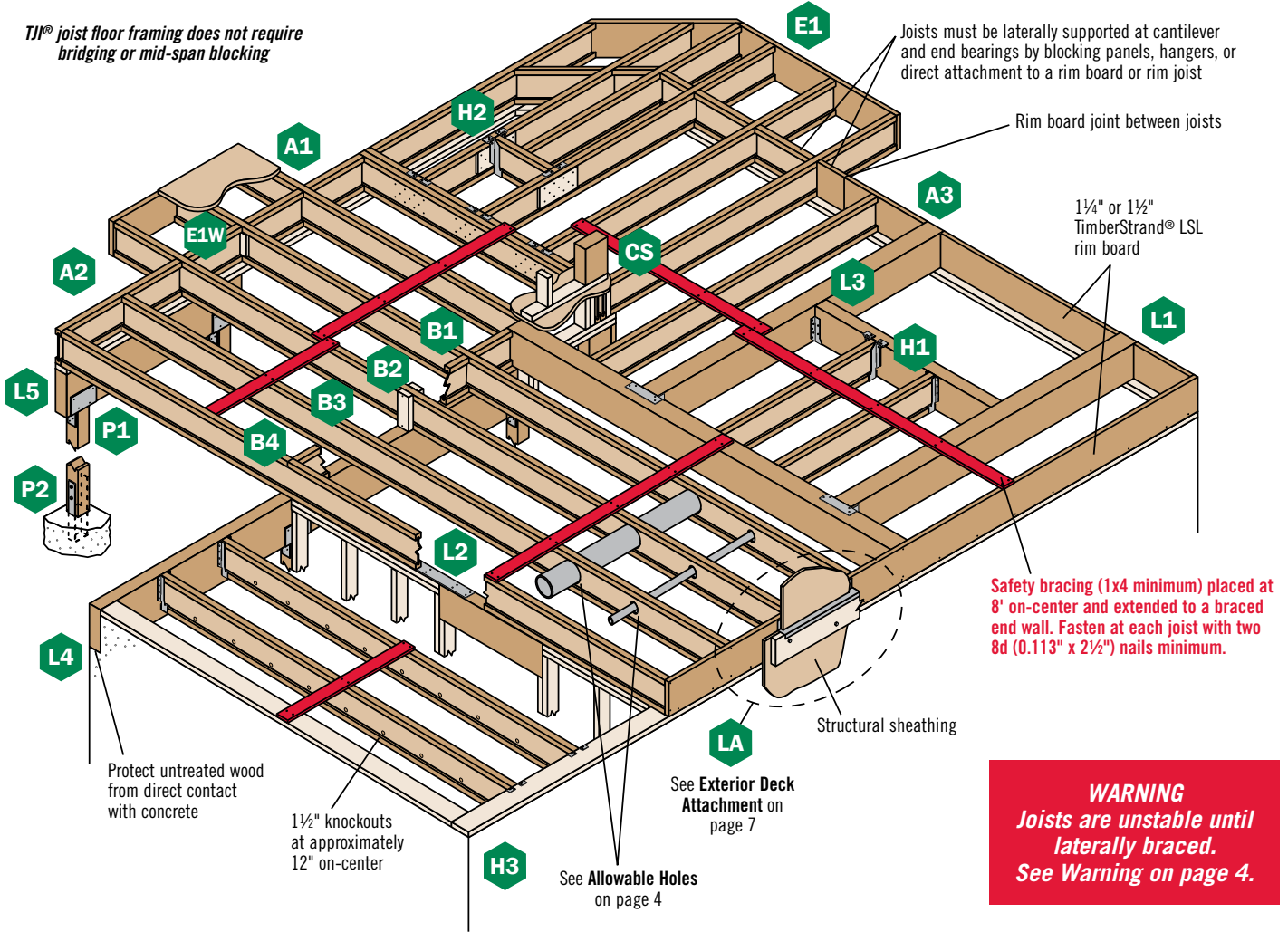
WARNING NOTES:

Lack of proper bracing during construction can result in serious accidents. Observe the following guidelines:

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

TJI® JOIST FLOOR FRAMING

TJI® joist floor framing does not require bridging or mid-span blocking



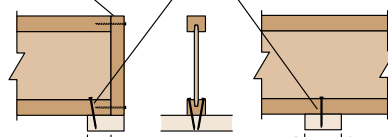
WARNING
Joists are unstable until laterally braced.
See Warning on page 4.

TJI® Joist Nailing Requirements at Bearing

TJI® Joist to Bearing Plate

1/4" or 1/2" TimberStrand® LSL rim board

For TJI® 360 and 560 joists, use one 8d (0.113" x 2 1/2") nail each side. Drive nails at an angle at least 1 1/2" from end. For TJI® 560D, use 10d (0.131" x 3") nails.



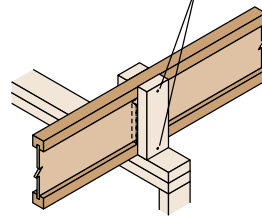
1 3/4" minimum bearing at end support

3 1/2" minimum intermediate bearing; 5 1/4" may be required for maximum capacity

Shear transfer nailing: Use connections equivalent to floor panel nailing schedule

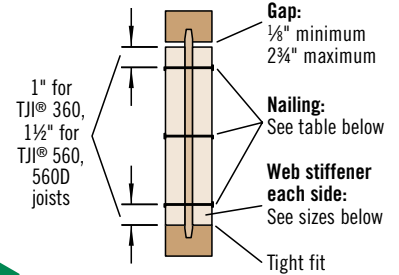
Squash Blocks to TJI® Joist (Load bearing wall above)

One 10d (0.128" x 3") nail into each flange



Also see detail B2 on page 6

Web Stiffener Attachment

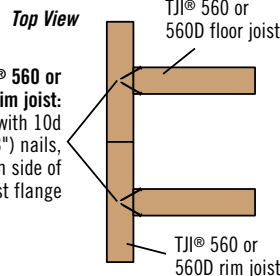
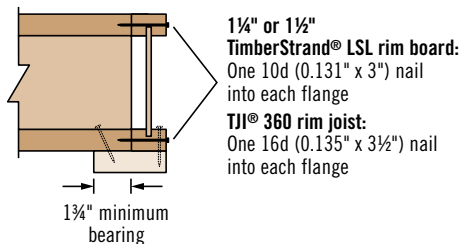


Web Stiffener Requirements

TJI®	Depth (in.)	Min. Web Stiffener Size	Nailing Requirements		
			Type	# of Nails	
			End	Int.	
360	All	7/8" x 2 1/16" ⁽¹⁾	8d (0.113" x 2 1/2")	3	3
560	All	2x4 ⁽²⁾	16d (0.135" x 3 1/2")	3	3
560D	18"	2x4 ⁽²⁾	16d (0.135" x 3 1/2")	4	4
	20"			5	5
	22" ⁽³⁾			6	11
	24" ⁽³⁾			6	13

- (1) PS1 or PS2 sheathing, face grain vertical
- (2) Construction grade or better
- (3) Web stiffeners are always required for 22" and 24" TJI® 560D joists.

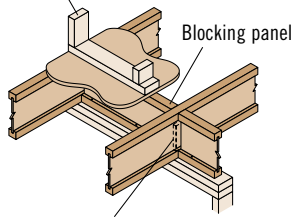
Rim to TJI® Joist



Locate rim board joint between joists

FLOOR DETAILS

Load bearing or shear wall above
(must stack over wall below)

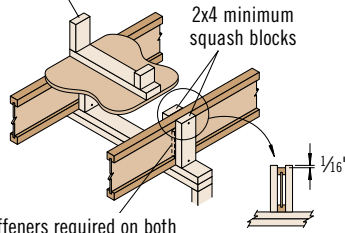


Web stiffeners required on both sides at B1W ONLY. See span table footnotes on page 3.

