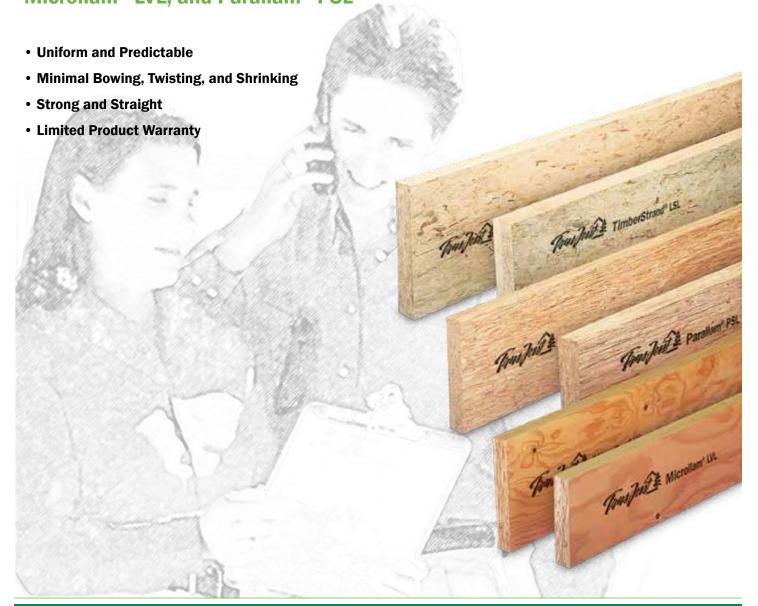


BEAMS, HEADERS, AND COLUMNS

Featuring Trus Joist® TimberStrand® LSL, Microllam® LVL, and Parallam® PSL





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.

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Why Choose Trus Joist® Beams, Columns, and Headers?

- Reliable performance
- Consistent quality and dependable uniformity
- Flexible solutions for your beam and header needs
- · Backed by a limited product warranty

Using advanced technology, Weyerhaeuser manufactures engineered lumber that is consistently straight and strong, and resists bowing, twisting, and shrinking. That means less waste, easier installation, and higher design values for starters; plus fewer callbacks, shorter cycle times, more design flexibility, and lower overall installed cost in the end. Trus Joist® TimberStrand® LSL, Microllam® LVL, and Parallam® PSL are structural solutions you can count on—guaranteed.

This guide features Trus Joist® engineered lumber in the following widths and depths:

TimberStrand® LSL

1.55E TimberStrand® LSL sizes:

Widths: 13/4" and 31/2"

Depths: 91/4", 91/2", 111/4", 117/8", 14", and 16"

1.3E TimberStrand® LSL header sizes:

Width: 31/2"

Depths: 43/8", 51/2", 71/4", 85/8", 91/4", and 111/4"

1.3E TimberStrand® LSL column and post sizes:

3½" x 3½" x 3½" x 4¾" 3½" x 5½" 3½" x 7½" 3½" x 7½"

Microllam® LVL

2.0E Microllam® LVL header and beam sizes:

Width: 13/4"

Depths: 5½", 7¼", 9¼", 9½", 11¼", 11½", 14", 16", 18", and 20"

Parallam® PSL

2.0E Parallam® PSL header and beam sizes:

Widths: 3½", 5¼", and 7"

Depths: $9\frac{1}{4}$ ", $9\frac{1}{2}$ ", $11\frac{1}{4}$ ", $11\frac{7}{8}$ ", 14", 16", and 18"

1.8E Parallam® PSL column and post sizes:

3½" x 3½" 3½" x 5¼" 3½" x 7" 5¼" x 5¼" 5¼" x 7" 7" x 7"

For deeper depth Parallam® PSL beams, see the Trus Joist® 2.2E Parallam® PSL Deep Beam guide, TJ-7001, or contact your Weyerhaeuser representative.

Some sizes may not be available in your region.

STRUCTURAL SOLUTIONS

Trus Joist® TimberStrand® **Laminated Strand Lumber (LSL)**

- One-piece members reduce labor time
- · Every piece is straight and strong
- Unique properties allow you to drill larger holes through 1.55E TimberStrand® LSL. See Allowable Holes on page 36.

TimberStrand® LSL Grade Verification

TimberStrand® LSL is available in more than one grade. The product is stamped with its grade information, as shown in the examples below. With 1.55E TimberStrand® LSL, larger holes can be drilled through the beam.







Made in Canada 09-15-11 02 03:20



ROUND HOLE ZONE TimberStrand® LSL 1.55E NO holes within 8" of beam ends

ICCES ESR-1387 CCMC 12627-R





Made in Canada 09-15-11 02 03:20

TimberStrand

Actual stamps shown.

Code Evaluations: See ICC ES ESR-1387

Trus Joist® Microllam® **Laminated Veneer Lumber (LVL)**

- · Can easily be built up on site to reduce heavy lifting
- Offers reliable and economical solutions for beam and header applications
- · Manufacturing process minimizes many of the natural inconsistencies found in wood
- Available in some regions with a Watershed[™] overlay for on-site weather protection

Code Evaluations: See ICC ES ESR-1387



Trus Joist® Parallam® **Parallel Strand Lumber (PSL)**

- · Allows long spans for open floor plans without intermediate posts or columns
- · Has warm, unique grain that is perfect for applications with exposed beams
- · Provides ideal solutions for cantilever and multi-span applications
- · Solid sections save time on site assembly
- · Available in some regions with preservative treatment for exterior applications

Code Evaluations: See ICC ES ESR-1387



DESIGN PROPERTIES

Allowable Design Properties(1) (100% Load Duration)

									Depth						
Grade	Width	Design Property	43/8"	5½"	5½" Plank Orientation	71/4"	85/8"	91/4"	9½"	111⁄4"	117/8"	14"	16"	18"	20"
					T	imberStra	and® LSL								
		Moment (ft-lbs)	1,735	2,685	1,780	4,550	6,335	7,240		10,520					
1.3E	31/2"	Shear (lbs)	4,340	5,455	1,925	7,190	8,555	9,175		11,155					
1.3E	372	Moment of Inertia (in.4)	24	49	20	111	187	231		415					
		Weight (plf)	4.5	5.6	5.6	7.4	8.8	9.4		11.5					
		Moment (ft-lbs)						4,950	5,210	7,195	7,975	10,920	14,090		
	13/4"	Shear (lbs)						3,345	3,435	4,070	4,295	5,065	5,785		
	19/4	Moment of Inertia (in.4)						115	125	208	244	400	597		
1.55E		Weight (plf)						5.1	5.2	6.2	6.5	7.7	8.8		
1.33E		Moment (ft-lbs)						9,905	10,420	14,390	15,955	21,840	28,180		
	31/2"	Shear (lbs)						6,690	6,870	8,140	8,590	10,125	11,575		
	31/2"	Moment of Inertia (in.4)						231	250	415	488	800	1,195		
		Weight (plf)						10.1	10.4	12.3	13	15.3	17.5		
						Microlla	m® LVL								
		Moment (ft-lbs)		2,125		3,555		5,600	5,885	8,070	8,925	12,130	15,555	19,375	23,580
2.0E	13/4"	Shear (lbs)		1,830		2,410		3,075	3,160	3,740	3,950	4,655	5,320	5,985	6,650
2.00	194	Moment of Inertia (in.4)		24		56		115	125	208	244	400	597	851	1,167
		Weight (plf)		2.8		3.7		4.7	4.8	5.7	6.1	7.1	8.2	9.2	10.2
						Parallan	1® PSL								
		Moment (ft-lbs)						12,415	13,055	17,970	19,900	27,160	34,955	43,665	
	31/2"	Shear (lbs)						6,260	6,430	7,615	8,035	9,475	10,825	12,180	
	372	Moment of Inertia (in.4)						231	250	415	488	800	1,195	1,701	
		Weight (plf)						10.1	10.4	12.3	13.0	15.3	17.5	19.7	
		Moment (ft-lbs)						18,625	19,585	26,955	29,855	40,740	52,430	65,495	
2.0E	51/4"	Shear (lbs)						9,390	9,645	11,420	12,055	14,210	16,240	18,270	
2.00	J 7/4	Moment of Inertia (in.4)						346	375	623	733	1,201	1,792	2,552	
		Weight (plf)						15.2	15.6	18.5	19.5	23.0	26.3	29.5	
		Moment (ft-lbs)						24,830	26,115	35,940	39,805	54,325	69,905	87,325	
	7"	Shear (lbs)						12,520	12,855	15,225	16,070	18,945	21,655	24,360	
	,	Moment of Inertia (in.4)						462	500	831	977	1,601	2,389	3,402	
		Weight (plf)						20.2	20.8	24.6	26.0	30.6	35.0	39.4	

⁽¹⁾ For product in beam orientation, unless otherwise noted.

Some sizes may not be available in your region.

PRODUCT STORAGE



DESIGN PROPERTIES

Design Stresses⁽¹⁾ (100% Load Duration)

Grade	Orientation	G Shear Modulus of Elasticity (psi)	E Modulus of Elasticity (psi)	E _{min} Adjusted Modulus of Elasticity ⁽²⁾ (psi)	F _b Flexural Stress ⁽³⁾ (psi)	F _t Tension Stress ⁽⁴⁾ (psi)	F _{c⊥} Compression Perpendicular to Grain ⁽⁵⁾ (psi)	F _{cil} Compression Parallel to Grain (psi)	F _v Horizontal Shear Parallel to Grain (psi)	SG Equivalent Specific Gravity ⁽⁶⁾
				Ti	mberStrand® LS	SL .				
1.3E	Beam/Column	81,250	1.3 x 10 ⁶	660,750	1,700	1,075	710	1,835	425	0.50(7)
1.35	Plank	81,250	1.3 x 10 ⁶	660,750	1,900(8)	1,075	635(9)	1,835	150	0.50(7)
1.55E	Beam	96,875	1.55 x 10 ⁶	787,815	2,325	1,070(10)	900	2,170	310(10)	0.50(7)
					Microllam® LVL					
2.0E	Beam	125,000	2.0 x 10 ⁶	1,016,535	2,600	1,555	750	2,510	285	0.50
					Parallam® PSL					
1.8E	Column	112,500	1.8 x 10 ⁶	914,880	2,400(11)	1,755	425(11)	2,500	190(11)	0.50
2.0E	Beam	125,000	2.0 x 10 ⁶	1,016,535	2,900	2,025	750	2,900(12)	290	0.50

- Unless otherwise noted, adjustment to the design stresses for duration of load are permitted in accordance with the applicable code.
- (2) Reference modulus of elasticity for beam and column stability calculations, per NDS®.
- (3) For 12" depth. For other depths, multiply F_b by the appropriate factor as follows:
 - For TimberStrand® LSL, multiply by $\left[\frac{12}{d}\right]^{0.092}$
 - For Microllam® LVL, multiply by $\left[\frac{12}{d}\right]^{0.1}$
 - For Parallam® PSL, multiply by $\left[\frac{12}{d}\right]^{0.111}$
- (4) F_t has been adjusted to reflect the volume effects for most standard applications.
- (5) $F_{c\perp}$ may not be increased for duration of load.

- (6) For lateral connection design only.
- (7) Specific gravity of 0.58 may be used for bolts installed perpendicular to face and loaded perpendicular to grain.
- (8) Values are for thickness up to 3½".
- (9) For members less than $13\!\!\!/^u$ thick and in plank orientation, use $F_{c\perp}$ of 670 psi. NDS® bearing area factor $C_b=1.0.$
- (10) Value accounts for large hole capabilities. See Allowable Holes on page 36.
- (11) Value shown is for plank orientation.
- (12) For column applications, use F_{cll} of 500 psi.

General Assumptions for Trus Joist® Beams

- Lateral support is required at bearing and along the span at 24" on-center, maximum.
- Bearing lengths are based on each product's bearing stress for applicable grade and orientation.
- All members 7¼" and less in depth are restricted to a maximum deflection of 5/16".
- Beams that are 1¾" x 16" and deeper require multiple plies.
- No camber
- Beams and columns must remain straight to within 5L2/4608 (in.) of true alignment.
 L is the unrestrained length of the member in feet.
- Tables on pages 8—15 include load reductions applied in accordance with code.

For applications not covered in this brochure, contact your Weyerhaeuser representative.

See pages 38 and 39 for multiple-member beam connections.

TimberStrand® LSL, Microllam® LVL, and untreated Parallam® PSL are intended for dry-use applications

Beam Orientation



Column Orientation



Plank Orientation



SIZING TABLES

How to Use This Table

- 1. Determine **Header Condition**.
- 2. Locate Rough Opening.
- 3. Determine loading and House Depth.
- 4. Select TimberStrand® LSL header depth.

Note: **Bold italic** indicates that a $3\frac{1}{2}$ " x $5\frac{1}{2}$ " TimberStrand® LSL header can be installed in plank orientation in a 2x6 wall.

Also see **General Notes** on page 7.

1.3E TimberStrand® LSL

31/2" Wide 1.3E TimberStrand® LSL Window and Door Headers

		Non-S	now Area	125%				Sno	ow Area 11	5%			
Header Condition	Rough Opening		ad = 20LL ad = 40LL			ad = 30LL ad = 40LL			ad = 40LL ad = 40LL			ad = 55LL ad = 40LL	
Oditaltion	Opening	Н	ouse Dept	h		ouse Dept	h	Н	louse Dept		Н	ouse Dept	
		24'	28'	32'	24'	28'	32'	24'	28'	32'	24'	28'	32'
	3'-2"	43/8"	43/8"	<i>4³/</i> 8"	<i>4³/</i> 8"	43/8"	<i>4³/</i> 8"	43/8"	43/8"	43/8"	<i>4³/</i> 8"	<i>4³/8</i> "	43/8"
	3'-8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	5½"	5½"	5½"
Roof Only	4'-2"	43/8"	43/8"	43/8"	43/8"	43/8"	5½"	5½"	5½"	5½"	5½"	5½"	5½"
1001 Umj	4'-8"	43/8"	43/8"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	71/4"	71/4"	71/4"
	5'-2"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	71/4"	71/4"	71/4"	71/4"	71/4"
_	5'-8"	5½"	5½"	5½"	5½"	7¼"	7¼"	71⁄4"	71⁄4"	71⁄4"	7¼"	71⁄4"	85/8"(2)
House	6'-2"	5½"	7¼"	7¼"	7¼"	7¼"	7¼"	71⁄4"	7¼"	71⁄4"	85/8"	85/8"	85/8"(2)
Depth	6'-8"	71/4"	7¼"	7¼"	71⁄4"	71⁄4"	71⁄4"	71⁄4"	85/8"	85/8"	85/8"	85/8"(2)	91/4"(2)
	7'-2"	71/4"	7¼"	7¼"	7¼"	85/8"	85/8"	85/8"	85/8"	85/8"	85/8"	91/4"(2)	111/4"(2)
	8'-2"	85/8"	85/8"	85/8"	85/8"	85/8"	85/8"	85/8"	91/4"(2)	111/4"(2)	11¼"(2)	111/4"(2)	111/4"(2)
	9'-2"	85/8"	85/8"	9¼"	9¼"	9¼"	111/4"(2)	11¼"	111/4"(2)	111/4"(2)	111/4"(2)		
	3'-2"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"
	3'-8"	43/8"	43/8"	5½"	43/8"	43/8"	5½"	43/8"	43/8"	5½"	43/8"	43/8"	5½"
	4'-2"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	51/2"	5½"
Floor – One Story	4'-8"	5½"	5½"	7¼"	5½"	5½"	7¼"	5½"	5½"	71/4"	5½"	5½"	71⁄4"
	5'-2"	71/4"	7¼"	7¼"	7¼"	7¼"	7¼"	71⁄4"	71/4"	71⁄4"	7¼"	71⁄4"	7¼"
	5'-8"	71/4"	7¼"	7¼"	71⁄4"	71⁄4"	7¼"	71/4"	71/4"	71⁄4"	71⁄4"	71/4"	71/4"
-	6'-2"	71/4"	7¼"	85/8"	7¼"	7¼"	85/8"	71⁄4"	71/4"	85/8"	71/4"	71⁄4"	85/8"
	6'-8"	71/4"	85/8"	85/8"	71/4"	85/8"	85/8"	71⁄4"	85/8"	85/8"	71/4"	85/8"	85/8"
	7'-2"	85/8"	85/8"	91/4"(2)	85/8"	85/8"	91/4"(2)	85/8"	85/8"	91/4"(2)	85/8"	85/8"	91/4"(2)
	8'-2"	9¼"	111/4"(2)	111/4"(2)	9¼"	111/4"(2)	111/4"(2)	91/4"	111/4"(2)	111/4"(2)	91/4"	111/4"(2)	111/4"(2)
	9'-2"	11¼"	111/4"(2)		11¼"	11¼"(2)		11¼"	111/4"(2)		11¼"	111/4"(2)	
	3'-2"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	43/8"	5½"	43/8"	5½"	5½"
	3'-8"	43/8"	43/8"	43/8"	43/8"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	71/4"
Roof Plus	4'-2"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	5½"	71/4"	7¼"	71⁄4"	71/4"(2)
One Story	4'-8"	5½"	5½"	71/4"	5½"	71⁄4"	7¼"	71⁄4"	71/4"	71/4"	7¼"	71/4"(2)	85/8"(2)
(Bearing)	5'-2"	71/4"	7¼"	7¼"	7¼"	7¼"	7¼"	71⁄4"	7¼"	85/8"(2)	71/4"(2)	85/8"(2)	85/8"(2)
	5'-8"	7¼"	7¼"	7¼"	7¼"	7¼"	85/8"(2)	71⁄4"	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(2)
1	6'-2"	7¼"	7¼"	85/8"	7¼"	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	91/4"(2)	111/4"(2)
	6'-8"	85/8"	85/8"	85/8"(2)	85/8"	85/8"(2)	91/4"(2)	85/8"(2)	91/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(2)
	7'-2"	85/8"	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	
	8'-2"	91/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)				
	9'-2"	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)								

- Symbol represents location of TimberStrand® LSL header.
- ▲ Symbol represents supporting beam or structural bearing wall located at center of house, below floor.
- () Symbol represents minimum number of 2x_ trimmers required at end of header.
- See **Bearing Requirements** on page 7 for bearing length requirements at continuous-span supports.

SIZING TABLES

General Notes

- Tables are based on:
 - Uniform loads.
 - More restrictive of simple or continuous span. Ratio of short span to long span should be greater than 0.4 to prevent uplift.
 - Roof truss framing with 24" soffits.
 - Exterior wall weights of 80 plf, interior 60 plf.
 - Deflection criteria of L/360 live load and L/240 total load.
- Tables do not consider attic loads acting concurrently with roof or snow loads.

Also see **How to Use This Table** on page 6 and **General Assumptions** on page 5.

Bearing Requirements

Tables assume minimum header support to be one trimmer (1½") at each end and 4½" at continuous-span supports.

- In Sizing Tables on pages 6 and 7:
- (2) Indicates minimum header support to be two trimmers (3") at each end and 7½" at continuous-span supports.
- (3) Indicates minimum header support to be three trimmers (4½") at each end and 11½" at continuous-span supports.

For additional bearing information, see pages 34 and 36.

31/2" Wide 1.3E TimberStrand® LSL Window and Door Headers continued

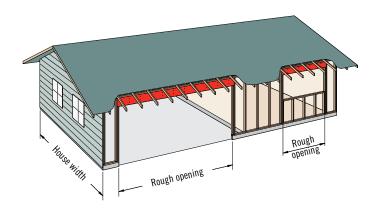
		Non-S	now Area	125%				Sno	ow Area 11	5%			
Header Condition	Rough Opening		ad = 20LL ad = 40LL			ad = 30LL ad = 40LL			ad = 40LL ad = 40LL			ad = 55LL ad = 40LL	
Condition	oheming	Н	ouse Dept	h	Н	ouse Dept	h	Н	louse Dept	h	Н	ouse Dept	h
		24'	28'	32'	24'	28'	32'	24'	28'	32'	24'	28'	32'
	3'-2"	43/8"	43/8"	43/8"	43/8"	51/2"	51/2"	51/2"	51/2"	51/2"	51/2"	51/2"	51/2"
Roof Plus	3'-8"	51/2"	51/2"	51/2"	51/2"	51/2"	71/4"	51/2"	51/2"	71/4"(2)	51/2"	71/4"(2)	71/4"(2
One Story	4'-2"	51/2"	51/2"	71/4"	51/2"	71/4"	71/4"(2)	71/4"	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	85/8"(2
(No bearing)	4'-8"	71/4"	71/4"	71/4"(2)	71/4"	71/4"(2)	71/4"(2)	71/4"	71/4"(2)	85/8"(2)	71/4"(2)	85/8"(2)	85/8"(2
	5'-2"	71/4"	71/4"	71/4"(2)	71/4"	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(2
1 1	5'-8"	71/4"	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	91/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(2
	6'-2"	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	91/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2
House	6'-8"	85/8"(2)	91/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	
Depth	7'-2"	91/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)		111/4"(2)		
рерии	8'-2"	111/4"(2)	111/4"(2)		111/4"(2)								
F1	3'-2"	51/2"	51/2"	71/4"	51/2"	51/2"	71/4"	51/2"	51/2"	71/4"	51/2"	51/2"	71/4"
Floor – Two Stories	3'-8"	71/4"	71/4"	71/4"(2)	71/4"	71/4"	71/4"(2)	71/4"	71/4"	71/4"(2)	71/4"	71/4"	71/4"(
	4'-2"	71/4"	85/8"(2)	85/8"(2)	71/4"	85/8"(2)	85/8"(2)	71/4"	85/8"(2)	85/8"(2)	71/4"	85/8"(2)	85/8"(
	4'-8"	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	85/8"(2)	91/4"(
	5'-2"	85/8"(2)	91/4"(2)	111/4"(2)	85/8"(2)	91/4"(2)	111/4"(2)	85/8"(2)	91/4"(2)	111/4"(2)	85/8"(2)	91/4"(2)	111/4"(
	5'-8"	91/4"(2)	111/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(
ı ı	6'-2"	111/4"(2)	111/4"(2)		111/4"(2)	111/4"(2)		111/4"(2)	111/4"(2)		111/4"(2)	111/4"(2)	
	3'-2"	43/8"	43/8"	51/2"	43/8"	51/2"	51/2"	51/2"	51/2"	51/2"	51/2"	51/2"	71/4"(
Roof Plus Two	3'-8"	51/2"	51/2"	51/2"	51/2"	51/2"	71/4"	51/2"	71/4"	71/4"(2)	71/4"	71/4"(2)	71/4"(
Stories (Bearing)	4'-2"	51/2"	51/2"	71/4"	71/4"	71/4"	71/4"(2)	71/4"	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	85/8"(
	4'-8"	71/4"	71/4"	71/4"(2)	71/4"	71/4"(2)	85/8"(2)	71/4"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(
	5'-2"	71/4"	71/4"(2)	85/8"(2)	71/4"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	91/4"(2)	91/4"(
	5'-8"	71/4"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	91/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(
	6'-2"	85/8"(2)	85/8"(2)	91/4"(2)	91/4"(2)	91/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	
	6'-8"	85/8"(2)	91/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	
	7'-2"	91/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)	111/4"(2)		111/4"(2)					
Roof Plus Two	3'-2"	51/2"	51/2"	71/4"(2)	51/2"	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(
Stories (No Bearing)	3'-8"	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	71/4"(2)	85/8"(2)	71/4"(2)	85/8"(2)	85/8"(
	4'-2"	71/4"(2)	71/4"(2)	85/8"(2)	71/4"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(
	4'-8"	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	85/8"(2)	91/4"(2)	85/8"(2)	91/4"(2)	111/4"(2)	85/8"(2)	91/4"(2)	111/4"(
	5'-2"	85/8"(2)	91/4"(2)	91/4"(2)	91/4"(2)	111/4"(2)	111/4"(2)	91/4"(2)	111/4"(2)	111/4"(3)	111/4"(2)	111/4"(3)	1111/4"(
	5'-8"	91/4"(2)	111/4"(2)	111/4"(3)	111/4"(2)	111/4"(2)	111/4"(3)	111/4"(2)	111/4"(3)		111/4"(2)		
_	6'-2"	111/4"(2)	111/4"(2)	111/4"(3)	111/4"(2)			111/4"(2)					

- \blacksquare Symbol represents location of TimberStrand® LSL header.
- ▲ Symbol represents supporting beam or structural bearing wall located at center of house, below floor.
- () Symbol represents minimum number of 2x_ trimmers required at end of header.
- See **Bearing Requirements** above for bearing length requirements at continuous-span supports.

How to Use This Table

- $1. \ \ {\bf Determine\ appropriate\ Roof\ Load\ and\ House\ Width}.$
- 2. Locate Rough Opening.
- 3. Select header size and material.
- Weyerhaeuser offers 1.55E TimberStrand® LSL pre-cut garage door headers in selected regions. Call 1-888-453-8358 to determine availability.

Also see **General Notes** on page 9.



