Boise Cascade®
ENGINEERED WOOD PRODUCTS

Specifier Guide
King Beam® 3000

KING BEAM 3000 SPECIFIER GUIDE

A Superior Strength Glulam Beam for Residential, Commercial, and Industrial Applications

800-232-0788

Reorder #GLM-5100

What You're Made of Matters

The Boise Cascade Difference

When specifying products, choices matter. Finding the right balance of durability, cost-effectiveness, and proven performance is no small task. With Boise Cascade, you're choosing a product that's backed by our commitment to quality and reliability that has earned the trust of specifiers for over 60 years.

- Full line of EWP solutions for residential, multi-family and light commercial projects.
- More than 60 years of proven performance.
- Reliable distribution network.
- Peace of mind with our limited lifetime warranty.
- EWP product support from knowledgeable engineers.
- Boise Cascade® suite of software helps design, size and analyze projects.

Boise Cascade's King Beam® 3000 beams are NOT intended for exposed applications. These beams are coated with a wax emulsion sealer and cannot be stained.

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King Beam 3000

Boise Cascade has been manufacturing laminated beams since the early 1960s. With decades of experience behind us, we can accurately and carefully control every stage of production to ensure a high-quality product that builders can count on.

Manufactured at our Homedale, Idaho facility, the King Beam® 3000 is a high-strength beam fabricated from carefully preselected Douglas Fir and Southern Pine laminates. It offers outstanding performance, with specifications that meet—and exceed—the capabilities of comparable LVL and PSL.

The King Beam® 3000 is economical too, providing the strength builders need at a competitive cost.

Product options include:

- Balanced or unbalanced construction
- Industrial or framing grade-finish
- Cambered or straight surface
- Specified fabrication cuts

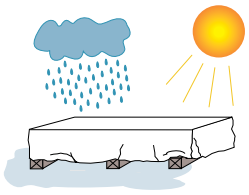
Standard sizes:

- Widths: 3½", 5½" and 7"
- Depths: 9½", 11⅞"; 14"–30" in 2" increments
- Lengths up to 76 feet

Additional sizes available; refer to BC Calc® software or contact your Boise Cascade sales representative for assistance.

PRODUCT STORAGE AND HANDLING

Protect product from rain and sun.



Keep product level and off the ground.

- The wrapping on beams should be left in place to protect them from moisture, soiling, sunlight, and scratches.
- Glulam beams must be installed in dry, covered and ventilated interior applications in which the in-service average moisture content of lumber is less than 16%. To avoid trapping moisture, glulam products must be dry before nailing or bolting multiple-ply members together.
- Because exposure to sunlight can discolor beams, opaque wrappings are recommended. Beams can be wrapped individually or by the bundle.
- A level, well-drained, covered storage site is recommended. Keep beams off the ground, using lumber blocking, skids, or a rack system. Keep beams level.
- Beams are commonly loaded and unloaded with forklifts. For greater stability, the sides of the beams, rather than the bottoms, should rest on the forks. Supporting extremely long beams on their sides, however, can cause them to flex excessively, increasing the risk of damage. Use multiple forklifts to lift long beam members.
- For long-term storage, cut slits in the bottom of the wrapping to allow ventilation and draining of any entrapped moisture. Proper ventilation and drainage will reduce the likelihood of water damage, staining, and the start of decay.
- Failure to correctly store, use, or install BOISE GLULAM will void the limited warranty.

Allowable Design Stresses

Product	Grade	Bending F_b (psi)		Horizontal Shear F_v (psi)	Modulus of Elasticity — Apparent E (x 10^6) (psi)	Modulus of Elasticity — True (Shear Free) E (x 10^6) (psi)	Compression Perpendicular to Grain $F_{c\perp}$ (psi)
		Tension Zone in Tension	Compression Zone in Tension				
King Beam 3000	**30F-E4**	**3,000**	**3,000**	**300**	**2.3**	**2.4**	**805**
PSL	2.0E	2,900	2,900	290	N.A.	2.0	750
PSL	2.2E	2,900	2,900	290	N.A.	2.2	750

NOTE:

- King Beam® 3000 values published as apparent, PSL values published as true (shear-free).

About Camber

Camber is the amount of curvature (reverse deflection) built into a laminated timber to offset dead-load deflection plus some potential long-term creep in the wood fiber. The industry has moved to a 5,000-foot radius camber which has become the standard camber. Other cambers can be built into the beams upon request and beams with zero camber can also be manufactured. The table below shows camber at the center of the beam when specific lengths and radii are specified.

