



Deep Depth TJI® 360 • TJI® 560 TJI® 560D Joists

Featuring Trus Joist® Silent Floor® Joists

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



FLOOR SOLUTIONS

ROOF SOLUTIONS



About This Guide

iLevel provides products for use in residential, multi-family and light commercial construction. The deep depth TJI® joists covered in this guide can be used in a wide range of applications and are readily available through our nationwide network of distributors and dealers. For more information on other applications or iLevel products, contact your iLevel representative.

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

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

Flange Widths: 2½" and 3½"
Depths: 18", 20", 22" and 24"



Code Evaluations: See ICC ES ESR-1153 and ESR-1387

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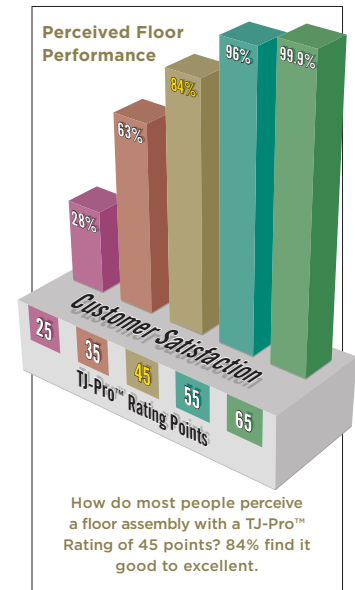
Certified Sourcing
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Take the Guesswork Out of Floor Performance Performance with TJ-Pro™ Ratings

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



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)	1½" End Reaction (lbs)		3½" Intermediate Reaction (lbs)		5¼" 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):

For TJI® 360 Joists

$$\Delta = \frac{22.5 wL^4}{EI} + \frac{2.67 wL^2}{d \times 10^5}$$

w = uniform load in pounds per linear foot
L = span in feet

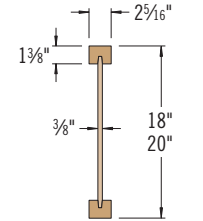
For TJI® 560 and 560D Joists

$$\Delta = \frac{22.5 wL^4}{EI} + \frac{2.29 wL^2}{d \times 10^5}$$

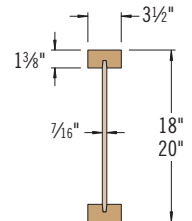
d = out-to-out depth of the joist in inches
EI = value from table above

TJI® joists are intended for dry-use applications

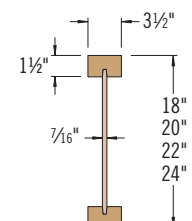
Some TJI® joist series may not be available in your region. Contact your iLevel representative for information.



TJI® 360 Joist



TJI® 560 Joist



TJI® 560D Joist

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" ⁽²⁾	21'-5" ⁽²⁾	24'-9" ⁽²⁾	20'-7" ⁽²⁾	16'-6" ⁽²⁾
	560, 560D	32'-5"	30'-7" ⁽²⁾	25'-2" ⁽²⁾	29'-1"⁽²⁾	24'-2" ⁽²⁾	19'-4" ⁽²⁾
20"	360	31'-0" ⁽²⁾	26'-10" ⁽²⁾	21'-5" ⁽²⁾	24'-9" ⁽²⁾	20'-7" ⁽²⁾	16'-6" ⁽²⁾
	560, 560D	35'-1"	31'-6" ⁽²⁾	25'-2" ⁽²⁾	29'-1" ⁽²⁾	24'-2" ⁽²⁾	19'-4" ⁽²⁾
22" ⁽¹⁾	560D	37'-11"	35'-9"	33'-2"	37'-11"	35'-9"	29'-0"
24" ⁽¹⁾	560D	40'-6"	38'-1"	35'-5"	40'-6"	38'-1"	31'-0"

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" ⁽²⁾	26'-10" ⁽²⁾	21'-5" ⁽²⁾	24'-9" ⁽²⁾	20'-7" ⁽²⁾	16'-6" ⁽²⁾
	560, 560D	35'-11" ⁽²⁾	31'-6" ⁽²⁾	25'-2" ⁽²⁾	29'-1"⁽²⁾	24'-2" ⁽²⁾	19'-4" ⁽²⁾
20"	360	32'-3" ⁽²⁾	26'-10" ⁽²⁾	21'-5" ⁽²⁾	24'-9" ⁽²⁾	20'-7" ⁽²⁾	16'-6" ⁽²⁾
	560, 560D	37'-10" ⁽²⁾	31'-6" ⁽²⁾	25'-2" ⁽²⁾	29'-1" ⁽²⁾	24'-2" ⁽²⁾	19'-4" ⁽²⁾
22" ⁽¹⁾	560D	42'-0"	39'-7"	36'-10"	40'-8"	36'-4"	29'-0"
24" ⁽¹⁾	560D	44'-9"	42'-3"	39'-3"	42'-6"	38'-9"	31'-0"

(1) Web stiffeners are required at all bearing locations for 22" and 24" TJI® 560D joists.

(2) Web stiffeners are required at intermediate supports of continuous-span joists when the intermediate bearing length is less than 5¼" 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".

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.

General Notes

- Tables are based on:
 - Uniform loads.
 - More restrictive of simple or continuous span.
 - Clear distance between supports (1¼" minimum end bearing).
- 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 iLevel® 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 iLevel 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 TJ-Pro™ Ratings.

ALLOWABLE HOLES

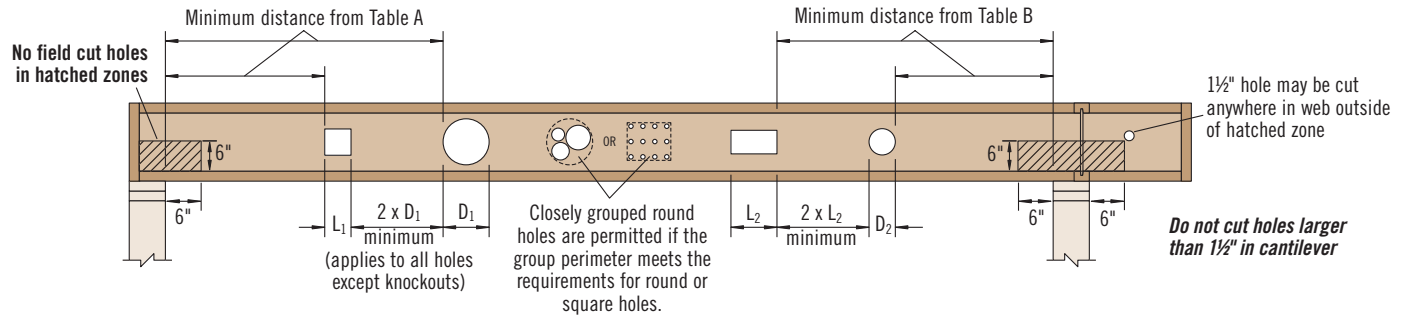


Table A—End Support (Minimum distance from edge of hole to inside face of nearest end support)