Headers Supporting Roof

	of Load	House						Rou	ıgh (Opening				
(PSF)	Width	8'				9'-3"			10'			12'	
			1¾" x 9¼"		М		1¾" x 9¼"	T M	_	1¾" x 9¼"	M		1¾" x 11¼"	M
		24'	3½" x 7¼"		М		3½" x 9¼"		l P	1¾" x 11¼"	T M		1¾" x 11½"	TM
			3½" x 9¼"	T			5¼" x 7¼"	M		3½" x 9¼"	T M	P	3½" x 9¼"	T M P
			1¾" x 9¼"		М		1¾" x 9¼"	M		1¾" x 11¼"	T M		1¾" x 14"	T M
	20LL + 15DL	30'	3½" x 7¼"		М		1¾" x 11¼"	T M		3½" x 9¼"	T M	P	3½" x 9¼"	M P
			3½" x 9¼"		М	P	3½" x 9¼"		l P				3½" x 11¼"	T M P
			1¾" x 9¼"		М		1¾" x 11¼"	T M		1¾" x 11¼"	M		1¾" x 14"(3)	T M
		36'	3½" x 9¼"	T	М	Р	3½" x 9¼"	T M	l P	1¾" x 11½"	T M		3½" x 9½"	M P
Non-Snow Area			5¼" x 7¼"		М					3½" x 9¼"	T M	P	3½" x 11¼"	T M P
125%			1¾" x 9¼"	T	М		1¾" x 9¼"	M		1¾" x 11¼"	T M		1¾" x 111//8"	M
12070		24'	3½" x 7¼"		М		1¾" x 9½"	T M		3½" x 9¼"	T M	P	1¾" x 14"	T M
			3½" x 9¼"	T	М	Р	3½" x 9¼"	T M	l P				3½" x 9½"	T M P
			1¾" x 9¼"		М		1¾" x 11¼"	T M		1¾" x 11¼"	M		1¾" x 14"(3)	T M
	20LL + 20DL	30'	3½" x 9¼"		М		3½" x 9¼"		l P	1¾" x 11½"	T M		3½" x 9¼"	M P
			5¼" x 7¼"		М					3½" x 9¼"	T M	Р	3½" x 11¼"	T M P
			1¾" x 9¼"		М		1¾" x 11¼"	M		1¾" x 117/8"(3)	M		3½" x 11¼"	T M P
		36'	1¾" x 11¼"	T	М		1¾" x 111//8"	T M		1¾" x 14"(3)	T M		5¼" x 9¼"	T M P
			3½" x 9¼"	T	М	Р	3½" x 9¼"	T M	l P	3½" x 9¼"	T M	P		
			1¾" x 9¼"	T	М		1¾" x 9¼"	M		1¾" x 11¼"	T M		1¾" x 14"	T M
	25LL + 15DL	24'	3½" x 7¼"		М		1¾" x 11¼"	T M		3½" x 9¼"	T M	Р	3½" x 9½"	T M P
			3½" x 9¼"	T	М	Р	3½" x 9¼"		l P				5¼" x 9¼"	T M P
		30'	1¾" x 9½"	T	М		1¾" x 11¼"	T M		1¾" x 11¼"	M		1¾" x 14"(3)	M
	25LL + 15DL		3½" x 9¼"	T	М	Р	3½" x 9¼"	T M	l P	1¾" x 111//8"	T M		3½" x 9½"	M P
			5¼" x 7¼"		М					3½" x 9¼"	T M	P	3½" x 11¼"	T M P
			1¾" x 11¼"		М		1¾" x 11¼"	M		1¾" x 14"(3)	T M		3½" x 11¼"	T M P
		36'	3½" x 9¼"	T	М	Р	1¾" x 111//8"	T M		3½" x 9¼"	T M	P	5¼" x 9¼"	T M P
			5¼" x 7¼"		М		3½" x 9¼"		l P					
			1¾" x 9¼"		М		1¾" x 11¼"	T M		1¾" x 11¼"	M		1¾" x 14"(3)	T M
		24'	3½" x 7¼"		М		3½" x 9¼"	TM	l P	1¾" x 11½"	T M		3½" x 9¼"	M P
			3½" x 9¼"		М					3½" x 9¼"	T M	P	3½" x 11¼"	T M P
Snow			1¾" x 9½"		М		1¾" x 11¼"	M		1¾" x 14"(3)	T M		3½" x 11¼"	T M P
Area	30LL + 15DL	30'	1¾" x 11¼"		M		1¾" x 111//8"	T M		3½" x 9¼"	T M	P	5¼" x 9¼"	T M P
115%			3½" x 9¼"		M	Р	3½" x 9¼"		l P					
			1¾" x 11¼"		М		1¾" x 14"(3)	T M		1¾" x 14"(3)	T M		3½" x 111//8"	T M P
		36'	3½" x 9¼"		М	Р	3½" x 9¼"	T M	l P	3½" x 9½"	T M		5¼" x 9¼"	M P
			5¼" x 7¼"		M					5¼" x 9¼"	T M	P	5¼" x 11¼"	T M P
			1¾" x 9½"		М		1¾" x 11¼"	M		1¾" x 14"(3)	T M		3½" x 11¼"	T M P
		24'	1¾" x 11¼"		M		1¾" x 111//8"	T M		3½" x 9¼"	T M	P	5¼" x 9¼"	T M P
			3½" x 9¼"		М		3½" x 9¼"		l P					
			1¾" x 11¼"(3)		М		1¾" x 14"(3)	T M		1¾" x 14"(3)	M		3½" x 111/8"	T M P
	40LL + 15DL	30'	3½" x 9¼"		М	Р	3½" x 9¼"	T M	P	3½" x 9¼"	M		5¼" x 9¼"	M P
			5¼" x 7¼"		М					3½" x 11¼"	T M	P	5¼" x 11¼"	T M P
			1¾" x 14"(3)		М		3½" x 9¼"		l P	3½" x 9½"		Р	3½" x 11½"	Р
		36'	3½" x 9¼"	T	М	Р	3½" x 11¼"		l P	3½" x 11¼"	T M	P	3½" x 14"	T M P
							5¼" x 9¼"	T M	l P	5¼" x 9¼"	T M	Р	5¼" x 9½"	Р

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SIZING TABLES

General Notes

- Table is based on:
 - Uniform loads.
 - More restrictive of simple or continuous span. Ratio of short span to long span should be 0.4 or greater to prevent uplift.
 - Roof truss framing with 24" soffits.
 - Deflection criteria of L/240 live load and L/180 total load.
- Tables do not consider attic loads acting concurrently with roof or snow loads.

Also see **How to Use This Table** on page 8 and **General Assumptions** on page 5.

Bearing Requirements

Minimum header support to be two trimmers (3") at each end and $7\frac{1}{2}$ " at continuous-span supports.

In Sizing Tables on pages 8 and 9:

(3) Indicates requirement of three trimmers (4½") at each end and 11¼" at continuous-span supports.

Headers Supporting Roof continued

Ro	of Load	House			Rough Ope			
(PSF)	Width	14'		16'-3"		18'-3'	·
			1¾" x 14"	TM	3½" x 11¼"	M	P 3½" x 14"	T M P
		24'	3½" x 9½"	M P	3½" x 14"	T M	P 5¼" x 11¼"	M P
			3½" x 11¼"	T M P	5¼" x 11¼"	T M	P 5¼" x 11½"	T M P
			3½" x 11¼"	T M P	3½" x 11½"	M	3½" x 14"	M P
	20LL + 15DL	30'	5¼" x 9¼"	M P	3½" x 14"			T M P
					5¼" x 11¼"			M P
			3½" x 11½"	T M P	3½" x 14"			T M P
		36'	5¼" x 9½"	M P	5¼" x 11¼"			
Non-Snow			5¼" x 11¼"	T M P	5¼" x 11½"	T M	M P 5¼" x 11½" M P M P 3½" x 16" M P M P 3½" x 16" M P M P 3½" x 16" M P M P M P M P 3½" x 16" M P M P M P M P M P M P M P M P M P M	
Area			1¾" x 14"(3)	M	3½" x 11½"		3½" x 14"	
125%		24'	3½" x 11¼"	T M P	3½" x 14"			
			5¼" x 9½"	T M P	5¼" x 11¼"			
			3½" x 11½"	T M P	3½" x 14"			
	20LL + 20DL	30'	5¼" x 9¼"	M P	5¼" x 11¼"			
	ZULL T ZUDL	00	5¼" x 11¼"	T M P	5¼" x 11½"			
			3½" x 11½"	M P	3½" x 14"			
		36'	3½" x 14"	T M P	3½" x 16"		*/- !!	
		30	5¼" x 11¼"	T M P	51/4" x 111//8"			
			3½" x 11¼"	T M P	3½" x 11½"			
		24'	5½ x 11¼ 5¼" x 9¼"	M P	3½" x 14"			
		24	5¼" x 9½"		5½ x 14 5¼" x 11¼"			
				T M P				
	0511 4501	001	3½" x 11½"	T M P	3½" x 14"			
	25LL + 15DL	30'	5¼" x 9¼"	M P	5¼" x 11¼"			
			5¼" x 11¼"	T M P	5¼" x 11½"			
		001	3½" x 11½"	P	3½" x 14"			
		36'	3½" x 14"	T M P	3½" x 16"			
			5¼" x 11¼"	T M P	5¼" x 11½"			
			3½" x 11½"	T M P	3½" x 14"		0/2 / 11	
		24'	5¼" x 9¼"	M P	5¼" x 11¼"			
			5¼" x 11¼"	T M P	5¼" x 11½"		U/1 / 11/0	
Snow			3½" x 11½"	M P	3½" x 14"			
Area	30LL + 15DL	30'	3½" x 14"	T M P	3½" x 16"			I M P
115%			5¼" x 11¼"	T M P	5¼" x 11½"			
			3½" x 14"	T M P	3½" x 14"		0,2 1, 20	
		36'	5¼" x 11¼"	T M P	3½" x 16"			
					5¼" x 14"			
			3½" x 11½"	M P	3½" x 14"			
		24'	3½" x 14"	T M P	3½" x 16"			T M P
			5¼" x 11¼"	T M P	5¼" x 11½"			
			3½" x 14"	T M P	3½" x 16"(3)	M	3½" x 18" ⁽³⁾	M P
	40LL + 15DL	30'	5¼" x 11¼"	M P	5¼" x 14"	TM	5¼" x 14"	
			5¼" x 111//8"	T M P			5¼" x 16"	T M P
			3½" x 14"(3)	Р	3½" x 16"(3)		3½" x 18" ⁽³⁾	Р
		36'	3½" x 16"(3)	T M P	3½" x 18"(3)	M	3½" x 20" ⁽³⁾	M
			5¼" x 11½"	M P	5¼" x 14"	M	5¼" x 16"	T M P

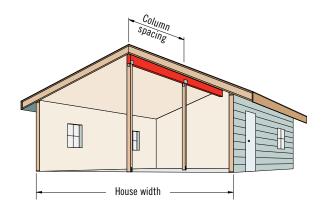
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How to Use This Table

- 1. Determine appropriate Roof Load and House Width.
- 2. Locate Column Spacing.
- 3. Select beam size and material.

Also see **General Notes** on page 11.



Ridge Beams

	of Load	House				Column	Spacing			
(PSF)	Width	10'		12'		14'		16'	
			3½" x 9¼"	T M P	3½" x 9¼"	T M P	3½" x 9¼"	M P	3½" x 11¼"	T M P
		24'					3½" x 11¼"	T M P	5¼" x 9¼"	M P
							5¼" x 9¼"	T M P		
			3½" x 9¼"	T M P	3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 11¼"	M P
	20LL + 15DL	30'					5¼" x 9¼"	T M P	3½" x 14"	T M P
									5¼" x 11¼"	T M P
			3½" x 9¼"	T M P	3½" x 9¼"	M P	3½" x 11¼"	T M P	3½" x 11½"	M P
		36'			3½" x 11¼"	T M P	5¼" x 9¼"	M P	3½" x 14"	T M P
Non-Snow					5¼" x 9¼"	T M P			5¼" x 11¼"	T M P
Area			3½" x 9¼"	T M P	3½" x 9¼"	T M P	3½" x 9½"	M P	3½" x 11½"	T M P
125%		24'	072 X 071		072 X 071		3½" x 11¼"	T M P	5¼" x 9½"	M P
							5¼" x 9¼"	T M P	5¼" x 11¼"	T M P
			3½" x 9¼"	T M P	3½" x 9¼"	M P	3½" x 11¼"	T M P	3½" x 11½"	M P
	20LL + 20DL	30'	3/2 X 3/4	1 141 1	3½" x 9½"	T M P	5¼" x 9¼"	M P	3½" x 14"	T M P
	2011 7 2001	30			5½" x 9½"	T M P	J/4 A J/4	141	5¼" x 11¼"	T M P
			3½" x 9¼"	T M P	3½" x 9¼"	M P	3½" x 11½"	T M P	3½" x 14"	T M P
		36'	372 X 374	I IVI F		T M P	5½ x 11½ 5¼" x 9½"	M P		M P
		30			3½" x 11¼"	T M P		T M P	5¼" x 11¼"	T M P
			21/11 01/11	T M D	5¼" x 9¼"		5¼" x 11¼"		5¼" x 11½"	
	25LL + 15DL		3½" x 9¼"	T M P	3½" x 9¼"	T M P	3½" x 9½"	M P	3½" x 11½"	T M P
		24'					3½" x 11¼"	T M P	5¼" x 9½"	M P
							5¼" x 9¼"	T M P	5¼" x 11¼"	T M P
		30'	3½" x 9¼"	T M P	3½" x 9¼"	M P	3½" x 11¼"	T M P	3½" x 11½"	M P
					3½" x 9½"	T M P	5¼" x 9¼"	M P	3½" x 14"	T M P
					5¼" x 9¼"	T M P			5¼" x 11¼"	T M P
	25LL + 15DL		3½" x 9¼"	T M P	3½" x 9½"	M P	3½" x 11½"	T M P	3½" x 14"	T M P
		36'			3½" x 11¼"	T M P	5¼" x 9½"	M P	5¼" x 11¼"	M P
					5¼" x 9¼"	T M P	5¼" x 11¼"	T M P	5¼" x 111/8"	T M P
			3½" x 9¼"	T M P	3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 11¼"	M P
		24'					5¼" x 9¼"	M P	3½" x 14"	T M P
							5¼" x 9½"	T M P	5¼" x 11¼"	T M P
Snow			3½" x 9¼"	T M P	3½" x 9¼"	M P	3½" x 11½"	T M P	3½" x 14"	T M P
Area	30LL + 15DL	30'			3½" x 11¼"	T M P	5¼" x 9¼"	M P	5¼" x 11¼"	M P
115%					5¼" x 9¼"	T M P	5¼" x 11¼"	T M P	5¼" x 11½"	T M P
			3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 11½"	M P	3½" x 14"	M P
		36'			5¼" x 9¼"	T M P	3½" x 14"	T M P	3½" x 16"	T M P
							5¼" x 11¼"	T M P	5¼" x 11¼"	M P
			3½" x 9¼"	T M P	3½" x 9¼"	M P	3½" x 11½"	T M P	3½" x 14"	T M P
		24'	3,2 ,, 3,4		3½" x 11¼"	T M P	5¼" x 9¼"	M P	5¼" x 11¼"	M P
					5¼" x 9¼"	T M P	5¼" x 11¼"	T M P	5¼" x 11½"	T M P
			3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 11½"	M P	3½" x 14"	M P
	40LL + 15DL	30'	J/2 A J/4	IVI	5½" x 9½"	T M P	3½" x 14"	T M P	3½" x 16"	T M P
	4011 + 1301	30			J74 X J74	IVI	5½ x 14 5¼" x 11¼"	T M P	5½" x 11½"	M P
			3½" x 9¼"	M D	216" v 1176"	T M D	3½" x 14"	T M P	3½" x 16"(3)	
		201		M P	3½" x 11½"	T M P				T M P
		36'	3½" x 11¼"	T M P	5¼" x 9¼"	M P	5¼" x 11¼"	M P	5¼" x 14"	T M P
			5¼" x 9¼"	T M P	5¼" x 11¼"	T M P	5¼" x 11½"	T M P		

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General Notes

- Table is based on:
 - Uniform loads.
 - More restrictive of simple or continuous span. Ratio of short span to long span should be 0.4 or greater to prevent uplift.
 - Deflection criteria of L/240 live load and L/180 total load.

Also see **How to Use This Table** on page 10 and **General Assumptions** on page 5.

Bearing Requirements

Minimum beam supports to be two trimmers (3") at each end and $7 \frac{1}{2}$ at continuous-span supports.

- In Sizing Tables on pages 10 and 11:
- (3) Indicates requirement of three trimmers (4½") at each end and 11¼" at continuous-span supports.

Ridge Beams continued

	of Load	House				Column	Spacing			
(PSF)	Width	18'		20'		22'		24'	
			3½" x 11½"	M P	3½" x 14"	T M P	3½" x 16"	T M P	3½" x 16"	M P
		24'	3½" x 14"	T M P	5¼" x 11¼"	M P	5¼" x 14"	T M P	5¼" x 14"	M P
			5¼" x 11¼"	T M P					5¼" x 16"	T M P
			3½" x 14"	T M P	3½" x 14"	M P	3½" x 16"	M P	3½" x 18"	M P
	20LL + 15DL	30'	5¼" x 11¼"	M P	3½" x 16"	T M P	5¼" x 14"	M P	5¼" x 16"	T M P
			5¼" x 11½"	T M P	5¼" x 14"	T M P	5¼" x 16"	T M P	7" x 14"	Р
			3½" x 14"	M P	3½" x 16"	M P	3½" x 18"	M P	3½" x 18"	M P
		36'	3½" x 16"	T M P	5¼" x 14"	T M P	5¼" x 16"	T M P	5¼" x 16"	M P
Non-Snow			5¼" x 11½"	M P			7" x 14"	Р	7" x 14"	Р
Area 125%			3½" x 14"	T M P	3½" x 14"	M P	3½" x 16"	M P	3½" x 18"	M P
123/0		24'	5¼" x 11¼"	M P	3½" x 16"	T M P	5¼" x 14"	M P	5¼" x 16"	T M P
			5¼" x 11½"	T M P	5¼" x 11½"	M P	5¼" x 16"	T M P	7" x 14"	Р
			3½" x 14"	M P	3½" x 16"	T M P	3½" x 16"	M P	3½" x 18"	M P
	20LL + 20DL	30'	3½" x 16"	T M P	5¼" x 14"	T M P	5¼" x 14"	M P	5¼" x 16"	M P
			5¼" x 11½"	M P			5¼" x 16"	T M P	7" x 14"	Р
			3½" x 14"	M P	3½" x 16"	M P	3½" x 18"(3)	M P	3½" x 20"(3)	M
		36'	3½" x 16"	T M P	5¼" x 14"	M P	5¼" x 16"	M P	5¼" x 18"	M P
			5¼" x 14"	T M P	5¼" x 16"	T M P	7" x 14"	Р	7" x 16"	Р
			3½" x 14"	T M P	3½" x 14"	M P	3½" x 16"	M P	3½" x 18"	M P
		24'	5¼" x 11¼"	M P	3½" x 16"	T M P	5¼" x 14"	M P	5¼" x 16"	T M P
			5¼" x 11½"	T M P	5¼" x 11½"	M P	5¼" x 16"	T M P	7" x 14"	Р
			3½" x 14"	M P	3½" x 16"	T M P	3½" x 16"	Р	3½" x 18"	M P
	25LL + 15DL	30'	3½" x 16"	T M P	5¼" x 14"	T M P	3½" x 18"	M P	5¼" x 16"	M P
			5¼" x 11½"	M P			5¼" x 14"	M P	7" x 14"	Р
			3½" x 14"	Р	3½" x 16"	Р	3½" x 18"(3)	P	3½" x 20"(3)	M
		36'	3½" x 16"	T M P	3½" x 18"	M P	3½" x 20"(3)	M	5¼" x 18"	M P
			51/4" x 14"	T M P	5¼" x 14"	M P	5¼" x 16"	M P	7" x 16"	P
			3½" x 14"	T M P	3½" x 14"	M P	3½" x 16"	M P	3½" x 18"	M P
		24'	5¼" x 11¼"	M P	3½" x 16"	T M P	5¼" x 14"	M P	5¼" x 16"	T M P
					5¼" x 14"	T M P	5¼" x 16"	T M P	7" x 14"	Р
Snow			3½" x 14"	Р	3½" x 16"	M P	3½" x 18"	M P	3½" x 20"(3)	M
Area	30LL + 15DL	30'	3½" x 16"	T M P	5¼" x 14"	M P	5¼" x 16"	T M P	5¼" x 16"	M P
115%			5¼" x 11½"	M P	5¼" x 16"	T M P	7" x 14"	Р		
			3½" x 16"	M P	3½" x 18"(3)	M P	3½" x 18"(3)	Р	5¼" x 18"	M P
		36'	5¼" x 14"	T M P	5¼" x 14"	M P	3½" x 20"(3)	M	7" x 16"	Р
					5¼" x 16"	T M P	5¼" x 16"	M P		
			3½" x 14"	M P	3½" x 16"	M P	3½" x 18"	M P	3½" x 18"(3)	Р
		24'	3½" x 16"	T M P	5¼" x 14"	M P	5¼" x 16"	T M P	3½" x 20"(3)	M
			5¼" x 11½"	M P	5¼" x 16"	T M P	7" x 14"	Р	5¼" x 16"	M P
			3½" x 16"	M P	3½" x 18"(3)	M P	3½" x 20"(3)	M	5¼" x 18"	M P
	40LL + 15DL	30'	5¼" x 14"	T M P	5¼" x 16"	T M P	5¼" x 16"	M P	7" x 16"	P
					7" x 14"	P	27.1.22			
			3½" x 18"(3)	M P	3½" x 20"(3)	M	5¼" x 18"	M P	5¼" x 18"(3)	Р
		36'	5¼" x 14"	M P	5¼" x 16"	M P	7" x 16"	P	51/4" x 20"(3)	M
			5¼" x 16"	T M P	7" x 14"	P	, , , 10		-/20	
			57. KIO							

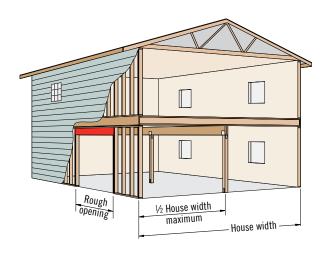
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How to Use This Table

- 1. Verify that floor loading of 40 psf live load and 12 psf dead load is adequate.
- 2. Determine appropriate Load and House Width.
- 3. Locate Rough Opening.
- 4. Select header size and material.

Also see **General Notes** on page 13.



Headers Supporting Floor and Roof

	.oad	House						_	Rou	gh (Opening					
(1	PSF)	Width	8'				9'-3"				10'			J	12'	
			1¾" x 11¼"	T	М		1¾" x 11½"(3)		М		1¾" x 14"(3)		M		3½" x 11¼"	M
		24'	3½" x 9¼"	T	М	Р	1¾" x 14"(3)	T	М		3½" x 9½"		M F		3½" x 14"	T M
	Roof Load					Ш	3½" x 9½"	Ţ	M	Р	3½" x 11¼"		M F		5¼" x 11¼"	T M
	20LL + 15DL		1¾" x 11½"(3)	I	M		1¾" x 14"(3)	T	M		3½" x 11¼"		M F		3½" x 14"	T M
	Floor Lood	30'	3½" x 9¼"	I	М	Р	3½" x 9¼"	_	М		5¼" x 9¼"		M F		5¼" x 11¼"	T M
	Floor Load 40LL + 12DL		40.00 4.00.00				3½" x 11¼"	I	М		5¼" x 9½"		M F			
	4022 1 1202		1¾" x 14"(3)		М		3½" x 11¼"	I	М		3½" x 11½"		M F		3½" x 14"(3)	T M
Non-Snow		36'	3½" x 9½"		М		5¼" x 9¼"	T	М	۲	5¼" x 9¼"		M F		5¼" x 11¼"	M
Area			5¼" x 9¼"		M		13/11 1 / 11/2\	-	D.A		5¼" x 11¼" 1¾" x 14" ⁽³⁾		M F	-	21/11 117/11	N.4
125%		24'	1¾" x 11¼" ⁽³⁾ 3½" x 9¼"		M M		1¾" x 14" ⁽³⁾ 3½" x 9¼"	Ţ	M	D	3½" x 11¼"		M M F	,	3½" x 11½" 3½" x 14"	T M
		24	372 X 974	-	IVI	r	3½" x 11¼"	T	M		5½ x 11¼ 5¼" x 9¼"		M F		5½ x 14 5¼" x 11¼"	T M
	Roof Load		1¾" x 14"(3)	Т	М	Н	13/4" x 14"(3)	+ T	M	Г	3½" x 11¼"		M F		3½" x 14"	T M
	20LL + 20DL	30'	3½" x 9¼"		M		3½" x 9½"	ť	M	P	5½" x 9½"		M F		5¼" x 11¼"	M
	Floor Load	""	3/2 X 3/4	-	IVI	H	3½" x 11¼"	Т	М		3/4 X 3/4		*		5¼" x 11½"	T M
	40LL + 12DL		1¾" x 14"(3)	ī		Н	3½" x 11¼"	Ť	M		3½" x 11½"	Т	M F		3½" x 14"(3)	M
		36'	3½" x 9¼"		М	Р	5¼" x 9¼"	Ť	М		5¼" x 9½"		M F		3½" x 16"(3)	T M
			3½" x 11¼"	T	М		5¼" x 9½"	T	М		5¼" x 11¼"		M F		5¼" x 11¼"	M
			1¾" x 11¼"(3)		М		1¾" x 14"(3)	Ť	M		1¾" x 14"(3)		M	T	3½" x 11½"	M
		24'	3½" x 9¼"		М		3½" x 9¼"		М	-	3½" x 11¼"		M F		3½" x 14"	T M
	Roof Load						3½" x 11¼"	T	M	Р	5¼" x 9¼"	T	M F		5¼" x 11¼"	T M
	25LL + 15DL	30'	1¾" x 14"(3)		М		3½" x 9½"		M	Р	3½" x 11¼"		M F		3½" x 14"	T M
			3½" x 9¼"	T	М	Р	3½" x 11¼"	T	M	Р	5¼" x 9¼"		M F		5¼" x 11¼"	M
	Floor Load						5¼" x 9¼"	T	M						5¼" x 11½"	T M
	40LL + 12DL		1¾" x 14"(3)	T			3½" x 11¼"	T	М		3½" x 11½"		M F		3½" x 14"(3)	M
		36'	3½" x 9¼"		М	_	5¼" x 9¼"		М		5¼" x 9½"		M F		3½" x 16"(3)	T M
			3½" x 11¼"	T	М	Р	5¼" x 9½"	T	M		5¼" x 11¼"		M F		5¼" x 11¼"	M
			1¾" x 11½"	I		Ш	1¾" x 14"(3)	Ţ	М	_	3½" x 11¼"		M F		3½" x 11½"	M
		24'	1¾" x 14"(3)	Щ	М	_	3½" x 9¼"	_	М		5¼" x 9¼"	Ш	M F	,	3½" x 14"	T M
	Roof Load		3½" x 9¼"		M		3½" x 11¼"	Ī	M		21/11 117/11	Ŧ	\	\downarrow	5¼" x 11¼"	T M
Snow	30LL + 15DL	201	1¾" x 14"(3)		M		3½" x 11¼"	I	M		3½" x 11½"	ч	M F		3½" x 14"	T M
Area 115%	Floor Load	30'	3½" x 9¼"	4	М	Р	5¼" x 9¼"	T	M	۲	5¼" x 9¼"		M F		5¼" x 11¼"	M
11070	40LL + 12DL		3½" x 9¼"		М	P	3½" x 11½"	Т	М	D	5¼" x 11¼" 3½" x 11½"		M F		3½" x 14"(3)	
		36'	3½" x 11¼"	Ŧ	M		5½" x 9½"	ľ	M		3½" x 14"		M F		3½" x 16"(3)	T M
		30	5½" x 9½"		М		5¼" x 11¼"	Т	M	-	5¼" x 11¼"		M F		5½" x 11½"	M
			13/4" x 14"(3)		M		3½" x 11¼"	Ť	M		3½" x 11½"		M F		3½" x 14"	T M
	Roof Load 40LL + 15DL	24'	3½" x 9¼"		M		5¼" x 9¼"	Ť	_		5¼" x 9¼"		M F		5¼" x 11¼"	M
			0/2 X 3/4		""		0/4 N 0/4		"		5¼" x 11¼"		M F		5¼" x 11½"	T M
			3½" x 9¼"		М	Р	3½" x 11½"	Т	М	P	3½" x 11½"		M F		3½" x 14"(3)	M
	4011 + 1301	30'	3½" x 11¼"	T	М		5¼" x 9¼"		М	_	3½" x 14"		M F		3½" x 16"(3)	T M
	Floor Load		51/4" x 91/4"		М		5¼" x 11¼"	I	М		5¼" x 11¼"		M F		5¼" x 11½"	М
	40LL + 12DL		3½" x 11¼"	T	М		3½" x 11½"(3)		M	-	3½" x 14"(3)		M F		3½" x 16"(3)	T M
		36'	5¼" x 9¼"	T	М	_	3½" x 14"(3)	Ţ	М	_	5¼" x 11¼"		M F	_	5¼" x 14"	T M
							5¼" x 9½"			Р						

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General Notes

- Table is based on:
 - Uniform loads.
 - More restrictive of simple or continuous span. Ratio of short span to long span should be greater than 0.4 to prevent uplift.
 - Roof truss framing with 24" soffits.
 - Exterior wall weights of 80 plf, interior 60 plf.
 - $-\,$ Deflection criteria of L/360 live load and L/240 total load at floor.
- Tables do not consider attic loads acting concurrently with roof or snow loads.