IRC 502.7 requires lateral restraint (blocking) at all intermediate supports in Seismic Design Categories D₀, D₁, and D₂ to strengthen the floor diaphragm

B1 B1W

Load bearing wall above
(must stack over wall below)

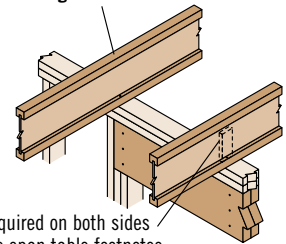


Web stiffeners required on both sides at B2W ONLY. See span table footnotes on page 3.

B2 B2W

Blocking panels may be required with shear walls above or below—see detail B1

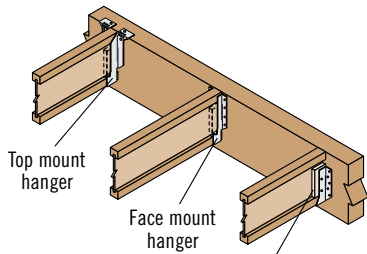
No load bearing wall above



Web stiffeners required on both sides at B3W ONLY. See span table footnotes on page 3.

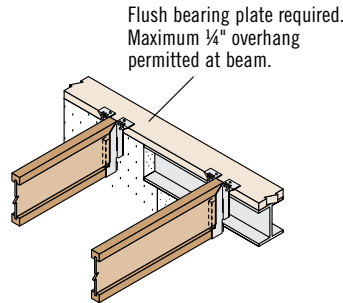
B3 B3W

Blocking panels may be required with shear walls above or below—see detail B1



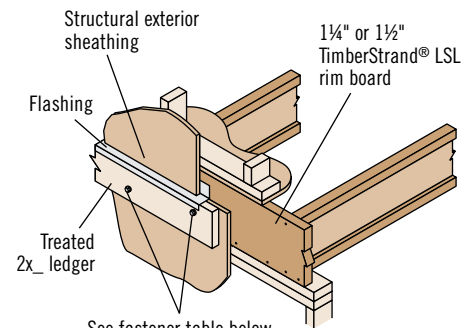
H1

Web stiffeners required if sides of hanger do not laterally support at least 3/8" of TJI® joist top flange



H3

Exterior Deck Attachment



See fastener table below. Maintain 2" distance (minimum) from edge of ledger to fastener.

LA

Fastener	Allowable Load ⁽¹⁾ (lbs)	
	1 1/4" or 1 1/2" TimberStrand® LSL Rim Board	
3/8" lag bolt	400	
1/2" lag bolt	475	

(1) Allowable load determined in accordance with AC 124.

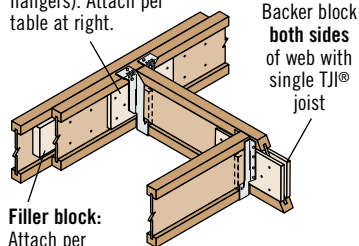
- Corrosion-resistant fasteners required for wet-service applications.

Filler and Backer Block Sizes

TJI®	Depth	Type	Filler/Backer Size	Nail	
				Size	Quantity
360	18"-20"	Filler	2x12 + 1/2" sheathing	10d (0.128" x 3")	15, one side
		Backer	1" net	10d (0.128" x 3")	15
560, 560D	18"-20"	Filler	Two 2x12	16d (0.135" x 3 1/2")	15, each side
		Backer	2x12	10d (0.128" x 3")	15
560D	22"-24"	Filler	Four 3/4" x 15" sheathing	16d (0.135" x 3 1/2")	25, each side
		Backer	Two 3/4" x 15" sheathing	10d (0.128" x 3")	15

- If necessary, increase filler and backer block height for face mount hangers and maintain 1/8" gap at top of joist. See detail W. Filler and backer block dimensions should accommodate required nailing without splitting. The suggested minimum length is 24" for filler and 12" for backer blocks.

Backer block: Install tight to top flange (tight to bottom flange with face mount hangers). Attach per table at right.



Filler block: Attach per table at right.

H2

With top mount hangers, backer block required only for downward loads exceeding 250 lbs or for uplift conditions

Fastener Spacing and Diaphragm Design Information

TJI®	Closest On-Center Spacing per Row ⁽¹⁾⁽²⁾			Equivalent Nominal Framing Width	Diaphragm Design Information			
					Maximum Allowable Seismic Design Capacity ⁽⁴⁾			
	Blocked	Unblocked Case 1	Unblocked Case 3		Unblocked Cases 2, 4, 5, 6			
360, 560 and 560D	8d (0.113" x 2 1/2"), 8d (0.131" x 2 1/2"), 10d (0.128" x 3"), 12d (0.128" x 3 1/4")	10d (0.148" x 3"), 12d (0.148" x 3 1/4"), 16d (0.135" x 3 1/4")	16d (0.162" x 3 1/2")	3"	720	320	240	240

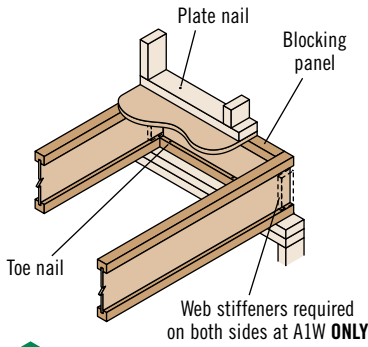
- Stagger nails when using 4" on-center spacing and maintain 3/8" joist and panel edge distance. One row of fasteners is permitted (two at abutting panel edges) for diaphragms. Fastener spacing for TJI® joists in diaphragm applications cannot be less than shown in table. When fastener spacing for blocking is less than above, rectangular blocking must be used in lieu of TJI® joists.
- For non-diaphragm applications, multiple rows of fasteners are permitted if the rows are offset at least 1/2" and staggered.
- Can be reduced to 3" on-center for light gauge steel straps with 10d (0.148" x 1 1/2") nails.
- The maximum allowable seismic design capacities may be increased by a factor of 1.4 for wind design applications.

Also see nailing requirements on page 5

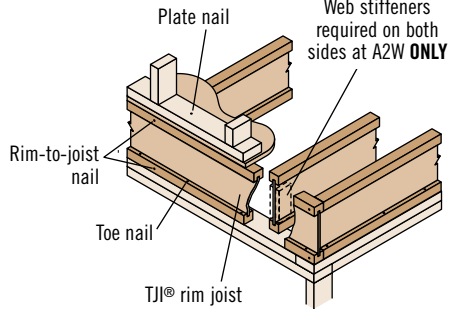
General Notes

- Maximum spacing of nails is 18" on-center.
- 14 gauge staples may be substituted for 8d (0.113" x 2 1/2") nails if minimum penetration of 1" is achieved.
- Table also applies to the attachment of TJI® rim joists and blocking panels to the wall plate.

FLOOR DETAILS

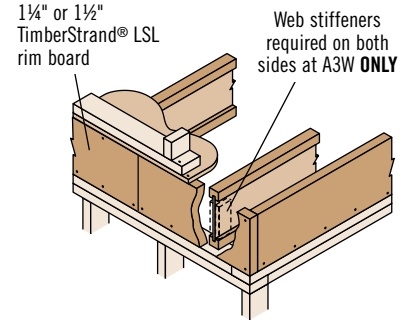


A1 **A1W**



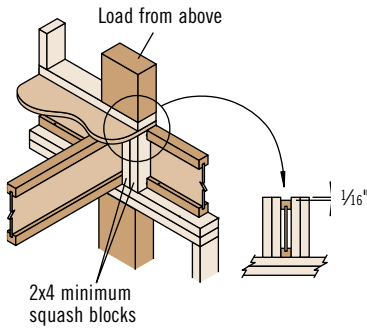
A2 **A2W**

Must have 1 3/4" minimum bearing at ends



A3 **A3W**

Attach TimberStrand LSL rim board to bearing plate with connections equivalent to decking schedule



CS

Use 2x4 minimum squash blocks to transfer load around TJI joist

Vertical Load Transfer at Bearing

Rim Joist, Rim Board, or Blocking	Depth	Allowable Uniform Vertical Loads (PLF)
TJI® 360	18"–20"	1,550
TJI® 560		1,550
TJI® 560D		2,250
TJI® 560D	22"–24"	1,700 ⁽¹⁾
1/4" TimberStrand® LSL	18"–20"	3,450
1/2" TimberStrand® LSL	22"–24"	4,140

(1) Capacity is based on calculation

▪ Loads may not be increased for duration of load.