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"	1'-0"	2'-0"	5'-0"	10'-0"				1'-0"	1'-0"	3'-0"	5'-0"	10'-0"	11'-0"	13'-6"			
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	5'-0"	11'-0"				1'-0"	1'-6"	4'-0"	6'-6"	11'-0"	12'-0"	14'-6"			
	560D	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	5'-6"	11'-0"				1'-0"	1'-0"	3'-6"	5'-6"	10'-6"	11'-6"	13'-6"			
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	7'-0"	10'-6"			1'-0"	1'-0"	1'-0"	2'-6"	8'-0"	11'-6"	14'-0"	15'-6"		
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	7'-0"	11'-0"			1'-0"	1'-0"	1'-0"	4'-0"	9'-6"	12'-6"	14'-6"	15'-6"		
	560D	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	7'-0"	11'-0"			1'-0"	1'-0"	1'-0"	3'-0"	8'-6"	12'-0"	13'-6"	14'-6"		
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"	15'-0"				1'-0"	4'-0"	6'-6"	9'-0"	14'-6"	16'-6"	19'-6"			
	560	1'-0"	1'-0"	1'-0"	2'-0"	6'-0"	10'-0"	16'-6"				1'-0"	6'-0"	8'-6"	11'-6"	16'-6"	18'-0"	20'-0"			
	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'-6"			1'-0"	1'-6"	4'-0"	7'-0"	12'-6"	16'-6"	19'-0"	21'-0"		
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	5'-6"	12'-0"	16'-0"			1'-0"	3'-0"	6'-0"	8'-6"	14'-0"	17'-6"	19'-6"	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 iLevel representative.



DO NOT
cut or notch flange.



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



DO NOT stack
building materials on
unbraced 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:

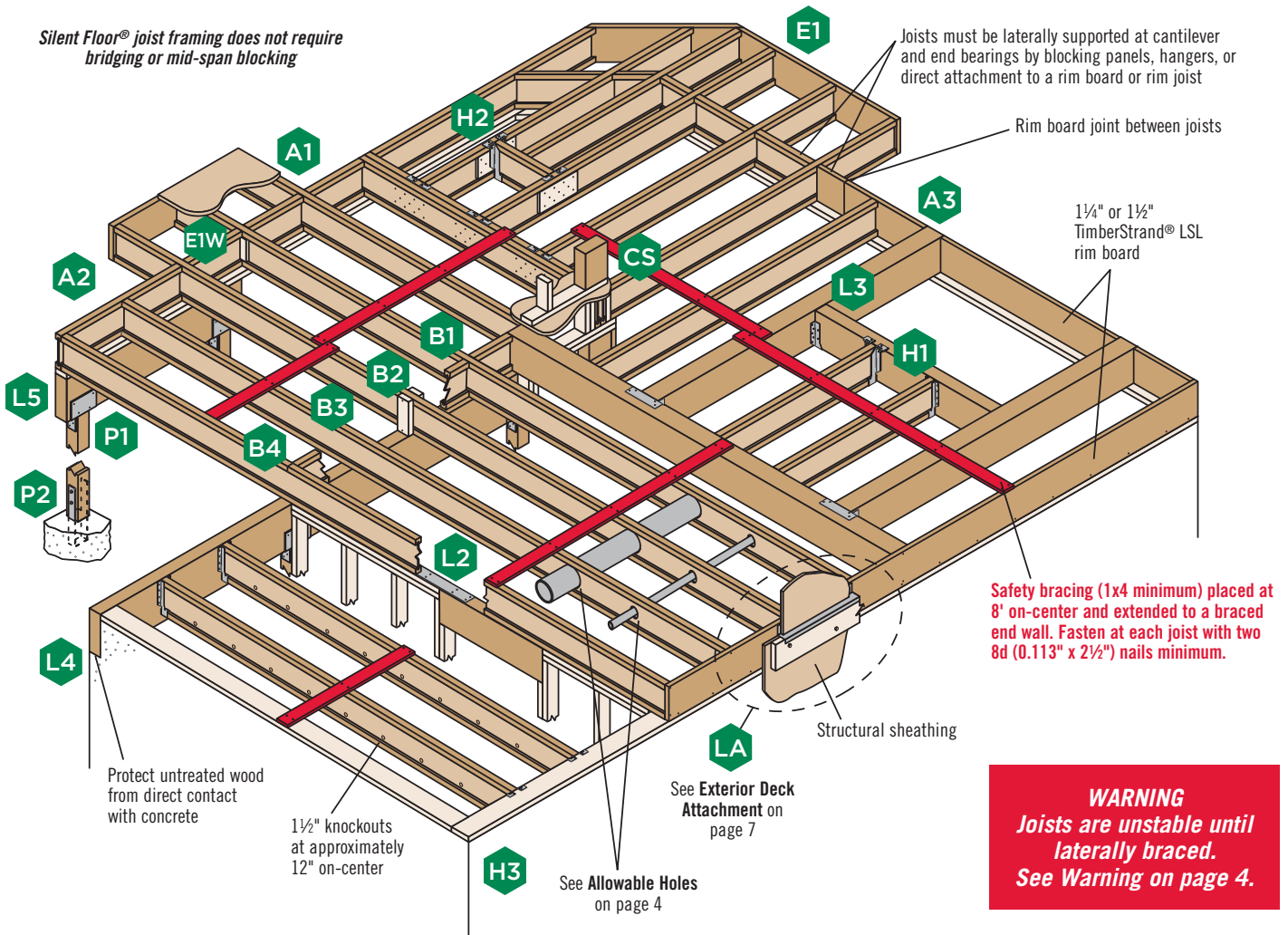
- Blocking
- Hangers
- Rim Board
- Sheathing
- Rim Joist
- Strut Lines

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.