Also see **How to Use This Table** on page 12 and **General Assumptions** on page 5.

Bearing Requirements

Minimum header supports to be two trimmers (3") at each end and $7\frac{1}{2}$ " at continuous-span supports.

- In **Sizing Tables** on pages 12 and 13:
- (3) Indicates requirement of three trimmers (4½") at each end and 11¼" at continuous-span supports.

Headers Supporting Floor and Roof continued

Roo	of Load	House					Rough Ope	nin	g			
(1	PSF)	Width	14'				16'-3"				18'-3"	
			3½" x 14"		_	Р	3½" x 16"			Р	3½" x 18"(3)	M P
		24'	3½" x 16"		M	_	5¼" x 14"		М	-	5¼" x 16"	M P
	Roof Load		5¼" x 11½"		М	Р	5¼" x 16"	T	М	Р	7" x 14"	P
	20LL + 15DL		3½" x 14"		_	Р	3½" x 18" ⁽³⁾		M	Р	3½" x 20"(3)	M
		30'	3½" x 16"		М	Р	5¼" x 14"		М	Р	5¼" x 16"	M P
	Floor Load 40LL + 12DL		5¼" x 14"		M	_	5¼" x 16"		М			
	40LL + 12DL		3½" x 16" ⁽³⁾		_	P	3½" x 18" ⁽³⁾			Р	5¼" x 18" ⁽³⁾	M P
Nam Chau		36'	5¼" x 14"	T	M	Р	5¼" x 16"		М	Р	7" x 16"	P
Non-Snow Area							7" x 14"			Р		
125%			3½" x 14"		1000	P	3½" x 16" ⁽³⁾			Р	3½" x 18"(3)	M P
		24'	3½" x 16"	T	M	_	5¼" x 14"		М	-	5¼" x 16"	M P
	Roof Load		5¼" x 11½"			Р	5¼" x 16"	T	M	-	7" x 14"	P
	20LL + 20DL		3½" x 16"(3)	Ţ	М	-	3½" x 18" ⁽³⁾		_	P	3½" x 20" ⁽³⁾	M
	Floor Lood	30'	5¼" x 14"	Ī	M	P	5¼" x 16"	Ī	М	-	5¼" x 18"	M P
	Floor Load 40LL + 12DL						7" x 14"			P	7" x 16"	P
	TOLL T 120L		3½" x 16"(3)		_	P	3½" x 18" ⁽³⁾		_	P	5¼" x 18" ⁽³⁾	M P
		36'	5¼" x 14"			P	5¼" x 16"		М	-	7" x 16"	P
			5¼" x 16"	I		P	7" x 14"			Р		
			3½" x 14"		_	P	3½" x 16"(3)			P	3½" x 18" ⁽³⁾	M P
		24'	3½" x 16"	I	М	_	5¼" x 14"		М	-	5¼" x 16"	M P
	Roof Load		5¼" x 11½"			P	5¼" x 16"	I	М	-	7" x 14"	P
	25LL + 15DL		3½" x 16"(3)	Ī	М	_	3½" x 18" ⁽³⁾		_	P	3½" x 20" ⁽³⁾	M
	Flooritood	30'	5¼" x 14"		М	P	5¼" x 16"	I	М	-	5¼" x 18"	M P
	Floor Load 40LL + 12DL						7" x 14"			Р	7" x 16"	Р
	40LL + 12DL		3½" x 16"(3)			P	3½" x 18" ⁽³⁾			Р	5¼" x 18" ⁽³⁾	M P
		36'	5¼" x 14"		_	P	3½" x 20"(3)		М		7" x 16"	P
			5¼" x 16"	T	М	_	5¼" x 16"		M	P		
			3½" x 14"			P	3½" x 16"(3)			P	3½" x 18" ⁽³⁾	P
		24'	3½" x 16"		М	_	3½" x 18"(3)		_	P	3½" x 20"(3)	M
	Roof Load		5¼" x 11½"	Ļ		P	5¼" x 14"		_	P	5¼" x 16"	M P
Snow	30LL + 15DL	001	3½" x 16" ⁽³⁾		M	_	3½" x 18" ⁽³⁾		_	Р	5¼" x 18" ⁽³⁾	M P
Area 115%	Floor Load	30'	5¼" x 14"		M	P	5¼" x 16"		M	Р	7" x 16"	P
113/6	40LL + 12DL		21/11 1011/2)				7" x 14"			Р	F1/II 10II/2\	
		001	3½" x 16" ⁽³⁾			P	5¼" x 16" ⁽³⁾		M	Р	5¼" x 18" ⁽³⁾	M P
		36'	3½" x 18" ⁽³⁾		_	P					7" x 16"	P
			5¼" x 14"			Р	21/11 1011/2\			D-	21/11 - 0011/2\	
		241	3½" x 16" ⁽³⁾	Ţ	M	-	3½" x 18" ⁽³⁾	I		Р	3½" x 20" ⁽³⁾	M
		24'	5¼" x 14"	T	М	ľ	5¼" x 16"	Ц	М	-	5¼" x 18"	M P
	Roof Load		21/11 1011/2)				7" x 14"		NA.	Р	7" x 16"	
	40LL + 15DL	201	3½" x 16"(3)		M	P	5¼" x 16" ⁽³⁾		M	P P	5¼" x 18" ⁽³⁾	M P
	Floor Load	30'	3½" x 18" ⁽³⁾			P	7" x 14"			۲	7" x 16"	P
	40LL + 12DL		5¼" x 14"		_	P	F1/II 10II/2\		NA.	D-	F1/II 20II/2\	D4
		201	5¼" x 16" ⁽³⁾	T	M		5¼" x 18" ⁽³⁾		IVI	Р	5½" x 20"(3)	M
		36'	7" x 14"			Р	7" x 16"			Р	7" x 18" ⁽³⁾	P

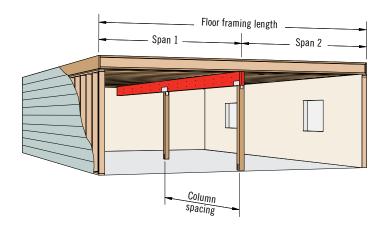
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How to Use This Table

- 1. Determine appropriate Floor Load.
- 2. Find the Floor Framing Length that meets or exceeds the sum of Spans 1 and 2 for the supported floor joists. When floor joists are continuous span, Span 1 or 2 cannot be less than 40% of the Floor Framing Length. If floor joists are simple span (not continuous over the beam), then the Floor Framing Length may be taken as 80% of Span 1 plus Span 2.
- 3. Locate Column Spacing.
- 4. Select beam size and material.

Also see General Notes on page 15.



Floor Beams

Floor Load	Floor Framing					Column Spa	cing				
(PSF)	Length	8'		10'		12'		14'		16'	
		3½" x 9¼"	T M P	3½" x 9¼"	M P	3½" x 11¼"	M P	3½" x 14"	T M P	3½" x 16"	T M P
	24'			3½" x 11¼"	T M P	3½" x 14"	T M P	5¼" x 11¼"	M P	5¼" x 14"	T M P
				5¼" x 9¼"	T M P	5¼" x 9½"	M P				
		3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 11½"	M P	3½" x 14"	M P	3½" x 16"	M P
	28'			5¼" x 9¼"	T M P	3½" x 14"	T M P	3½" x 16"	T M P	5¼" x 14"	M P
						5¼" x 11¼"	T M P	5¼" x 11½"	M P	5¼" x 16"	T M P
		3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 11½"	M P	3½" x 14"	M P	3½" x 16"	M P
	30'			5¼" x 9¼"	M P	3½" x 14"	T M P	3½" x 16"	T M P	5¼" x 14"	M P
				5¼" x 9½"	T M P	5¼" x 11¼"	T M P	5¼" x 11½"	M P	5¼" x 16"	T M P
		3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 14"	T M P	3½" x 14"	Р	3½" x 16"(3)	Р
40LL + 12DL	32'			5¼" x 9¼"	M P	5¼" x 11¼"	M P	3½" x 16"	T M P	3½" x 18"(3)	M P
						5¼" x 11½"	T M P	5¼" x 14"	T M P	5¼" x 14"	M P
		3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 14"	T M P	3½" x 16"	T M P	3½" x 16"(3)	Р
	34'			5¼" x 9¼"	M P	5¼" x 11¼"	M P	5¼" x 14"	T M P	3½" x 18"(3)	M P
						5¼" x 11½"	T M P			5¼" x 14"	M P
		3½" x 9¼"	T M P	3½" x 11½"	T M P	3½" x 14"	T M P	3½" x 16"	T M P	3½" x 18"(3)	M P
	36'			5¼" x 9¼"	M P	5¼" x 11¼"	M P	5¼" x 14"	T M P	5¼" x 14"	M P
				5¼" x 11¼"	T M P	5¼" x 11½"	T M P			5¼" x 16"	T M P
		3½" x 9¼"	M P	3½" x 11½"	T M P	3½" x 14"	M P	3½" x 16"(3)	M P	3½" x 18"(3)	M P
	40'	3½" x 11¼"	T M P	5¼" x 9½"	M P	3½" x 16"	T M P	5¼" x 14"	T M P	5¼" x 16"	T M P
		5¼" x 9¼"	T M P	5¼" x 11¼"	T M P	5¼" x 11¼"	M P			7" x 14"	Р
		3½" x 9¼"	T M P	3½" x 9½"	M P	3½" x 11½"	M P	3½" x 14"	M P	3½" x 16"	M P
	24'			3½" x 11¼"	T M P	3½" x 14"	T M P	3½" x 16"	T M P	5¼" x 14"	T M P
				5¼" x 9¼"	T M P	5¼" x 11¼"	T M P	5¼" x 11¼"	M P		
		3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 11½"	P	3½" x 14"	Р	3½" x 16"(3)	P
	28'			5¼" x 9¼"	T M P	3½" x 14"	T M P	3½" x 16"	T M P	3½" x 18"(3)	M P
						5¼" x 11¼"	T M P	5¼" x 11½"	M P	5¼" x 14"	M P
		3½" x 9¼"	T M P	3½" x 11¼"	T M P	3½" x 14"	T M P	3½" x 14"	P	3½" x 16"(3)	P
	30'			5¼" x 9¼"	M P	5¼" x 11¼"	T M P	3½" x 16"	T M P	3½" x 18"(3)	M P
				5¼" x 9½"	T M P			5¼" x 14"	T M P	5¼" x 14"	M P
		3½" x 9¼"	T M P	3½" x 11½"	T M P	3½" x 14"	T M P	3½" x 16"(3)	M P	3½" x 18"(3)	M P
40LL + 20DL	32'			5¼" x 9¼"	M P	5¼" x 11¼"	M P	5¼" x 14"	T M P	5¼" x 14"	P
				5¼" x 11¼"	T M P	5¼" x 11½"	T M P			5¼" x 16"	T M P
		3½" x 9¼"	M P	3½" x 11½"	T M P	3½" x 14"	M P	3½" x 16"(3)	M P	3½" x 18"(3)	M P
	34'	3½" x 9½"	T M P	5¼" x 9¼"	M P	3½" x 16"	T M P	5¼" x 14"	T M P	5¼" x 16"	T M P
		5¼" x 9¼"	T M P	5¼" x 11¼"	T M P	5¼" x 11½"	T M P			7" x 14"	P
		3½" x 9¼"	M P	3½" x 11½"	M P	3½" x 14"(3)	M P	3½" x 16"(3)	P	3½" x 18"(3)	Р
	36'	3½" x 11¼"	T M P	3½" x 14"	T M P	3½" x 16"(3)	T M P	3½" x 18"(3)	M P	3½" x 20"(3)	M
		5¼" x 9¼"	T M P	5¼" x 9¼"	M P	5¼" x 11½"	T M P	5¼" x 14"	T M P	5¼" x 16"	T M P
		3½" x 9½"	P	3½" x 11½"	P	3½" x 14"(3)	Р	3½" x 16"(3)	P	3½" x 18"(3)	P
	40'	3½" x 11¼"	T M P	3½" x 14"	T M P	3½" x 16"(3)	T M P	3½" x 18"(3)	M P	3½" x 20"(3)	M
		5¼" x 9¼"	T M P	5¼" x 9½"	P	5¼" x 11½"	M P	5¼" x 14"	M P	5¼" x 16"	M P

1.55E TimberStrand® LSL

M 2.0E Microllam® LVL

SIZING TABLES

General Notes

- Table is based on:
 - Uniform loads.
 - More restrictive of simple or continuous beam span. Ratio of short span to long span should be greater than 0.4 to prevent uplift.
 - Deflection criteria of L/360 live load and L/240 total load.

Also see **How to Use This Table** on page 14 and **General Assumptions** on page 5.

Bearing Requirements

Minimum beam supports to be two trimmers (3") at each end and $7 \frac{1}{2}$ at continuous-span supports.

- In **Sizing Tables** on pages 14 and 15:
- (3) Indicates requirement of three trimmers (4½") at each end and 11¼" at continuous-span supports.

Floor Beams continued

Floor Load	Floor Framing				Column	Spacing			
(PSF)	Length	18'		20'		22'		24'	
		3½" x 18"	M P	3½" x 18"	M P	3½" x 20"(3)	M	5¼" x 20"	M
	24'	5¼" x 14"	M P	5¼" x 16"	M P	5¼" x 18"	M P	7" x 18"	P
		5¼" x 16"	T M P	7" x 14"	P	7" x 16"	P		
		3½" x 18"	M P	3½" x 20"(3)	M	5¼" x 18"	M P	5¼" x 20"	M
	28'	5¼" x 16"	T M P	5¼" x 16"	M P	7" x 16"	P	7" x 18"	P
		7" x 14"	P						
		3½" x 18"(3)	M P	3½" x 20"(3)	M	5¼" x 18"	M P	5¼" x 20"	M
	30'	5¼" x 16"	M P	5¼" x 18"	M P	7" x 16"	P	7" x 18"	P
		7" x 14"	P	7" x 16"	P				
		3½" x 18"(3)	P	3½" x 20"(3)	M	5¼" x 18"	M P	5¼" x 20"	M
40LL + 12DL	32'	3½" x 20"(3)	M	5¼" x 18"	M P			7" x 18"	P
		5¼" x 16"	M P	7" x 16"	P				
		3½" x 18"(3)	Р	5¼" x 18"	M P	5¼" x 20"	M	5¼" x 20"	M
	34'	3½" x 20"(3)	M	7" x 16"	P	7" x 18"	Р	7" x 18"	P
		5¼" x 16"	M P						
		3½" x 18"(3)	Р	5¼" x 18"	M P	5¼" x 20"	M	7" x 18"	P
	36'	3½" x 20"(3)	M	7" x 16"	P	7" x 18"	Р		
		5¼" x 16"	M P						
		3½" x 20"(3)	M	5¼" x 18"	M P	5¼" x 20"(3)	M		
	40'	5¼" x 16"	M P	7" x 16"	P	7" x 18"	Р		
		3½" x 18"(3)	M P	3½" x 20"(3)	M	5¼" x 18"	M P	5¼" x 20"	M
	24'	5¼" x 16"	T M P	5¼" x 16"	M P	7" x 16"	Р	7" x 18"	P
		7" x 14"	P						
		3½" x 18"(3)	P	5¼" x 18"	M P	5¼" x 18"	P	5¼" x 20"	M
	28'	3½" x 20"(3)	M	7" x 16"	P	5¼" x 20"	M	7" x 18"	P
		5¼" x 16"	M P						
		3½" x 18"(3)	P	5¼" x 18"	M P	5¼" x 20"	M	7" x 18"	P
	30'	3½" x 20" ⁽³⁾	M	7" x 16"	P	7" x 18"	P		
		5¼" x 16"	M P						
		3½" x 20"(3)	M	5¼" x 18"	M P	5¼" x 20"(3)	M		
40LL + 20DL	32'	5¼" x 16"	M P	7" x 16"	P	7" x 18"	P		
		7" x 14"	P						
		5¼" x 16"	P	5¼" x 18"	M P	5¼" x 20"(3)	M		
	34'	5¼" x 18"	M P	7" x 16"	P	7" x 18"	P		
		5¼" x 16"	P	5¼" x 18" ⁽³⁾	P	7" x 18"	Р		
	36'	5¼" x 18"	M P	5¼" x 20" ⁽³⁾	M				
				7" x 16"	P				
		5¼" x 18"(3)	M P	5¼" x 20" ⁽³⁾	M	7" x 18"	Р		
	40'	7" x 16"	P	7" x 18"	P				

1.55E TimberStrand® LSL

M 2.0E Microllam® LVL

How to Use This Table

- Calculate total and live load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total and live loads.
- 4. Review bearing length requirements to ensure adequacy.

Also see **General Notes** on page 17.

TimberStrand® LSL: Floor—100% (PLF)

Snon	Condition					Grade)			1.5	5E Gra		
Span	Condition			3½"\	Vidth			5½" Plank Orientation			1¾" Width		
		43/8"	51/2"	71/4"	85/8"	91/4"	111/4"	31/2"	91/4"	91/2"	111/4"	117/8"	14"
	Total Load	1,538	2,381	4,036	5,624	6,428	7,442	1,210	3,024	3,166	4,333	4,717	4,717
3'	Live Load L/360	1,420	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.6	2.4/6.1	3.4/8.5	3.9/9.7	4.5/11.3	1.5/3.5	2.9/7.2	3/7.6	4.1/10.3	4.5/11.3	
	Total Load	863	1,337	2,267	3,159	3,611	5,249	814	1,929	2,006	2,597	2,836	3,536
4'	Live Load L/360	651	1,215	*	*	*	*	546	*	*	*	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.8/4.6	2.6/6.4	2.9/7.3	4.2/10.6	1.5/3.5	2.5/6.1	2.6/6.4	3.3/8.3	3.6/9	4.5/11.3
	Total Load	517	853	1,448	2,019	2,308	3,355	425	1,416	1,467	1,853	2,004	2,577
5'	Live Load L/360	347	662	1,398	*	*	*	287	*	*	*	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.7	2/5.1	2.3/5.8	3.4/8.5	1.5/3.5	2.3/5.6	2.3/5.8	3/7.4	3.2/8	4.1/10.3
.	Total Load	304	590	1,003	1,399	1,599	2,326	248	1,095	1,152	1,440	1,549	1,952
6'	Live Load L/360	206	397	857	1,367	*	*	169	978	1,048	*	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.3	1.9/4.9	2.8/7.1	1.5/3.5	2.1/5.2	2.2/5.5	2.8/6.9	3/7.4	3.7/9.3
	Total Load	171	336	735	1,025	1,172	1,706	138	803	845	1,168	1,262	1,570
7'	Live Load L/360	131	255	560	904	1092	*	107	651	699	1,089	1,250	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.4/6	1.5/3.5	1.8/4.5	1.9/4.7	2.6/6.5	2.8/7	3.5/8.8
	Total Load	99 89	198	443	783	895	1,303	79 72	613	646	893	990	1,313
8'	Live Load L/360		173 1.5/3.5	384	626	759	1,290	· -	453	487	769	886	
	Min. End/Int. Bearing (in.)	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.3	1.5/3.5	1.6/3.9	1.7/4.1	2.3/5.7	2.5/6.3	3.4/8.4
9'-6"	Total Load		98	224	552 386	632 470	921 811		416 280	448 302	631 483	700 560	960 870
9-0	Live Load L/360		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5		1.5/3.5	1.5/3.5	1.9/4.8	2.1/5.3	2.9/7.3
	Min. End/Int. Bearing (in.) Total Load		79	1.5/5.5	492	569	830		359	387	569	631	865
10'	Live Load L/360		/9 *	*	333	407	704		242	261	420	487	760
10	Min. End/Int. Bearing (in.)		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2		1.5/3.5	1.5/3.5	1.8/4.6	2/5.1	2.8/6.9
	Total Load		1.3/3.3	85	287	353	573		211	228	372	434	599
12'	Live Load L/360			*	197	241	423		144	155	252	293	464
12	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.3/5.8
	Total Load			1.3/3.3	180	222	397		133	144	237	278	438
14'	Live Load L/360				126	154	272		92	99	162	189	302
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5
	Total Load				108	134	242		80	87	145	170	277
16'-6"	Live Load L/360				77	95	169		57	61	101	118	189
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.7
	Total Load				74	93	170		56	60	102	120	197
18'-6"	Live Load L/360				55	68	121		40	44	72	84	136
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load				57	72	133				80	94	156
20'	Live Load L/360				44	54	96				57	67	109
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5				1.5/3.5	1.5/3.5	1.5/3.5
	Total Load						73					52	88
24'	Live Load L/360						56					39	64
	Min. End/Int. Bearing (in.)						1.5/3.5					1.5/3.5	1.5/3.5
	Total Load												53
28'	Live Load L/360												40
	Min. End/Int. Bearing (in.)												1.5/3.5

^{*} Indicates **Total Load** value controls.

General Notes

- Table is based on:
 - Uniform loads (beam weight considered).
 - More restrictive of simple or continuous span.
 - Deflection criteria of L/240 total load (TL) and L/360 live load (LL).
- For live load deflection limits of L/240 or L/480, multiply Live Load L/360 values by 1.5 or 0.75, respectively. The resulting live load must not exceed the total load shown.

Also see **How to Use this Table** on page 16 and **General Assumptions** on page 5.

TimberStrand® LSL: Floor—100% (PLF) continued

							1.55E	Grade					
Span	Condition			3½"\	Nidth				5	¼" Width (2- or 3-pl	y)	
		91/4"	91/2"	111/4"	111//8"	14"	16"	91/4"	91/2"	111/4"	111//8"	14"	16"
	Total Load	6,049	6,332	8,667	9,432	9,432	9,432	9,074	9,499	13,001	14,148	14,148	14,148
3'	Live Load L/360	*	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.9/7.2	3/7.6	4.1/10.3	4.5/11.3	4.5/11.3	4.5/11.3	2.9/7.2	3/7.6	4.1/10.3	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	3,859	4,012	5,195	5,673	7,070	7,070	5,788	6,018	7,793	8,510	10,605	10,605
4'	Live Load L/360	*	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.5/6.1	2.6/6.4	3.3/8.3	3.6/9	4.5/11.3	4.5/11.3	2.5/6.1	2.6/6.4	3.3/8.3	3.6/9	4.5/11.3	4.5/11.3
	Total Load	2,832	2,934	3,707	4,009	5,155	5,652	4,248	4,401	5,561	6,014	7,733	8,478
5'	Live Load L/360	*	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.3/5.6	2.3/5.8	3/7.4	3.2/8	4.1/10.3	4.5/11.3	2.3/5.6	2.3/5.8	3/7.4	3.2/8	4.1/10.3	4.5/11.3
.	Total Load	2,190	2,305	2,881	3,098	3,904	4,707	3,286	3,458	4,321	4,648	5,857	7,061
6'	Live Load L/360	1,957	2,097	*	*	*	* 4 F/11 2	2,936	3,146	*	*	*	* 4 F /11 2
	Min. End/Int. Bearing (in.)	2.1/5.2	2.2/5.5	2.8/6.9	3/7.4	3.7/9.3	4.5/11.3	2.1/5.2	2.2/5.5	2.8/6.9	3/7.4	3.7/9.3	4.5/11.3
7,	Total Load	1,606	1,691	2,336	2,524	3,141	3,787	2,410	2,536	3,505	3,786	4,711	5,681
<i>'</i>	Live Load L/360	1,302	1,399	2,179	2,501			1,954	2,098	3,269	3,752		
	Min. End/Int. Bearing (in.)	1.8/4.5	1.9/4.7 1,292	2.6/6.5	2.8/7 1.981	3.5/8.8 2,626	4.2/10.6 3,138	1.8/4.5	1.9/4.7	2.6/6.5	2.8/7 2,971	3.5/8.8	4.2/10.6 4,708
8'	Total Load	1,227 906	974	1,786	-	2,626 *	3,138	1,841	1,938	2,679		3,939	4,708 *
°	Live Load L/360	1.6/3.9	1.7/4.1	1,538 2.3/5.7	1,773 2.5/6.3	3.4/8.4	4/10	1,359 1.6/3.9	1,462 1.7/4.1	2,307 2.3/5.7	2,660 2.5/6.3	3.4/8.4	4/10
	Min. End/Int. Bearing (in.) Total Load	832	897	1,263	1,401	1,920	2,480	1,248	1.7/4.1	1,894	2.3/6.3	2,880	3,720
9'-6"	Live Load L/360	561	605	967	1,401	1,740	2,480	842	907	1,894	1,681	2,880	3,720
9-0	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.9/4.8	2.1/5.3	2.9/7.3	3.8/9.4	1.5/3.5	1.5/3.5	1.9/4.8	2.1/5.3	2.9/7.3	3.8/9.4
	Total Load	718	775	1,138	1,263	1,731	2,236	1.077	1,162	1,708	1,894	2,597	3,355
10'	Live Load L/360	485	523	840	974	1,520	2,230	728	785	1,260	1,462	2,280	3,232
10	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.8/4.6	2/5.1	2.8/6.9	3.6/8.9	1.5/3.5	1.5/3.5	1.8/4.6	2/5.1	2.8/6.9	3.6/8.9
	Total Load	422	456	744	868	1,198	1,547	633	685	1,116	1,302	1,797	2,321
12'	Live Load L/360	288	311	504	587	928	1,334	432	467	756	881	1,393	2,001
'-	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.3/5.8	3/7.5	1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.3/5.8	3/7.5
	Total Load	266	288	475	556	876	1.132	400	433	713	834	1,314	1,698
14'	Live Load L/360	184	199	325	379	605	877	276	299	487	569	907	1,316
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5	2.6/6.4	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5	2.6/6.4
	Total Load	161	174	291	341	554	810	241	262	436	512	831	1,215
16'-6"	Live Load L/360	114	123	202	236	379	555	171	185	303	354	569	832
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.7	2.2/5.4	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.7	2.2/5.4
	Total Load	112	121	205	241	395	584	168	182	307	362	592	876
18'-6"	Live Load L/360	81	88	144	169	273	401	122	132	217	254	410	601
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.4	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.4
	Total Load	87	94	160	189	312	463	130	142	240	284	468	695
20'	Live Load L/360	64	70	115	135	218	320	97	105	172	202	327	481
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8
	Total Load			88	105	177	266	69	76	133	158	265	400
24'	Live Load L/360			67	79	128	189	56	61	101	118	192	284
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load			51	62	107	163			77	93	160	245
28'	Live Load L/360			42	50	81	120			64	75	122	181
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5

^{*} Indicates Total Load value controls.