Camber Curvature

Beam Length	Radius															
	400'	600'	800'	1,000'	1,200'	1,400'	1,600'	1,800'	2,000'	2,200'	2,400'	2,600'	2,800'	3,000'	3,200'	3,500'	5,000'
10'	3/8"	1/4"	1/4"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	0"	0"	0"	0"	0"	0"
12'	1/2"	3/8"	1/4"	1/4"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	0"	0"
14'	3/4"	1/2"	3/8"	1/4"	1/4"	1/4"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	0"
16'	1"	5/8"	1/2"	3/8"	3/8"	1/4"	1/4"	1/4"	1/4"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	0"
18'	1 1/4"	3/4"	5/8"	1/2"	3/8"	3/8"	1/4"	1/4"	1/4"	1/4"	1/4"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"
20'	1 1/2"	1"	3/4"	5/8"	1/2"	3/8"	3/8"	1/8"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/8"	1/8"
22'	1 7/8"	1 1/4"	7/8"	3/4"	5/8"	1/2"	1/2"	3/8"	3/8"	3/8"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/8"
24'	2 1/8"	1 1/2"	1 1/8"	7/8"	3/4"	5/8"	1/2"	1/2"	3/8"	3/8"	3/8"	3/8"	1/4"	1/4"	1/4"	1/4"	1/8"
26'	2 1/2"	1 3/4"	1 1/4"	1"	7/8"	3/4"	5/8"	5/8"	1/2"	1/2"	3/8"	3/8"	3/8"	3/8"	3/8"	1/4"	1/4"
28'	3"	2"	1 1/2"	1 1/8"	1"	7/8"	3/4"	5/8"	5/8"	1/2"	1/2"	1/2"	3/8"	3/8"	3/8"	3/8"	1/4"
30'	3 3/8"	2 1/4"	1 3/4"	1 3/8"	1 1/8"	1"	7/8"	3/4"	5/8"	5/8"	5/8"	1/2"	1/2"	1/2"	3/8"	3/8"	1/4"
32'	3 7/8"	2 1/2"	1 7/8"	1 1/2"	1 1/4"	1 1/8"	1"	7/8"	3/4"	3/4"	5/8"	5/8"	1/2"	1/2"	1/2"	1/2"	1/4"
34'	4 3/8"	2 7/8"	2 1/8"	1 3/4"	1 1/2"	1 1/4"	1 1/8"	1"	7/8"	3/4"	3/4"	5/8"	5/8"	5/8"	1/2"	1/2"	3/8"	3/8"
36'	4 7/8"	3 1/4"	2 3/8"	2"	1 5/8"	1 3/8"	1 1/4"	1 1/8"	1"	7/8"	3/4"	3/4"	3/4"	5/8"	5/8"	1/2"	3/8"	3/8"
38'	5 3/8"	3 5/8"	2 3/4"	2 1/8"	1 3/4"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1"	7/8"	7/8"	3/4"	3/4"	5/8"	5/8"	3/8"	3/8"
40'	6"	4"	3"	2 3/8"	2"	1 3/4"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1"	7/8"	7/8"	3/4"	3/4"	5/8"	1/2"	1/2"
42'	6 5/8"	4 3/8"	3 1/4"	2 5/8"	2 1/4"	1 7/8"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1"	1"	7/8"	7/8"	3/4"	1/2"	1/2"
44'	7 1/4"	4 7/8"	3 5/8"	2 7/8"	2 3/8"	2 1/8"	1 7/8"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1"	1"	7/8"	7/8"	1/2"	1/2"
46'	7 7/8"	5 1/4"	4"	3 1/8"	2 5/8"	2 1/4"	2"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1"	1"	7/8"	5/8"	5/8"
48'	8 5/8"	5 3/4"	4 3/8"	3 1/2"	2 7/8"	2 1/2"	2 1/8"	1 7/8"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1 1/8"	1"	5/8"	5/8"
50'	9 3/8"	6 1/4"	4 3/4"	3 3/4"	3 1/8"	2 5/8"	2 3/8"	2 1/8"	1 7/8"	1 3/4"	1 5/8"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	1 1/8"	3/4"	3/4"
52'	10 1/8"	6 3/4"	5 1/8"	4"	3 3/8"	2 7/8"	2 1/2"	2 1/4"	2"	1 7/8"	1 3/4"	1 1/2"	1 1/2"	1 3/8"	1 1/4"	1 1/8"	3/4"	3/4"
54'	10 7/8"	7 1/4"	5 1/2"	4 3/8"	3 5/8"	3 1/8"	2 3/4"	2 3/8"	2 1/8"	2"	1 7/8"	1 5/8"	1 1/2"	1 1/2"	1 3/8"	1 1/4"	7/8"	7/8"
56'	11 3/4"	7 7/8"	5 7/8"	4 3/4"	3 7/8"	3 3/8"	3"	2 5/8"	2 3/8"	2 1/8"	2"	1 3/4"	1 5/8"	1 5/8"	1 1/2"	1 3/8"	7/8"	7/8"
58'	12 5/8"	8 3/8"	6 1/4"	5"	4 1/4"	3 5/8"	3 1/8"	2 3/4"	2 1/2"	2 1/4"	2 1/8"	2"	1 3/4"	1 5/8"	1 5/8"	1 1/2"	1"	1"
60'	13 1/2"	9"	6 3/4"	5 3/8"	4 1/2"	3 7/8"	3 3/8"	3"	2 3/4"	2 1/2"	2 1/4"	2 1/8"	1 7/8"	1 3/4"	1 3/4"	1 1/2"	1"	1"
62'	14 3/8"	9 5/8"	7 1/4"	5 3/4"	4 3/4"	4 1/8"	3 5/8"	3 1/4"	2 7/8"	2 5/8"	2 3/8"	2 1/4"	2"	1 7/8"	1 3/4"	1 5/8"	1 1/8"	1 1/8"
64'	15 3/8"	10 1/4"	7 5/8"	6 1/8"	5 1/8"	4 3/8"	3 7/8"	3 3/8"	3 1/8"	2 3/4"	2 1/2"	2 3/8"	2 1/4"	2"	1 7/8"	1 3/4"	1 1/4"	1 1/4"
66'	16 3/8"	10 7/8"	8 1/8"	6 1/2"	5 1/2"	4 5/8"	4"	3 5/8"	3 1/4"	3"	2 3/4"	2 1/2"	2 3/8"	2 1/8"	2"	1 7/8"	1 1/4"	1 1/4"
68'	17 3/8"	11 1/2"	8 5/8"	6 7/8"	5 3/4"	5"	4 3/8"	3 7/8"	3 1/2"	3 1/8"	2 7/8"	2 5/8"	2 1/2"	2 1/4"	2 1/8"	2"	1 3/8"	1 3/8"
70'	18 3/8"	12 1/4"	9 1/4"	7 3/8"	6 1/8"	5 1/4"	4 5/8"	4 1/8"	3 5/8"	3 3/8"	3 1/8"	2 7/8"	2 5/8"	2 1/2"	2 1/4"	2 1/8"	1 1/2"	1 1/2"
72'	19 1/2"	13"	9 3/4"	7 3/4"	6 1/2"	5 1/2"	4 7/8"	4 3/8"	3 7/8"	3 1/2"	3 1/4"	3"	2 3/4"	2 5/8"	2 3/8"	2 1/4"	1 5/8"	1 5/8"

NOTES

- ANSI A190.1-2022, 5.2 Tolerance for Camber or Straightness: The tolerances are applicable at the time of manufacture without allowances for dead load deflection. For beams up to and including 20' long, tolerance is plus or minus 1/4". For beams over 20' long, increase tolerance 1/8" per each additional 20' or fraction thereof, but not to exceed 3/4".
- The tolerances are intended for use with straight or slightly cambered members and are not applicable to curved members such as arches.
- For camber curvature on other beam lengths, contact your Boise Cascade representative.