Fastening Floor Panels to 1/4" or 1/2" TimberStrand® LSL Rim Board

Nail Size	Closest O.C. Spacing per Row	
	Rim Board Size	
	1 1/4"	1 1/2"
8d (0.113" or 0.131" x 2 1/2"), 10d (0.128" x 3"), 12d (0.128" x 3 1/4")	4"	3"
10d (0.148" x 3"), 12d (0.148" x 3 1/4")	4"	4"
16d (0.162" x 3 1/2")	6" ⁽¹⁾	6" ⁽¹⁾

(1) Can be reduced to 4" on-center if nail penetration into the narrow edge is no more than 1 3/8" (to avoid splitting).

- Nailing rows must be offset at least 1/2" and staggered
- Maximum spacing of nails is 24" on-center.
- 14 gauge staples may be substituted for 8d (0.113" x 2 1/2") nails if minimum penetration of 1" is achieved.

FLOOR LOAD TABLES

Floor—100% (PLF) For 6'–18' Spans

Depth	TJI®	Joist Clear Span													
		6'		8'		10'		12'		14'		16'		18'	
		Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load
18"	360	*	320	*	241	*	193	*	162	*	139	*	121	*	108
	560, 560D	*	390	*	294	*	236	*	197	*	169	*	148	*	132
	360	*	320	*	241	*	193	*	162	*	139	*	121	*	108
20"	560, 560D	*	390	*	294	*	236	*	197	*	169	*	148	*	132
	360	*	320	*	241	*	193	*	162	*	139	*	121	*	108
	560D	*	617	*	465	*	373	*	312	*	268	*	234	*	208
24"	560D	*	658	*	496	*	398	*	332	*	285	*	250	*	222

Floor—100% (PLF) For 20'–30' Spans

Depth	TJI®	Joist Clear Span											
		20'		22'		24'		26'		28'		30'	
		Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load	Live Load L/480	Total Load
18"	360	*	97	*	88	76	81	61	75				
	560, 560D	*	119	*	108	99	89	91	72	85	60	79	
20"	360	*	97	*	88	81	75						
	560, 560D	*	119	*	108	99	91	85	75	79			
22"	560D	*	188	*	171	157	137	145	112	134	93	125	
24"	560D	*	200	*	182	167	154	154	134	143	111	134	

* Indicates that Total Load value controls.

How to Use These Tables

1. Calculate actual total and live load in pounds per linear foot (plf).
2. Select appropriate Joist Clear Span.
3. Scan down the column to find a TJI® joist that meets or exceeds actual total and live loads.

General Notes

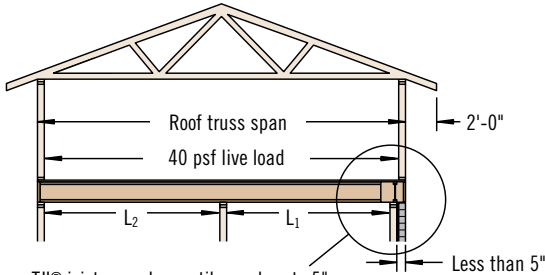
- Tables are based on:
 - Uniform loads.
 - No composite action provided by sheathing.
 - More restrictive of simple or continuous span.
 - 18" and 20" TJI® joists: Minimum bearing length of 1 3/4" end and 3 1/2" intermediate (no web stiffeners).
 - 22" and 24" TJI® joists: Minimum bearing length of 1 3/4" end and 3 1/2" intermediate; web stiffeners required at all bearings.
- Total Load values are limited to deflection of L/240.
- Live Load is based on joist deflection of L/480.
- If a live load deflection limit of L/360 is desired, multiply value in Live Load column by 1.33. The resulting live load must not exceed the Total Load shown.
- Table does not account for safe loading. Use Weyerhaeuser software when this condition applies.

See page 13 for PSF to PLF Conversion Table

CANTILEVERS

Cantilevers Less Than 5" (Brick Ledge)

See Section A of cantilever table on page 9

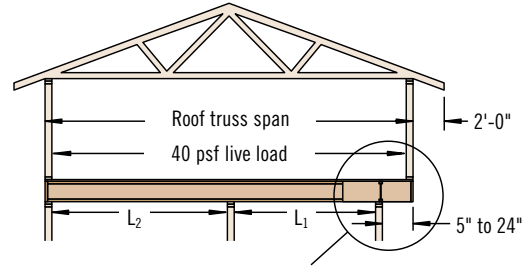


TJI® joists may be cantilevered up to 5" when supporting roof load, assuming:

- simple or continuous span
- $L_1 \leq L_2$
- minimum backspan = 2x cantilever length

Cantilevers 5" to 24"

See Section B of cantilever table on page 9

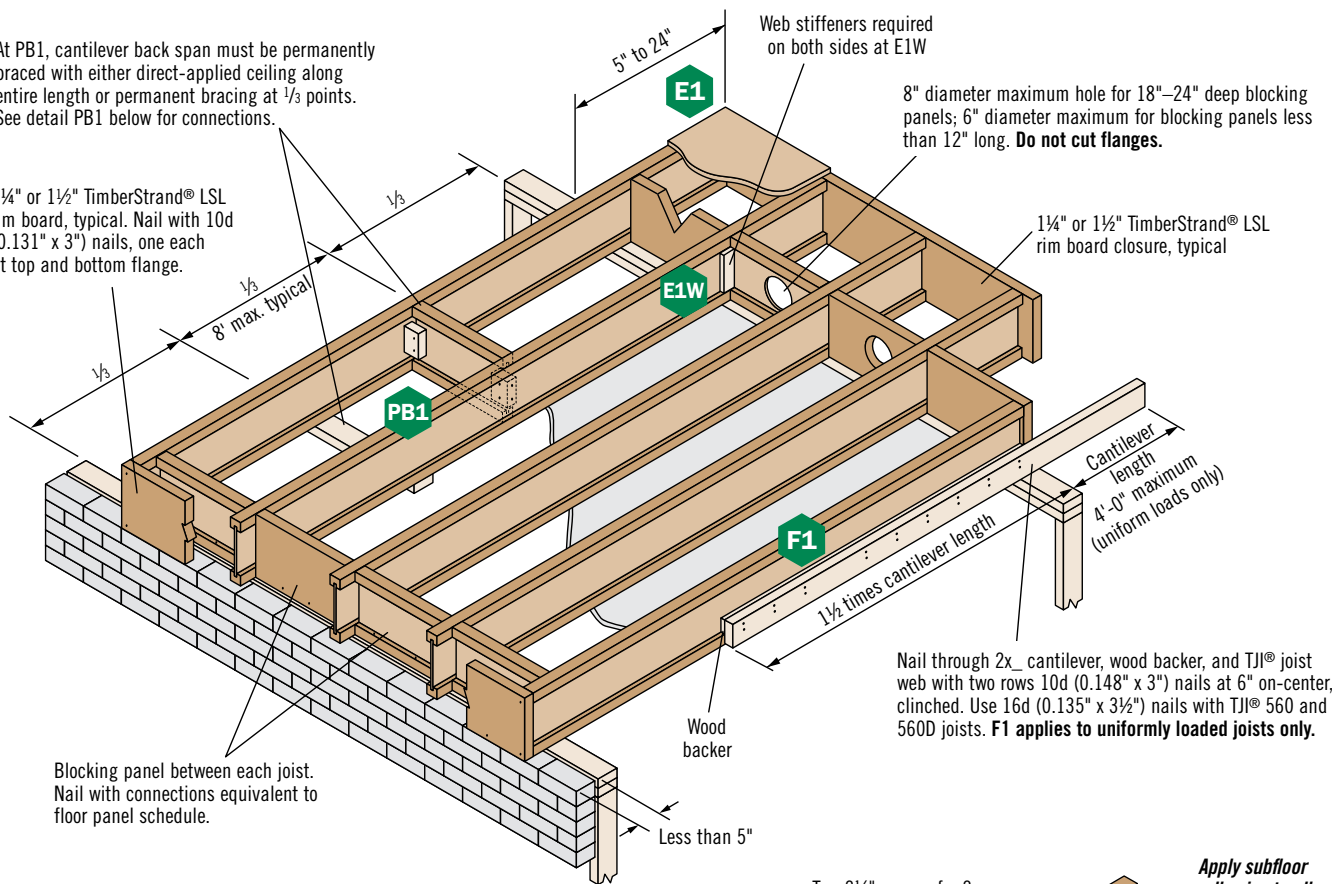


TJI® joists may be cantilevered 5" to 24" when supporting roof load, assuming:

- simple or continuous span
- $L_1 \leq L_2$
- minimum backspan = 2x cantilever length

At PB1, cantilever back span must be permanently braced with either direct-applied ceiling along entire length or permanent bracing at $1/3$ points. See detail PB1 below for connections.