How to Use This Table

- 1. Calculate total and live load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total and live loads.
- 4. Review bearing length requirements to ensure adequacy.

Also see **General Notes** on page 19.

2.0E Microllam® LVL: Floor—100% (PLF)

					13⁄4" Width	1					31/2" Wid	th (2-ply)		
Span	Condition	51/2"	71/4"	91/4"	91/2"	111/4"	111//8"	14"	51/2"	71/4"	91/4"	91/2"	111/4"	117/8"
	Total Load	455	762	1.027	1.062	1,324	1,424	1,794	910	1,525	2,055	2,125	2,648	2,848
6'	Live Load L/360	305	659	*	*	*	*	*	610	1,319	*	*	*	*
-	Min. End/Int. Bearing (in.)	1.5/3.5	1.8/4.4	2.4/5.9	2.4/6.1	3/7.6	3.3/8.2	4.1/10.3	1.5/3.5	1.8/4.4	2.4/5.9	2.4/6.1	3/7.6	3.3/8.2
	Total Load	153	342	695	731	915	978	1,207	307	685	1,391	1,462	1,830	1,956
8'	Live Load L/360	133	295	584	628	*	*	*	267	591	1,169	1,257	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.1/5.3	2.2/5.6	2.8/7	3/7.5	3.7/9.3	1.5/3.5	1.5/3.5	2.1/5.3	2.2/5.6	2.8/7	3/7.5
	Total Load	77	174	491	517	709	784	968	154	349	983	1,034	1,418	1,569
9'-6"	Live Load L/360	*	*	362	390	624	723	*	*	*	724	780	1,248	1,446
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.8/4.5	1.9/4.7	2.6/6.5	2.9/7.2	3.5/8.8	1.5/3.5	1.5/3.5	1.8/4.5	1.9/4.7	2.6/6.5	2.9/7.2
	Total Load	62	142	443	466	639	707	908	124	284	886	932	1,279	1,415
10'	Live Load L/360	*	*	313	337	542	628	*	*	*	626	675	1,084	1,257
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.7/4.3	1.8/4.5	2.5/6.1	2.7/6.8	3.5/8.7	1.5/3.5	1.5/3.5	1.7/4.3	1.8/4.5	2.5/6.1	2.7/6.8
	Total Load		67	274	296	442	489	666	57	135	548	593	885	979
12'	Live Load L/360		*	186	200	325	379	599	*	*	372	401	651	758
	Min. End/Int. Bearing (in.)		1.5/3.5	1.5/3.5	1.5/3.5	2/5.1	2.3/5.7	3.1/7.7	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5.1	2.3/5.7
	Total Load			173	188	308	358	487		70	347	376	617	716
14'	Live Load L/360			119	128	209	244	390		*	238	257	419	489
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.7/4.2	1.9/4.9	2.6/6.6		1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	1.9/4.9
	Total Load			105	114	189	222	349			211	229	379	445
16'-6"	Live Load L/360			73	79	130	152	245			147	159	260	305
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.2/5.6			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6
	Total Load			74	80	134	158	257			148	161	268	316
18'-6"	Live Load L/360			52	56	93	109	176			105	113	186	218
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.7			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load			57	62	105	124	204			115	125	211	249
20'	Live Load L/360			41	45	74	87	140			83	90	148	174
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load					78	92	152			85	92	157	185
22'	Live Load L/360					56	65	106			63	68	112	131
	Min. End/Int. Bearing (in.)					1.5/3.5	1.5/3.5	1.5/3.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load					59	70	117			63	69	118	140
24'	Live Load L/360					43	51	82			48	52	86	102
	Min. End/Int. Bearing (in.)					1.5/3.5	1.5/3.5	1.5/3.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
001	Total Load						54	91				52	91	108
26'	Live Load L/360						40	65				41	68	80
	Min. End/Int. Bearing (in.)						1.5/3.5	1.5/3.5				1.5/3.5	1.5/3.5	1.5/3.5
001	Total Load							71					71	84
28'	Live Load L/360							52					55	64
	Min. End/Int. Bearing (in.)							1.5/3.5					1.5/3.5	1.5/3.5
201	Total Load							57					55	66
30'	Live Load L/360							42					44	52
	Min. End/Int. Bearing (in.)							1.5/3.5					1.5/3.5	1.5/3.5

^{*} Indicates Total Load value controls.

General Notes

- Table is based on:
 - Uniform loads (beam weight considered).
 - More restrictive of simple or continuous span.
 - Deflection criteria of L/240 total load (TL) and L/360 live load (LL).
- For live load deflection limits of L/240 or L/480, multiply Live Load L/360 values by 1.5 or 0.75, respectively. The resulting live load must not exceed the total load shown.

Also see **How to Use This Table** on page 18 and **General Assumptions** on page 5.

2.0E Microllam® LVL: Floor—100% (PLF) continued

Cnon	Condition		31/2" Wid	th (2-ply)						51/4" Wid	th (3-ply)				
Span	Condition	14"	16"	18"	20"	51/2"	71/4"	91/4"	91/2"	111/4"	111//8"	14"	16"	18"	20"
	Total Load	3,589	3,919	3,919	3,919	1,366	2,287	3,082	3,188	3,972	4,272	5,384	5,878	5,878	5,878
6'	Live Load L/360	*	*	*	*	916	1,978	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4.1/10.3	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	1.8/4.4	2.4/5.9	2.4/6.1	3/7.6	3.3/8.2	4.1/10.3	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,414	2,885	2,934	2,934	461	1,028	2,086	2,193	2,745	2,935	3,621	4,328	4,402	4,402
8'	Live Load L/360	*	*	*	*	401	887	1,753	1,886	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	3.7/9.3	4.4/11.1	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	2.1/5.3	2.2/5.6	2.8/7	3/7.5	3.7/9.3	4.4/11.1	4.5/11.3	4.5/11.3
	Total Load	1,937	2,294	2,468	2,468	231	524	1,475	1,551	2,128	2,354	2,905	3,441	3,702	3,702
9'-6"	Live Load L/360	*	*	*	*	*	*	1,086	1,171	1,872	2,170	*	*	*	*
	Min. End/Int. Bearing (in.)	3.5/8.8	4.2/10.5	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	1.8/4.5	1.9/4.7	2.6/6.5	2.9/7.2	3.5/8.8	4.2/10.5	4.5/11.3	4.5/11.3
	Total Load	1,817	2,147	2,344	2,344	187	427	1,330	1,398	1,919	2,123	2,725	3,221	3,516	3,516
10'	Live Load L/360	*	*	*	*	*	*	940	1,013	1,626	1,886	*	*	*	*
	Min. End/Int. Bearing (in.)	3.5/8.7	4.1/10.3	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	1.7/4.3	1.8/4.5	2.5/6.1	2.7/6.8	3.5/8.7	4.1/10.3	4.5/11.3	4.5/11.3
	Total Load	1,333	1,709	1,950	1,950	86	203	823	889	1,327	1,469	2,000	2,563	2,925	2,925
12'	Live Load L/360	1,198	*	*	*	*	*	558	602	976	1,137	1,797	*	*	*
	Min. End/Int. Bearing (in.)	3.1/7.7	3.9/9.9	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5.1	2.3/5.7	3.1/7.7	3.9/9.9	4.5/11.3	4.5/11.3
	Total Load	975	1,253	1,563	1,669		106	521	564	926	1,074	1,463	1,880	2,345	2,503
14'	Live Load L/360	780	1,132	1,561	*		*	357	386	629	734	1,171	1,698	2,342	*
	Min. End/Int. Bearing (in.)	2.6/6.6	3.4/8.5	4.2/10.5	4.5/11.3		1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	1.9/4.9	2.6/6.6	3.4/8.5	4.2/10.5	4.5/11.3
	Total Load	698	897	1,120	1,365			317	343	569	668	1,047	1,346	1,680	2,048
16'-6"	Live Load L/360	490	716	995	1,330			220	238	391	457	735	1,074	1,493	1,995
	Min. End/Int. Bearing (in.)	2.2/5.6	2.9/7.2	3.6/8.9	4.4/10.9			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.2/5.6	2.9/7.2	3.6/8.9	4.4/10.9
	Total Load	515	710	887	1,081			222	241	403	474	772	1,066	1,331	1,622
18'-6"	Live Load L/360	352	517	722	970			157	170	280	328	529	776	1,084	1,456
	Min. End/Int. Bearing (in.)	1.9/4.7	2.6/6.4	3.2/8	3.9/9.7			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.7	2.6/6.4	3.2/8	3.9/9.7
	Total Load	408	604	756	922			173	188	317	374	612	907	1,135	1,384
20'	Live Load L/360	281	414	579	780			125	135	223	261	422	621	869	1,171
	Min. End/Int. Bearing (in.)	1.6/4	2.4/5.9	3/7.4	3.6/9			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	2.4/5.9	3/7.4	3.6/9
	Total Load	305	455	622	759			127	138	235	278	458	683	933	1,138
22'	Live Load L/360	213	314	441	596			94	102	168	197	320	472	662	895
	Min. End/Int. Bearing (in.)	1.5/3.5	2/4.9	2.7/6.7	3.3/8.2			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/4.9	2.7/6.7	3.3/8.2
	Total Load	234	350	497	634			95	104	178	211	351	525	746	951
24'	Live Load L/360	165	244	343	465			73	79	130	153	248	366	515	698
	Min. End/Int. Bearing (in.)	1.5/3.5	1.7/4.2	2.4/5.9	3/7.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.4/5.9	3/7.5
	Total Load	182	274	390	534			72	78	137	163	273	411	586	801
26'	Live Load L/360	130	193	272	370			57	62	102	120	196	290	409	555
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.6	2/5.1	2.7/6.9			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2/5.1	2.7/6.9
001	Total Load	143	217	311	427			55	60	106	127	215	326	467	641
28'	Live Load L/360	105	155	219	298			46	50	82	97	157	233	329	448
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.8/4.4	2.4/6			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.4	2.4/6
001	Total Load	114	174	251	346					83	100	171	261	376	519
30'	Live Load L/360	85	127	179	244					67	79	128	190	269	366
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.9	2.1/5.2					1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.1/5.2

^{*} Indicates Total Load value controls.

How to Use This Table

- 1. Calculate total and live load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total and live loads.
- 4. Review bearing length requirements to ensure adequacy.

Also see General Notes on page 21.

2.0E Parallam® PSL: Floor—100% (PLF)

C	Oditio			;	31/2" Width							51⁄4" Width			
Span	Condition	91/4"	91/2"	111/4"	111/8"	14"	16"	18"	91/4"	91/2"	111/4"	111//8"	14"	16"	18"
	Total Load	1,469	1,517	1,861	1,990	2,456	2,933	2,933	2,204	2,275	2,792	2,985	3,683	4,400	4,400
8'	Live Load L/360	1,169	1,257	*	*	*	*	*	1,753	1,886	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.3/5.6	2.3/5.8	2.9/7.1	3.1/7.6	3.8/9.4	4.5/11.3	4.5/11.3	2.3/5.6	2.3/5.8	2.9/7.1	3.1/7.6	3.8/9.4	4.5/11.3	4.5/11.3
	Total Load	1,076	1,147	1,510	1,611	1,970	2,333	2,467	1,614	1,720	2,265	2,416	2,955	3,500	3,700
9'-6"	Live Load L/360	724	780	1,248	1,446	*	*	*	1,086	1,171	1,872	2,170	*	*	*
	Min. End/Int. Bearing (in.)	2.0/4.9	2.1/5.2	2.8/6.9	2.9/7.3	3.6/9.0	4.3/10.6	4.5/11.3	2.0/4.9	2.1/5.2	2.8/6.9	2.9/7.3	3.6/9.0	4.3/10.6	4.5/11.3
	Total Load	930	1,003	1,420	1,514	1,848	2,184	2,342	1,395	1,505	2,130	2,271	2,772	3,276	3,514
10'	Live Load L/360	626	675	1,084	1,257	*	*	*	940	1,013	1,626	1,886	*	*	*
	Min. End/Int. Bearing (in.)	1.8/4.5	1.9/4.8	2.7/6.8	2.9/7.3	3.5/8.9	4.2/10.5	4.5/11.3	1.8/4.5	1.9/4.8	2.7/6.8	2.9/7.3	3.5/8.9	4.2/10.5	4.5/11.3
	Total Load	548	592	964	1,092	1,480	1,738	1,949	822	888	1,446	1,639	2,220	2,607	2,923
12'	Live Load L/360	372	401	651	758	1,198	1,721	*	558	602	976	1,137	1,797	2,582	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.2/5.6	2.5/6.3	3.4/8.5	4.0/10.0	4.5/11.3	1.5/3.5	1.5/3.5	2.2/5.6	2.5/6.3	3.4/8.5	4.0/10.0	4.5/11.3
	Total Load	347	375	616	721	1,093	1,409	1,660	520	563	925	1,082	1,639	2,113	2,490
14'	Live Load L/360	238	257	419	489	780	1,132	1,561	357	386	629	734	1,171	1,698	2,342
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.7/4.2	2.0/4.9	3.0/7.4	3.8/9.5	4.5/11.3	1.5/3.5	1.5/3.5	1.7/4.2	2.0/4.9	3.0/7.4	3.8/9.5	4.5/11.3
	Total Load	210	228	379	444	720	1,009	1,263	316	342	568	667	1,080	1,514	1,895
16'-6"	Live Load L/360	147	159	260	305	490	716	995	220	238	391	457	735	1,074	1,493
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.3/5.8	3.2/8.1	4.0/10.1	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.3/5.8	3.2/8.1	4.0/10.1
	Total Load	147	160	268	315	514	759	1,000	221	240	402	473	771	1,138	1,501
18'-6"	Live Load L/360	105	113	186	218	352	517	722	157	170	280	328	529	776	1,084
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.7	2.7/6.8	3.6/9.0	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.7	2.7/6.8	3.6/9.0
	Total Load	115	125	210	248	407	603	850	172	187	316	372	610	905	1,275
20'	Live Load L/360	83	90	148	174	281	414	579	125	135	223	261	422	621	869
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4.0	2.4/5.9	3.3/8.3	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4.0	2.4/5.9	3.3/8.3
	Total Load	84	91	156	184	304	454	642	126	137	234	277	457	681	964
22'	Live Load L/360	63	68	112	131	213	314	441	94	102	168	197	320	472	662
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.0/4.9	2.8/6.9	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.0/4.9	2.8/6.9
	Total Load	62	68	118	140	232	349	496	94	103	177	210	349	523	744
24'	Live Load L/360	48	52	86	102	165	244	343	73	79	130	153	248	366	515
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.4/5.9	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.4/5.9
	Total Load		51	90	107	180	272	389	71	77	135	161	271	409	584
26'	Live Load L/360		41	68	80	130	193	272	57	62	102	120	196	290	409
	Min. End/Int. Bearing (in.)		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.0/5.1	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.0/5.1
	Total Load			70	84	142	216	310	54	59	105	126	213	324	465
28'	Live Load L/360			55	64	105	155	219	46	50	82	97	157	233	329
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.4	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.4
25:	Total Load			55	66	113	173	249			82	99	170	260	374
30'	Live Load L/360			44	52	85	127	179			67	79	128	190	269
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9
	Total Load				52	91	140	203			64	78	136	210	305
32'	Live Load L/360				43	70	105	148			55	65	106	157	223
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5

^{*} Indicates Total Load value controls.

General Notes

- Table is based on:

 - Uniform loads (beam weight considered).
 More restrictive of simple or continuous span.
 - $-\,$ Deflection criteria of L/240 total load (TL) and L/360 live load (LL).
- For live load deflection limits of L/240 or L/480, multiply **Live Load L/360** values by 1.5 or 0.75, respectively. The resulting live load must not exceed the total load shown.

Also see **How to Use This Table** on page 20 and **General Assumptions** on page 5.

2.0E Parallam® PSL: Floor—100% (PLF) continued

2.UL	raialialii FSL:	1001		• (I = I	7 COILLI			
Span	Condition	01/11	01/1	44170	7" Width	4.411	1011	1011
	Takalilaad	91/4"	91/2"	111/4"	117/8"	14"	16"	18"
8'	Total Load	2,939	3,034	3,723	3,981	4,912 *	5,866	5,866
9.	Live Load L/360	2,338	2,515					
	Min. End/Int. Bearing (in.)	2.3/5.6	2.3/5.8	2.9/7.1	3.1/7.6	3.8/9.4	4.5/11.3	4.5/11.3
01 011	Total Load	2,153	2,294	3,020	3,222	3,940	4,667	4,934
9'-6"	Live Load L/360	1,448	1,561	2,496	2,893			
	Min. End/Int. Bearing (in.)	2.0/4.9	2.1/5.2	2.8/6.9	2.9/7.3	3.6/9.0	4.3/10.6	4.5/11.3
10'	Total Load	1,860	2,006	2,841	3,029	3,696	4,369	4,685
10	Live Load L/360	1,253	1,351	2,168	2,515			
	Min. End/Int. Bearing (in.)	1.8/4.5	1.9/4.8	2.7/6.8	2.9/7.3	3.5/8.9	4.2/10.5	4.5/11.3
101	Total Load	1,096	1,184	1,928	2,185	2,960	3,476	3,898
12'	Live Load L/360	744	803	1,302	1,516	2,396	3,443	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.2/5.6	2.5/6.3	3.4/8.5	4.0/10.0	4.5/11.3
14'	Total Load	694	751	1,233	1,443	2,186	2,818	3,320
14'	Live Load L/360	476	514	839	979	1,561	2,264	3,122
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.7/4.2	2.0/4.9	3.0/7.4	3.8/9.5	4.5/11.3
101 011	Total Load	421	457	758	889	1,440	2,019	2,526
16'-6"	Live Load L/360	294	318	521	610	980	1,432	1,991
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.3/5.8	3.2/8.1	4.0/10.1
101 011	Total Load	295	320	536	630	1,028	1,518	2,001
18'-6"	Live Load L/360	210	227	373	437	705	1,035	1,445
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.7	2.7/6.8	3.6/9.0
001	Total Load	230	250	421	497	814	1,207	1,700
20'	Live Load L/360	167	180	297	348	563	828	1,159
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4.0	2.4/5.9	3.3/8.3
22'	Total Load	168	183	312	369	609	909	1,285
22.	Live Load L/360	126	136	224	263	426	629	883
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.0/4.9	2.8/6.9
24'	Total Load	125 97	137	236	280	465	698	992
24	Live Load L/360	1.5/3.5	105	173	204	331	488	687
	Min. End/Int. Bearing (in.)		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.4/5.9
26'	Total Load Live Load L/360	94 76	103 83	181 137	215 161	361 261	545 387	779 545
20		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.0/5.1
	Min. End/Int. Bearing (in.) Total Load	72	79	1.5/5.5	1.5/3.5	285	432	620
28'	Live Load L/360	61	66	110	129	210	311	439
20								
	Min. End/Int. Bearing (in.) Total Load	1.5/3.5 54	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5 226	1.5/3.5 346	1.8/4.4
30'	Live Load L/360	50 50	54	89	105	171	254	359
งบ			-					
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9
201	Total Load			86	104	182	280	406
32'	Live Load L/360			74	87	141	210	297
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5

^{*} Indicates Total Load value controls.

How to Use This Table

- 1. Calculate total load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total load.
- 4. Review bearing length requirements to ensure adequacy.

Also see **General Notes** on page 23.

TimberStrand® LSL: Roof—Snow Load Area 115% (PLF)

Cnon	Condition				1.3E	Grade				1.5	55E Gra	de	
Span	Collultion				Width			5½" Plank Orientation			1¾" Width		
		43/8"	51/2"	71/4"	85/8"	91/4"	111/4"	31/2"	91/4"	91/2"	111/4"	111//8"	14"
	Total Load	1,769	2,739	4,643	6,469	7,393	7,442	1,392	3,479	3,642	4,717	4,717	4,717
3'	Deflection L/240 / L/360	*/1,420	*/2,547	*/*	*/*	*/*	*/*	*/1,224	*/*	*/*	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.7/4.1	2.8/7	3.9/9.8	4.5/11.2	4.5/11.3	1.5/3.5	3.3/8.3	3.5/8.7	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	993	1,538	2,608	3,635	4,154	5,579	996	2,219	2,307	2,988	3,263	3,536
4'	Deflection L/240 / L/360	977/651	*/1,215	*/2,476	*/*	*/*	*/*	820/546	*/*	*/*	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.1/5.3	2.9/7.3	3.4/8.4	4.5/11.3	1.5/3.5	2.8/7.1	2.9/7.3	3.8/9.5	4.2/10.4	4.5/11.3
	Total Load	634	982	1,666	2,323	2,655	3,860	533	1,629	1,688	2,132	2,306	2,827
5'	Deflection L/240 / L/360	521/347	*/662	*/1,398	*/2,188	*/2605	*/*	431/287	*/1,553	*/1,658	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9	2.7/6.7	3.9/9.7	1.5/3.5	2.6/6.5	2.7/6.7	3.4/8.5	3.7/9.2	4.5/11.3
	Total Load	317	614	1,155	1,610	1,841	2,677	258	1,260	1,326	1,657	1,782	2,246
6'	Deflection L/240 / L/360	309/206	595/397	*/857	*/1,367	*/1,641	*/*	253/169	*/978	*/1,048	*/1,605	*/*	*/*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	2/4.9	2.2/5.6	3.2/8.1	1.5/3.5	2.4/6	2.5/6.3	3.2/7.9	3.4/8.5	4.3/10.7
	Total Load	171	336	742	1,181	1,350	1,963	138	924	973	1,344	1,452	1,807
7'	Deflection L/240 / L/360	*/131	*/255	*/560	*/904	*/1,092	*/1,828	*/107	*/651	*/699	*/1,089	*/1,250	*/*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	1.9/4.8	2.8/7	1.5/3.5	2.1/5.2	2.2/5.4	3/7.5	3.2/8.1	4/10.1
	Total Load	99	198	443	902	1,031	1,500	79	706	743	1,028	1,140	1,511
8'	Deflection L/240 / L/360	*/89	*/173	*/384	*/626	*/759	*/1,290	*/72	679/453	731/487	*/769	*/886	*/1,352
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.7	1.7/4.2	2.4/6.1	1.5/3.5	1.8/4.5	1.9/4.8	2.6/6.6	2.9/7.3	3.9/9.6
	Total Load		98	224	637	728	1,061		499	525	727	806	1,105
9'-6"	Deflection L/240 / L/360		*/*	*/*	579/386	706/470	*/811		421/280	453/302	725/483	*/560	*/870
	Min. End/Int. Bearing (in.)		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.1		1.5/3.8	1.6/4	2.2/5.5	2.5/6.1	3.4/8.4
	Total Load		79	182	574	656	956		450	474	655	727	996
10'	Deflection L/240 / L/360		*/*	*/*	500/333	611/407	*/704		364/242	392/261	630/420	*/487	*/760
	Min. End/Int. Bearing (in.)		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.9		1.5/3.6	1.5/3.8	2.1/5.3	2.3/5.8	3.2/8
	Total Load			85	386	453	660		283	306	453	503	690
12'	Deflection L/240 / L/360			*/*	296/197	362/241	634/423		216/144	233/155	378/252	440/293	*/464
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.6/4.1		1.5/3.5	1.5/3.5	1.8/4.4	1.9/4.9	2.7/6.6
	Total Load				243	300	482		179	194	318	367	504
14'	Deflection L/240 / L/360				189/126	232/154	409/272		138/92	149/99	243/162	284/189	453/302
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.3/5.7
	Total Load				147	182	327		109	118	196	230	361
16'-6"	Deflection L/240 / L/360				116/77	143/95	254/169		85/57	92/61	151/101	177/118	284/189
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8
	Total Load				102	127	231		76	83	138	163	265
18'-6"	Deflection L/240 / L/360				83/55	102/68	182/121		61/40	66/44	108/72	127/84	205/136
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4
	Total Load				79	99	181		59	64	109	128	210
20'	Deflection L/240 / L/360				66/44	81/54	145/96		48/32	52/35	86/57	101/67	163/109
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load					53	101				61	72	120
24'	Deflection L/240 / L/360					47/31	84/56				50/33	59/39	96/64
	Min. End/Int. Bearing (in.)					1.5/3.5	1.5/3.5				1.5/3.5	1.5/3.5	1.5/3.5
	Total Load						60						73
28'	Deflection L/240 / L/360						53/35						61/40
	Min. End/Int. Bearing (in.)						1.5/3.5						1.5/3.5

^{*} Indicates Total Load value controls.