SILENT FLOOR® JOIST FRAMING

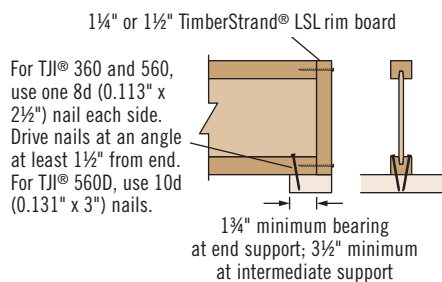
Silent Floor® joist framing does not require bridging or mid-span blocking



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

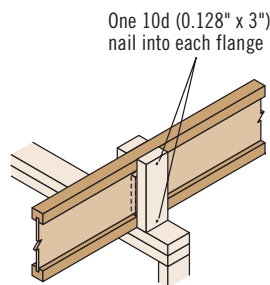
TJI® Joist Nailing Requirements at Bearing

TJI® Joist to Bearing Plate



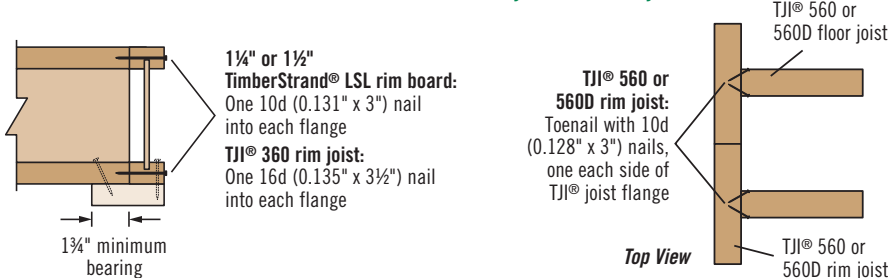
Shear transfer nailing: Use connections equivalent to floor panel nailing schedule

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

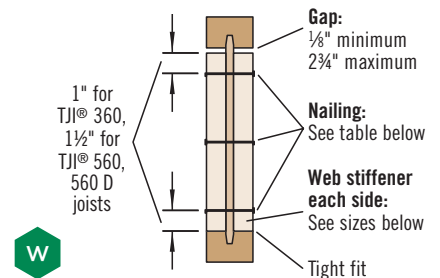


Also see detail B2 on page 6

Rim to TJI® Joist (Locate rim joint between joists)



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 2½/16" (1)	8d (0.113" x 2½")	3	3
560	All	2x4 (2)	16d (0.135" x 3½")	3	3
560D	18"	2x4 (2)	16d (0.135" x 3½")	4	4
	20"			5	5
	22" (3)			6	11
	24" (3)			6	13

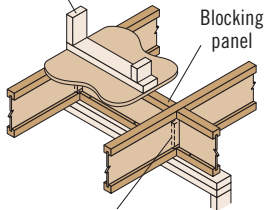
(1) PS1 or PS2 sheathing, face grain vertical

(2) Construction grade or better

(3) Web stiffeners are always required for 22" and 24" TJI® 560D joists.

FLOOR DETAILS

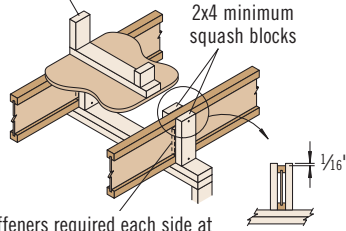
Load bearing or shear wall above
(must stack over wall below)



Web stiffeners required each side at B1W **ONLY**. See span table footnotes on page 3.

B1 **B1W** *IRC 502.7 requires lateral restraint (blocking) at all intermediate supports in Seismic Design Categories D_s, D₁, and D₂ to strengthen the floor diaphragm*

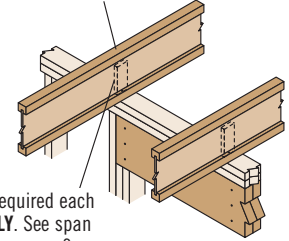
Load bearing wall above
(must stack over wall below)



Web stiffeners required each side at B2W **ONLY**. See span table footnotes on page 3.

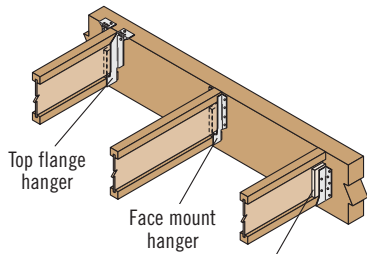
B2 **B2W** *Blocking panels may be required with shear walls above or below—see detail B1*

No Load bearing wall above



Web stiffeners required each side at B3W **ONLY**. See span table footnotes on page 3.

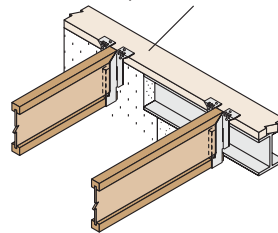
B3 **B3W** *Blocking panels may be required with shear walls above or below—see detail B1*



H1

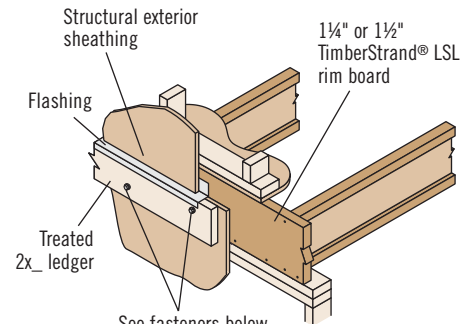
Web stiffeners required if sides of hanger do not laterally support at least $\frac{3}{8}$ " of TJI® joist top flange

Flush bearing plate required.
Maximum $\frac{1}{4}$ " overhang permitted at beam.



H3

Exterior Deck Attachment



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

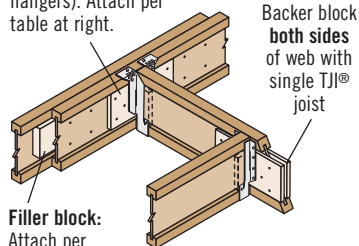
LA

Fastener	Allowable Load ⁽¹⁾ (lbs)	
	1/4" or 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.

- Use corrosion-resistant fasteners for wet-service applications.

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.

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

H2

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 $\frac{1}{8}$ " 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.

Fastener Spacing and Diaphragm Design Information

TJI®	Closest On-Center Spacing per Row ⁽¹⁾⁽²⁾			Diaphragm Design Information	
	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 1/2")	16d (0.162" x 3 1/2")	Equivalent Nominal Framing Width	Maximum Capacity (plf)
360, 560, 560D	3"	4" ⁽³⁾	6"	3"	720

(1) Stagger nails when using 4" on-center spacing and maintain $\frac{3}{8}$ " 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 spacing shown above, rectangular blocking must be used in lieu of TJI® joists.

(2) For non-diaphragm applications, multiple rows of fasteners are permitted if the rows are offset at least $\frac{1}{2}$ " and staggered.