Beam Load Tables — Floor

Live Load: L/360

3½" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	1,572	2,063	2,545	3,041	3,585	4,183	4,208	4,206	4,204	4,202	4,201
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.2/5.6	2.9/7.4	3.6/9.1	4.3/10.8	5.1/12.8	6/14.9	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	1,045	1,570	1,916	2,264	2,637	3,038	3,362	3,361	3,359	3,357	3,355
	Live Load (plf)	852	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.7	2.8/7	3.4/8.6	4/10.1	4.7/11.8	5.4/13.6	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	723	1,132	1,535	1,803	2,085	2,383	2,699	2,797	2,795	2,794	2,792
	Live Load (plf)	493	963	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.6/3.9	2.4/6.1	3.3/8.2	3.9/9.7	4.5/11.2	5.1/12.8	5.8/14.5	6/15	6/15	6/15	6/15
14'	Total Load (plf)	458	829	1,155	1,497	1,723	1,959	2,208	2,395	2,393	2,391	2,389
	Live Load (plf)	311	606	994	1,483	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.2	3.8/9.4	4.3/10.8	4.9/12.3	5.5/13.8	6/15	6/15	6/15	6/15
16'	Total Load (plf)	304	599	881	1,153	1,461	1,663	1,867	2,080	2,091	2,089	2,088
	Live Load (plf)	208	406	666	994	1,415	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.7/4.3	2.5/6.3	3.3/8.3	4.2/10.5	4.8/11.9	5.4/13.4	6/14.9	6/15	6/15	6/15
18'	Total Load (plf)	211	418	689	908	1,151	1,423	1,617	1,796	1,856	1,855	1,853
	Live Load (plf)	146	285	468	698	994	1,363	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.4	2.2/5.6	2.9/7.4	3.7/9.3	4.6/11.5	5.2/13.1	5.8/14.5	6/15	6/15	6/15
20'	Total Load (plf)	152	302	499	733	930	1,140	1,368	1,580	1,668	1,667	1,665
	Live Load (plf)	107	208	341	509	725	994	1,323	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.8/4.5	2.7/6.6	3.4/8.4	4.1/10.3	4.9/12.3	5.7/14.2	6/15	6/15	6/15
22'	Total Load (plf)	112	224	372	560	760	930	1,117	1,319	1,515	1,513	1,511
	Live Load (plf)	80	156	256	382	544	747	994	1,290	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.7	2.2/5.6	3/7.6	3.7/9.2	4.4/11.1	5.2/13.1	6/15	6/15	6/15
24'	Total Load (plf)	84	170	284	428	614	772	927	1,095	1,277	1,385	1,383
	Live Load (plf)	62	120	197	294	419	575	765	994	1,264	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.2	1.9/4.7	2.7/6.7	3.4/8.4	4/10.1	4.8/11.9	5.5/13.8	6/15	6/15
26'	Total Load (plf)	65	132	221	334	479	650	781	923	1,076	1,240	1,275
	Live Load (plf)	48	95	155	232	330	452	602	782	994	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	3.1/7.7	3.7/9.2	4.4/10.9	5.1/12.7	5.8/14.6	6/15
28'	Total Load (plf)		104	174	265	381	526	666	787	918	1,058	1,182
	Live Load (plf)		76	124	185	264	362	482	626	796	994	–
	Bearing (in.)		1.5/3	1.5/3	1.5/3.5	2/4.9	2.7/6.7	3.4/8.5	4/10	4.7/11.7	5.4/13.4	6/15
30'	Total Load (plf)		82	140	213	307	425	569	678	791	912	1,042
	Live Load (plf)		62	101	151	215	294	392	509	647	808	994
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.7/4.3	2.4/5.9	3.1/7.8	3.7/9.3	4.3/10.8	5/12.5	5.7/14.2
32'	Total Load (plf)		66	113	173	250	347	466	589	688	794	906
	Live Load (plf)		51	83	124	177	243	323	419	533	666	819
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.8/6.9	3.5/8.7	4/10.1	4.6/11.6	5.3/13.2
34'	Total Load (plf)		53	92	142	206	286	385	504	603	696	795
	Live Load (plf)		42	69	104	147	202	269	350	444	555	683
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.6	2.4/6.1	3.2/7.9	3.8/9.4	4.3/10.9	5/12.4
36'	Total Load (plf)			76	117	171	239	322	421	532	614	702
	Live Load (plf)			58	87	124	170	227	294	374	468	575
	Bearing (in.)			1.5/3	1.5/3	1.5/3	1.6/4.1	2.2/5.4	2.8/7.1	3.5/8.9	4.1/10.2	4.6/11.6
38'	Total Load (plf)			63	98	143	200	271	355	455	546	624
	Live Load (plf)			50	74	106	145	193	250	318	398	489
	Bearing (in.)			1.5/3	1.5/3	1.5/3	1.5/3.7	2/4.9	2.5/6.3	3.2/8.1	3.8/9.6	4.4/11
40'	Total Load (plf)			52	82	121	169	229	302	387	488	558
	Live Load (plf)			43	64	91	124	165	215	273	341	419
	Bearing (in.)			1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.4	2.3/5.7	2.9/7.3	3.6/9.1	4.1/10.4

NOTES

- **Live Load values are limited by deflection equal to L/360.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/240. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Floor