General Notes

- Table is based on:
 - Uniform loads (beam weight considered).
 - More restrictive of simple or continuous span.
 - Deflection criteria of L/180 total load. For stiffer deflection criteria, use L/240 values for total load deflection.
- For door and window applications, Weyerhaeuser recommends using the L/360 value for a live load deflection limit and the L/240 value for a total load limit.

Also see **How to Use This Table** on page 22 and **General Assumptions** on page 5.

TimberStrand® LSL: Roof—Snow Load Area 115% (PLF) continued

0	O - m diki - m						1.55E	Grade					
Span	Condition			3½" V	Vidth					5¼" Width (2- or 3-ply)		
		91/4"	91/2"	111/4"	111/8"	14"	16"	91/4"	91/2"	111/4"	111/8"	14"	16"
	Total Load	6,958	7,284	9,432	9,432	9,432	9,432	10,437	10,926	14,148	14,148	14,148	14,148
3'	Deflection L/240 / L/360	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	3.3/8.3	3.5/8.7	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3	3.3/8.3	3.5/8.7	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	4,439	4,615	5,976	6,526	7,070	7,070	6,659	6,923	8,965	9,790	10,605	10,605
4'	Deflection L/240 / L/360	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	2.8/7.1	2.9/7.3	3.8/9.5	4.2/10.4	4.5/11.3	4.5/11.3	2.8/7.1	2.9/7.3	3.8/9.5	4.2/10.4	4.5/11.3	4.5/11.3
	Total Load	3,258	3,376	4,265	4,612	5,652	5,652	4,887	5,064	6,398	6,919	8,478	8,478
5'	Deflection L/240 / L/360	*/3,106	*/3,316	*/*	*/*	*/*	*/*	*/4,659	*/4,975	*/*	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	2.6/6.5	2.7/6.7	3.4/8.5	3.7/9.2	4.5/11.3	4.5/11.3	2.6/6.5	2.7/6.7	3.4/8.5	3.7/9.2	4.5/11.3	4.5/11.3
	Total Load	2,521	2,652	3,315	3,565	4,492	4,707	3,781	3,979	4,972	5,348	6,739	7,061
6'	Deflection L/240 / L/360	*/1,957	*/2,097	*/3,210	*/*	*/*	*/*	*/2,936	*/3,146	*/4,816	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	2.4/6	2.5/6.3	3.2/7.9	3.4/8.5	4.3/10.7	4.5/11.3	2.4/6	2.5/6.3	3.2/7.9	3.4/8.5	4.3/10.7	4.5/11.3
	Total Load	1,849	1,946	2,689	2,904	3,614	4,032	2,774	2,919	4,034	4,357	5,421	6,048
7'	Deflection L/240 / L/360	*/1,302	*/1,399	*/2,179	*/2,501	*/*	*/*	*/1,954	*/2,098	*/3269	*/3,752	*/*	*/*
-	Min. End/Int. Bearing (in.)	2.1/5.2	2.2/5.4	3/7.5	3.2/8.1	4/10.1	4.5/11.3	2.1/5.2	2.2/5.4	3/7.5	3.2/8.1	4/10.1	4.5/11.3
	Total Load	1,413	1,487	2,056	2,280	3,022	3,526	2,120	2,231	3,084	3,420	4,534	5,289
8'	Deflection L/240 / L/360	1,359/906	1,462/974	*/1,538	*/1,773	*/2,705	*/*	2,038/1,359	,	*/2,307	*/2,660	*/4,058	*/*
	Min. End/Int. Bearing (in.)	1.8/4.5	1.9/4.8	2.6/6.6	2.9/7.3	3.9/9.6	4.5/11.3	1.8/4.5	1.9/4.8	2.6/6.6	2.9/7.3	3.9/9.6	4.5/11.3
	Total Load	999	1,051	1,454	1,613	2,211	2,854	1,499	1,577	2,181	2,419	3,316	4,282
9'-6"	Deflection L/240 / L/360	842/561	907/605	1,451/967	*/1,121	*/1,740	*/2,456	1,263/842		2,176/1,451	*/1,681	*/2,610	*/3,684
"	Min. End/Int. Bearing (in.)	1.5/3.8	1.6/4	2.2/5.5	2.5/6.1	3.4/8.4	4.3/10.8	1.5/3.8	1.6/4	2.2/5.5	2.5/6.1	3.4/8.4	4.3/10.8
	Total Load	901	948	1,311	1,454	1,993	2,574	1,351	1,422	1,967	2,182	2,990	3,862
10'	Deflection L/240 / L/360	728/485	785/523	1,260/840	*/974	*/1,520	*/2,154	1,092/728		1,890/1,260	*/1,462	*/2,280	*/3,232
	Min. End/Int. Bearing (in.)	1.5/3.6	1.5/3.8	2.1/5.3	2.3/5.8	3.2/8	4.1/10.3	1.5/3.6	1.5/3.8	2.1/5.3	2.3/5.8	3.2/8	4.1/10.3
	Total Load	566	612	907	1,006	1,380	1,782	850	918	1,360	1,509	2,070	2,674
12'	Deflection L/240 / L/360	432/288	467/311	756/504	881/587	*/928	*/1,334	649/432	700/467	1,135/756	1,322/881	*/1,393	*/2,001
'2	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.8/4.4	1.9/4.9	2.7/6.6	3.4/8.6	1.5/3.5	1.5/3.5	1.8/4.4	1.9/4.9	2.7/6.6	3.4/8.6
	Total Load	359	388	637	735	1,009	1,305	538	582	956	1,103	1,514	1,957
14'	Deflection L/240 / L/360	276/184	299/199	487/325	569/379	907/605	*/877	415/276	448/299	731/487	854/569	1,361/907	*/1,316
'7	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.3/5.7	2.9/7.3	1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.3/5.7	2.9/7.3
	Total Load	218	236	392	460	722	934	327	354	588	690	1,084	1,402
16'-6"	Deflection L/240 / L/360	171/114	185/123	303/202	354/236	569/379	832/555	256/171	277/185	455/303	532/354	854/569	1,248/832
10 -0	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8	2.5/6.2	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8	2.5/6.2
	Total Load	1.5/ 5.5	1.5/5.5	277	326	531	739	229	249	416	489	797	1,109
18'-6"	Deflection L/240 / L/360	122/81	132/88	217/144	254/169	410/273	601/401	183/122	198/132	326/217	381/254	615/410	902/601
10 -0		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	2.2/5.6	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	2.2/5.6
	Min. End/Int. Bearing (in.) Total Load	1.5/5.5	1.5/5.5	218	257	421	624	1.5/3.5	1.5/5.5	327	385	631	936
20'	Deflection L/240 / L/360	97/64	105/70	172/115	202/135	327/218	481/320	145/97	157/105	259/172	304/202	491/327	722/481
20		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5.1	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5.1
	Min. End/Int. Bearing (in.) Total Load	65	71	1.5/3.5	1.5/3.5	241	361	98	1.5/3.5	1.5/3.5	217	361	542
24'	Deflection L/240 / L/360	56/37	61/40	101/67	118/79	192/128	284/189	84/56	91/61	151/101	177/118	288/192	426/284
24										1.5/3.5			
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5 147	1.5/3.6 224	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5 221	1.5/3.6 336
201	Total Load			73 64/42	87 75/50	122/81	181/120	56 53/35	61 58/38	96/64	112/75	183/122	271/181
28'	Deflection L/240 / L/360												
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5

^{*} Indicates Total Load value controls.

How to Use This Table

- 1. Calculate total load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total load.
- 4. Review bearing length requirements to ensure adequacy.

Also see **General Notes** on page 25.

2.0E Microllam® LVL: Roof—Snow Load Area 115% (PLF)

					1¾" Width						31/2" Wid	th (2-ply)		
Span	Condition	51/2"	71/4"	91/4"	91/2"	111/4"	117/8"	14"	51/2"	71/4"	91/4"	91/2"	111/4"	117/8"
	Total Load	474	877	1,182	1,223	1,523	1,638	1,961	948	1,755	2,365	2,446	3,047	3,277
6'	Deflection L/240	458	*	*	*	*	*	*	916	*	*	*	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	2/5	2.7/6.8	2.8/7	3.5/8.7	3.8/9.4	4.5/11.3	1.5/3.5	2/5	2.7/6.8	2.8/7	3.5/8.7	3.8/9.4
	Total Load	153	342	800	841	1,053	1,126	1,389	307	685	1,601	1,682	2,106	2,252
8'	Deflection L/240	*	*	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.5/6.1	2.6/6.4	3.2/8.1	3.5/8.6	4.3/10.6	1.5/3.5	1.5/3.5	2.5/6.1	2.6/6.4	3.2/8.1	3.5/8.6
	Total Load	77	174	566	595	816	903	1,114	154	349	1,132	1,190	1,633	1,807
9'-6"	Deflection L/240	*	*	543	585	*	*	*	*	*	1,086	1,171	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.1/5.2	2.2/5.4	3/7.4	3.3/8.2	4.1/10.2	1.5/3.5	1.5/3.5	2.1/5.2	2.2/5.4	3/7.4	3.3/8.2
	Total Load	62	142	510	536	736	814	1,045	124	284	1,021	1,073	1,473	1,629
10'	Deflection L/240	*	*	470	506	*	*	*	*	*	940	1,013	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2/4.9	2.1/5.2	2.8/7.1	3.1/7.8	4/10	1.5/3.5	1.5/3.5	2/4.9	2.1/5.2	2.8/7.1	3.1/7.8
	Total Load		67	353	371	509	564	767	57	135	706	742	1,019	1,128
12'	Deflection L/240		*	279	301	488	*	*	*	*	558	602	976	*
	Min. End/Int. Bearing (in.)		1.5/3.5	1.6/4.1	1.7/4.3	2.4/5.9	2.6/6.5	3.5/8.9	1.5/3.5	1.5/3.5	1.6/4.1	1.7/4.3	2.4/5.9	2.6/6.5
	Total Load			233	252	372	412	562		70	466	505	745	825
14'	Deflection L/240			178	193	314	367	*		*	357	386	629	734
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	2/5	2.2/5.6	3/7.6		1.5/3.5	1.5/3.5	1.5/3.5	2/5	2.2/5.6
	Total Load			142	154	255	295	402			285	308	510	591
16'-6"	Deflection L/240			110	119	195	228	367			220	238	391	457
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.7	2.6/6.4			1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.7
	Total Load			100	108	181	212	318			200	217	362	425
18'-6"	Deflection L/240			78	85	140	164	264			157	170	280	328
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.3/5.7			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9
	Total Load			78	85	143	168	271			157	171	286	336
20'	Deflection L/240			62	67	111	130	211			125	135	223	261
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.3			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load			58	63	106	125	206			116	126	213	251
22'	Deflection L/240			47	51	84	98	160			94	102	168	197
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load					81	95	158			87	95	162	191
24'	Deflection L/240					65	76	124			73	79	130	153
	Min. End/Int. Bearing (in.)					1.5/3.5	1.5/3.5	1.5/3.8			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
001	Total Load					62	74	123			67	73	125	148
26'	Deflection L/240					51	60	98			57	62	102	120
	Min. End/Int. Bearing (in.)					1.5/3.5	1.5/3.5	1.5/3.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
201	Total Load						58 48	98 78			52 46	56 50	98 82	117
28'	Deflection L/240													97
	Min. End/Int. Bearing (in.)						1.5/3.5	1.5/3.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
201	Total Load							78					78	93
30'	Deflection L/240							64					67	79
	Min. End/Int. Bearing (in.)							1.5/3.5					1.5/3.5	1.5/3.5

 $[\]boldsymbol{\ast}$ Indicates Total Load value controls.

General Notes

- Table is based on:
 - Uniform loads (beam weight considered).

 - More restrictive of simple or continuous span.
 Deflection criteria of L/180 total load. For stiffer deflection criteria, use L/240 values for total load deflection.

Also see **How to Use This Table** on page 24 and **General Assumptions** on page 5.

2.0E Microllam® LVL: Roof—Snow Load Area 115% (PLF) continued

Cman	Condition		31/2" Wid	th (2-ply)						51/4" Wid	th (3-ply)				
Span		14"	16"	18"	20"	51/2"	71/4"	91/4"	91/2"	111/4"	111//8"	14"	16"	18"	20"
	Total Load	3,919	3,919	3,919	3,919	1,423	2,632	3,547	3,669	4,571	4,916	5,878	5,878	5,878	5,878
6'	Deflection L/240	*	*	*	*	1,374	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4.5/11.3		4.5/11.3	4.5/11.3	1.5/3.5	2/5	2.7/6.8	2.8/7	3.5/8.7	3.8/9.4	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,778	2,934	2,934	2,934	461	1,028	2,401	2,524	3,159	3,378	4,168	4,402	4,402	4,402
8'	Deflection L/240	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4.3/10.6	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	2.5/6.1	2.6/6.4	3.2/8.1	3.5/8.6	4.3/10.6	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,229	2,468	2,468	2,468	231	524	1,698	1,785	2,450	2,710	3,344	3,702	3,702	3,702
9'-6"	Deflection L/240	*	*	*	*	*	*	1,630	1,757	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4.1/10.2		4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	2.1/5.2	2.2/5.4	3/7.4	3.3/8.2	4.1/10.2	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,091	2,344	2,344	2,344	187	427	1,531	1,610	2,209	2,444	3,137	3,516	3,516	3,516
10'	Deflection L/240	*	*	*	*	*	*	1,410	1,520	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4/10	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	2/4.9	2.1/5.2	2.8/7.1	3.1/7.8	4/10	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	1,535	1,950	1,950	1,950	86	203	1,059	1,113	1,529	1,692	2,303	2,925	2,925	2,925
12'	Deflection L/240	*	*	*	*	*	*	837	904	1,464	*	*	*	*	*
	Min. End/Int. Bearing (in.)	3.5/8.9	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	1.6/4.1	1.7/4.3	2.4/5.9	2.6/6.5	3.5/8.9	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	1,124	1,444	1,669	1,669		106	700	757	1,118	1,238	1,686	2,166	2,503	2,503
14'	Deflection L/240	*	*	*	*		*	535	579	943	1,102	*	*	*	*
	Min. End/Int. Bearing (in.)	3/7.6	3.9/9.7	4.5/11.3	4.5/11.3		1.5/3.5	1.5/3.5	1.5/3.5	2/5	2.2/5.6	3/7.6	3.9/9.7	4.5/11.3	4.5/11.3
	Total Load	805	1,035	1,291	1,413			427	463	765	886	1,208	1,552	1,936	2,120
16'-6"	Deflection L/240	735	*	*	*			331	358	587	686	1,103	*	*	*
	Min. End/Int. Bearing (in.)	2.6/6.4	3.3/8.3	4.1/10.3	4.5/11.3			1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.7	2.6/6.4	3.3/8.3	4.1/10.3	4.5/11.3
	Total Load	637	820	1,023	1,247			301	326	543	638	956	1,230	1,535	1,871
18'-6"	Deflection L/240	529	776	*	*			236	256	420	492	794	1,164	*	*
	Min. End/Int. Bearing (in.)	2.3/5.7	2.9/7.4	3.7/9.2	4.5/11.2			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.3/5.7	2.9/7.4	3.7/9.2	4.5/11.2
	Total Load	543	699	872	1,064			236	256	429	504	815	1,048	1,309	1,596
20'	Deflection L/240	422	621	869	*			188	203	334	392	633	931	1,304	*
	Min. End/Int. Bearing (in.)	2.1/5.3	2.7/6.8	3.4/8.5	4.1/10.3			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.3	2.7/6.8	3.4/8.5	4.1/10.3
	Total Load	412	575	718	876			174	190	320	377	619	862	1,077	1,314
22'	Deflection L/240	320	472	662	*			141	153	252	296	480	708	994	*
	Min. End/Int. Bearing (in.)	1.8/4.5	2.5/6.2	3.1/7.7	3.8/9.4			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	2.5/6.2	3.1/7.7	3.8/9.4
	Total Load	316	472	600	732			131	143	243	287	475	708	900	1,099
24'	Deflection L/240	248	366	515	698			109	118	195	229	372	550	773	1,047
	Min. End/Int. Bearing (in.)	1.5/3.8	2.2/5.6	2.8/7.1	3.4/8.6			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6	2.8/7.1	3.4/8.6
	Total Load	247	370	509	621			101	110	188	223	371	556	763	932
26'	Deflection L/240	196	290	409	555			86	93	154	181	294	435	613	832
	Min. End/Int. Bearing (in.)	1.5/3.5	1.9/4.8	2.6/6.5	3.2/7.9			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8	2.6/6.5	3.2/7.9
	Total Load	196	295	421	533			78	85	148	175	294	442	632	799
28'	Deflection L/240	157	233	329	448			69	75	123	145	236	350	494	672
	Min. End/Int. Bearing (in.)	1.5/3.5	1.7/4.2	2.3/5.9	3/7.4			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9	3/7.4
	Total Load	157	238	341	461			61	66	117	139	236	357	511	692
30'	Deflection L/240	128	190	269	366			56	61	101	118	193	286	404	550
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.6	2.1/5.1	2.8/6.9			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.1	2.8/6.9

^{*} Indicates Total Load value controls.

How to Use This Table

- 1. Calculate total load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total load.
- 4. Review bearing length requirements to ensure adequacy.

Also see **General Notes** on page 27.

2.0E Parallam® PSL: Roof—Snow Load Area 115% (PLF)

					3½" Width	 1						51/4" Width	1		
Span	Condition	91/4"	91/2"	111/4"	111/8"	14"	16"	18"	91/4"	91/2"	111/4"	117/8"	14"	16"	18"
	Total Load	1.691	1.746	2.142	2,291	2,826	2,933	2,933	2.537	2.619	3,213	3.436	4.240	4.400	4,400
8'	Deflection L/240	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.6/6.5	2.7/6.7	3.3/8.2	3.5/8.8	4.3/10.8	4.5/11.3	4.5/11.3	2.6/6.5	2.7/6.7	3.3/8.2	3.5/8.8	4.3/10.8	4.5/11.3	4.5/11.3
	Total Load	1,255	1,320	1.738	1.854	2,268	2,467	2,467	1.883	1,980	2.607	2,781	3.402	3,700	3.700
9'-6"	Deflection L/240	1,086	1,171	*	*	*	*	*	1,630	1,757	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.3/5.7	2.4/6.0	3.2/7.9	3.4/8.4	4.1/10.3	4.5/11.3	4.5/11.3	2.3/5.7	2.4/6.0	3.2/7.9	3.4/8.4	4.1/10.3	4.5/11.3	4.5/11.3
	Total Load	1,132	1,190	1,635	1.743	2,127	2,342	2,342	1,698	1,786	2,453	2,615	3,191	3,514	3,514
10'	Deflection L/240	940	1,013	1,626	*	*	*	*	1,410	1,520	2,439	*	*	*	*
	Min. End/Int. Bearing (in.)	2.2/5.4	2.3/5.7	3.1/7.8	3.3/8.4	4.1/10.2	4.5/11.3	4.5/11.3	2.2/5.4	2.3/5.7	3.1/7.8	3.3/8.4	4.1/10.2	4.5/11.3	4.5/11.3
	Total Load	734	793	1,135	1,258	1,704	1,949	1,949	1,101	1,190	1,703	1,887	2,557	2,923	2,923
12'	Deflection L/240	558	602	976	1,137	*	*	*	837	904	1,464	1,706	*	*	*
	Min. End/Int. Bearing (in.)	1.7/4.3	1.8/4.6	2.6/6.6	2.9/7.3	3.9/9.8	4.5/11.3	4.5/11.3	1.7/4.3	1.8/4.6	2.6/6.6	2.9/7.3	3.9/9.8	4.5/11.3	4.5/11.3
	Total Load	466	504	826	921	1,259	1,623	1,667	699	756	1,240	1,381	1,889	2,434	2,501
14'	Deflection L/240	357	386	629	734	1,171	*	*	535	579	943	1,102	1,757	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.2/5.6	2.5/6.2	3.4/8.5	4.4/10.9	4.5/11.3	1.5/3.5	1.5/3.5	2.2/5.6	2.5/6.2	3.4/8.5	4.4/10.9	4.5/11.3
	Total Load	284	308	509	597	902	1,163	1,412	426	462	764	896	1,353	1,745	2,118
16'-6"	Deflection L/240	220	238	391	457	735	1,074	*	331	358	587	686	1,103	1,611	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8	2.9/7.2	3.7/9.3	4.5/11.3	1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8	2.9/7.2	3.7/9.3	4.5/11.2
	Total Load	200	217	361	424	690	922	1,154	300	325	542	637	1,035	1,383	1,731
18'-6"	Deflection L/240	157	170	280	328	529	776	1,084	236	256	420	492	794	1,164	1,626
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.5/6.2	3.3/8.3	4.1/10.3	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.5/6.2	3.3/8.3	4.1/10.3
	Total Load	157	170	285	335	548	786	984	235	255	427	503	822	1,179	1,476
20'	Deflection L/240	125	135	223	261	422	621	869	188	203	334	392	633	931	1,304
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.4	3.1/7.7	3.8/9.6	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.4	3.1/7.7	3.8/9.6
	Total Load	115	126	212	250	411	611	810	173	189	318	375	617	917	1,215
22'	Deflection L/240	94	102	168	197	320	472	662	141	153	252	296	480	708	994
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	2.6/6.6	3.5/8.7	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	2.6/6.6	3.5/8.7
	Total Load	87	95	161	191	315	471	668	130	142	242	286	473	707	1,002
24'	Deflection L/240	73	79	130	153	248	366	515	109	118	195	229	372	550	773
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6	3.1/7.9	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6	3.1/7.9
001	Total Load	66	72	124	148	246	369	525	100	109	187	222	369	554	788
26'	Deflection L/240	57	62	102	120	196	290	409	86	93	154	181	294	435	613
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5 97	1.5/3.5 116	1.5/3.5 195	1.9/4.8 294	2.7/6.8 420	1.5/3.5 77	1.5/3.5	1.5/3.5 146	1.5/3.5 174	1.5/3.5	1.9/4.8	2.7/6.8 630
28'	Total Load Deflection L/240	46	50	82	97	157	233	329	69	75	123	1/4	292	350	494
20		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9
	Min. End/Int. Bearing (in.) Total Load	1.0/3.0	1.5/5.5	77	92	1.5/3.5	236	339	60	65	1.5/3.5	1.5/3.5	234	355	509
30'	Deflection L/240			67	79	128	190	269	56	61	101	118	193	286	404
30	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.1	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.1
	Total Load			61	74	1.5/5.5	1.5/5.0	2.1/3.1	1.3/3.3	51	92	1111	1.5/5.5	289	416
32'	Deflection L/240			55	65	106	157	223		50	83	97	159	236	334
32	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5
	MIII. EIIU/IIII. Deariiig (III.)			1.0/0.0	1.0/0.0	1.0/0.0	1.0/0.0	1.0/4.3		1.0/0.0	1.0/0.0	1.0/0.0	1.0/0.0	1.0/0.0	1.0/4.3

^{*} Indicates Total Load value controls.

General Notes

- Table is based on:
 - Uniform loads (beam weight considered).
 - More restrictive of simple or continuous span.
 - Deflection criteria of L/180 total load. For stiffer deflection criteria, use L/240 values for total load deflection.

Also see **How to Use This Table** on page 26 and **General Assumptions** on page 5.

2.0E Parallam® PSL: Roof—Snow Load Area 115% (PLF) continued

					7" Width			
Span	Condition	91/4"	91/2"	111/4"	117/8"	14"	16"	18"
	Total Load	3.383	3.492	4.285	4.582	5.653	5.866	5.866
8'	Deflection L/240	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.6/6.5	2.7/6.7	3.3/8.2	3.5/8.8	4.3/10.8	4.5/11.3	4.5/11.3
	Total Load	2,511	2,641	3,477	3,709	4,536	4,934	4,934
9'-6"	Deflection L/240	2,173	2,342	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.3/5.7	2.4/6.0	3.2/7.9	3.4/8.4	4.1/10.3	4.5/11.3	4.5/11.3
	Total Load	2,264	2,381	3,271	3,487	4,255	4,685	4,685
10'	Deflection L/240	1,880	2,027	3,252	*	*	*	*
	Min. End/Int. Bearing (in.)	2.2/5.4	2.3/5.7	3.1/7.8	3.3/8.4	4.1/10.2	4.5/11.3	4.5/11.3
	Total Load	1,468	1,586	2,271	2,517	3,409	3,898	3,898
12'	Deflection L/240	1,116	1,205	1,953	2,274	*	*	*
	Min. End/Int. Bearing (in.)	1.7/4.3	1.8/4.6	2.6/6.6	2.9/7.3	3.9/9.8	4.5/11.3	4.5/11.3
	Total Load	932	1,008	1,653	1,842	2,519	3,246	3,335
14'	Deflection L/240	714	772	1,258	1,469	2,342	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.2/5.6	2.5/6.2	3.4/8.5	4.4/10.9	4.5/11.3
	Total Load	569	616	1,019	1,195	1,805	2,327	2,824
16'-6"	Deflection L/240	441	477	782	915	1,470	2,148	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8	2.9/7.2	3.7/9.3	4.5/11.3
	Total Load	400	434	723	849	1,381	1,844	2,308
18'-6"	Deflection L/240	315	341	560	656	1,058	1,553	2,168
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.5/6.2	3.3/8.3	4.1/10.3
	Total Load	314	340	570	671	1,096	1,572	1,969
20'	Deflection L/240	250	271	446	523	845	1,242	1,739
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.4	3.1/7.7	3.8/9.6
	Total Load	231	252	425	501	823	1,223	1,620
22'	Deflection L/240	189	204	337	395	640	944	1,325
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	2.6/6.6	3.5/8.7
	Total Load	174	190	323	382	631	942	1,336
24'	Deflection L/240	146	158	260	306	496	733	1,031
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6	3.1/7.9
	Total Load	133	145	249	296	492	739	1,051
26'	Deflection L/240	115	124	205	241	392	580	818
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8	2.7/6.8
	Total Load	102	112	195	232	390	588	840
28'	Deflection L/240	92	100	165	194	315	467	659
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9
001	Total Load	80	87	154	184	312	473	679
30'	Deflection L/240	75	81	134	158	257	381	539
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.1
201	Total Load	62	68	123	148	253	385	555
32'	Deflection L/240	62	67	111	130	212	315	446
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5

^{*} Indicates **Total Load** value controls.