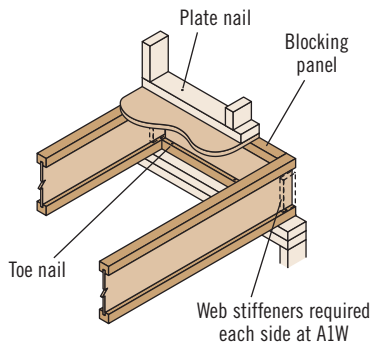
(3) Can be reduced to 3" on-center for light gauge steel straps with 10d (0.148" x 1 1/2") nails.

Also see nailing requirements on page 5

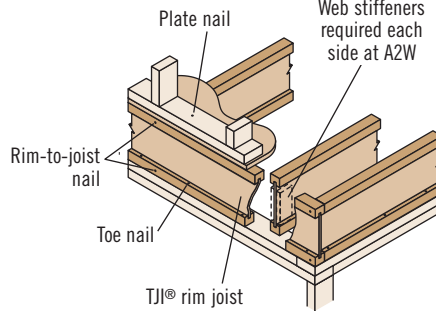
General Notes

- Maximum spacing of nails is 24" on-center.
- If more than one row of nails is used, the rows must be offset at least $\frac{1}{2}$ " and staggered.
- 14 gauge staples may be substituted for 8d (0.113" x 2 1/2") nails if minimum penetration of 1" into the TJI® joist or rim board is achieved.
- Table also applies to the attachment of TJI® rim joists and blocking panels to the wall plate.

FLOOR DETAILS

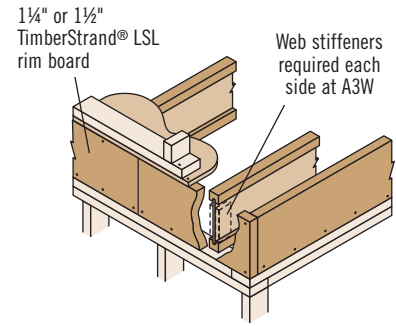


A1 A1W



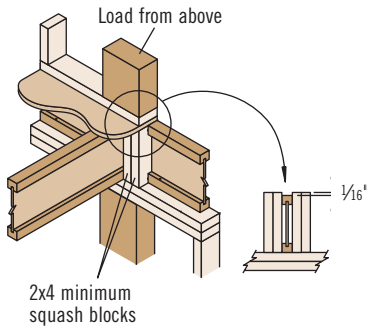
A2 A2W

Must have 1¼" 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⁾
1¼" TimberStrand® LSL	18"-20"	3,450
1½" 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 1¼" or 1½" TimberStrand® LSL Rim Board

Nail Size	Closest O.C. Spacing per Row	
	Rim Board Size	
	1¼"	1½"
8d (0.113" or 0.131" x 2½"), 10d (0.128" x 3"), 12d (0.128" x 3¼")	4"	3"
10d (0.148" x 3"), 12d (0.148" x 3¼")	4"	4"
16d (0.162" x 3½")	6" ⁽¹⁾	6" ⁽¹⁾

(1) Can be reduced to 4" on-center if nail penetration into the narrow edge is no more than 1⅜" (to avoid splitting).

- Nailing rows must be offset at least ½" and staggered
- Maximum spacing of nails is 24" on-center.
- 14 gauge staples may be substituted for 8d (0.113" x 2½") 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
20"	360	*	320	*	241	*	193	*	162	*	139	*	121	*	108
	560, 560D	*	390	*	294	*	236	*	197	*	169	*	148	*	132
22"	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	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

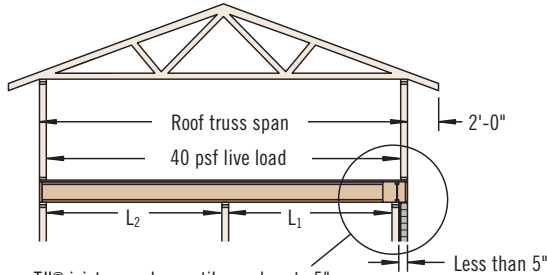
- Tables are based on:
 - Uniform loads.
 - No composite action provided by sheathing.
 - More restrictive of simple or continuous span.
- **Total Load** limits joist deflection to L/240.
- **Live Load** is based on joist deflection of L/480.
- If a live load deflection limit of L/360 is desired, multiply value in **Live Load** column by 1.33. The resulting live load may not exceed the **Total Load** shown.
- Table does not account for safe loading. Use iLevel 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

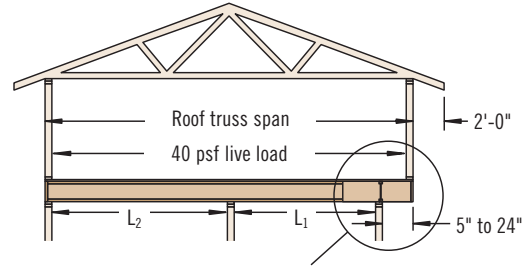


TJI® joists may be cantilevered up to 5" when supporting roof load, assuming:

- 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

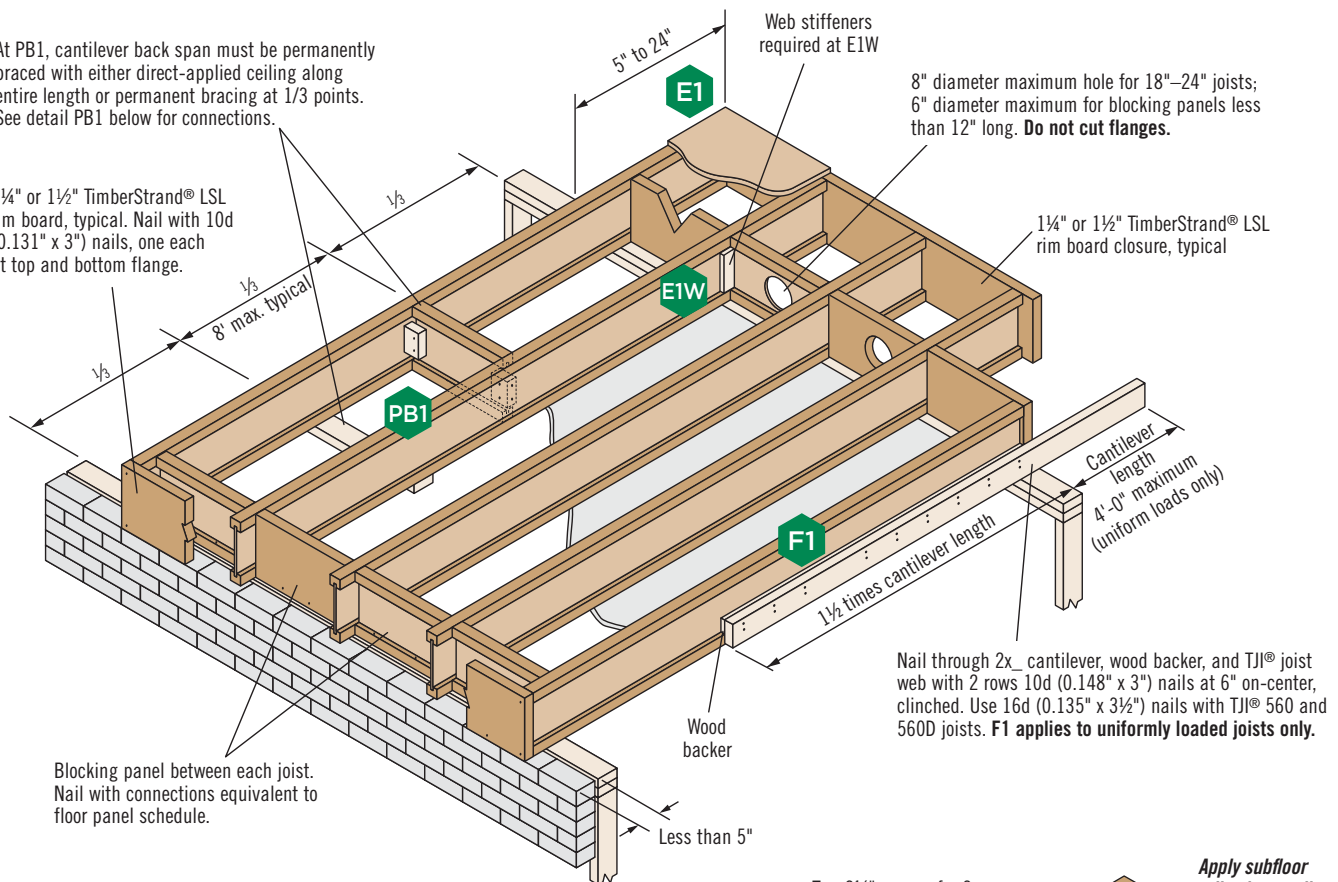


TJI® joists may be cantilevered 5" to 24" when supporting roof load, assuming:

- 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.

1¼" or 1½" TimberStrand® LSL rim board, typical. Nail with 10d (0.131" x 3") nails, one each at top and bottom flange.



8" diameter maximum hole for 18"-24" joists; 6" diameter maximum for blocking panels less than 12" long. **Do not cut flanges.**

1¼" or 1½" TimberStrand® LSL rim board closure, typical

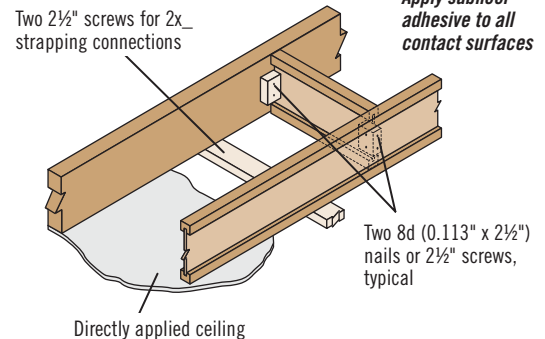
Nail through 2x_ cantilever, wood backer, and TJI® joist web with 2 rows 10d (0.148" x 3") nails at 6" on-center, clinched. Use 16d (0.135" x 3½") nails with TJI® 560 and 560D joists. **F1 applies to uniformly loaded joists only.**

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

Less than 5"

TJI® joists are intended for dry-use applications

WARNING: Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the State of California to cause cancer. For more information on Proposition 65, visit www.wy.com/inform.



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"
18" or 20"	360	24'			X			X		X	X									
		26'			X		X	X		X	X								E1W	
		28'			X		X	X	X	X	X								E1W	
		30'		X	X		X	X	X	X	X					E1W			X	
		32'		X	X	X	X	X	X	X	X					E1W			X	
		34'		X	X	X	X	X	X	X	X					E1W		E1W	X	
		36'		X	X	X	X	X	X	X	X			E1W		X		E1W	X	
		38'	X	X	X	X	X	X	X	X	X			E1W		X		E1W	X	
40'	X	X	X	X	X	X	X	X	X			E1W		E1W	X		X	X		
18" or 20"	560, 560D	24'						X			X									
		26'						X		X	X									
		28'			X			X		X	X									
		30'			X		X	X		X	X									
		32'			X		X	X	X	X	X									
		34'			X		X	X	X	X	X								E1W	
		36'		X	X		X	X	X	X	X								E1W	
		38'		X	X	X	X	X	X	X	X								E1W	
40'		X	X	X	X	X	X	X	X						E1W			X		
22" or 24"	560D	24'	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	
		28'	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	
		32'	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	X	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		36'	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	X	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
		38'	E1W	E1W	E1W	E1W	E1W	X	E1W	E1W	X	E1W	E1W	E1W	E1W	E1W	E1W	E1W	E1W	
40'	E1W	E1W	E1W	E1W	E1W	X	E1W	E1W	X	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 iLevel Forte™ or Javelin® software, or reduce spacing of joists and recheck table.

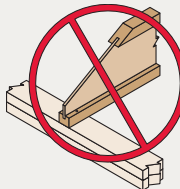
General Notes

- 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.
 - 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.

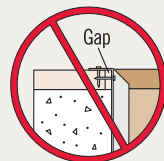
These Conditions Are **NOT** Permitted:



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 ⁽¹⁾ 560D	53'-3"	50'-10"	50'-11"	48'-11"	45'-8"	42'-10"		
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 ⁽¹⁾ 560D	50'-0"	47'-9"	47'-10"	45'-11"	42'-10"	39'-8"		
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 ⁽¹⁾ 560D	46'-4"	44'-2"	44'-3"	42'-6"	38'-7"	34'-2"		
		24 ⁽¹⁾ 560D	49'-5"	47'-2"	47'-2"	44'-6"	40'-3"	36'-6"		

(1) Web stiffeners are required at all bearing locations for 22" and 24" TJI® 560D joists.

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:
 - Roof slopes of 3:12 or less.
 - Uniform loads.
 - More restrictive of simple or continuous span.
 - Minimum roof surface slope of ¼:12.
 - 1¾" minimum end bearing and 3½" minimum intermediate bearing.
- Total load limits joist deflection to 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.
- Spans shown assume no web stiffeners at intermediate bearings.

ROOF LOAD TABLE

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	*

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. **Total Load** values are limited to deflection of L/180. For stiffer deflection criteria, use the **Live Load** L/240 values.