Live Load: L/360

5½" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	2,470	3,241	3,999	4,779	5,633	6,573	6,612	6,609	6,606	6,604	6,601
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.2/5.6	2.9/7.4	3.6/9.1	4.3/10.8	5.1/12.8	6/14.9	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	1,642	2,467	3,011	3,558	4,144	4,773	5,284	5,281	5,278	5,276	5,273
	Live Load (plf)	1,339	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.7	2.8/7	3.4/8.6	4/10.1	4.7/11.8	5.4/13.6	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	1,136	1,779	2,413	2,833	3,276	3,745	4,241	4,395	4,393	4,390	4,387
	Live Load (plf)	775	1,513	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.6/3.9	2.4/6.1	3.3/8.2	3.9/9.7	4.5/11.2	5.1/12.8	5.8/14.5	6/15	6/15	6/15	6/15
14'	Total Load (plf)	719	1,303	1,815	2,352	2,707	3,079	3,469	3,763	3,760	3,758	3,755
	Live Load (plf)	488	953	1,562	2,331	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.2	3.8/9.4	4.3/10.8	4.9/12.3	5.5/13.8	6/15	6/15	6/15	6/15
16'	Total Load (plf)	478	942	1,385	1,796	2,249	2,613	2,934	3,268	3,286	3,283	3,281
	Live Load (plf)	327	638	1,046	1,562	2,224	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.7/4.3	2.5/6.3	3.3/8.2	4.1/10.3	4.8/11.9	5.4/13.4	6/14.9	6/15	6/15	6/15
18'	Total Load (plf)	332	657	1,083	1,398	1,751	2,142	2,541	2,822	2,917	2,914	2,912
	Live Load (plf)	230	448	735	1,097	1,562	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.4	2.2/5.6	2.9/7.2	3.6/9	4.4/11	5.2/13.1	5.8/14.5	6/15	6/15	6/15
20'	Total Load (plf)	238	474	785	1,116	1,399	1,711	2,054	2,426	2,622	2,619	2,616
	Live Load (plf)	167	327	536	800	1,139	1,562	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.8/4.5	2.6/6.4	3.2/8	3.9/9.8	4.7/11.8	5.6/13.9	6/15	6/15	6/15
22'	Total Load (plf)	176	353	585	880	1,141	1,396	1,676	1,980	2,308	2,378	2,375
	Live Load (plf)	126	246	402	601	855	1,173	1,562	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.7	2.2/5.6	2.9/7.2	3.5/8.8	4.2/10.6	5/12.5	5.8/14.5	6/15	6/15
24'	Total Load (plf)	133	268	446	673	946	1,159	1,391	1,644	1,917	2,176	2,174
	Live Load (plf)	97	189	310	463	659	904	1,203	1,562	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.2	1.9/4.7	2.6/6.6	3.2/8	3.9/9.6	4.5/11.4	5.3/13.2	6/15	6/15
26'	Total Load (plf)	102	207	347	525	753	975	1,171	1,385	1,615	1,861	2,003
	Live Load (plf)	76	149	244	364	518	711	946	1,228	1,562	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	2.9/7.4	3.5/8.8	4.2/10.4	4.8/12.1	5.6/13.9	6/15
28'	Total Load (plf)	79	163	274	416	598	827	998	1,180	1,377	1,588	1,813
	Live Load (plf)	61	119	195	291	415	569	758	983	1,250	1,562	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/4.9	2.7/6.7	3.2/8.1	3.8/9.6	4.5/11.2	5.1/12.8	5.9/14.6
30'	Total Load (plf)	62	129	219	334	482	667	860	1,017	1,187	1,368	1,563
	Live Load (plf)	50	97	159	237	337	463	616	800	1,017	1,270	1,562
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.3	2.4/5.9	3/7.5	3.6/8.9	4.1/10.3	4.8/11.9	5.4/13.6
32'	Total Load (plf)		104	177	271	393	545	732	884	1,032	1,190	1,360
	Live Load (plf)		80	131	195	278	381	507	659	838	1,046	1,287
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.8/6.9	3.3/8.3	3.9/9.6	4.4/11.1	5.1/12.6
34'	Total Load (plf)		84	145	223	324	450	605	774	904	1,044	1,192
	Live Load (plf)		67	109	163	232	318	423	549	698	872	1,073
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.6	2.4/6.1	3.1/7.7	3.6/9	4.2/10.4	4.7/11.8
36'	Total Load (plf)		68	119	184	269	375	505	662	798	921	1,053
	Live Load (plf)		56	92	137	195	268	356	463	588	735	904
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3	1.6/4.1	2.2/5.4	2.8/7.1	3.4/8.5	3.9/9.7	4.4/11.1
38'	Total Load (plf)		56	98	153	225	315	425	558	709	818	936
	Live Load (plf)		48	78	117	166	228	303	393	500	625	768
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.7	2/4.9	2.5/6.3	3.2/8	3.7/9.2	4.2/10.5
40'	Total Load (plf)			82	129	189	266	360	474	609	731	836
	Live Load (plf)			67	100	142	195	260	337	429	536	659
	Bearing (in.)			1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.4	2.3/5.7	2.9/7.3	3.5/8.7	4/9.9

NOTES

- **Live Load values are limited by deflection equal to L/360.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/240. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Floor