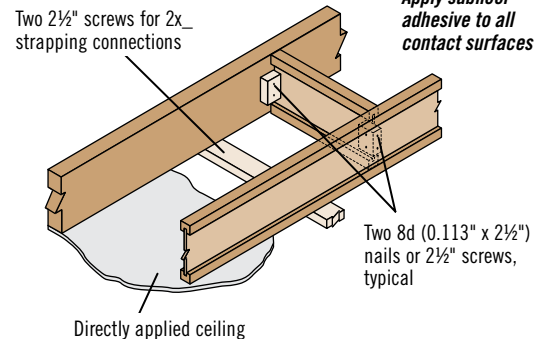
$1\frac{1}{4}$ " or $1\frac{1}{2}$ " TimberStrand® LSL rim board, typical. Nail with 10d (0.131" x 3") nails, one each at top and bottom flange.



Blocking panel between each joist. Nail with connections equivalent to floor panel schedule.

TJI® joists are intended for dry-use applications

WARNING: Drilling, sawing, sanding or machining wood products generates wood dust. The paint and/or coatings on this product may contain titanium dioxide. Wood dust and titanium dioxide are substances known to the State of California to cause cancer. For more information on Proposition 65, visit wy.com/inform.



PE6 When specified in design software or layouts, one of the above bracing options is required

CANTILEVERS

Cantilever Reinforcement

Depth	TJI®	Roof Truss Span	Section A: Cantilevers less than 5" (Brick Ledge)									Section B: Cantilevers 5" to 24"									
			Roof Total Load									Roof Total Load									
			35 PSF			45 PSF			55 PSF			35 PSF			45 PSF			55 PSF			
			On-Center Joist Spacing									On-Center Joist Spacing									
16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"	16"	19.2"	24"	
18" or 20"	360	24'							X												
		26'							X												
		28'			X				X		X	X									
		30'			X				X		X	X									
		32'			X		X	X	X	X	X	X									
		34'			X		X	X	X	X	X	X									E1W
		36'			X		X	X	X	X	X	X									E1W
		40'		X	X	X	X	X	X	X	X	X						E1W			E1W
18" or 20"	560, 560D	24'									X										
		26'									X										
		28'							X			X									
		30'							X		X	X									
		32'							X		X	X									
		34'			X				X		X	X									
		36'			X				X		X	X									
		40'			X		X	X	X	X	X	X									
22" or 24"	560D	24'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		26'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		28'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		30'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		32'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		34'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		36'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		40'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	

How to Use This Table

1. Identify TJI® joist and depth.
2. Locate the **Roof Truss Span** (horizontal) that meets or exceeds your condition.
3. Identify the cantilever condition (less than 5" or 5" to 24") and locate the **Roof Total Load** and **On-Center Joist Spacing** for your application.
4. Scan down to find the appropriate cantilever detail and refer to drawing on page 8:
 - Blank cells indicate that no reinforcement is required.
 - X indicates that cantilever will not work. Use Forte® or Javelin® software, or reduce spacing of joists and recheck table.

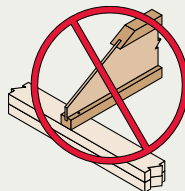
General Notes

- Table is based on:
 - 15 psf roof dead load on a horizontal projection.
 - 80 plf exterior wall load with 3'-0" maximum width window or door openings. For larger openings, or multiple 3'-0" width openings spaced less than 6'-0" on-center, additional joists beneath the opening's trimmers may be required.
 - Floor load of 40 psf live load and 10 psf dead load.
 - More restrictive of simple or continuous span.
 - Roof truss with 24" soffits.
- Designed for 2x4 and 2x6 plate widths.
- For conditions beyond the scope of this table, including cantilevers longer than 24", use our Forte® or Javelin® software.

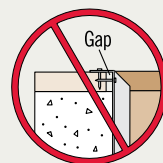
These Conditions are **NOT** Permitted:



DO NOT use sawn lumber for rim board or blocking as it may shrink after installation. Use only engineered lumber



DO NOT bevel cut joist beyond inside face of wall.



DO NOT install hanger overhanging face of plate or beam. Flush bearing plate with inside face of wall or beam.

ROOF SPAN TABLE

Maximum Horizontal Clear Spans—Roof (slopes of 3:12 or less)

O.C. Spacing	Depth	TJI®	Design Live Load (LL) and Dead Load (DL) in PSF					
			Non-Snow (125%)			Snow Load Area (115%)		
			20LL + 15DL	20LL + 20DL	25LL + 15DL	30LL + 15DL	40LL + 15DL	50LL + 15DL
16"	18"	360	39'-8"	37'-11"	37'-11"	36'-5"	31'-5"	26'-7"
		560, 560D	45'-6"	43'-5"	43'-6"	41'-9"	38'-4"	32'-5"
	20"	360	43'-0"	41'-1"	41'-1"	38'-4"	31'-5"	26'-7"
		560, 560D	49'-3"	47'-0"	47'-1"	45'-3"	38'-4"	32'-5"
22"	560D	53'-3"	50'-10"	50'-11"	48'-11"	45'-8"	42'-10"	
24"	560D	56'-10"	54'-3"	54'-4"	52'-2"	48'-9"	45'-5"	
19.2"	18"	360	37'-3"	35'-7"	35'-7"	31'-11"	26'-2"	22'-2"
		560, 560D	42'-9"	40'-9"	40'-10"	39'-0"	31'-11"	27'-0"
	20"	360	40'-5"	38'-6"	35'-11"	31'-11"	26'-2"	22'-2"
		560, 560D	46'-3"	44'-2"	43'-10"	39'-0"	31'-11"	27'-0"
22"	560D	50'-0"	47'-9"	47'-10"	45'-11"	42'-10"	39'-8"	
24"	560D	53'-5"	51'-0"	51'-0"	49'-0"	45'-1"	41'-5"	
24"	18"	360	34'-6"	31'-1"	28'-8"	25'-6"	20'-11"	17'-8"
		560, 560D	39'-7"	37'-9"	35'-0"	31'-2"	25'-6"	21'-7"
	20"	360	35'-7"	31'-1"	28'-8"	25'-6"	20'-11"	17'-8"
		560, 560D	42'-10"	37'-11"	35'-0"	31'-2"	25'-6"	21'-7"
22"	560D	46'-4"	44'-2"	44'-3"	42'-6"	38'-7"	34'-2"	
24"	560D	49'-5"	47'-2"	47'-2"	44'-6"	40'-3"	36'-6"	

How to Use This Table

1. Determine appropriate live and dead load, and the load duration factor.
2. Scan down the column until you find a span that meets or exceeds the span of your application.
3. Select TJI® joist and on-center spacing.

General Notes

- Table is based on:
 - Uniform loads.
 - More restrictive of simple or continuous span.
 - Roof slopes of 3:12 or less.
 - Minimum roof surface slope of ¼:12.
 - **18" and 20" TJI® joists:** Minimum bearing length of 1¾" end and 3½" intermediate (no web stiffeners).
 - **22" and 24" TJI® joists:** Minimum bearing length of 1¾" end and 3½" intermediate; web stiffeners required at all bearings.
- Total load values are limited to deflection of L/180.
- Live load is based on joist deflection of L/240.
- A support beam or wall at the high end is required. Ridge board applications do not provide adequate support.