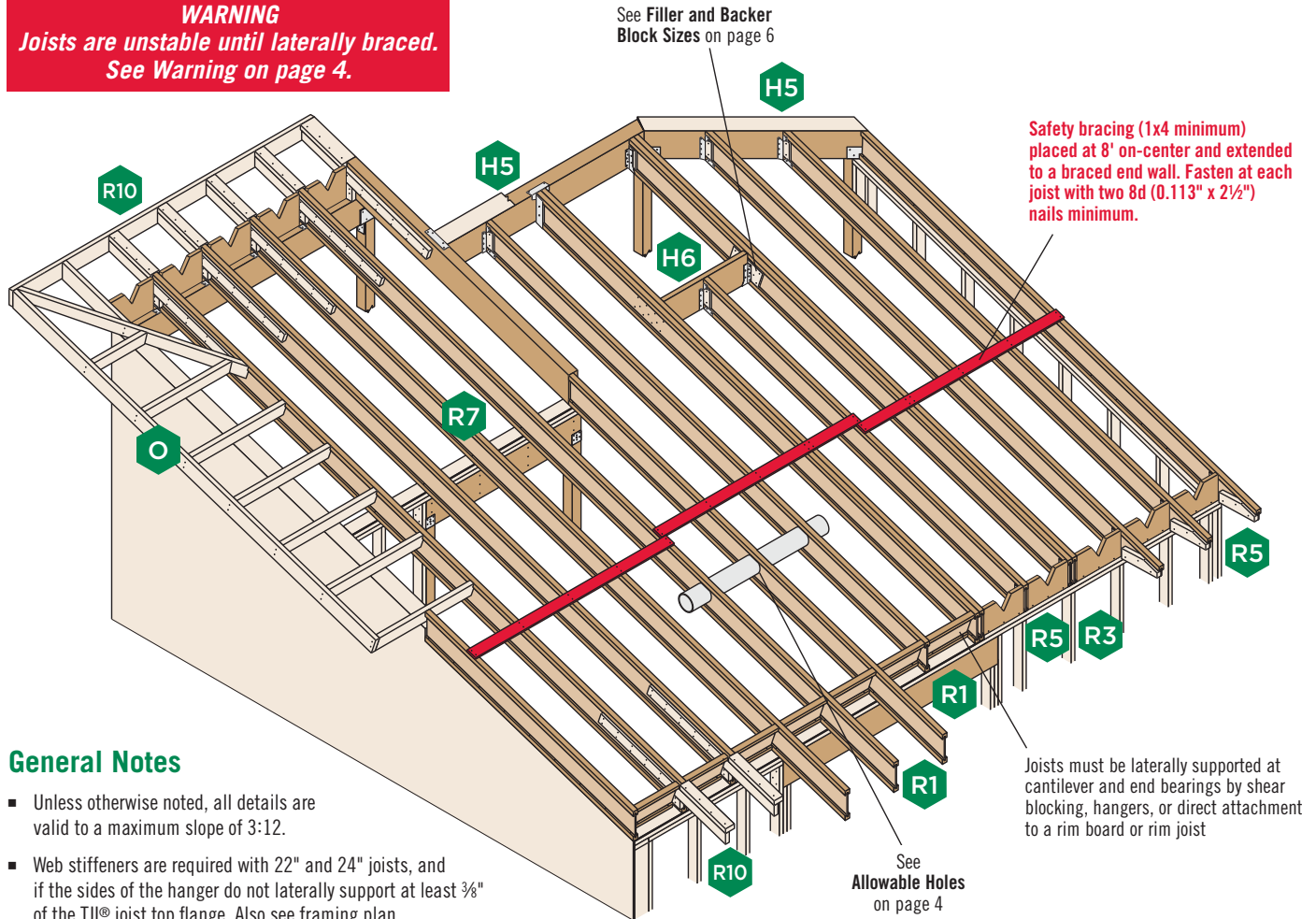
General Notes

- Table is based on:
 - Roof slope of 3:12 or less
 - Uniform loads.
 - No composite action provided by sheathing.
 - More restrictive of simple or continuous span.
 - Minimum roof surface slope of ¼:12.
- **Total Load** limits joist deflection to L/180.

ROOF FRAMING

WARNING

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



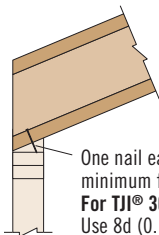
General Notes

- Unless otherwise noted, all details are valid to a maximum slope of 3:12.
- Web stiffeners are required with 22" and 24" joists, and if the sides of the hanger do not laterally support at least ⅓" of the TJI® joist top flange. Also see framing plan.

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

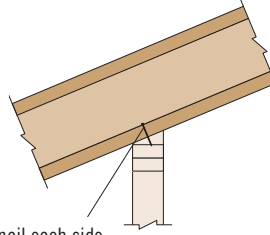
TJI® Joist to Bearing Plate

End Bearing (1¼" minimum bearing required)



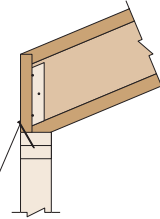
One nail each side, 1½" minimum from end.
For TJI® 360 and 560 joists:
Use 8d (0.113" x 2½") nails
For TJI® 560D joists:
Use 10d (0.131" x 3") nails

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

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

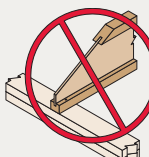
Shear transfer nailing:
Use connections equivalent to sheathing nail schedule

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

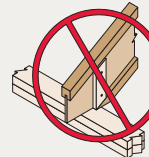
These Conditions Are **NOT** Permitted:



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



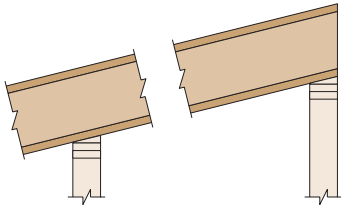
DO NOT bevel cut joist beyond inside face of wall.