Live Load: L/360

7" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	3,144	4,125	5,089	6,082	7,169	8,366	8,415	8,412	8,408	8,405	8,401
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.2/5.6	2.9/7.4	3.6/9.1	4.3/10.8	5.1/12.8	6/14.9	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	2,090	3,140	3,832	4,529	5,275	6,075	6,725	6,721	6,718	6,714	6,711
	Live Load (plf)	1,704	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.7	2.8/7	3.4/8.6	4/10.1	4.7/11.8	5.4/13.6	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	1,446	2,265	3,071	3,605	4,169	4,766	5,398	5,594	5,591	5,587	5,584
	Live Load (plf)	986	1,926	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.6/3.9	2.4/6.1	3.3/8.2	3.9/9.7	4.5/11.2	5.1/12.8	5.8/14.5	6/15	6/15	6/15	6/15
14'	Total Load (plf)	915	1,659	2,295	2,962	3,445	3,919	4,416	4,789	4,786	4,782	4,779
	Live Load (plf)	621	1,213	1,988	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.2	3.7/9.3	4.3/10.8	4.9/12.3	5.5/13.8	6/15	6/15	6/15	6/15
16'	Total Load (plf)	608	1,199	1,728	2,231	2,794	3,326	3,734	4,159	4,182	4,179	4,175
	Live Load (plf)	416	813	1,332	1,988	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.7/4.3	2.5/6.2	3.2/8	4/10	4.8/11.9	5.4/13.4	6/14.9	6/15	6/15	6/15
18'	Total Load (plf)	422	836	1,344	1,736	2,175	2,660	3,192	3,592	3,712	3,709	3,706
	Live Load (plf)	292	571	935	1,396	1,988	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.4	2.2/5.5	2.8/7	3.5/8.8	4.3/10.8	5.2/12.9	5.8/14.5	6/15	6/15	6/15
20'	Total Load (plf)	303	604	999	1,386	1,737	2,126	2,551	3,013	3,337	3,333	3,330
	Live Load (plf)	213	416	682	1,018	1,449	1,988	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.8/4.5	2.5/6.3	3.1/7.8	3.8/9.6	4.6/11.5	5.4/13.5	6/15	6/15	6/15
22'	Total Load (plf)	224	449	745	1,120	1,417	1,734	2,081	2,459	2,866	3,026	3,023
	Live Load (plf)	160	313	512	765	1,089	1,493	1,988	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.7	2.2/5.6	2.8/7.1	3.5/8.6	4.1/10.3	4.9/12.2	5.7/14.2	6/15	6/15
24'	Total Load (plf)	169	341	568	856	1,175	1,439	1,728	2,041	2,380	2,743	2,766
	Live Load (plf)	123	241	395	589	839	1,150	1,531	1,988	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.2	1.9/4.7	2.6/6.4	3.1/7.8	3.8/9.4	4.4/11.1	5.2/12.9	5.9/14.9	6/15
26'	Total Load (plf)	129	264	442	668	959	1,211	1,454	1,719	2,005	2,311	2,550
	Live Load (plf)	97	189	310	463	660	905	1,204	1,563	1,988	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	2.9/7.2	3.4/8.6	4.1/10.2	4.7/11.8	5.4/13.6	6/15
28'	Total Load (plf)	100	207	349	529	761	1,031	1,239	1,466	1,710	1,971	2,251
	Live Load (plf)	78	152	248	371	528	724	964	1,252	1,591	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/4.9	2.6/6.6	3.2/7.9	3.7/9.4	4.4/10.9	5/12.5	5.7/14.3
30'	Total Load (plf)	79	165	279	425	613	849	1,067	1,262	1,473	1,699	1,940
	Live Load (plf)	63	123	202	302	429	589	784	1,018	1,294	1,616	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.3	2.4/5.9	2.9/7.4	3.5/8.7	4/10.1	4.6/11.6	5.3/13.3
32'	Total Load (plf)	62	132	226	345	500	694	927	1,097	1,281	1,478	1,688
	Live Load (plf)	52	102	166	248	354	485	646	839	1,066	1,332	1,638
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.7/6.8	3.2/8.1	3.8/9.4	4.3/10.8	4.9/12.3
34'	Total Load (plf)		107	184	283	412	573	770	961	1,122	1,295	1,480
	Live Load (plf)		85	139	207	295	405	538	699	889	1,110	1,365
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.6	2.4/6.1	3/7.6	3.5/8.8	4.1/10.1	4.6/11.5
36'	Total Load (plf)		87	152	235	342	477	643	843	990	1,143	1,307
	Live Load (plf)		71	117	174	248	341	454	589	749	935	1,150
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3	1.6/4.1	2.2/5.4	2.8/7.1	3.3/8.3	3.8/9.5	4.3/10.8
38'	Total Load (plf)		71	125	195	286	401	541	710	879	1,016	1,161
	Live Load (plf)		61	99	148	211	290	386	501	637	795	978
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.7	2/4.9	2.5/6.3	3.1/7.8	3.6/9	4.1/10.2
40'	Total Load (plf)		58	104	164	241	339	459	603	775	907	1,037
	Live Load (plf)		52	85	127	181	248	331	429	546	682	839
	Bearing (in.)		1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.4	2.3/5.7	2.9/7.3	3.4/8.5	3.9/9.7

NOTES

- **Live Load values are limited by deflection equal to L/360.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/240. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Floor