ROOF LOAD TABLES

Roof—115% and 125% Load Duration (PLF) for 8'–18' Spans (slopes of 3:12 or less)

Depth	TJI®	Roof Joist Horizontal Clear Span																	
		8'			10'			12'			14'			16'			18'		
		Total Load	Defl.		Total Load	Defl.		Total Load	Defl.		Total Load	Defl.		Total Load	Defl.		Total Load	Defl.	
		Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240
18"	360	277	301	*	223	242	*	186	202	*	159	173	*	140	152	*	124	135	*
	560, 560D	338	368	*	272	295	*	227	246	*	195	212	*	170	185	*	152	165	*
20"	360	277	301	*	223	242	*	186	202	*	159	173	*	140	152	*	124	135	*
	560, 560D	338	368	*	272	295	*	227	246	*	195	212	*	170	185	*	152	165	*
22"	560D	535	581	*	429	467	*	359	390	*	308	335	*	270	293	*	240	261	*
24"	560D	570	620	*	458	498	*	382	416	*	328	357	*	288	313	*	256	278	*

Roof—115% and 125% Load Duration (PLF) for 20'–30' Spans (slopes of 3:12 or less)

Depth	TJI®	Roof Joist Horizontal Clear Span																	
		20'			22'			24'			26'			28'			30'		
		Total Load	Defl.		Total Load	Defl.		Total Load	Defl.		Total Load	Defl.		Total Load	Defl.		Total Load	Defl.	
		Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240	Snow 115%	Non-Snow 125%	Live Load L/240
18"	360	112	122	*	102	111	*	93	101	*	86	94	*	80	87	*	75	81	*
	560, 560D	137	148	*	124	135	*	114	124	*	105	114	*	98	106	*	91	99	*
20"	360	112	122	*	102	111	*	93	101	*	86	94	*	80	87	*	75	81	*
	560, 560D	137	148	*	124	135	*	114	124	*	105	114	*	98	106	*	91	99	*
22"	560D	216	235	*	196	214	*	180	196	*	166	181	*	154	168	*	144	157	*
24"	560D	230	250	*	209	228	*	192	209	*	177	193	*	165	179	*	154	167	*

* Indicates that Total Load value controls.

How to Use These Tables

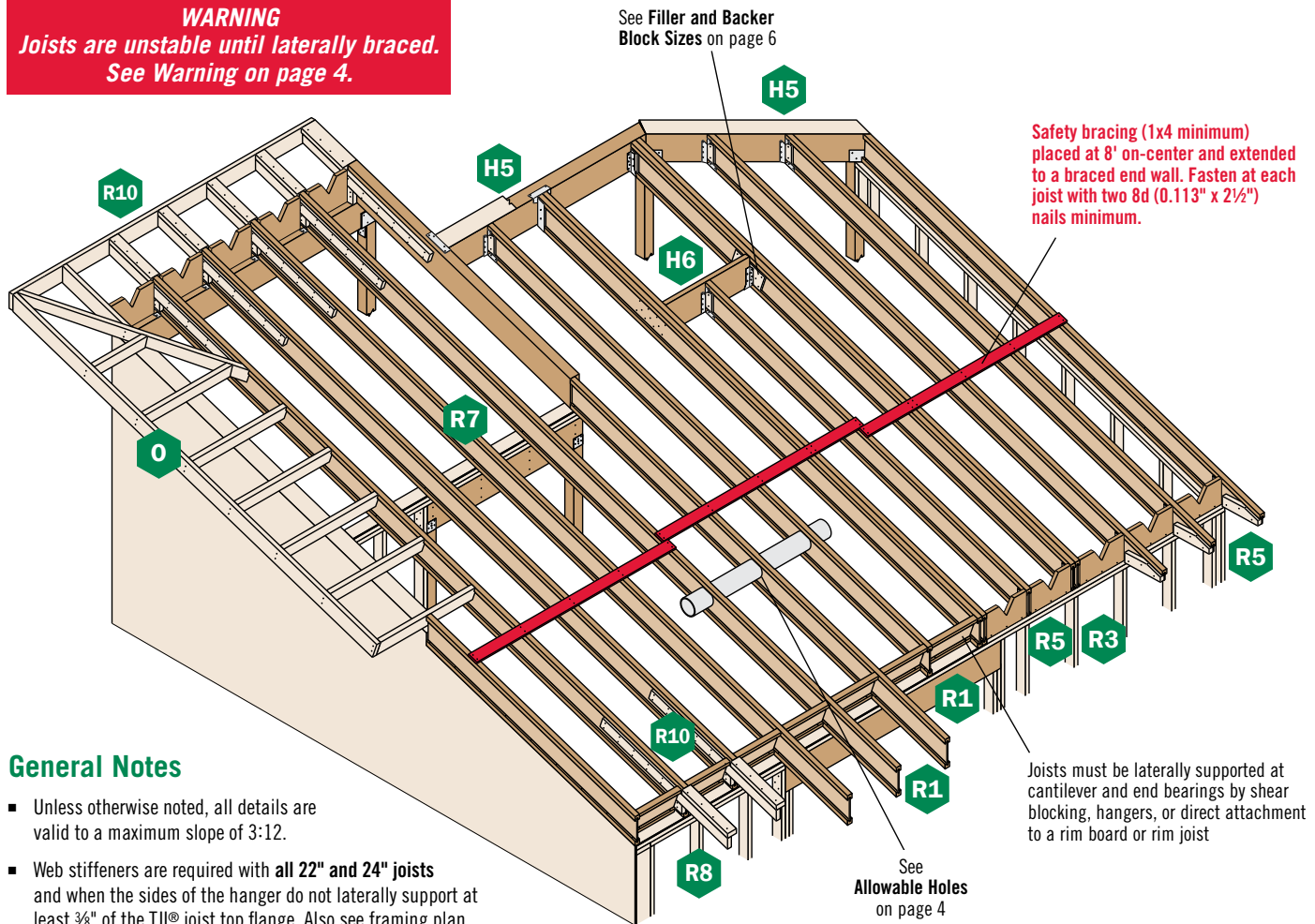
1. Calculate actual total load in pounds per linear foot (plf).
2. Select appropriate **Roof Joist Horizontal Clear Span**. For slopes of 2:12 and 3:12, approximate the increased dead load by multiplying the joist horizontal clear span by a slope factor of 1.014 and 1.031, respectively.
3. Scan down the column to find a TJI® joist that meets or exceeds actual total load.

General Notes

- Table is based on:
 - Uniform loads.
 - No composite action provided by sheathing.
 - More restrictive of simple or continuous span.
 - Roof slope of 3:12 or less
 - Minimum roof surface slope of ¼:12.
 - **18" and 20" TJI® joists:** Minimum bearing length of 1¾" end and 3½" intermediate (no web stiffeners).
 - **22" and 24" TJI® joists:** Minimum bearing length of 1¾" end and 3½" intermediate; web stiffeners required at all bearings.
- Total Load values are limited to deflection of L/180. For stiffer deflection criteria, use the **Live Load L/240** values.

ROOF FRAMING

WARNING
Joists are unstable until laterally braced.
See Warning on page 4.



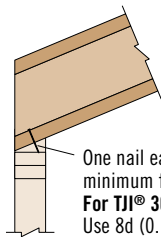
General Notes

- Unless otherwise noted, all details are valid to a maximum slope of 3:12.
- Web stiffeners are required with all 22" and 24" joists and when the sides of the hanger do not laterally support at least ⅜" of the TJI® joist top flange. Also see framing plan.