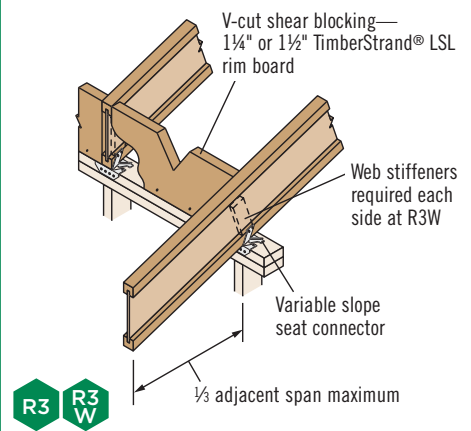
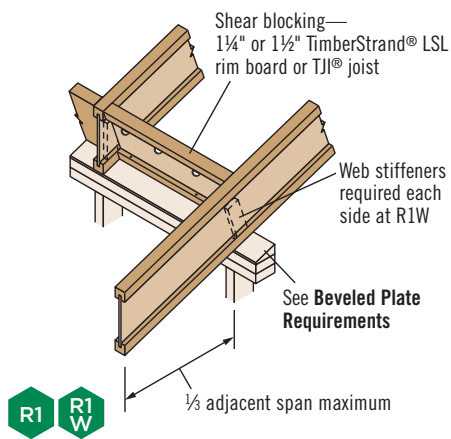
DO NOT overhang birdsmouth cut from inside face of plate. TJI® joist flange must bear fully on the plate. See detail BC on page 13.

ROOF DETAILS

Beveled Plate Requirements

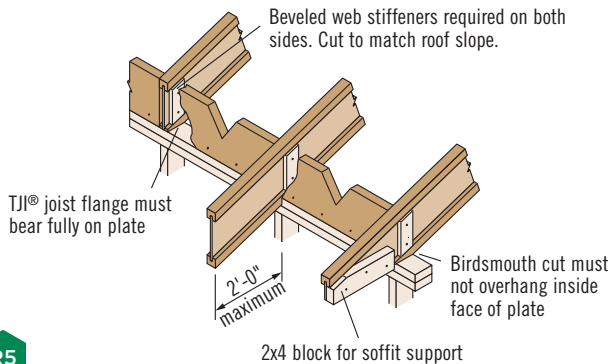


Required Bearing Length	Maximum Slope Without Beveled Plate
1¾"	½:12
3½"	¼:12
5½"	⅛:12



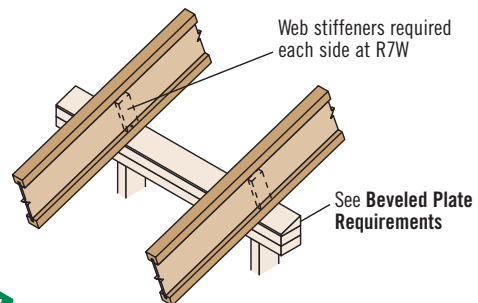
Birdsmouth Cut

Allowed at low end of joist only



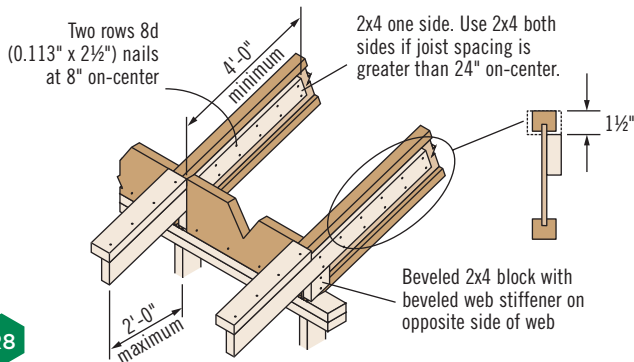
Intermediate Bearing

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



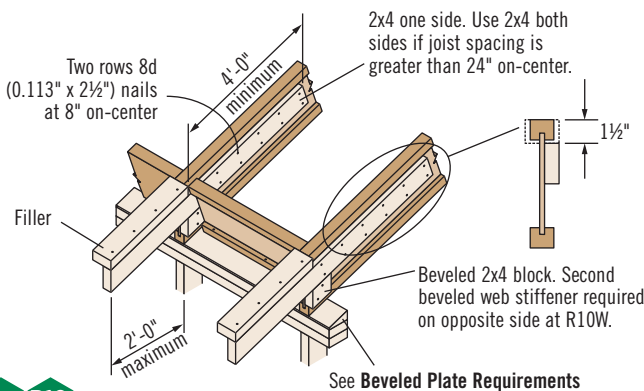
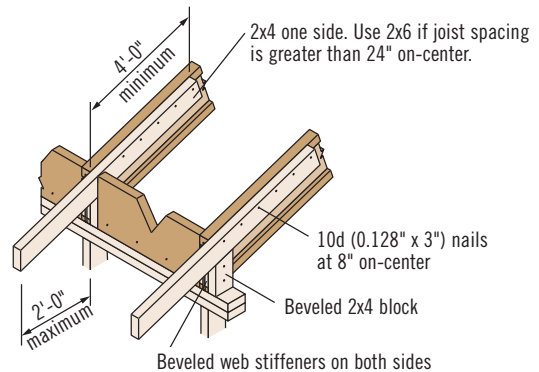
Birdsmouth Cut