How to Use This Table

- 1. Calculate total load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total load.
- 4. Review bearing length requirements to ensure adequacy.

Also see **General Notes** on page 29.

TimberStrand® LSL: Roof—Non-Snow Load Area 125% (PLF)

Cnon	Condition				1.3E	Grade			1.55E Grade						
Span	Condition			31/2"	Width			51/2" Plank Orientation			13⁄4" Width	ì			
		43/8"	51/2"	71/4"	85/8"	91/4"	111/4"	31/2"	91/4"	91/2"	111/4"	111//8"	14"		
	Total Load	1,924	2,978	5,047	7,032	7,442	7,442	1,514	3,782	3,959	4,717	4,717	4,717		
3'	Deflection L/240 / L/360	*/1,420	*/2,547	*/4,885	*/*	*/*	*/*	*/1,224	*/*	*/*	*/*	*/*	*/*		
	Min. End/Int. Bearing (in.)	1.5/3.5	1.8/4.5	3.1/7.6	4.3/10.6	4.5/11.3	4.5/11.3	1.5/3.5	3.6/9	3.8/9.4	4.5/11.3	4.5/11.3	4.5/11.3		
	Total Load	1,080	1,673	2,836	3,951	4,516	5,579	1,084	2,413	2,508	3,248	3,536	3,536		
4'	Deflection L/240 / L/360	977/651	*/1,215	*/2,476	*/3,764	*/4,423	*/*	820/546	*/*	*/*	*/*	*/*	*/*		
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.3/5.7	3.2/8	3.6/9.1	4.5/11.3	1.5/3.5	3.1/7.7	3.2/8	4.1/10.3	4.5/11.3	4.5/11.3		
	Total Load	647	1,068	1,812	2,526	2,887	4,197	533	1,771	1,835	2,318	2,507	2,827		
5'	Deflection L/240 / L/360	521/347	993/662	*/1,398	*/2,188	*/2,605	*/4,154	431/287	*/1,553	*/1,658	*/*	*/*	*/*		
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.8/4.6	2.6/6.4	2.9/7.3	4.2/10.6	1.5/3.5	2.8/7	2.9/7.3	3.7/9.2	4/10	4.5/11.3		
	Total Load	317	614	1,256	1,751	2,002	2,911	258	1,370	1,442	1,802	1,938	2,354		
6'	Deflection L/240 / L/360	309/206	595/397	*/857	*/1,367	*/1,641	*/2,692	253/169	*/978	*/1,048	*/1,605	*/1,831	*/*		
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.8	2.1/5.3	2.4/6.1	3.5/8.8	1.5/3.5	2.6/6.6	2.8/6.9	3.4/8.6	3.7/9.3	4.5/11.3		
	Total Load	171	336	742	1,284	1,468	2,135	138	1,005	1,058	1,462	1,579	1,965		
7'	Deflection L/240 / L/360	*/131	*/255	*/560	*/904	*/1,092	*/1,828	*/107	977/651	1,049/699		*/1,250	*/1,877		
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.6	2.1/5.2	3/7.6	1.5/3.5	2.2/5.6	2.4/5.9	3.3/8.2	3.5/8.8	4.4/11		
	Total Load	99	198	443	981	1,122	1,632	79	768	809	1,118	1,239	1,643		
8'	Deflection L/240 / L/360	*/89	*/173	*/384	939/626	*/759	*/1,290	*/72	679/453	731/487	*/769	*/886	*/1,352		
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	1.8/4.6	2.6/6.6	1.5/3.5	2/4.9	2.1/5.2	2.9/7.1	3.2/7.9	4.2/10.5		
	Total Load		98	224	693	793	1,154		543	572	791	877	1,202		
9'-6"	Deflection L/240 / L/360		*/*	*/*	579/386	706/470	*/811		421/280	453/302	725/483	840/560	*/870		
	Min. End/Int. Bearing (in.)		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6		1.7/4.1	1.7/4.4	2.4/6	2.7/6.7	3.6/9.1		
	Total Load		79	182	624	714	1,040		480	515	713	791	1,084		
10'	Deflection L/240 / L/360		*/*	*/*	500/333	611/407	*/704		364/242	392/261	630/420	731/487	*/760		
	Min. End/Int. Bearing (in.)		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.3		1.5/3.9	1.7/4.1	2.3/5.7	2.5/6.3	3.5/8.7		
	Total Load			85	386	474	719		283	306	493	547	750		
12'	Deflection L/240 / L/360			*/*	296/197	362/241	634/423		216/144	233/155	378/252	440/293	696/464		
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.4		1.5/3.5	1.5/3.5	1.9/4.8	2.1/5.3	2.9/7.2		
	Total Load				243	300	525		179	194	318	373	549		
14'	Deflection L/240 / L/360				189/126	232/154	409/272		138/92	149/99	243/162	284/189	453/302		
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.8		1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.5/6.2		
	Total Load				147	182	327		109	118	196	230	372		
16'-6"	Deflection L/240 / L/360				116/77	143/95	254/169		85/57	92/61	151/101	177/118	284/189		
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5		
	Total Load				102	127	231		76	83	138	163	265		
18'-6"	Deflection L/240 / L/360				83/55	102/68	182/121		61/40	66/44	108/72	127/84	205/136		
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4		
	Total Load				79	99	181		59	64	109	128	210		
20'	Deflection L/240 / L/360				66/44	81/54	145/96		48/32	52/35	86/57	101/67	163/109		
	Min. End/Int. Bearing (in.)				1.5/3.5	1.5/3.5	1.5/3.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5		
	Total Load					53	101				61	72	120		
24'	Deflection L/240 / L/360					47/31	84/56				50/33	59/39	96/64		
	Min. End/Int. Bearing (in.)					1.5/3.5	1.5/3.5				1.5/3.5	1.5/3.5	1.5/3.5		
	Total Load						60						73		
28'	Deflection L/240 / L/360						53/35						61/40		
	Min. End/Int. Bearing (in.)						1.5/3.5						1.5/3.5		

^{*} Indicates **Total Load** value controls.

General Notes

- Table is based on:
 - Uniform loads (beam weight considered).
 - More restrictive of simple or continuous span.
 - Deflection criteria of L/180 total load. For stiffer deflection criteria, use L/240 values for total load deflection.
- For door and window applications, Weyerhaeuser recommends using the L/360 value for a live load deflection limit and the L/240 value for a total load limit.

Also see **How to Use This Table** on page 28 and **General Assumptions** on page 5.

TimberStrand® LSL: Roof—Non-Snow Load Area 125% (PLF) continued

							1.55E	Grade					
Span	Condition			31/2" N	Width					51/4" Width	(2- or 3-ply)		
		91/4"	91/2"	111/4"	111/8"	14"	16"	91/4"	91/2"	111/4"	111//8"	14"	16"
	Total Load	7,564	7,918	9,432	9,432	9,432	9,432	11,346	11,877	14,148	14,148	14,148	14,148
3'	Deflection L/240 / L/360	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	3.6/9	3.8/9.4	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3	3.6/9	3.8/9.4	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	4,826	5,017	6,497	7,070	7,070	7,070	7,239	7,526	9,746	10,605	10,605	10,605
4'	Deflection L/240 / L/360	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	3.1/7.7	3.2/8	4.1/10.3	4.5/11.3	4.5/11.3	4.5/11.3	3.1/7.7	3.2/8	4.1/10.3	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	3,542	3,670	4,637	5,015	5,652	5,652	5,313	5,506	6,956	7,522	8,478	8,478
5'	Deflection L/240 / L/360	*/3,106	*/3,316	*/*	*/*	*/*	*/*	*/4,659	*/4,975	*/*	*/*	*/*	*/*
	Min. End/Int. Bearing (in.)	2.8/7	2.9/7.3	3.7/9.2	4/10	4.5/11.3	4.5/11.3	2.8/7	2.9/7.3	3.7/9.2	4/10	4.5/11.3	4.5/11.3
	Total Load	2,741	2,884	3,604	3,876	4,707	4,707	4,111	4,326	5,406	5,814	7,061	7,061
6'	Deflection L/240 / L/360	*/1,957	*/2,097	*/3,210	*/3,662	*/*	*/*	*/2,936	*/3,146	*/4,816	*/5,493	*/*	*/*
	Min. End/Int. Bearing (in.)	2.6/6.6	2.8/6.9	3.4/8.6	3.7/9.3	4.5/11.3	4.5/11.3	2.6/6.6	2.8/6.9	3.4/8.6	3.7/9.3	4.5/11.3	4.5/11.3
	Total Load	2,011	2,116	2,924	3,158	3,930	4,032	3,016	3,174	4,386	4,737	5,895	6,048
7'	Deflection L/240 / L/360		2,098/1,399	*/2,179	*/2,501	*/3,755	*/*		3,148/2,098	*/3,269	*/3,752	*/5,633	*/*
	Min. End/Int. Bearing (in.)	2.2/5.6	2.4/5.9	3.3/8.2	3.5/8.8	4.4/11	4.5/11.3	2.2/5.6	2.4/5.9	3.3/8.2	3.5/8.8	4.4/11	4.5/11.3
	Total Load	1,537	1,618	2,236	2,479	3,286	3,526	2,306	2,427	3,354	3,719	4,930	5,289
8'	Deflection L/240 / L/360	1,359/906	1,462/974	*/1,538	*/1,773	*/2,705	*/*	2,038/1,359	2,193/1,462	*/2,307	*/2,660	*/4,058	*/*
	Min. End/Int. Bearing (in.)	2/4.9	2.1/5.2	2.9/7.1	3.2/7.9	4.2/10.5	4.5/11.3	2/4.9	2.1/5.2	2.9/7.1	3.2/7.9	4.2/10.5	4.5/11.3
	Total Load	1,087	1,144	1,582	1,754	2,404	2,966	1,631	1,716	2,373	2,631	3,606	4,450
9'-6"	Deflection L/240 / L/360	842/561	907/605	1,451/967	1,681/1,121	*/1,740	*/2,456	1,263/842	1,361/907	2,176/1,451	2,522/1,681	*/2,610	*/3,684
	Min. End/Int. Bearing (in.)	1.7/4.1	1.7/4.4	2.4/6	2.7/6.7	3.6/9.1	4.5/11.3	1.7/4.1	1.7/4.4	2.4/6	2.7/6.7	3.6/9.1	4.5/11.3
	Total Load	961	1,031	1,426	1,582	2,168	2,800	1,442	1,547	2,139	2,373	3,253	4,200
10'	Deflection L/240 / L/360	728/485	785/523	1,260/840	1,462/974	*/1,520	*/2,154	1,092/728	1,178/785		2,193/1,462	*/2,280	*/3,232
	Min. End/Int. Bearing (in.)	1.5/3.9	1.7/4.1	2.3/5.7	2.5/6.3	3.5/8.7	4.5/11.2	1.5/3.9	1.7/4.1	2.3/5.7	2.5/6.3	3.5/8.7	4.5/11.2
	Total Load	566	612	986	1,094	1,501	1,939	850	918	1,480	1,642	2,252	2,908
12'	Deflection L/240 / L/360	432/288	467/311	756/504	881/587	1,393/928	*/1,334	649/432	700/467	1,135/756	1,322/881	2,089/1,393	*/2,001
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.9/4.8	2.1/5.3	2.9/7.2	3.7/9.3	1.5/3.5	1.5/3.5	1.9/4.8	2.1/5.3	2.9/7.2	3.7/9.3
	Total Load	359	388	637	746	1,098	1,420	538	582	956	1,119	1,648	2,130
14'	Deflection L/240 / L/360	276/184	299/199	487/325	569/379	907/605	1,316/877	415/276	448/299	731/487	854/569	,	1,974/1,316
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.5/6.2	3.2/8	1.5/3.5	1.5/3.5	1.5/3.6	1.7/4.2	2.5/6.2	3.2/8
	Total Load	218	236	392	460	744	1,017	327	354	588	690	1,116	1,526
16'-6"	Deflection L/240 / L/360	171/114	185/123	303/202	354/236	569/379	832/555	256/171	277/185	455/303	532/354	854/569	1,248/832
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5	2.7/6.8	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5	2.7/6.8
	Total Load	152	166	277	326	531	785	229	249	416	489	797	1,177
18'-6"	Deflection L/240 / L/360	122/81	132/88	217/144	254/169	410/273	601/401	183/122	198/132	326/217	381/254	615/410	902/601
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	2.4/5.9	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.6/4	2.4/5.9
00:	Total Load	119	129	218	257	421	624	179	194	327	385	631	936
20'	Deflection L/240 / L/360	97/64	105/70	172/115	202/135	327/218	481/320	145/97	157/105	259/172	304/202	491/327	722/481
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5.1	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2/5.1
0.61	Total Load	65	71	122	145	241	361	98	106	183	217	361	542
24'	Deflection L/240 / L/360	56/37	61/40	101/67	118/79	192/128	284/189	84/56	91/61	151/101	177/118	288/192	426/284
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6
001	Total Load			73	87	147	224	56	61	109	130	221	336
28'	Deflection L/240 / L/360			64/42	75/50	122/81	181/120	53/35	58/38	96/64	112/75	183/122	271/181
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5

^{*} Indicates Total Load value controls.

How to Use This Table

- 1. Calculate total load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total load.
- 4. Review bearing length requirements to ensure adequacy.

Also see **General Notes** on page 31.

2.0E Microllam® LVL: Roof—Non-Snow Load Area 125% (PLF)

Span	Condition				1¾" Width							th (2 ply)		
Spair		5 ½"	71/4"	91/4"	91/2"	111/4"	111//8"	14"	5 ½"	71/4"	91/4"	91/2"	111/4"	111//8"
	Total Load	474	954	1,285	1,329	1,656	1,781	1,961	948	1,908	2,571	2,659	3,313	3,563
6'	Deflection L/240	458	*	*	*	*	*	*	916	*	*	*	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	2.2/5.5	2.9/7.4	3.1/7.6	3.8/9.5	4.1/10.2	4.5/11.3	1.5/3.5	2.2/5.5	2.9/7.4	3.1/7.6	3.8/9.5	4.1/10.2
	Total Load	153	342	870	915	1,145	1,224	1,469	307	685	1,741	1,830	2,290	2,449
8'	Deflection L/240	*	*	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.7/6.7	2.8/7	3.5/8.8	3.8/9.4	4.5/11.3	1.5/3.5	1.5/3.5	2.7/6.7	2.8/7	3.5/8.8	3.8/9.4
	Total Load	77	174	615	647	888	982	1,212	154	349	1,231	1,294	1,776	1,965
9'-6"	Deflection L/240	*	*	543	585	*	*	*	*	*	1,086	1,171	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.2/5.6	2.4/5.9	3.2/8.1	3.6/8.9	4.4/11	1.5/3.5	1.5/3.5	2.2/5.6	2.4/5.9	3.2/8.1	3.6/8.9
	Total Load	62	142	555	583	801	886	1,137	124	284	1,110	1,167	1,602	1,772
10'	Deflection L/240	*	*	470	506	*	*	*	*	*	940	1,013	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.1/5.3	2.2/5.6	3.1/7.7	3.4/8.5	4.4/10.9	1.5/3.5	1.5/3.5	2.1/5.3	2.2/5.6	3.1/7.7	3.4/8.5
	Total Load		67	367	397	554	613	835	57	135	735	794	1,109	1,227
12'	Deflection L/240		*	279	301	488	568	*	*	*	558	602	976	1,137
	Min. End/Int. Bearing (in.)		1.5/3.5	1.7/4.3	1.8/4.6	2.6/6.4	2.8/7.1	3.9/9.6	1.5/3.5	1.5/3.5	1.7/4.3	1.8/4.6	2.6/6.4	2.8/7.1
	Total Load			233	252	405	449	611		70	466	505	811	898
14'	Deflection L/240			178	193	314	367	585		*	357	386	629	734
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	2.2/5.5	2.4/6.1	3.3/8.3		1.5/3.5	1.5/3.5	1.5/3.5	2.2/5.5	2.4/6.1
	Total Load			142	154	255	299	438			285	308	510	598
16'-6"	Deflection L/240			110	119	195	228	367			220	238	391	457
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8	2.8/7			1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8
	Total Load			100	108	181	212	345			200	217	362	425
18'-6"	Deflection L/240			78	85	140	164	264			157	170	280	328
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.5/6.2			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9
	Total Load			78	85	143	168	274			157	171	286	336
20'	Deflection L/240			62	67	111	130	211			125	135	223	261
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.4			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load			58	63	106	125	206			116	126	213	251
22'	Deflection L/240			47	51	84	98	160			94	102	168	197
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load					81	95	158			87	95	162	191
24'	Deflection L/240					65	76	124			73	79	130	153
	Min. End/Int. Bearing (in.)					1.5/3.5	1.5/3.5	1.5/3.8			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load					62	74	123			67	73	125	148
26'	Deflection L/240					51	60	98			57	62	102	120
	Min. End/Int. Bearing (in.)					1.5/3.5	1.5/3.5	1.5/3.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load						58	98			52	56	98	117
28'	Deflection L/240						48	78			46	50	82	97
	Min. End/Int. Bearing (in.)						1.5/3.5	1.5/3.5			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5
	Total Load							78					78	93
30'	Deflection L/240							64					67	79
	Min. End/Int. Bearing (in.)							1.5/3.5					1.5/3.5	1.5/3.5

^{*} Indicates Total Load value controls.

General Notes

- Table is based on:
 - Uniform loads (beam weight considered).
 - More restrictive of simple or continuous span.
 - Deflection criteria of L/180 total load. For stiffer deflection criteria, use L/240 values for total load deflection.

Also see **How to Use This Table** on page 30 and **General Assumptions** on page 5.

2.0E Microllam® LVL: Roof—Non-Snow Load Area 125% (PLF) continued

			31/2" Wid	th (2-plv)						51/4" Wid	th (3-ply)				
Span	Condition	14"	16"	18"	20"	51/2"	71/4"	91/4"	91/2"	111/4"	117/8"	14"	16"	18"	20"
	Total Load	3,919	3,919	3,919	3,919	1,423	2,862	3,857	3,989	4,970	5,345	5,878	5,878	5,878	5,878
6'	Deflection L/240	*	*	*	*	1,374	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	2.2/5.5	2.9/7.4	3.1/7.6	3.8/9.5	4.1/10.2	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,934	2,934	2,934	2,934	461	1,028	2,611	2,745	3,435	3,673	4,402	4,402	4,402	4,402
8'	Deflection L/240	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	2.7/6.7	2.8/7	3.5/8.8	3.8/9.4	4.5/11.3	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,425	2,468	2,468	2,468	231	524	1,847	1,942	2,664	2,948	3,637	3,702	3,702	3,702
9'-6"	Deflection L/240	*	*	*	*	*	*	1,630	1,757	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4.4/11	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	2.2/5.6	2.4/5.9	3.2/8.1	3.6/8.9	4.4/11	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,275	2,344	2,344	2,344	187	427	1,666	1,751	2,403	2,659	3,412	3,516	3,516	3,516
10'	Deflection L/240	*	*	*	*	*	*	1,410	1,520	*	*	*	*	*	*
	Min. End/Int. Bearing (in.)	4.4/10.9	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	2.1/5.3	2.2/5.6	3.1/7.7	3.4/8.5	4.4/10.9	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	1,670	1,950	1,950	1,950	86	203	1,102	1,191	1,663	1,841	2,505	2,925	2,925	2,925
12'	Deflection L/240	*	*	*	*	*	*	837	904	1,464	1,706	*	*	*	*
	Min. End/Int. Bearing (in.)	3.9/9.6	4.5/11.3	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	1.7/4.3	1.8/4.6	2.6/6.4	2.8/7.1	3.9/9.6	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	1,223	1,571	1,669	1,669		106	700	757	1,217	1,347	1,835	2,356	2,503	2,503
14'	Deflection L/240	1,171	*	*	*		*	535	579	943	1,102	1,757	*	*	*
	Min. End/Int. Bearing (in.)	3.3/8.3	4.2/10.6	4.5/11.3	4.5/11.3		1.5/3.5	1.5/3.5	1.5/3.5	2.2/5.5	2.4/6.1	3.3/8.3	4.2/10.6	4.5/11.3	4.5/11.3
	Total Load	876	1,126	1,405	1,413			427	463	765	897	1,315	1,689	2,107	2,120
16'-6"	Deflection L/240	735	1,074	*	*			331	358	587	686	1,103	1,611	*	*
	Min. End/Int. Bearing (in.)	2.8/7	3.6/9	4.5/11.2	4.5/11.3			1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8	2.8/7	3.6/9	4.5/11.2	4.5/11.3
	Total Load	691	892	1,113	1,258			301	326	543	638	1,037	1,339	1,670	1,887
18'-6"	Deflection L/240	529	776	1,084	*			236	256	420	492	794	1,164	1,626	*
	Min. End/Int. Bearing (in.)	2.5/6.2	3.2/8	4/10	4.5/11.3			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.5/6.2	3.2/8	4/10	4.5/11.3
	Total Load	549	761	950	1,158			236	256	429	504	823	1,142	1,425	1,737
20'	Deflection L/240	422	621	869	*			188	203	334	392	633	931	1,304	*
	Min. End/Int. Bearing (in.)	2.1/5.4	3/7.4	3.7/9.2	4.5/11.2			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.4	3/7.4	3.7/9.2	4.5/11.2
	Total Load	412	613	782	954			174	190	320	377	619	919	1,173	1,431
22'	Deflection L/240	320	472	662	895			141	153	252	296	480	708	994	1,342
	Min. End/Int. Bearing (in.)	1.8/4.5	2.6/6.6	3.4/8.4	4.1/10.2			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	2.6/6.6	3.4/8.4	4.1/10.2
	Total Load	316	472	654	798			131	143	243	287	475	708	981	1,197
24'	Deflection L/240	248	366	515	698			109	118	195	229	372	550	773	1,047
	Min. End/Int. Bearing (in.)	1.5/3.8	2.2/5.6	3.1/7.7	3.7/9.4			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6	3.1/7.7	3.7/9.4
	Total Load	247	370	527	677			101	110	188	223	371	556	790	1,015
26'	Deflection L/240	196	290	409	555			86	93	154	181	294	435	613	832
	Min. End/Int. Bearing (in.)	1.5/3.5	1.9/4.8	2.7/6.8	3.5/8.6			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8	2.7/6.8	3.5/8.6
001	Total Load	196	295	421	576			78	85	148	175	294	442	632	865
28'	Deflection L/240	157	233	329	448			69	75	123	145	236	350	494	672
	Min. End/Int. Bearing (in.)	1.5/3.5	1.7/4.2	2.3/5.9	3.2/8			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9	3.2/8
001	Total Load	157	238	341	468			61	66	117	139	236	357	511	702
30'	Deflection L/240	128	190	269	366			56	61	101	118	193	286	404	550
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.6	2.1/5.1	2.8/7			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.1	2.8/7

^{*} Indicates Total Load value controls.

How to Use This Table

- Calculate total load (neglect beam weight) on the beam or header in pounds per linear foot (plf).
- 2. Select appropriate **Span** (center-to-center of bearing).
- 3. Scan horizontally to find the proper width, and a depth with a capacity that exceeds actual total load.
- 4. Review bearing length requirements to ensure adequacy.

Also see **General Notes** on page 33.

2.0E Parallam® PSL: Roof—Non-Snow Load Area 125% (PLF)

_					31/2" Widtl	1			51/4" Width							
Span	Condition	91/4"	91/2"	111/4"	117/8"	14"	16"	18"	91/4"	91/2"	111/4"	117/8"	14"	16"	18"	
	Total Load	1,839	1,899	2,330	2,491	2,933	2,933	2,933	2,759	2,848	3,494	3,737	4,400	4,400	4,400	
8'	Deflection L/240	1,753	1,886	*	*	*	*	*	2,630	2,830	*	*	*	*	*	
	Min. End/Int. Bearing (in.)	2.8/7.0	2.9/7.3	3.6/8.9	3.8/9.5	4.5/11.3	4.5/11.3	4.5/11.3	2.8/7.0	2.9/7.3	3.6/8.9	3.8/9.5	4.5/11.3	4.5/11.3	4.5/11.3	
	Total Load	1,365	1,436	1,890	2,017	2,467	2,467	2,467	2,048	2,154	2,836	3,025	3,700	3,700	3,700	
9'-6"	Deflection L/240	1,086	1,171	1,872	*	*	*	*	1,630	1,757	2,808	*	*	*	*	
	Min. End/Int. Bearing (in.)	2.5/6.2	2.6/6.5	3.4/8.6	3.7/9.2	4.5/11.3	4.5/11.3	4.5/11.3	2.5/6.2	2.6/6.5	3.4/8.6	3.7/9.2	4.5/11.3	4.5/11.3	4.5/11.3	
	Total Load	1,231	1,295	1,778	1,896	2,314	2,342	2,342	1,847	1,942	2,668	2,844	3,471	3,514	3,514	
10'	Deflection L/240	940	1,013	1,626	1,886	*	*	*	1,410	1,520	2,439	2,830	*	*	*	
	Min. End/Int. Bearing (in.)	2.4/5.9	2.5/6.2	3.4/8.5	3.6/9.1	4.4/11.1	4.5/11.3	4.5/11.3	2.4/5.9	2.5/6.2	3.4/8.5	3.6/9.1	4.4/11.1	4.5/11.3	4.5/11.3	
	Total Load	734	793	1,235	1,369	1,854	1,949	1,949	1,101	1,190	1,853	2,053	2,781	2,923	2,923	
12'	Deflection L/240	558	602	976	1,137	1,797	*	*	837	904	1,464	1,706	2,696	*	*	
	Min. End/Int. Bearing (in.)	1.7/4.3	1.8/4.6	2.9/7.1	3.2/7.9	4.3/10.7	4.5/11.3	4.5/11.3	1.7/4.3	1.8/4.6	2.9/7.1	3.2/7.9	4.3/10.7	4.5/11.3	4.5/11.3	
	Total Load	466	504	826	966	1,370	1,667	1,667	699	756	1,240	1,449	2,055	2,501	2,501	
14'	Deflection L/240	357	386	629	734	1,171	*	*	535	579	943	1,102	1,757	*	*	
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.2/5.6	2.6/6.5	3.7/9.2	4.5/11.3	4.5/11.3	1.5/3.5	1.5/3.5	2.2/5.6	2.6/6.5	3.7/9.2	4.5/11.3	4.5/11.3	
	Total Load	284	308	509	597	965	1,266	1,412	426	462	764	896	1,447	1,899	2,118	
16'-6"	Deflection L/240	220	238	391	457	735	1,074	*	331	358	587	686	1,103	1,611	*	
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8	3.1/7.7	4.0/10.1	4.5/11.3	1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8	3.1/7.7	4.0/10.1	4.5/11.3	
	Total Load	200	217	361	424	690	1,003	1,256	300	325	542	637	1,035	1,505	1,884	
18'-6"	Deflection L/240	157	170	280	328	529	776	1,084	236	256	420	492	794	1,164	1,626	
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.5/6.2	3.6/9.0	4.5/11.3	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.5/6.2	3.6/9.0	4.5/11.3	
	Total Load	157	170	285	335	548	810	1,071	235	255	427	503	822	1,216	1,607	
20'	Deflection L/240	125	135	223	261	422	621	869	188	203	334	392	633	931	1,304	
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.4	3.2/7.9	4.2/10.4	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.4	3.2/7.9	4.2/10.4	
	Total Load	115	126	212	250	411	611	863	173	189	318	375	617	917	1,295	
22'	Deflection L/240	94	102	168	197	320	472	662	141	153	252	296	480	708	994	
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	2.6/6.6	3.7/9.3	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	2.6/6.6	3.7/9.3	
	Total Load	87	95	161	191	315	471	668	130	142	242	286	473	707	1,002	
24'	Deflection L/240	73	79	130	153	248	366	515	109	118	195	229	372	550	773	
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6	3.1/7.9	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6	3.1/7.9	
	Total Load	66	72	124	148	246	369	525	100	109	187	222	369	554	788	
26'	Deflection L/240	57	62	102	120	196	290	409	86	93	154	181	294	435	613	
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8	2.7/6.8	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8	2.7/6.8	
	Total Load	51	56	97	116	195	294	420	77	84	146	174	292	441	630	
28'	Deflection L/240	46	50	82	97	157	233	329	69	75	123	145	236	350	494	
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9	
201	Total Load			77	92	156	236	339	60	65	116	138	234	355	509	
30'	Deflection L/240			67	79	128	190	269	56	61	101	118	193	286	404	
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.1	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.1	
201	Total Load			61	74	126	192	277		51	92	111	189	289	416	
32'	Deflection L/240			55	65	106	157	223		50	83	97	159	236	334	
	Min. End/Int. Bearing (in.)			1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5		1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	

^{*} Indicates Total Load value controls.