Live Load: L/480

3½" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	1,572	2,063	2,545	3,041	3,585	4,183	4,208	4,206	4,204	4,202	4,201
	Live Load (plf)	1,248	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.2/5.6	2.9/7.4	3.6/9.1	4.3/10.8	5.1/12.8	6/14.9	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	1,045	1,570	1,916	2,264	2,637	3,038	3,362	3,361	3,359	3,357	3,355
	Live Load (plf)	639	1,248	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.7	2.8/7	3.4/8.6	4/10.1	4.7/11.8	5.4/13.6	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	723	1,132	1,535	1,803	2,085	2,383	2,699	2,797	2,795	2,794	2,792
	Live Load (plf)	370	722	1,184	1,767	–	–	–	–	–	–	–
	Bearing (in.)	1.6/3.9	2.4/6.1	3.3/8.2	3.9/9.7	4.5/11.2	5.1/12.8	5.8/14.5	6/15	6/15	6/15	6/15
14'	Total Load (plf)	458	829	1,155	1,497	1,723	1,959	2,208	2,395	2,393	2,391	2,389
	Live Load (plf)	233	455	745	1,113	1,584	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.2	3.8/9.4	4.3/10.8	4.9/12.3	5.5/13.8	6/15	6/15	6/15	6/15
16'	Total Load (plf)	304	599	881	1,153	1,461	1,663	1,867	2,080	2,091	2,089	2,088
	Live Load (plf)	156	305	499	745	1,061	1,456	–	–	–	–	–
	Bearing (in.)	1.5/3	1.7/4.3	2.5/6.3	3.3/8.3	4.2/10.5	4.8/11.9	5.4/13.4	6/14.9	6/15	6/15	6/15
18'	Total Load (plf)	211	418	689	908	1,151	1,423	1,617	1,796	1,856	1,855	1,853
	Live Load (plf)	110	214	351	523	745	1,022	1,361	1,767	–	–	–
	Bearing (in.)	1.5/3	1.5/3.4	2.2/5.6	2.9/7.4	3.7/9.3	4.6/11.5	5.2/13.1	5.8/14.5	6/15	6/15	6/15
20'	Total Load (plf)	152	302	499	733	930	1,140	1,368	1,580	1,668	1,667	1,665
	Live Load (plf)	80	156	256	382	543	745	992	1,288	1,638	–	–
	Bearing (in.)	1.5/3	1.5/3	1.8/4.5	2.7/6.6	3.4/8.4	4.1/10.3	4.9/12.3	5.7/14.2	6/15	6/15	6/15
22'	Total Load (plf)	112	224	372	560	760	930	1,117	1,319	1,515	1,513	1,511
	Live Load (plf)	60	117	192	287	408	560	745	968	1,230	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.7	2.2/5.6	3/7.6	3.7/9.2	4.4/11.1	5.2/13.1	6/15	6/15	6/15
24'	Total Load (plf)	84	170	284	428	614	772	927	1,095	1,277	1,385	1,383
	Live Load (plf)	46	90	148	221	314	431	574	745	948	1,184	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.2	1.9/4.7	2.7/6.7	3.4/8.4	4/10.1	4.8/11.9	5.5/13.8	6/15	6/15
26'	Total Load (plf)	65	132	221	334	479	650	781	923	1,076	1,240	1,275
	Live Load (plf)	36	71	116	174	247	339	452	586	745	931	1,145
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	3.1/7.7	3.7/9.2	4.4/10.9	5.1/12.7	5.8/14.6	6/15
28'	Total Load (plf)	50	104	174	265	381	526	666	787	918	1,058	1,182
	Live Load (plf)	29	57	93	139	198	272	362	469	597	745	917
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/4.9	2.7/6.7	3.4/8.5	4/10	4.7/11.7	5.4/13.4	6/15
30'	Total Load (plf)	39	82	140	213	307	425	569	678	791	912	1,042
	Live Load (plf)	24	46	76	113	161	221	294	382	485	606	745
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.3	2.4/5.9	3.1/7.8	3.7/9.3	4.3/10.8	5/12.5	5.7/14.2
32'	Total Load (plf)	31	66	113	173	250	347	466	589	688	794	906
	Live Load (plf)	20	38	62	93	133	182	242	314	400	499	614
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.8/6.9	3.5/8.7	4/10.1	4.6/11.6	5.3/13.2
34'	Total Load (plf)	24	53	92	142	206	286	385	504	603	696	795
	Live Load (plf)	16	32	52	78	111	152	202	262	333	416	512
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.6	2.4/6.1	3.2/7.9	3.8/9.4	4.3/10.9	5/12.4
36'	Total Load (plf)	19	43	76	117	171	239	322	421	532	614	702
	Live Load (plf)	14	27	44	65	93	128	170	221	281	351	431
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4.1	2.2/5.4	2.8/7.1	3.5/8.9	4.1/10.2	4.6/11.6
38'	Total Load (plf)	15	35	63	98	143	200	271	355	455	546	624
	Live Load (plf)	12	23	37	56	79	109	145	188	239	298	367
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.7	2/4.9	2.5/6.3	3.2/8.1	3.8/9.6	4.4/11
40'	Total Load (plf)	12	29	52	82	121	169	229	302	387	488	558
	Live Load (plf)	10	20	32	48	68	93	124	161	205	256	314
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.4	2.3/5.7	2.9/7.3	3.6/9.1	4.1/10.4

NOTES

- **Live Load values are limited by deflection equal to L/480.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/240. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Floor

Live Load: L/480

5½" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	2,470	3,241	3,999	4,779	5,633	6,573	6,612	6,609	6,606	6,604	6,601
	Live Load (plf)	1,961	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.2/5.6	2.9/7.4	3.6/9.1	4.3/10.8	5.1/12.8	6/14.9	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	1,642	2,467	3,011	3,558	4,144	4,773	5,284	5,281	5,278	5,276	5,273
	Live Load (plf)	1,004	1,961	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.7	2.8/7	3.4/8.6	4/10.1	4.7/11.8	5.4/13.6	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	1,136	1,779	2,413	2,833	3,276	3,745	4,241	4,395	4,393	4,390	4,387
	Live Load (plf)	581	1,135	1,860	2,776	–	–	–	–	–	–	–
	Bearing (in.)	1.6/3.9	2.4/6.1	3.3/8.2	3.9/9.7	4.5/11.2	5.1/12.8	5.8/14.5	6/15	6/15	6/15	6/15
14'	Total Load (plf)	719	1,303	1,815	2,352	2,707	3,079	3,469	3,763	3,760	3,758	3,755
	Live Load (plf)	366	715	1,171	1,748	2,489	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.2	3.8/9.4	4.3/10.8	4.9/12.3	5.5/13.8	6/15	6/15	6/15	6/15
16'	Total Load (plf)	478	942	1,385	1,796	2,249	2,613	2,934	3,268	3,286	3,283	3,281
	Live Load (plf)	245	479	785	1,171	1,668	2,288	–	–	–	–	–
	Bearing (in.)	1.5/3	1.7/4.3	2.5/6.3	3.3/8.2	4.1/10.3	4.8/11.9	5.4/13.4	6/14.9	6/15	6/15	6/15
18'	Total Load (plf)	332	657	1,083	1,398	1,751	2,142	2,541	2,822	2,917	2,914	2,912
	Live Load (plf)	172	336	551	823	1,171	1,607	2,139	2,776	–	–	–
	Bearing (in.)	1.5/3	1.5/3.4	2.2/5.6	2.9/7.2	3.6/9	4.4/11	5.2/13.1	5.8/14.5	6/15	6/15	6/15
20'	Total Load (plf)	238	474	785	1,116	1,399	1,711	2,054	2,426	2,622	2,619	2,616
	Live Load (plf)	126	245	402	600	854	1,171	1,559	2,024	2,573	–	–
	Bearing (in.)	1.5/3	1.5/3	1.8/4.5	2.6/6.4	3.2/8	3.9/9.8	4.7/11.8	5.6/13.9	6/15	6/15	6/15
22'	Total Load (plf)	176	353	585	880	1,141	1,396	1,676	1,980	2,308	2,378	2,375
	Live Load (plf)	94	184	302	451	642	880	1,171	1,521	1,933	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.7	2.2/5.6	2.9/7.2	3.5/8.8	4.2/10.6	5/12.5	5.8/14.5	6/15	6/15
24'	Total Load (plf)	133	268	446	673	946	1,159	1,391	1,644	1,917	2,176	2,174
	Live Load (plf)	73	142	232	347	494	678	902	1,171	1,489	1,860	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.2	1.9/4.7	2.6/6.6	3.2/8	3.9/9.6	4.5/11.4	5.3/13.2	6/15	6/15
26'	Total Load (plf)	102	207	347	525	753	975	1,171	1,385	1,615	1,861	2,003
	Live Load (plf)	57	112	183	273	389	533	710	921	1,171	1,463	1,799
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	2.9/7.4	3.5/8.8	4.2/10.4	4.8/12.1	5.6/13.9	6/15
28'	Total Load (plf)	79	163	274	416	598	827	998	1,180	1,377	1,588	1,813
	Live Load (plf)	46	89	146	219	311	427	568	738	938	1,171	1,441
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/4.9	2.7/6.7	3.2/8.1	3.8/9.6	4.5/11.2	5.1/12.8	5.9/14.6
30'	Total Load (plf)	62	129	219	334	482	667	860	1,017	1,187	1,368	1,563
	Live Load (plf)	37	73	119	178	253	347	462	600	762	952	1,171
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.3	2.4/5.9	3/7.5	3.6/8.9	4.1/10.3	4.8/11.9	5.4/13.6
32'	Total Load (plf)	49	104	177	271	393	545	732	884	1,032	1,190	1,360
	Live Load (plf)	31	60	98	146	208	286	381	494	628	785	965
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.8/6.9	3.3/8.3	3.9/9.6	4.4/11.1	5.1/12.6
34'	Total Load (plf)	38	84	145	223	324	450	605	774	904	1,044	1,192
	Live Load (plf)	26	50	82	122	174	238	317	412	524	654	805
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.6	2.4/6.1	3.1/7.7	3.6/9	4.2/10.4	4.7/11.8
36'	Total Load (plf)	30	68	119	184	269	375	505	662	798	921	1,053
	Live Load (plf)	22	42	69	103	146	201	267	347	441	551	678
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4.1	2.2/5.4	2.8/7.1	3.4/8.5	3.9/9.7	4.4/11.1
38'	Total Load (plf)	24	56	98	153	225	315	425	558	709	818	936
	Live Load (plf)	18	36	59	87	124	171	227	295	375	469	576
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.7	2/4.9	2.5/6.3	3.2/8	3.7/9.2	4.2/10.5
40'	Total Load (plf)	19	45	82	129	189	266	360	474	609	731	836
	Live Load (plf)	16	31	50	75	107	146	195	253	322	402	494
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.4	2.3/5.7	2.9/7.3	3.5/8.7	4/9.9