Allowed at low end of joist only

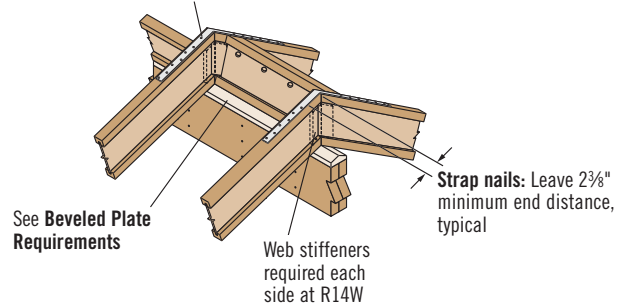


Birdsmouth Cut

Allowed at low end of joist only



LSTA18 (Simpson or USP) strap with
twelve 10d (0.148" x 1½") nails

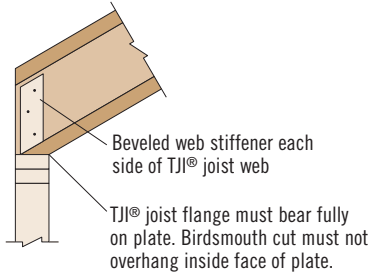


Additional blocking may be required for shear transfer

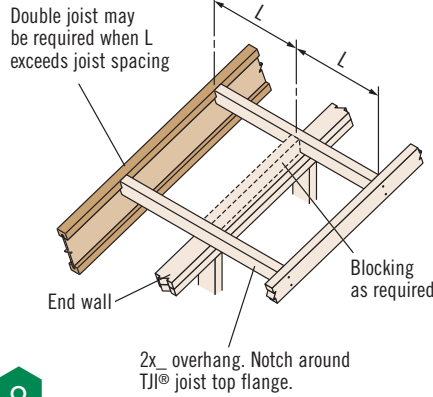
ROOF DETAILS

Birdsmouth Cut

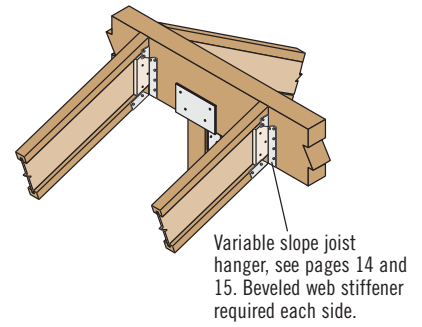
Allowed at low end of joist only



BC



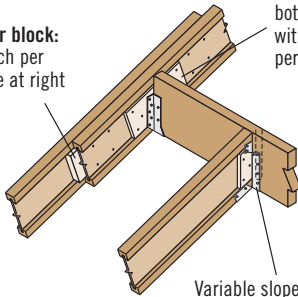
O



H5

Additional blocking may be required for shear transfer

Filler block:
Attach per
table at right



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

Variable slope joist hanger, see pages 14 and 15. Beveled web stiffener required each side.

H6

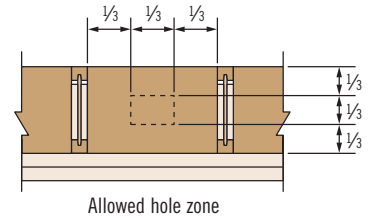
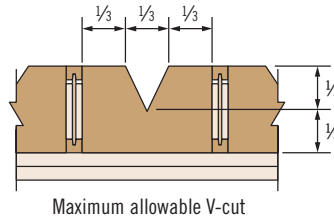
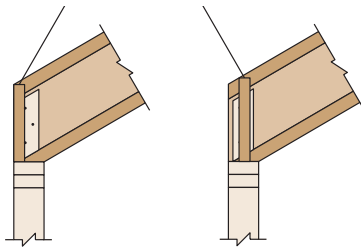
Filler and Backer Block Sizes

TJI®	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

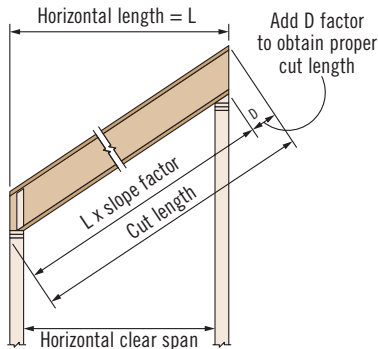
(1) If necessary, increase filler and backer block height for face mount hangers and maintain ⅛" gap at top of joist. See detail W on page 5. Filler and backer block dimensions should accommodate required nailing without splitting. The suggested minimum length is 24" for filler and 12" for backer blocks.

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



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
Load in Pounds Per Linear Foot (PLF)									
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



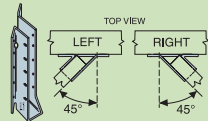
D Factors (Cut Length Calculations)



Depth	Slope				
	1:12	1½:12	2:12	2½:12	3:12
18"	1½"	2¼"	3"	3¾"	4½"
20"	1⅝"	2½"	3⅜"	4⅞"	5"
22"	1⅞"	2¾"	3⅝"	4⅞"	5½"
24"	2"	3"	4"	5"	6"

Slope Factors

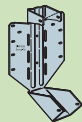
Slope	2½:12	3:12
Factor	1.021	1.031

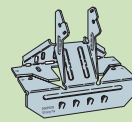
FRAMING CONNECTORS (SIMPSON STRONG-TIE®)

Joist		Single Joist—Top Flange				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>	2,050	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>	2,050	16d	10d x 1½"	<i>SUR/L414⁽⁶⁾</i>	2,395	16d	16d

Joist		Double Joist—Top Flange				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	1,145	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

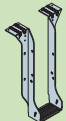
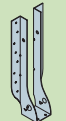
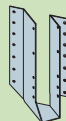
Bold italic hangers require web stiffeners.

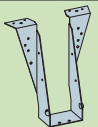
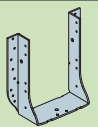
Capacities will vary with different nailing criteria or other support conditions; contact your iLevel representative for assistance.

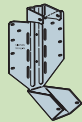
- Hanger capacities shown are either joist bearing capacity or hanger capacity—whichever is less. Joist end reaction must be checked to ensure it does not exceed the capacity shown in the tables.
- All capacities are for downward loads at 100% duration of load.
- Fill all round, dimple, and positive-angle 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".

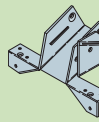
Also see additional notes on page 15

FRAMING CONNECTORS (USP STRUCTURAL CONNECTORS®)

Joist		Single Joist—Top Flange				Single Joist—Face Mount ⁽¹⁾				Face Mount Skewed 45° Joist Hanger ⁽¹⁾			
													
		Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing	
Depth	TJI®			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"	SKH418L/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"	SKH418L/R ⁽⁴⁾	1,460	16d	16d
22"	560D	TFI422	2,410	16d	10d x 1½"	THF35157	2,050	10d	10d x 1½"	SKH418L/R ⁽⁴⁾	2,410	16d	16d
24"	560D	TFI424	2,410	16d	10d x 1½"	THF35157	2,050	10d	10d x 1½"	SKH418L/R ⁽⁴⁾	2,410	16d	16d

Joist		Double Joist—Top Flange				Double Joist—Face Mount ⁽¹⁾			
									
		Hanger	Capacity (lbs)	Nailing		Hanger	Capacity (lbs)	Nailing	
Depth	TJI®			Header	Joist			Header	Joist
18"	360	THO23180-2	2,770	16d	10d	THF23160-2	2,530	10d	10d
	560, 560D	BPH7118	3,185	16d	10d	HD7160	2,680	16d	10d
20"	360	THO23200-2	2,770	16d	10d	THF23160-2	2,530	10d	10d
	560, 560D	BPH7120	3,185	16d	10d	HD7160	2,680	16d	10d
22"	560D	BPH7122	3,455	16d	10d	HD7160	2,680	16d	10d
24"	560D	BPH7124	3,455	16d	10d	HD7160	2,680	16d	10d

Joist		Variable Slope Seat Joist Hanger ⁽³⁾				
						
		Hanger	Capacity (lbs)		Nailing	
Depth	TJI®		Sloped Only	Sloped and Skewed	Header	Joist
18"—20"	360	LSSH23	1,140 ⁽¹⁾	1,140 ⁽¹⁾	10d	10d x 1½"
	560, 560D	LSSH35	1,590 ⁽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⁾			
					
		Hanger	Capacity (lbs)	Nailing	
Depth	TJI®			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 iLevel® 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 1¾" and 2", respectively.

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



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