TJI® Joist Nailing Requirements at Bearing (slopes 3:12 or less)

TJI® Joist to Bearing Plate

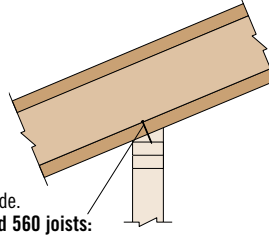
End Bearing
(1¼" minimum bearing required)



One nail each side, 1½" minimum from end.
For TJI® 360 and 560 joists:
Use 8d (0.113" x 2½") nails
For TJI® 560D joists:
Use 10d (0.131" x 3") nails

When slope exceeds ¼:12, a beveled bearing plate, variable slope seat connector, or birdsmouth cut (at low end of joist only) is required

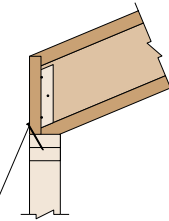
Intermediate Bearing
(3½" minimum bearing required)



One nail each side.
For TJI® 360 and 560 joists:
Use 8d (0.113" x 2½") nails
For TJI® 560D joists:
Use 10d (0.131" x 3") nails

When slope exceeds ¼:12 for a 2x4 wall or ⅛:12 for a 2x6 wall, a beveled bearing plate or variable slope seat connector is required.

Blocking to Bearing Plate



1¼" or 1½" TimberStrand® LSL rim board:
Toenail with 10d (0.131" x 3") nails at 6" on-center or 16d (0.135" x 3½") nails at 12" on-center

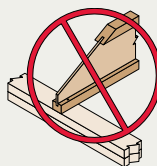
TJI® joist blocking:
10d (0.128" x 3") nails at 6" on-center

Shear transfer nailing:
Minimum, use connections equivalent to sheathing nail schedule

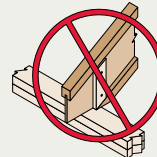
These Conditions are NOT Permitted:



DO NOT cut holes too close to support. Refer to Allowable Holes on page 4 for minimum distance from support.



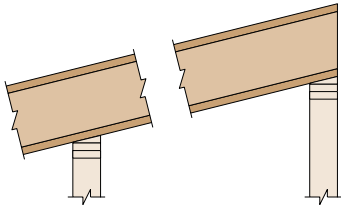
DO NOT bevel cut joist beyond inside face of wall.



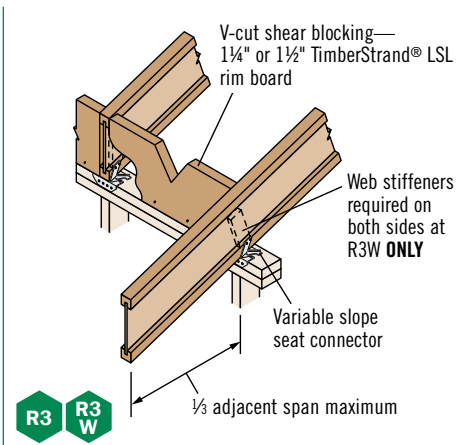
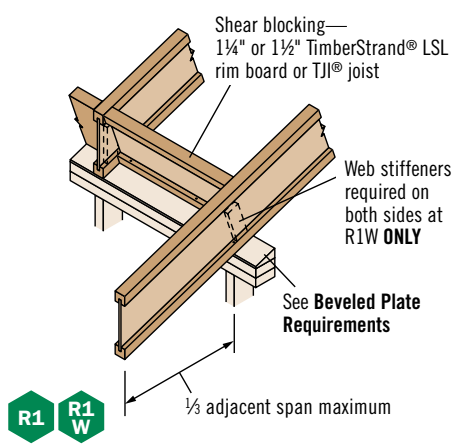
DO NOT overhang birdsmouth cut from inside face of plate. TJI® joist flange must bear fully on the plate. See detail BC on page 13.

ROOF DETAILS

Beveled Plate Requirements

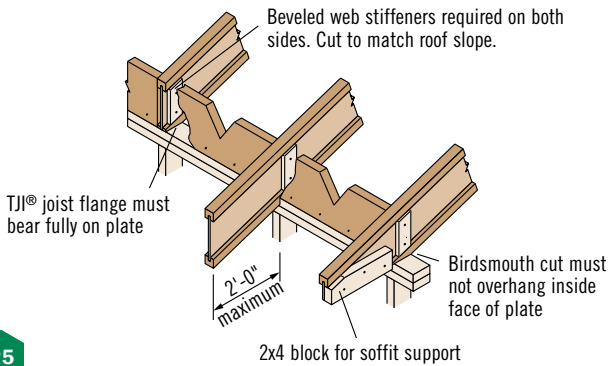


Required Bearing Length	Maximum Slope Without Beveled Plate
1/4"	1/2:12
3/2"	1/4:12
5/2"	1/8:12



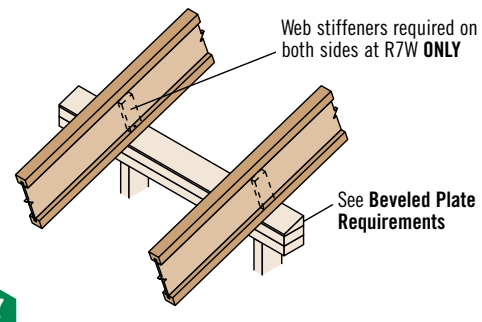
Birdsmouth Cut

Allowed at low end of joist only



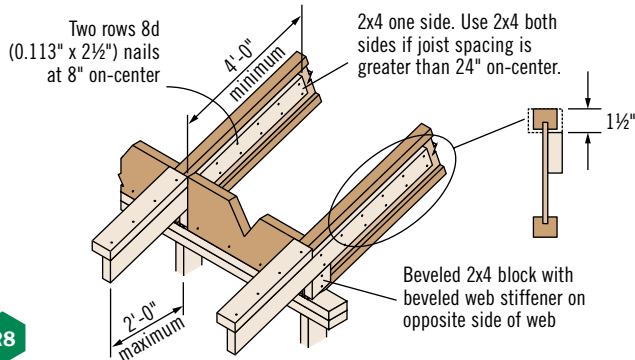
Intermediate Bearing

Blocking panels or shear blocking may be specified for joist stability at intermediate supports



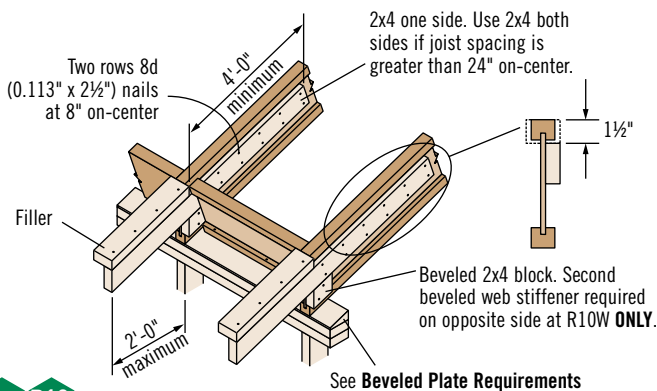
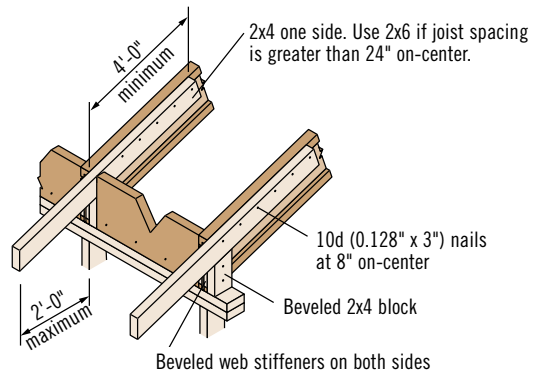
Birdsmouth Cut