NOTES

- **Live Load values are limited by deflection equal to L/480.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/240. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Floor

Live Load: L/480

7" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	3,144	4,125	5,089	6,082	7,169	8,366	8,415	8,412	8,408	8,405	8,401
	Live Load (plf)	2,496	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.2/5.6	2.9/7.4	3.6/9.1	4.3/10.8	5.1/12.8	6/14.9	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	2,090	3,140	3,832	4,529	5,275	6,075	6,725	6,721	6,718	6,714	6,711
	Live Load (plf)	1,278	2,496	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.7	2.8/7	3.4/8.6	4/10.1	4.7/11.8	5.4/13.6	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	1,446	2,265	3,071	3,605	4,169	4,766	5,398	5,594	5,591	5,587	5,584
	Live Load (plf)	740	1,445	2,367	3,534	–	–	–	–	–	–	–
	Bearing (in.)	1.6/3.9	2.4/6.1	3.3/8.2	3.9/9.7	4.5/11.2	5.1/12.8	5.8/14.5	6/15	6/15	6/15	6/15
14'	Total Load (plf)	915	1,659	2,295	2,962	3,445	3,919	4,416	4,789	4,786	4,782	4,779
	Live Load (plf)	466	910	1,491	2,225	3,168	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.2	3.7/9.3	4.3/10.8	4.9/12.3	5.5/13.8	6/15	6/15	6/15	6/15
16'	Total Load (plf)	608	1,199	1,728	2,231	2,794	3,326	3,734	4,159	4,182	4,179	4,175
	Live Load (plf)	312	609	999	1,491	2,123	2,912	–	–	–	–	–
	Bearing (in.)	1.5/3	1.7/4.3	2.5/6.2	3.2/8	4/10	4.8/11.9	5.4/13.4	6/14.9	6/15	6/15	6/15
18'	Total Load (plf)	422	836	1,344	1,736	2,175	2,660	3,192	3,592	3,712	3,709	3,706
	Live Load (plf)	219	428	701	1,047	1,491	2,045	2,722	3,534	–	–	–
	Bearing (in.)	1.5/3	1.5/3.4	2.2/5.5	2.8/7	3.5/8.8	4.3/10.8	5.2/12.9	5.8/14.5	6/15	6/15	6/15
20'	Total Load (plf)	303	604	999	1,386	1,737	2,126	2,551	3,013	3,337	3,333	3,330
	Live Load (plf)	160	312	511	763	1,087	1,491	1,984	2,576	3,275	–	–
	Bearing (in.)	1.5/3	1.5/3	1.8/4.5	2.5/6.3	3.1/7.8	3.8/9.6	4.6/11.5	5.4/13.5	6/15	6/15	6/15
22'	Total Load (plf)	224	449	745	1,120	1,417	1,734	2,081	2,459	2,866	3,026	3,023
	Live Load (plf)	120	234	384	573	816	1,120	1,491	1,935	2,461	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.7	2.2/5.6	2.8/7.1	3.5/8.6	4.1/10.3	4.9/12.2	5.7/14.2	6/15	6/15
24'	Total Load (plf)	169	341	568	856	1,175	1,439	1,728	2,041	2,380	2,743	2,766
	Live Load (plf)	92	181	296	442	629	863	1,148	1,491	1,895	2,367	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.2	1.9/4.7	2.6/6.4	3.1/7.8	3.8/9.4	4.4/11.1	5.2/12.9	5.9/14.9	6/15
26'	Total Load (plf)	129	264	442	668	959	1,211	1,454	1,719	2,005	2,311	2,550
	Live Load (plf)	73	142	233	347	495	679	903	1,173	1,491	1,862	2,290
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	2.9/7.2	3.4/8.6	4.1/10.2	4.7/11.8	5.4/13.6	6/15
28'	Total Load (plf)	100	207	349	529	761	1,031	1,239	1,466	1,710	1,971	2,251
	Live Load (plf)	58	114	186	278	396	543	723	939	1,194	1,491	1,834
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/4.9	2.6/6.6	3.2/7.9	3.7/9.4	4.4/10.9	5/12.5	5.7/14.3
30'	Total Load (plf)	79	165	279	425	613	849	1,067	1,262	1,473	1,699	1,940
	Live Load (plf)	47	92	152	226	322	442	588	763	970	1,212	1,491
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.7/4.3	2.4/5.9	2.9/7.4	3.5/8.7	4/10.1	4.6/11.6	5.3/13.3
32'	Total Load (plf)	62	132	226	345	500	694	927	1,097	1,281	1,478	1,688
	Live Load (plf)	39	76	125	186	265	364	484	629	800	999	1,228
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.8	2.1/5.2	2.7/6.8	3.2/8.1	3.8/9.4	4.3/10.8	4.9/12.3
34'	Total Load (plf)	49	107	184	283	412	573	770	961	1,122	1,295	1,480
	Live Load (plf)	33	64	104	155	221	303	404	524	667	833	1,024
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.6	2.4/6.1	3/7.6	3.5/8.8	4.1/10.1	4.6/11.5
36'	Total Load (plf)	39	87	152	235	342	477	643	843	990	1,143	1,307
	Live Load (plf)	27	54	88	131	186	256	340	442	562	701	863
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4.1	2.2/5.4	2.8/7.1	3.3/8.3	3.8/9.5	4.3/10.8
38'	Total Load (plf)	30	71	125	195	286	401	541	710	879	1,016	1,161
	Live Load (plf)	23	45	75	111	158	217	289	376	477	596	734
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.7	2/4.9	2.5/6.3	3.1/7.8	3.6/9	4.1/10.2
40'	Total Load (plf)	24	58	104	164	241	339	459	603	775	907	1,037
	Live Load (plf)	20	39	64	95	136	186	248	322	409	511	629
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.3	1.8/4.4	2.3/5.7	2.9/7.3	3.4/8.5	3.9/9.7