General Notes

- Table is based on:
 - Uniform loads (beam weight considered).
 - More restrictive of simple or continuous span.
 - Deflection criteria of L/180 total load. For stiffer deflection criteria, use L/240 values for total load deflection.

Also see **How to Use This Table** on page 32 and **General Assumptions** on page 5.

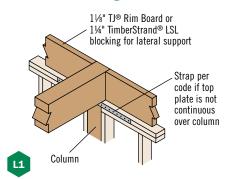
2.0E Parallam® PSL: Roof—Non-Snow Load Area 125% (PLF) continued

					7" Width			
Span	Condition	91/4"	91/2"	111/4"	117/8"	14"	16"	18"
	Total Load	3,679	3.798	4.660	4.983	5.866	5.866	5.866
8'	Deflection L/240	3,507	3,773	*	*	*	*	*
	Min. End/Int. Bearing (in.)	2.8/7.0	2.9/7.3	3.6/8.9	3.8/9.5	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,731	2,872	3,781	4,034	4,934	4,934	4,934
9'-6"	Deflection L/240	2,173	2,342	3,745	*	*	*	*
	Min. End/Int. Bearing (in.)	2.5/6.2	2.6/6.5	3.4/8.6	3.7/9.2	4.5/11.3	4.5/11.3	4.5/11.3
	Total Load	2,462	2,590	3,557	3,792	4,628	4,685	4,685
10'	Deflection L/240	1,880	2,027	3,252	3,773	*	*	*
	Min. End/Int. Bearing (in.)	2.4/5.9	2.5/6.2	3.4/8.5	3.6/9.1	4.4/11.1	4.5/11.3	4.5/11.3
	Total Load	1,468	1,586	2,471	2,738	3,708	3,898	3,898
12'	Deflection L/240	1,116	1,205	1,953	2,274	3,595	*	*
	Min. End/Int. Bearing (in.)	1.7/4.3	1.8/4.6	2.9/7.1	3.2/7.9	4.3/10.7	4.5/11.3	4.5/11.3
	Total Load	932	1,008	1,653	1,933	2,741	3,335	3,335
14'	Deflection L/240	714	772	1,258	1,469	2,342	*	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	2.2/5.6	2.6/6.5	3.7/9.2	4.5/11.3	4.5/11.3
	Total Load	569	616	1,019	1,195	1,930	2,532	2,824
16'-6"	Deflection L/240	441	477	782	915	1,470	2,148	*
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.6/4.1	1.9/4.8	3.1/7.7	4.0/10.1	4.5/11.3
	Total Load	400	434	723	849	1,381	2,007	2,512
18'-6"	Deflection L/240	315	341	560	656	1,058	1,553	2,168
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.9	2.5/6.2	3.6/9.0	4.5/11.3
	Total Load	314	340	570	671	1,096	1,621	2,143
20'	Deflection L/240	250	271	446	523	845	1,242	1,739
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	2.1/5.4	3.2/7.9	4.2/10.4
	Total Load	231	252	425	501	823	1,223	1,727
22'	Deflection L/240	189	204	337	395	640	944	1,325
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5	2.6/6.6	3.7/9.3
	Total Load	174	190	323	382	631	942	1,336
24'	Deflection L/240	146	158	260	306	496	733	1,031
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.8	2.2/5.6	3.1/7.9
	Total Load	133	145	249	296	492	739	1,051
26'	Deflection L/240	115	124	205	241	392	580	818
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.9/4.8	2.7/6.8
	Total Load	102	112	195	232	390	588	840
28'	Deflection L/240	92	100	165	194	315	467	659
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.7/4.2	2.3/5.9
001	Total Load	80	87	154	184	312	473	679
30'	Deflection L/240	75	81	134	158	257	381	539
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.6	2.1/5.1
0.01	Total Load	62	68	123	148	253	385	555
32'	Deflection L/240	62	67	111	130	212	315	446
	Min. End/Int. Bearing (in.)	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.5/3.5	1.8/4.5

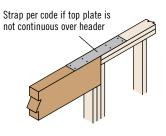
^{*} Indicates Total Load value controls.

BEAM DETAILS

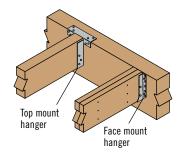
Bearing at Wall



Bearing for Door or Window Header



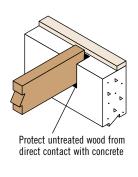
Beam to Beam Connection





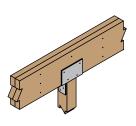
See Framing Connectors on pages 40 and 41

Bearing at Concrete Wall



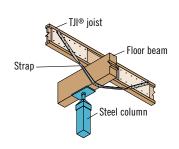
Bearing at Column

L2



Verify beam bearing length on page 36 and column capacity on page 42

Beam to Column Lateral Brace

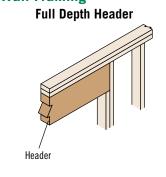


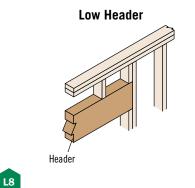


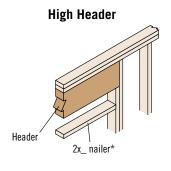
Suggested lateral bracing detail for beams when required. Verify beam bearing length on page 36.

WINDOW AND DOOR HEADER DETAILS

2x4 Wall Framing









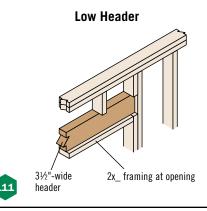
*Double nailer may be required depending upon the opening size and window type

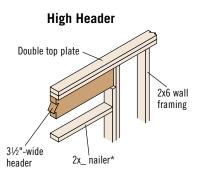
2x6 Wall Framing

L7

Headers not matching wall thickness may be installed flush to the inside or outside of the wall, depending upon sheathing and trim attachment requirements

Plank Orientation Header 3½" x 5½" TimberStrand® LSL in plank orientation



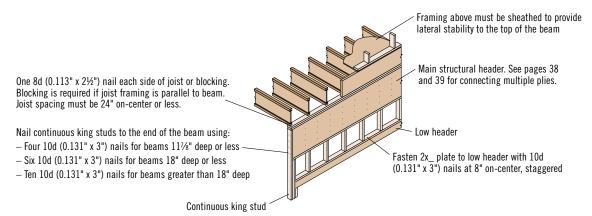


L12

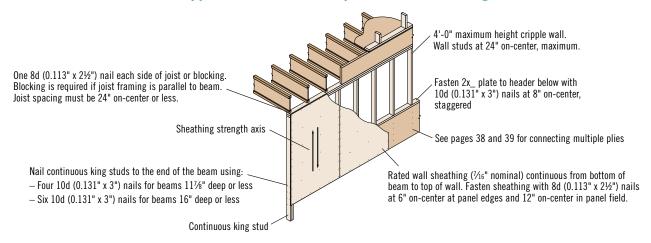
*Double nailer may be required depending upon the opening size and window type

WINDOW AND DOOR HEADER DETAILS

Dropped Header with Full Lateral Bracing



Dropped Header with Acceptable Lateral Bracing



When framed as shown above, the following dropped headers are considered fully braced under uniform-load, simple-span conditions:

Single-ply:

- -1%" wide headers, 11%" deep or less
- $-3\frac{1}{2}$ " wide headers, 16" deep or less, with a maximum span of 18'-6"

Multiple-ply:

- Headers up to four 1%" plies, 11%" deep or less Headers up to four 1%" x 14" plies, with a maximum span of 8'-6"

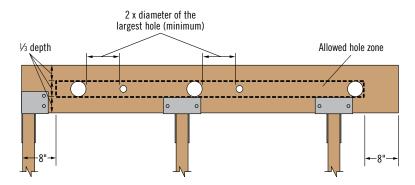
NAILING ON NARROW FACE

Nails Installed on the Narrow Face

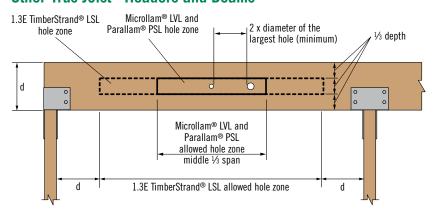
		Closest On-Center	r Spacing Per Row	
Nail Size	1¾" TimberStrand® LSL	3½" TimberStrand® LSL	Microllam® LVL	Parallam® PSL
8d (0.131" x 2½") or 10d (0.128" x 3")	3"	3"	3"	3"
10d (0.148" x 3") or 12d (0.148" x 3¼")	4"	3"	4"	4"
16d (0.162" x 3½")	6"	3½"	8"	6"

• If more than one row of nails is used, the rows must be offset at least ½" and staggered.

1.55E TimberStrand® LSL Headers and Beams



Other Trus Joist® Headers and Beams



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.



DO NOT cut, notch, or drill holes in headers or beams except as indicated in the illustrations and tables

Larger holes in Trus Joist® structural composite lumber may be possible; refer to Forte® or Javelin® software.

General Notes

- Allowed hole zone suitable for headers and beams with uniform and/or concentrated loads anywhere along the member
- Round holes only.
- No holes in headers or beams in plank orientation.

1.55E TimberStrand® LSL

Header or Beam Depth	Maximum Round Hole Size
91/4"-91/2"	3"
11¼"–11⅓"	35/8"
14"-16"	45/8"

· See illustration for allowed hole zone.

General Notes

- Allowed hole zone suitable for headers and beams with uniform loads only.
- Round holes only.
- No holes in cantilevers.
- No holes in headers or beams in plank orientation.

Other Trus Joist® Beams

Header or Beam Depth	Maximum Round Hole Size
43/8"	1"
5½"	1¾"
7¼"-20"	2"

See illustration for allowed hole zone.

BEARING LENGTH REQUIREMENTS

	1.3E Timber	Strand® LSL	1.55E	FimberStran	ıd® LSL	2.0E	Microllam®	LVL	2.01	Parallam®	PSL
Reaction	Beam Orientation	Plank Orientation	Be	am Orientat	ion	Be	am Orientat	ion	Be	am Orientat	ion
(lbs)	Width	Width		Width			Width			Width	
	3½"	5½"	1¾"	3½"	5¼"	1¾"	3½"	51/4"	3½"	5¼"	7"
2,000	1½"	1½"	1½"	1½"	1½"	13/4"	11/2"	11/2"	11/2"	11/2"	11/2"
4,000	1¾"	2"	2¾"	1½"	1½"	31/4"	13/4"	11/2"	13/4"	11/2"	11/2"
6,000	2½"	3"	4"	2"	1½"	43/4"	21/2"	13/4"	21/2"	13/4"	11/2"
8,000	3¼"	4"	5¼"	2¾"	1¾"	61/4"	31/4"	21/4"	31/4"	21/4"	13/4"
10,000	41/4"	5"	6½"	3¼"	21/4"	73/4"	4"	23/4"	4"	23/4"	2"
12,000	5"	6"	7¾"	4"	2¾"		43/4"	31/4"	43/4"	31/4"	21/2"
14,000	5¾"	7"		4½"	3"		51/2"	33/4"	51/2"	33/4"	23/4"
16,000	6½"			51/4"	3½"		61/4"	41/4"	61/4"	41/4"	31/4"
18,000	7¼"			5¾"	4"		7"	43/4"	7"	43/4"	31/2"
20,000				6½"	41/4"		73/4"	51/4"	73/4"	51/4"	4"
22,000				7"	4¾"			53/4"		53/4"	41/4"
24,000				7¾"	51/4"			61/4"		61/4"	43/4"
26,000					5¾"			63/4"		63/4"	5"
28,000					6"			71/4"		71/4"	51/2"
30,000					6½"			73/4"		73/4"	53/4"

General Notes

- Minimum bearing length: 1½" at ends, 3½" at intermediate supports.
- Bearing across full beam width is required.
- Interpolation between reaction loads is permitted for determining bearing lengths.
- Bearing lengths based on the following bearing stresses:
 - 1.3E TimberStrand® LSL: 710 psi; 375 psi for plank orientation.
 - 1.55E TimberStrand® LSL: 900 psi.
 - 2.0E Microllam® LVL: 750 psi.
 - **2.0E Parallam® PSL:** 750 psi.

Allowable Reactions for 3½"(1) TimberStrand® LSL Headers and Beams (lbs)

Deswins	Doom Doubh			0	utside He	el Height [) 1		
Bearing	Beam Depth	4½"	5"	5½"	6"	6½"	7"	7½"	8"
	7¼"	5,205	5,205	5,205	5,205				
	85/8"	5,205	5,205	5,205	5,205	5,205	5,205	5,205	
	91/4"	4,860	5,205	5,205	5,205	5,205	5,205	5,205	5,205
3½"	91/2"	4,860	5,205	5,205	5,205	5,205	5,205	5,205	5,205
Wood Plate ⁽²⁾	11¼"	4,860	5,205	5,205	5,205	5,205	5,205	5,205	5,205
i iaco	117/8"	4,860	5,205	5,205	5,205	5,205	5,205	5,205	5,205
	14"		5,205	5,205	5,205	5,205	5,205	5,205	5,205
	16"				5,205	5,205	5,205	5,205	5,205
	71/4"	7,190	7,190	7,190					
	85/8"	7,205	7,810	7,810	7,810	7,810	7,810		
	91/4"	5,255	5,710	6,160	6,610	6,690	6,690	6,690	
5¼"	9½"	5,255	5,710	6,160	6,610	6,870	6,870	6,870	6,870
Wood Plate ⁽²⁾	11¼"	5,255	5,710	6,160	6,610	7,065	7,515	7,810	7,810
1 1410	117/8"	5,255	5,710	6,160	6,610	7,065	7,515	7,810	7,810
	14"	5,255	5,710	6,160	6,610	7,065	7,515	7,810	7,810
	16"			6,160	6,610	7,065	7,515	7,810	7,810
	7¼"	6,665	7,190	7,190	7,190				
	85/8"	6,665	7,285	7,900	8,520	8,555	8,555	8,555	
	91/4"	4,860	5,310	5,765	6,215	6,670	6,690	6,690	6,690
31⁄2"	9½"	4,860	5,310	5,765	6,215	6,670	6,870	6,870	6,870
Column ⁽³⁾	11¼"	4,860	5,310	5,765	6,215	6,670	7,120	7,570	8,025
	117/8"	4,860	5,310	5,765	6,215	6,670	7,120	7,570	8,025
	14"		5,310	5,765	6,215	6,670	7,120	7,570	8,025
	16"				6,215	6,670	7,120	7,570	8,025

- (1) For $13\!4\text{"}$ and $51\!4\text{"}$ beams, multiply by 0.5 and 1.5, respectively.
- (2) Bearing lengths, based on $F_{c\perp}$ of 425 psi.
- (3) Bearing lengths based on F_{c⊥} of 710 psi for 1.3E TimberStrand® LSL and 900 psi for 1.55E TimberStrand® LSL.

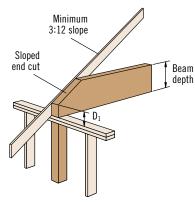
Allowable Reactions for 3½"(1) Microllam® LVL and Parallam® PSL Beams (lbs)

Dooring	Doom Donth				Outsid	e Heel Hei	ight D1			
Bearing	Beam Depth	41/2"	5"	51/2"	6"	61/2"	7"	71/2"	8"	10"
	71/4"	4,470	4,820	4,820	4,820					
	91/4"	4,470	4,885	5,205	5,205	5,205	5,205	5,205	5,205	
	91/2"	4,470	4,885	5,205	5,205	5,205	5,205	5,205	5,205	
31/2"	111/4"	4,470	4,885	5,205	5,205	5,205	5,205	5,205	5,205	5,205
Wood	111//8"	4,470	4,885	5,205	5,205	5,205	5,205	5,205	5,205	5,205
Plate(2)	14"		4,885	5,205	5,205	5,205	5,205	5,205	5,205	5,205
	16"				5,205	5,205	5,205	5,205	5,205	5,205
	18"					5,205	5,205	5,205	5,205	5,205
	20"							5,205	5,205	5,205
	71/4"	4,820	4,820	4,820						
	91/4"	4,830	5,245	5,665	6,080	6,150	6,150	6,150		
	91/2"	4,830	5,245	5,665	6,080	6,320	6,320	6,320	6,320	
51/4"	111/4"	4,830	5,245	5,665	6,080	6,495	6,910	7,325	7,480	
Wood	111//8"	4,830	5,245	5,665	6,080	6,495	6,910	7,325	7,740	7,810
Plate ⁽²⁾	14"	4,830	5,245	5,665	6,080	6,495	6,910	7,325	7,740	7,810
	16"			5,665	6,080	6,495	6,910	7,325	7,740	7,810
	18"				6,080	6,495	6,910	7,325	7,740	7,810
	20"						6,910	7,325	7,740	7,810
	71/4"	4,470	4,820	4,820	4,820					
	91/4"	4,470	4,885	5,300	5,715	6,130	6,150	6,150	6,150	
	91/2"	4,470	4,885	5,300	5,715	6,130	6,320	6,320	6,320	
31/2"	111/4"	4,470	4,885	5,300	5,715	6,130	6,545	6,960	7,375	7,480
Column ⁽³⁾	117/8"	4,470	4,885	5,300	5,715	6,130	6,545	6,960	7,375	7,895
	14"		4,885	5,300	5,715	6,130	6,545	6,960	7,375	9,040
	16"				5,715	6,130	6,545	6,960	7,375	9,040
	18"					6,130	6,545	6,960	7,375	9,040
	20"							6,960	7,375	9,040

- (1) For 1¾", 5¼", and 7" beams, multiply by 0.5, 1.5, and 2.0, respectively.
- (2) Bearing lengths based on $F_{c\perp}$ of 425 psi.
- (3) Bearing lengths based on $F_{c\perp}$ of 750 psi.

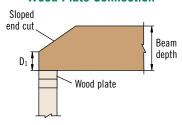
General Notes

- No increase for duration of load is permitted.
- No holes or concentrated load within tapered cut.
- Table considers only downward loading.
 Contact your Weyerhaeuser representative for assistance with uplift loading or other conditions.

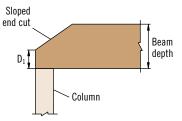


Tapered end cut detailed above is not allowed with TJI® joists

Wood Plate Connection



Column Connection





DO NOT overhang seat cuts on beams beyond inside face of support member

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

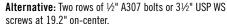
Uniform Load—Maximum Uniform Load Applied to Either Outside Member (PLF)

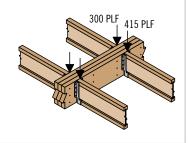
				Fastener Pattern									
				Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F				
			Fastener	2"				2"	2"				
Fastener Type	Location	Number of Rows	On-Center Spacing	1¾" 3½" wide, 2-nly	1¾" 5¼" wide, 3-ply	1¾" 3½" 5½" wide, 2-ply	1¾" 3½" 1¾" 7" wide, 3-ply	3½" 7" wide, 2-ply	1¾" 7" wide, 4-ply				
10d (0.128" x 3")		2(5)	12"	370	280	280	245	, _ p.,	,, . p.,				
Nail ⁽¹⁾	As shown	3	12"	555	415	415	370						
1/11 4007			24"	505	380	520	465	860	340				
½" A307 Through Bolt ⁽²⁾⁽³⁾	-	2	19.2"	635	475	655	580	1,075	425				
Till ough Doit			16"	760	570	785	695	1,290	505				
		Scre	w Length ►	3½"	3½"	3½"	3½"	6"	6"				
			24"	680	510	510	455	1,360	555				
SDS(3)	As shown	2	19.2"	850	640	640	565	1,700	695				
			16"	1,020	765	765	680	2,040	835				
			24"	485	365	365	325		325(6)				
USP WS(3)	As shown	2	19.2"	610	455	455	405		405(6)				
			16"	730	545	545	485	22/11	485(6)				
		Scre	w Length 📂	33/8"	5"	33/8"	6¾"	6¾"	6¾"				
	One side		24"	580	450	435	415	620	415				
TrussLOK-EWP™(3)	only	2	19.2"	725	565	545	515	775	515				
			16"	870	675	655	620	930	620				
	One side		24"	800	450	600	400	800	400				
SDW22 ⁽³⁾⁽⁴⁾	only	2	19.2"	1,000	565	750	500	1,000	500				
			16"	1,200	675	900	600	1,200	600				

- (1) Nailed connection values may be doubled for 6" on-center or tripled for 4" on-center nail spacing.
- (2) Washers required. Bolt holes to be 9/16" maximum.
- (3) 24" on-center bolted or screwed connection values may be doubled for 12" on-center spacing.
- (4) When loading the head side of a SDW22 screw, assemblies B, D, and F can be increased by 30%.
- (5) For beams up to 14" deep, maximum.
- (6) Assembly F is not recommended for TimberStrand® LSL or Parallam® PSL.

Uniform Load Design Example

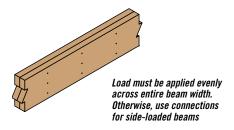
First, check allowable load tables on pages 16–33 to verify that three pieces can carry the total load of 715 plf with proper live load deflection criteria. Maximum load applied to either outside member is 415 plf. For an assembly of three 1¾" plies (Assembly B), two rows of 10d (0.128" x 3") nails at 12" o.c. center is good for only 280 plf. Therefore, use three rows of 10d (0.128" x 3") nails at 12" o.c (good for 415 plf).





MULTIPLE-MEMBER CONNECTIONS FOR TOP-LOADED BEAMS

When fasteners are required on both sides, stagger fasteners on the second side so they fall halfway between fasteners on the first side.



Multiple pieces can be nailed or bolted together to form a header or beam of the required size, up to a maximum width of 7"

Fastener Installation Requirements

Piece	Number		Fa	stener		
Width	of Plies	Type ⁽¹⁾	Min. Length	# Rows	O.C. Spacing	Location
		10d nails	3"	3(2)	12"	
	2	12d-16d nails	3¼"	2(2)	12	One side
		Screws	3%" or 3½"	2	24"	
		10d nails	3"	3(2)	12"	Both sides
	3	12d-16d nails	3¼"	2(2)	12	Dotti sides
1¾"	3	Screws	3%" or 3½"	2	24"	Both sides
		Sciews	5"		24	One side
		10d nails(3)	3"	3(2)	12"	One side
	4	12d-16d nails(3)	3¼"	2(2)	12	(per ply)
	4	Screws	5" or 6"	2	24"	Both sides
		Sciews	6¾"		24	One side
		Screws	5" or 6"	2	24"	Both sides
3½"	2	SCIEWS	6¾"		24	One side
		½" bolts	8"	2	24"	_

- $(1)\ \ 10d\ nails\ are\ 0.128"\ diameter;\ 12d-16d\ nails\ are\ 0.148"-0.162"\ diameter;\ screws\ are\ SDS,\ USP\ WS,\ TrussLOK-EWP^{\tiny TM}\ or\ SDW.$
- (2) An additional row of nails is required with depths of 14" or greater.
- (3) When connecting 4-ply members, nail each ply to the other and offset nail rows by 2" from rows in the ply below.