Allowed at low end of joist only

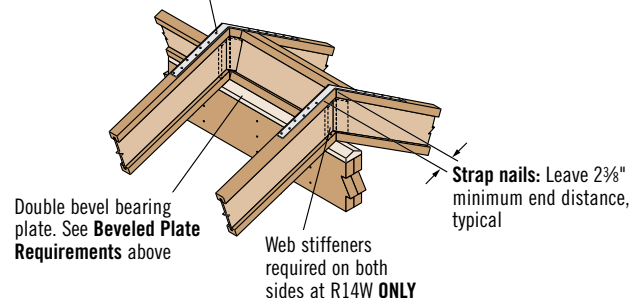


Birdsmouth Cut

Allowed at low end of joist only



LSTA18 (Simpson or USP) strap with twelve 10d (0.148" x 1 1/2") nails

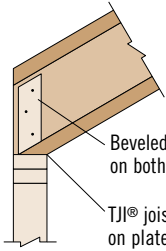


Additional blocking may be required for shear transfer

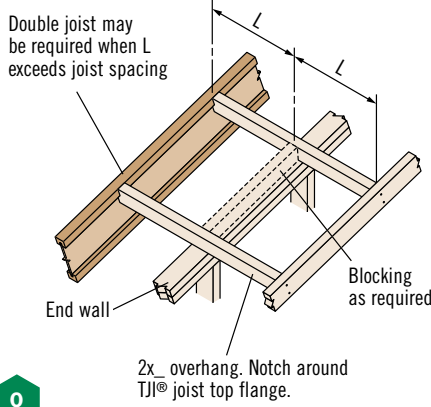
ROOF DETAILS

Birdsmouth Cut

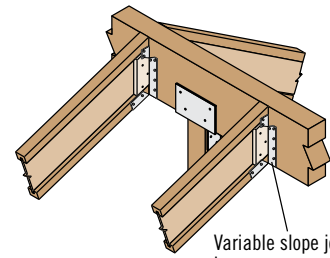
Allowed at low end of joist only



BC



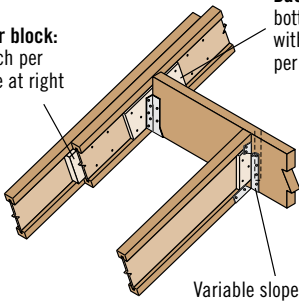
O



H5

Additional blocking may be required for shear transfer

Filler block: Attach per table at right



H6

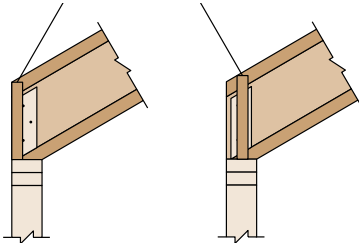
Filler and Backer Block Sizes

TJJ®	Depth	Type	Filler/Backer Size	Nail	
				Size	Quantity
360	18"-20"	Filler	2x12 + ½" sheathing	10d (0.128" x 3")	15, one side
		Backer	1" net	10d (0.128" x 3")	15
560, 560D	18"-20"	Filler	Two 2x12	16d (0.135" x 3½")	15 each side
		Backer	2x12	10d (0.128" x 3")	15
560D	22"-24"	Filler	Four ¾" x 15" sheathing	16d (0.135" x 3½")	25 each side
		Backer	Two ¾" x 15" sheathing	10d (0.128" x 3")	15

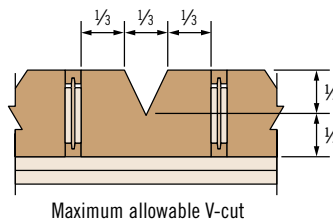
(1) If necessary, increase filler and backer block height for face mount hangers and maintain ⅛" gap at top of joist. See detail W on page 5. Filler and backer block dimensions should accommodate required nailing without splitting. The suggested minimum length is 24" for filler and 12" for backer blocks.

Shear Blocking and Ventilation Holes (Roof Only)

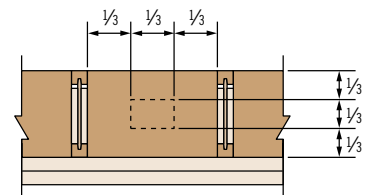
1¼" or 1½" TimberStrand® LSL rim board for shear blocking (between joists). Field trim to match joist depth at outer edge of wall or locate on wall to match joist depth



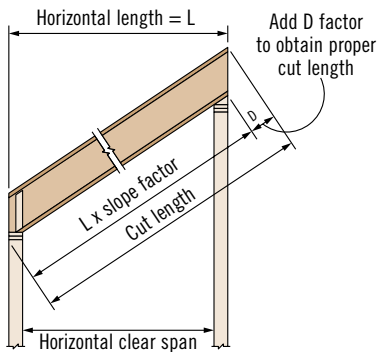
SB



Maximum allowable V-cut



Allowed hole zone



Actual cut length can be approximated by multiplying the horizontal length by the slope factor and adding the D factor. See tables at right.

PSF to PLF Conversions

O.C. Spacing	Load in Pounds Per Square Foot (PSF)								
	20	25	30	35	40	45	50	55	60
12"	20	25	30	35	40	45	50	55	60
16"	27	34	40	47	54	60	67	74	80
19.2"	32	40	48	56	64	72	80	88	96
24"	40	50	60	70	80	90	100	110	120

Slope Factors

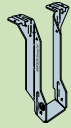

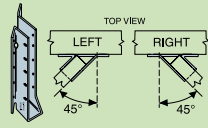
Slope	2½:12	3:12
Factor	1.021	1.031


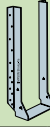
D Factors (Cut Length Calculations)

Depth	Slope				
	1:12	1½:12	2:12	2½:12	3:12
18"	1½"	2¼"	3"	3¾"	4½"
20"	1⅝"	2½"	3⅜"	4½"	5"
22"	1⅞"	2¾"	3⅝"	4⅝"	5½"
24"	2"	3"	4"	5"	6"

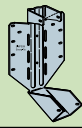
Also see General Notes and nailing requirements on page 11.

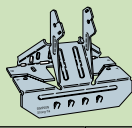
FRAMING CONNECTORS (SIMPSON STRONG-TIE®)

Joist		Single Joist—Top Mount				Single Joist—Face Mount ⁽¹⁾				Face Mount Skewed 45° Joist Hanger			
													
Depth	TJI®	Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing	
				Header	Joist			Header	Joist			Header	Joist
18"	360	MIT3518	1,265	16d	10d x 1½"	MIU2.37/18	1,265	16d	10d x 1½"	<i>SUR/L2.37/14</i>	1,430	16d	10d x 1½"
	560, 560D	MIT418	1,460	16d	10d x 1½"	MIU3.56/18	1,460	16d	10d x 1½"	<i>SUR/L414</i>	1,460	16d	16d
20"	360	MIT3520	1,265	16d	10d x 1½"	MIU2.37/20	1,265	16d	10d x 1½"	<i>SUR/L2.37/14</i>	1,430	16d	10d x 1½"
	560, 560D	MIT420	1,460	16d	10d x 1½"	MIU3.56/20	1,460	16d	10d x 1½"	<i>SUR/L414</i>	1,460	16d	16d
22"	560D	<i>HIT422</i>	2,050	16d	10d x 1½"	<i>MIU3.56/20</i>	2,410	16d	10d x 1½"	<i>SUR/L414⁽⁶⁾</i>	2,395	16d	16d
24"	560D	<i>HIT424</i>	2,050	16d	10d x 1½"	<i>MIU3.56/20</i>	2,410	16d	10d x 1½"	<i>SUR/L414⁽⁶⁾</i>	2,395	16d	16d

Joist		Double Joist—Top Mount				Double Joist—Face Mount			
									
Depth	TJI®	Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing	
				Header	Joist			Header	Joist
18"	360	LBV4.75/18	2,460	16d	10d x 1½"	MIU4.75/18	2,530	16d	10d x 1½"
	560, 560D	<i>B7.12/18</i>	2,920	16d	16d	<i>HU414-2</i>	2,680	16d	16d
20"	360	LBV4.75/20	2,460	16d	10d x 1½"	MIU4.75/20	2,530	16d	10d x 1½"
	560, 560D	<i>B7.12/20</i>	2,920	16d	16d	<i>HU414-2</i>	2,680	16d	16d
22"	560D	<i>B7.12/22</i>	3,355	16d	16d	<i>HU414-2</i>	2,680	16d	16d
24"	560D	<i>B7.12/24</i>	3,355	16d	16d	<i>HU414-2</i>	2,680	16d	16d

Hanger information on this page was provided by either Simpson Strong-Tie® or USP Structural Connectors®. For additional information, please refer to their literature.

Joist		Variable Slope Seat Joist Hanger ⁽³⁾				
						
Depth	TJI®	Hanger	Capacity (lbs)		Nailing	
			Sloped Only	Sloped and Skewed	Header	Joist
18"–20"	360	<i>LSSU135</i>	1,110 ⁽¹⁾	995	10d	10d x 1½"
	560, 560D	<i>LSSU410</i>	1,725 ⁽¹⁾	1,625	16d	10d x 1½"
22"–24"	560D	<i>LSSU410</i>	2,430 ⁽¹⁾	1,625	16d	10d x 1½"

Joist		Variable Slope Seat Connector ⁽²⁾			
					
Depth	TJI®	Hanger	Capacity (lbs)	Nailing	
				Header	Joist
18"–20"	360	VPA35	1,140	10d	10d x 1½"
	560, 560D	VPA4	1,230	10d	10d x 1½"
22"–24"	560D	<i>VPA4</i>	1,230	10d	10d x 1½"

General Notes

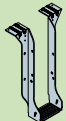
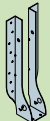
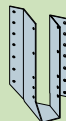
Bold italic hangers require web stiffeners.

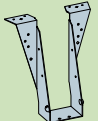
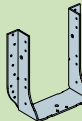
Capacities will vary with different nailing criteria or other support conditions; contact your Weyerhaeuser representative for assistance.

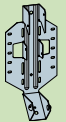
- Hanger capacities shown are either joist bearing capacity or hanger capacity—whichever is less. Joist end reaction must be checked to ensure it does not exceed the capacity shown in the tables.
- All capacities are for downward loads at 100% duration of load.
- Fill all round, dimple, and positive-angle nail holes.
- Use sloped seat hangers and beveled web stiffeners when TJI® joist slope exceeds ¼:12.
- Leave ⅛" clearance (⅜" maximum) between the end of the supported joist and the header or hanger.
- Nails: 16d = 0.162" x 3½", 10d = 0.148" x 3", and 10d x 1½" = 0.148" x 1½".

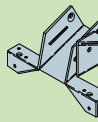
Also see additional notes on page 15

FRAMING CONNECTORS (USP STRUCTURAL CONNECTORS®)

Joist		Single Joist—Top Mount				Single Joist—Face Mount ⁽¹⁾				Face Mount Skewed 45° Joist Hanger ⁽¹⁾			
													
Depth	TJI®	Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing	
				Header	Joist			Header	Joist			Header	Joist
18"	360	TFI3518	1,265	16d	10d x 1½"	THF23180	1,265	10d	10d x 1½"	SKH2324L/R	1,110	10d	10d x 1½"
	560, 560D	TFI418	1,460	16d	10d x 1½"	THF35157	1,460	10d	10d x 1½"	SKH414L/R⁽⁴⁾	1,460	16d	16d
20"	360	TFI3520	1,265	16d	10d x 1½"	THF23180	1,265	10d	10d x 1½"	SKH2324L/R⁽⁶⁾	1,110	10d	10d x 1½"
	560, 560D	TFI420	1,460	16d	10d x 1½"	THF35157	1,460	10d	10d x 1½"	SKH414L/R⁽⁴⁾	1,460	16d	16d
22"	560D	TFI422	2,410	16d	10d x 1½"	THF35157	2,410	10d	10d x 1½"	SKH414L/R⁽⁴⁾⁽⁶⁾	2,410	16d	16d
24"	560D	TFI424	2,410	16d	10d x 1½"	THF35157	2,410	10d	10d x 1½"	SKH414L/R⁽⁴⁾⁽⁶⁾	2,410	16d	16d

Joist		Double Joist—Top Mount				Double Joist—Face Mount ⁽¹⁾			
									
Depth	TJI®	Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing	
				Header	Joist			Header	Joist
18"	360	TH023180-2	2,770	16d	10d	THF23160-2	2,525	10d	10d
	560, 560D	BPH7118	3,185	16d	10d	HD7160	2,920	16d	10d
20"	360	TH023200-2	2,770	16d	10d	THF23160-2	2,525	10d	10d
	560, 560D	BPH7120	3,185	16d	10d	HD7160	2,920	16d	10d
22"	560D	BPH7122	3,455	16d	10d	HD7160	3,385	16d	10d
24"	560D	BPH7124	3,455	16d	10d	HD7160	3,385	16d	10d

Joist		Variable Slope Seat Joist Hanger ⁽³⁾				
						
Depth	TJI®	Hanger	Capacity (lbs)		Nailing	
			Sloped Only	Sloped and Skewed	Header	Joist
18"–20"	360	LSSH23	1,140 ⁽¹⁾	1,140 ⁽¹⁾	10d	10d x 1½"
	560, 560D	LSSH35	1,595 ⁽¹⁾	1,590	16d	10d x 1½"
22"–24"	560D	LSSH35	2,485 ⁽¹⁾	1,920	16d	10d x 1½"

Joist		Variable Slope Seat Connector ⁽⁵⁾			
					
Depth	TJI®	Hanger	Capacity (lbs)	Nailing	
				Header	Joist
18"–20"	360	TMP23	1,505	10d	10d x 1½"
	560, 560D	TMP4	1,725	10d	10d x 1½"
22"–24"	560D	TMP4	1,970	10d	10d x 1½"

Support Requirements

- Support material assumed to be Trus Joist® engineered lumber or sawn lumber (Douglas fir or southern pine species).
- Minimum support width for single- and double-joist top mount hangers is 3".
- Minimum support width for face mount hangers with 10d and 16d nails is 1½" and 1¾", respectively; clinched.

Table Footnotes:

- Face mount hanger capacities may be increased up to 15% for snow roofs or 25% for non-snow roofs.
- For TJI® joist depths less than 18", VPA connectors are allowed on slopes of 3:12 through 12:12. For joist depths 18" and deeper, use only at a 3:12 slope.
- For TJI® joist depths less than 18", LSSU, LSSUH, and LSSH hangers can be field adjusted for slopes and skews of up to 45 degrees. For joist depths 18" and deeper, use only up to a 3:12 slope; skew up to 45 degrees. Additional lateral restraints are required for 16", 18", and 20" deep TJI® joists.
- Miter cut is required at end of joists.
- For TJI® joist depths less than 18", TMP connectors are allowed on slopes of 1:12 through 6:12. For joist depths 18" and deeper, use only on slopes 1:12 through 3:12.
- Additional lateral restraints are required.

See General Notes on page 14

WE CAN HELP YOU BUILD SMARTER

You want to build solid and durable structures—we want to help. Weyerhaeuser provides high-quality building products and unparalleled technical and field assistance to support you and your project from start to finish.

Floors and Roofs: Start with the best framing components in the industry: our Trus Joist® TJJ® joists; TimberStrand® LSL rim board; and TimberStrand® LSL, Microllam® LVL, and Parallam® PSL headers and beams. Pull them all together with our self-gapping and self-draining Weyerhaeuser Edge Gold™ floor panels and durable Weyerhaeuser roof sheathing.

Walls: Get the best value out of your framing package—use TimberStrand® LSL studs for tall walls, kitchens, and bathrooms, and our traditional, solid-sawn lumber everywhere else. Cut down installation time by using TimberStrand® LSL headers for doors and windows, and Weyerhaeuser wall sheathing with its handy two-way nail lines. Use our TJ® Shear Brace for extra support in walls with large openings or in high wind or seismic areas.

Software Solutions: Whether you are a design professional or lumber dealer, Weyerhaeuser offers an array of software packages to help you specify individual framing members, create cut lists, manage inventories—even help you design a complete structural frame. Contact your Weyerhaeuser representative to find out how to get the software you need.

Technical Support: Need technical help? Weyerhaeuser has one of the largest networks of engineers and sales representatives in the business. Call us for help, and a skilled member from our team of experts will answer your questions and work with you to develop solutions that meet all your structural framing needs.



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