MULTIPLE-MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS

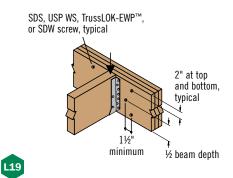
L18 Point Load—Maximum Point Load Applied to Either Outside Member (lbs)

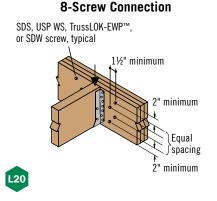
					Fa	stener Pattern		
			Assembly A	Assembly B	Assembly C	Assembly D	Assembly E	Assembly F
		<u>N</u> umber of	13/4"		134" 31/2"	13/1° 31/2" 13/4"	2" 31/2"	2" 134"
Fastener Type	Location	Fasteners per Side	3½" wide, 2-ply	5¼" wide, 3-ply	5¼" wide, 2-ply	7" wide, 3-ply	7" wide, 2-ply	7" wide, 4-ply
		6	1,110	835	835	740		
10d (0.128" x 3")	Asshawa	12	2,225	1,670	1,670	1,485		
Nail	As shown	18	3,335	2,505	2,505	2,225		
		24	4,450	3,335	3,335	2,965		
	S	crew Length 📂	3½"	3½"	3½"	3½"	6"	6"
		4	2,720	2,040	2,040	1,815	5,440	2,225
SDS	As shown	6	4,080	3,060	3,060	2,720	8,160	3,335
		8	5,440	4,080	4,080	3,625	10,880	4,450
		4	1,945	1,460	1,460	1,295		1,295(2)
USP WS	As shown	6	2,915	2,185	2,185	1,945		1,945(2)
		8	3,890	2,915	2,915	2,590		2,590(2)
	Si	crew Length 📂	33/8"	5"	33/8"	6¾"	6¾"	6¾"
		4	2,320	1,800	1,740	1,655	2,480	1,655
TrussLOK-EWP™	One side only	6	3,480	2,700	2,610	2,480	3,720	2,480
		8	4,640	3,600	3,480	3,305	4,960	3,305
		4	3,200	1,800	1,800	1,600	3,200	1,600
SDW22 ⁽¹⁾	One side only	6	4,800	2,700	2,700	2,400	4,800	2,400
		8	6,400	3,600	3,600	3,200	6,400	3,200

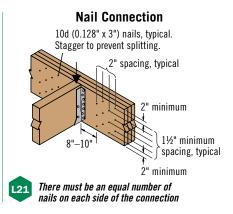
⁽¹⁾ When loading the head side of a SDW22 screw, assemblies B, D, and F can be increased by 30%.

Point Load Connector Spacing

4- or 6-Screw Connection



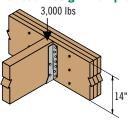




General Notes for Side-Loaded Beam Tables

- Connections are based on NDS® or manufacturer's test or code reports.
- Use specific gravity of 0.5 when designing lateral connections.
- Values listed are for 100% stress level. Increase 15% for snow-loaded roof conditions or 25% for non-snow roof conditions, where code allows.
- When fasteners are required on both sides, stagger fasteners on the second side so they fall halfway between fasteners on the first side.
- Verify adequacy of beam in allowable load tables on pages 16–33.
- 7" wide beams should be side-loaded only when loads are applied to both sides of the members (to minimize rotation).
- Minimum end distance for bolts and screws is 6".
- Beams wider than 7" require special consideration by the design professional
 of record.

Point Load Design Example



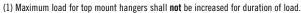
First, verify that a 3-ply, 1%" x 14" beam can support a 3,000 lb point load and all other loads applied. The 3,000 lb point load is being transferred to the beam with a face mount hanger. For an assembly of three 1%" plies (Assembly B), six 3%" SDS screws are good for 3,060 lbs with a face mount hanger.

⁽²⁾ Assembly F is not recommended for TimberStrand® LSL or Parallam® PSL.

FRAMING CONNECTORS

Top Mount Hangers—Simpson Strong-Tie®

Supported	Supported		Na:I	Tuna	Allowable Load (lbs)—100% ⁽¹⁾				
Member	Member	Hanger	Naii	Туре	Support N	lember Mat	erial		
Width	Depth		Header	Joist	LSL, LVL, PSL	DF/SP	SPF		
	91/4"	LBV1.81/9.25	16d	10d x 1½"	2,885	2,590	2,060		
	9½"	MIT9.5	16d	10d x 1½"	2,115	2,305	1,665		
	372	BA1.81/9.5	16d	10d x 1½"	3,705	3,435	2,665		
1¾"	11¼"	LBV1.81/11.25	16d	10d x 1½"	2,885	2,590	2,060		
174	111//8"	MIT11.88	16d	10d x 1½"	2,115	2,305	1,665		
	1178	BA1.81/11.88	16d	10d x 1½"	3,705	3,435	2,665		
	14"	MIT14	16d	10d x 1½"	2,115	2,305	1,665		
	14	BA1.81/14	16d	10d x 1½"	3,705	3,435	2,665		
	91/4"	HB3.56/9.25	16d	16d	5,640	5,650	3,820		
	9½"	BA3.56/9.5	16d	16d	3,705	3,435	2,665		
	372	HB3.56/9.5	16d	16d	5,640	5,650	3,820		
	11¼"	HB3.56/11.25	16d	16d	5,640	5,650	3,820		
	117/-11	BA3.56/11.88	16d	16d	3,705	3,435	2,665		
3½"	111/8"	HB3.56/11.88	16d	16d	5,640	5,650	3,820		
3 72	14"	BA3.56/14	16d	16d	3,705	3,435	2,665		
	14	GLTV3.514	16d	16d	5,915	7,200	5,145		
	16"	BA3.56/16	16d	16d	3,705	3,435	2,665		
	10	GLTV3.516	16d	16d	5,915	7,200	5,145		
	18"	HGLTV3.518	16d	16d	9,000	8,835	6,770		
	20"	HGLTV3.520	16d	16d	9,000	8,835	6,770		
	91/4"	GLTV5.50/9.25	16d	16d	5,915	7,200	5,145		
	9½"	GLTV5.59	16d	16d	5,915	7,200	5,145		
	11¼"	GLTV5.50/11.25	16d	16d	5,915	7,200	5,145		
5¼"	111//8"	HGLTV5.511	16d	16d	9,000	8,835	6,770		
	14"	HGLTV5.514	16d	16d	9,000	8,835	6,770		
	16"	HGLTV5.516	16d	16d	9,000	8,835	6,770		
	11¼"-20"	EGQ5.50-SDS3(2)	SDS ¼" x 3"	SDS ¼" x 3"	18,680	19,800	_		
	9¼"	HB7.12/9.25	16d	16d	5,640	5,650	3,820		
7"	9½"	HB7.12/9.5	16d	16d	5,640	5,650	3,820		
1	11¼"-20"	HGLTV7.12 ⁽²⁾	16d	16d	9,000	8,835	6,770		
	11/4"-20"	EGQ7.25-SDS3(2)	SDS ¼" x 3"	SDS 1/4" x 3"	18,680	19,800	_		

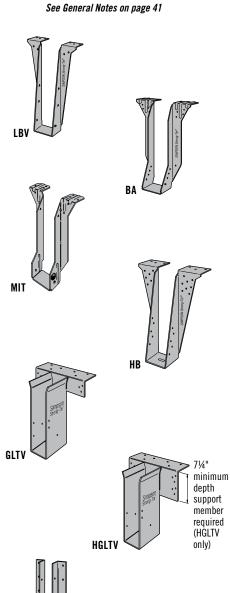


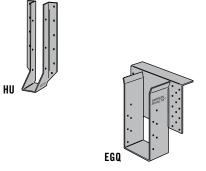
⁽²⁾ Specify hanger height when ordering.

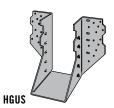
Face Mount Hangers—Simpson Strong-Tie®

Supported	Supported				Allowable Lo	nad (lhs)—1	100%(1)
Member	Member	Hanger	Nail	Туре		lember Mat	
Width	Depth		Header	Joist	LSL, LVL, PSL	DF/SP	SPF
	7¼"-9½"	HU7	16d	10d x 1½"	1,785	1,785	1,540
1¾"	9¼"-9½"	HU9	16d	10d x 1½"	2,680	2,680	2,305
174	11¼"–14"	HU11	16d	10d x 1½"	3,275	3,275	2,820
	1174 -14	HUS1.81/10	16d	16d	5,135	5,135	4,705
	7¼"-11¼"	HHUS48	16d	16d	4,210	4,210	3,615
3½"	01/11 1011	HHUS410	16d	16d	5,635	5,635	4,835
372	9½"–18"	HGUS410	16d	16d	9,100	9,100	7,825
	14"-20"	HGUS414	16d	16d	10,100	10,100	8,685
	914"-91/2"	HHUS5.50/10	16d	16d	5,635	5,635	4,835
5¼"	11¼"-11⅓"	HGUS5.50/12	16d	16d	9,600	9,600	8,255
374	14"-20"	HGUS5.50/14	16d	16d	10,100	10,100	8,685
	14 -20	HGU5.50	SDS 1/4" x 21/2"	SDS 1/4" x 21/2"	14,145	14,145	10,185
	914"-91/2"	HGUS7.25/10	16d	16d	9,100	9,100	7,825
	11¼"–14"	HGUS7.25/12	16d	16d	9,600	9,600	8,255
7"	1174 -14	HGU7.25-SDS(2)	SDS 1/4" x 21/2"	SDS 1/4" x 21/2"	14,145	14,145	10,185
	14"-20"	HGUS7.25/14	16d	16d	10,100	10,100	8,685
	14 -20	HHGU7.25-SDS(2)	SDS ¼" x 2½"	SDS 1/4" x 21/2"	17,845	17,845	12,850

⁽¹⁾ For other duration-of-load values, refer to hanger manufacturer's literature.







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

⁽²⁾ Specify hanger height when ordering.

FRAMING CONNECTORS

Top Mount Hangers—USP Structural Connectors®

Supported	Supported		Mail	Туре	Allowable Load (lbs)—100% ⁽¹⁾				
Member	Member	Hanger	Naii	Type	Support	Member Mat	erial		
Width	Depth		Header	Joist	LSL, LVL, PSL	DF/SP	SPF		
	91/4"	BPH17925	16d	10d x 1½"	3,340	3,030	2,245		
	3.74	PHXU17925	16d	10d x 1½"	4,420	4,425	3,070		
	91/2"	BPH1795	16d	10d x 1½"	3,340	3,030	2,245		
	372	PHXU1795	16d	10d x 1½"	4,420	4,425	3,070		
13/4"	11¼"	BPH17112	16d	10d x 1½"	3,340	3,030	2,245		
194	1174	PHXU17112	16d	10d x 1½"	4,420	4,425	3,070		
	111/8"	BPH17118	16d	10d x 1½"	3,340	3,030	2,245		
	1178	PHXU17118	16d	10d x 1½"	4,420	4,425	3,070		
	14"	BPH1714	16d	10d x 1½"	3,340	3,030	2,245		
	• •	PHXU1714	16d	10d x 1½"	4,420	4,425	3,070		
	91/4"	PHXU35925	16d	10d	5,785	5,285	3,590		
	9½"	PHXU3595	16d	10d	5,785	5,285	3,590		
	11¼"	PHXU35112	16d	10d	5,785	5,285	3,590		
	111/8"	PHXU35118	16d	10d	5,785	5,285	3,590		
31/2"	1/2" 14" 16"	HLBH3514	NA16D-RS	16d	9,600	9,600	8,915		
		HLBH3516	NA16D-RS	16d	9,600	9,600	8,915		
		HLBH3518	NA16D-RS	16d	9,600	9,600	8,915		
	20"	PHXU3520	16d	10d	5,785	5,285	3,590		
		HLBH3520	NA16D-RS	16d	9,600	9,600	8,915		
	91/4"	PHXU55925	16d	10d	5,785	5,285	3,590		
	9½"	PHXU5595	16d	10d	5,785	5,285	3,590		
	11¼"	PHXU55112	16d	10d	5,785	5,285	3,590		
	111/8"	PHXU55118	16d	10d	5,785	5,285	3,590		
51/4"	14"	HLBH5514	NA16D-RS	16d	9,600	9,600	8,915		
J 74	16"	HLBH5516	NA16D-RS	16d	9,600	9,600	8,915		
	18"	PHXU5518	16d	10d	5,785	5,285	3,590		
	10	HLBH5518	NA16D-RS	16d	9,600	9,600	8,915		
	20"	PHXU5520	16d	10d	5,785	5,285	3,590		
	ì	HLBH5520	NA16D-RS	16d	9,600	9,600	8,915		
	111//8"	PHXU71118	16d	10d	5,785	5,285	3,590		
7"	14"	HLBH7114	NA16D-RS	16d	9,600	9,600	8,915		
,	16"	HLBH7116	NA16D-RS	16d	9,600	9,600	8,915		
	18"	HLBH7118	NA16D-RS	16d	9,600	9,600	8,915		

⁽¹⁾ Maximum value for top mount hangers shall **not** be increased for duration of load.

Face Mount Hangers—USP Structural Connectors®

Supported	Supported		Nati	T	Allowable Load (lbs)—100%(1)					
Member	Member	Hanger	Naii	Туре	Support	Member Mat	erial			
Width	Depth		Header	Joist	LSL, LVL, PSL	DF/SP	SPF			
	9¼"–14"	HD17925	16d	10d x 1½"	2,540	2,540	2,105			
1¾"	974 -14	HUS179	16d	10d x 1½"	5,310	5,310	4,410			
1 74	11¼"–14"	HD17112	16d	10d x 1½"	2,900	2,900	2,105			
	14"	HD1714	16d	10d x 1½"	3,140	3,140	2,310			
		HD410	16d	10d	2,540	2,540	2,180			
	91/4"-14"	THD410	16d	10d	5,360	5,360	4,600			
		THDH410	16d	16d	8,260	8,260	7,120			
		HD412	16d	10d	3,100	3,100	2,660			
3½"	11¼"–18"	THD412	16d	10d	6,770	6,770	5,810			
		THDH412	16d	16d	9,845	9,845	8,270			
	14" 20"	HD414	16d	10d	3,385	3,385	2,905			
	14"-20"	THD414	16d	10d	7,045	7,045	5,920			
		THDH414	16d	16d	9,845	9,845	8,270			
		HD5210	16d	10d	2,540	2,540	2,180			
	91/4"-111//8"	THD610	16d	10d	5,660	5,660	4,900			
		THDH610	16d	16d	8,725	8,725	7,520			
		HD5212	16d	10d	3,100	3,100	2,660			
51/4"	11¼"–16"	THD612	16d	10d	7,150	7,150	6,190			
		THDH612	16d	16d	9,935	9,935	8,345			
	14"-18"	HD5214	16d	10d	3,385	3,385	2,905			
	14"-20"	THD614	16d	10d	8,415	8,415	7,070			
	14 -20	THDH614	16d	16d	11,645	11,645	9,780			
		HD7100	16d	10d	1,690	1,690	1,450			
	9¼"–14"	THD7210	16d	16d	5,660	5,660	4,900			
		THDH7210	16d	16d	8,260	8,260	7,120			
7"	11¼"–16"	HD7120	16d	10d	2,255	2,255	1,935			
	11/4 -10	THDH7212	16d	16d	9,845	9,845	8,270			
	14"-18"	HD7140	16d	10d	2,820	2,820	2,420			
	14 -10	THDH7214	16d	16d	9,845	9,845	8,270			

(1) For other duration-of-load values, refer to hanger manufacturer's literature.

General Notes

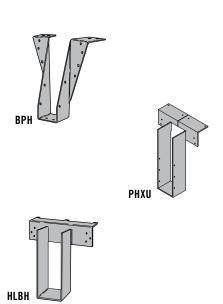
- Hanger capacity may be more or less than that of the supported member; therefore, check both the hanger and the beam capacities.
- Leave ½16" clearance (½" maximum) between the end of the beam or header and its support member or hanger.

Header Assumptions

- Hangers to be supported by headers of TimberStrand® LSL, Microllam® LVL, Parallam® PSL, Douglas fir, southern pine, or spruce-pine-fir.
- When using top mount hangers in back-to-back applications, ensure that the supporting beam width is adequate to prevent hanger interference.
- Face mount hangers to be supported by 1¾" width headers, minimum.

Nailing Requirements

- Fill all round and positive-angle nail holes with the proper nails.
 - $-\ 10 d$ x $1 \frac{1}{2}$ " nails are 0.148" dia. by $1 \frac{1}{2}$ " long.
 - $-\ 10d$ nails are 0.148" dia. by 3" long.
 - $-\,$ 16d nails are 0.162" dia. by $3\frac{1}{2}$ " long.
 - For USP: 16d R.S. nails are (9 gauge) 0.148" dia.
 by 3½" long ring-shank nails.







Allowable Axial Loads (lbs) for 1.3E TimberStrand® LSL

Column	Effective							C	olumn Siz	е						
Bearing	Column		3½" x 3½"		;	3½" x 4¾'	1		3½" x 5½"			3½" x 7¼"			3½" x 8⅓'	•
Type	Length	100%	115%	125%	100%	115%	125%	100%	115%	125%	100%	115%	125%	100%	115%	125%
	3'	12,165	13,665	14,625	15,210	17,085	18,280	19,120	21,475	22,980	25,205	28,310	30,290	29,985	33,680	36,035
	4'	10,745	11,830	12,490	13,435	14,790	15,610	16,885	18,590	19,625	22,260	24,505	25,870	26,480	29,155	30,780
	5'	9,120	9,810	10,215	11,400	12,265	12,765	14,335	15,420	16,050	18,895	20,325	21,155	22,480	24,180	25,170
	6'	7,550	7,985	8,235	9,440	9,980	10,295	11,865	12,550	12,945	15,640	16,540	17,060	18,610	19,680	20,300
On Column	7'	6,235	6,525	6,695	7,795	8,160	8,370	9,800	10,255	10,520	12,915	13,520	13,870	15,365	16,085	16,500
Base	8'	5,195	5,400	5,515	6,490	6,750	6,895	8,160	8,485	8,670	10,755	11,185	11,430	12,795	13,305	13,595
Duoc	9'	4,375	4,525	4,610	5,465	5,655	5,765	6,870	7,110	7,245	9,060	9,370	9,550	10,775	11,150	11,360
	10'	3,725	3,840	3,905	4,655	4,795	4,880	5,850	6,030	6,135	7,715	7,950	8,085	9,175	9,460	9,620
	12'	2,785	2,855	2,895	3,480	3,565	3,615	4,375	4,485	4,545	5,770	5,910	5,995	6,860	7,030	7,130
	14'	2,155	2,200	2,225	2,695	2,750	2,780	3,385	3,455	3,495	4,465	4,555	4,610	5,310	5,420	5,485
	3'-7'	5,765	5,765	5,765	7,065	7,065	7,065	8,740	8,740	8,740	10,785	10,785	10,785	12,830	12,830	12,830
_	8'	5,195	5,400	5,515	6,490	6,750	6,895	8,160	8,485	8,670	10,755	10,785	10,785	12,795	12,830	12,830
On Wood	9'	4,375	4,525	4,610	5,465	5,655	5,765	6,870	7,110	7,245	9,060	9,370	9,550	10,775	11,150	11,360
Plate(1)(2)	10'	3,725	3,840	3,905	4,655	4,795	4,880	5,850	6,030	6,135	7,715	7,950	8,085	9,175	9,460	9,620
	12'	2,785	2,855	2,895	3,480	3,565	3,615	4,375	4,485	4,545	5,770	5,910	5,995	6,860	7,030	7,130
	14'	2,155	2,200	2,225	2,695	2,750	2,780	3,385	3,455	3,495	4,465	4,555	4,610	5,310	5,420	5,485

⁽¹⁾ Wood plate bearing is based on compression perpendicular-to-grain stress of 425 psi adjusted per the NDS®, 3.10.4.

Allowable Axial Loads (lbs) for 1.8E Parallam® PSL

Column	Effective									Colum	ın Size								
Bearing	Column	:	3½" x 3½	."	3	3½" x 5¼	"		3½" x 7"			5¼" x 5¼			5¼" x 7"			7" x 7"	
Type	Length	100%	115%	125%	100%	115%	125%	100%	115%	125%	100%	115%	125%	100%	115%	125%	100%	115%	125%
	6'	10,595	11,200	11,545	15,890	16,800	17,320	21,190	22,395	23,095	33,295	36,675	38,735	40,000	40,000	40,000	40,000	40,000	40,000
	7'	8,735	9,140	9,370	13,105	13,710	14,060	17,475	18,280	18,745	30,010	32,545	34,030	40,000	40,000	40,000	40,000	40,000	40,000
	8'	7,265	7,550	7,715	10,900	11,325	11,570	14,535	15,100	15,425	26,650	28,490	29,555	35,530	37,985	39,410	40,000	40,000	40,000
	9'	6,115	6,320	6,440	9,170	9,480	9,660	12,225	12,640	12,880	23,475	24,835	25,620	31,300	33,115	34,165	40,000	40,000	40,000
	10'	5,200	5,355	5,445	7,800	8,035	8,170	10,400	10,715	10,895	20,660	21,695	22,290	27,545	28,925	29,725	40,000	40,000	40,000
On Column	12'	3,885	3,980	4,030	5,825	5,965	6,050	7,765	7,955	8,065	16,160	16,805	17,175	21,545	22,405	22,900	40,000	40,000	40,000
Base	14'	3,000	3,065	3,100	4,500	4,595	4,645	6,005	6,125	6,195	12,890	13,315	13,560	17,185	17,755	18,080	34,155	35,785	36,720
5000	16'										10,480	10,775	10,950	13,970	14,370	14,595	28,485	29,640	30,300
	18'										8,670	8,885	9,010	11,560	11,850	12,010	24,020	24,860	25,345
	20'			S	lenderne	ss ratio e	xceeds 5	0			7,285	7,445	7,535	9,710	9,925	10,050	20,475	21,110	21,475
	22'													•			17,630	18,125	18,405
	24'																15,325	15,715	15,935

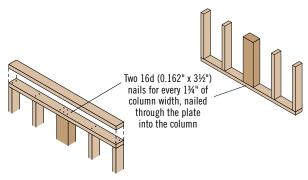
General Notes

- Tables are based on:
 - Solid, one-piece column members used in dry-service conditions.
 - Bracing in both directions at column ends.
 - NDS®.
 - Simple columns with axial loads only. For side loads or other combined bending and axial loads, see the NDS[®].
- Allowable loads have been adjusted to accommodate the worst case of the following eccentric conditions: 1/6 of column thickness (first dimension) or 1/6 of column width.
- Beams and columns must remain straight to within 5L²/₄₆₀₈ (in.) of true alignment.
 L is the unrestrained length of the member in feet.

For column allowable design stresses see page 5.

The column and connector values listed are for dry-service conditions ONLY. When wet-service conditions exist, contact your Weyerhaeuser representative for other product solutions.

Top or Bottom Plate Connection





In order to use the manufacturer's published capacities when designing column caps, bases, or holdowns for uplift, the bolts or screws must be installed perpendicular to the wide face of strands as shown at left.



DO NOT install bolts or screws into the narrow face of strands

⁽²⁾ See connection details below.

Column Caps for TimberStrand® LSL and Parallam® PSL

Column	Beam	Column Size	Location	Simpson S	trong-Tie®	USP Structura	I Connectors®	
Product	Width	GOIUIIIII SIZE	on Beam	Connector	Load (lbs)	Connector	Load (lbs)	
		3½" x 3½"	End	ECC44	7,655	KECC44	12,030	
		372 X 372	Intermediate	CC44	15,310	KCC44	15,315	
1.3E TimberStrand®	31/2"	3½" x 5½"	End	ECC46	12,030	KECC46	18,595	
LSL	372	372 X 372	Intermediate	CC46	24,060	KCC46	24,065	
		3½" x 7¼"	End	ECC48	16,405	KECC48	20,780	
		372 X 174	Intermediate	CC48	24,060	KCC48	24,065	
		3½" x 3½"	End	ECC44	7,655	KECC44	12,030	
	31/2"	372 X 372	Intermediate	CC44	15,310	KCC44	15,315	
	372	3½" x 5¼"	End	ECC46	12,030	KECC45	16,405	
		372 X 374	Intermediate	CC46	24,060	KCC45	24,065	
		5¼" x 3½"	End	ECC64	12,030	KECC64	25,780	
		J74 A J72	Intermediate	CC64	28,586	KCC64	37,815	
4.05	51/4"	5¼" x 5¼"	End	ECC66	18,905	KECC66	25,780	
1.8E Parallam®	J 7/4	J74 X J74	Intermediate	CC66	30,250	KCC66	37,815	
PSL		5¼" x 7"	End	ECC6-71/8	24,060	KECC57	31,170	
. 02		J/4 X /	Intermediate	CC6-71/8	37,810	KCC57	36,095	
		7" x 3½"	End	ECC71/8-4	18,375	_	_	
		1 X 372	Intermediate	CC71/8-4	34,736	_	_	
	7"	7" x 5¼"	7" x 51/4"	End	ECC71/8-6	28,875	KECC75X	45,940
	'		Intermediate	CC7½-6	58,500	KCC75X	56,875	
		7" x 7"	End	ECC71/8-71/8	36,750	KECC77X	45,940	
		, , , ,	Intermediate	CC71/8-71/8	57,750	KCC77X	56,875	

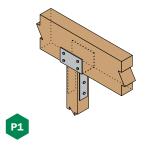
Column Bases for TimberStrand® LSL and Parallam® PSL

Column	Column Size	Sim	pson Strong-Tie®	USP Str	uctural Connectors®
Product	Column Size	Connector	Load (lbs)	Connector	Load (lbs)
		ABA44Z	6,000	PA44	5,135
	3½" x 3½"	ADA44Z	0,000	PAU44	6,775
1.3E	372 X 372	LCB44	Post or concrete control	CBSQ44-TZ	6,775
TimberStrand®		LUD44	FOST OF CONCRETE CONTROL	KCB44	Post or concrete control
LSL	3½" x 5½"	ABA46	9,435	PA46	6,285
	372 X 372	LCB46	Post or concrete control	KCB46	Post or concrete control
	3½" x 7½" 3½" x 3½"	CB48	Post or concrete control	KCB48	Post or concrete control
	21/11 v 21/11	LCB44		CBE44	
	372 X 372	LUD44		KCB44	
	3½" x 5¼"	LCB46		CBE46	
	J72 A J74	LGD40		KCB45	
1.8E	3½" x 7"	CB71/8-4		KCB47	
Parallam®	J72 X I	UD7-78-4	Post or concrete control	KCB74	Post or concrete control
PSL	5¼" x 5¼"	LCB66		CBE66	
	J/4 X J/4	LGD00		KCB66	
	5¼" x 7"	CB6-7		KCB76	
	J/4 X /	CB71/8-6		NOD/0	
	7" x 7"	CB71/8-7		KCB77	

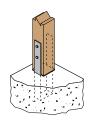
General Notes

- Capacities shown cannot be adjusted for duration of load.
- Connector capacities assume a beam material with a minimum perpendicular-to-grain bearing of 625 psi.
- Connector capacities may be more than the column capacity; therefore, check both the connector and the column capacity
 and use the lower capacity.
- Other connectors may be available. Capacities may vary depending on orientation of member. Contact the hanger manufacturer for more information.

Beam on Column Cap

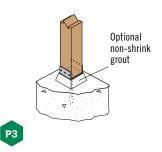


Column Base



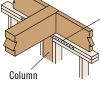
P2

Elevated Column Base



Beam on Column

1½" TJ® Rim Board or 1½" TimberStrand® LSL blocking for lateral support Strap per code if top



code if top plate is not continuous over column

1

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