NOTES

- **Live Load values are limited by deflection equal to L/480.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/240. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Roof

Snow, 115% Load Duration (PLF)

3½" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	1,809	2,374	2,928	3,499	4,125	4,209	4,208	4,206	4,204	4,202	4,201
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.6/6.4	3.4/8.5	4.2/10.4	5/12.5	5.9/14.7	6/15	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	1,203	1,807	2,205	2,606	3,035	3,364	3,362	3,361	3,359	3,357	3,355
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.1/5.4	3.2/8.1	3.9/9.8	4.6/11.6	5.4/13.5	6/15	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	833	1,304	1,768	2,075	2,400	2,743	2,799	2,797	2,795	2,794	2,792
	Live Load (plf)	740	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.8/4.5	2.8/7	3.8/9.5	4.4/11.1	5.1/12.9	5.9/14.7	6/15	6/15	6/15	6/15	6/15
14'	Total Load (plf)	610	955	1,330	1,723	1,983	2,256	2,396	2,395	2,393	2,391	2,389
	Live Load (plf)	466	910	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3.8	2.4/6	3.3/8.3	4.3/10.8	5/12.4	5.6/14.1	6/15	6/15	6/15	6/15	6/15
16'	Total Load (plf)	408	729	1,015	1,328	1,683	1,915	2,094	2,093	2,091	2,089	2,088
	Live Load (plf)	312	609	999	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.3	3.8/9.5	4.8/12.1	5.5/13.7	6/15	6/15	6/15	6/15	6/15
18'	Total Load (plf)	284	561	800	1,046	1,326	1,639	1,860	1,858	1,856	1,855	1,853
	Live Load (plf)	219	428	701	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.8/4.6	2.6/6.5	3.4/8.5	4.3/10.7	5.3/13.2	6/15	6/15	6/15	6/15	6/15
20'	Total Load (plf)	205	406	646	845	1,071	1,314	1,576	1,670	1,668	1,667	1,665
	Live Load (plf)	160	312	511	763	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.7	2.3/5.8	3/7.6	3.9/9.6	4.7/11.8	5.7/14.2	6/15	6/15	6/15	6/15
22'	Total Load (plf)	152	302	500	696	877	1,072	1,287	1,516	1,515	1,513	1,511
	Live Load (plf)	120	234	384	573	816	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.1	2/5	2.8/6.9	3.5/8.7	4.3/10.6	5.1/12.7	6/15	6/15	6/15	6/15
24'	Total Load (plf)	115	231	383	575	728	891	1,069	1,263	1,387	1,385	1,383
	Live Load (plf)	92	181	296	442	629	863	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.7/4.2	2.5/6.3	3.2/7.9	3.9/9.7	4.6/11.6	5.5/13.7	6/15	6/15	6/15
26'	Total Load (plf)	89	179	298	450	613	750	901	1,064	1,241	1,277	1,275
	Live Load (plf)	73	142	233	347	495	679	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.6	2.1/5.3	2.9/7.2	3.5/8.8	4.2/10.6	5/12.5	5.8/14.6	6/15	6/15
28'	Total Load (plf)	70	142	237	357	513	640	768	908	1,059	1,184	1,182
	Live Load (plf)	58	114	186	278	396	543	723	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.1	1.8/4.6	2.6/6.6	3.3/8.2	3.9/9.8	4.6/11.5	5.4/13.4	6/15	6/15
30'	Total Load (plf)	55	113	190	288	414	551	662	783	913	1,053	1,101
	Live Load (plf)	47	92	152	226	322	442	588	763	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	3/7.6	3.6/9.1	4.3/10.7	5/12.4	5.7/14.3	6/15
32'	Total Load (plf)	44	91	155	235	338	468	576	681	794	916	1,031
	Live Load (plf)	39	76	125	186	265	364	484	629	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/5	2.8/6.9	3.4/8.4	4/10	4.6/11.6	5.3/13.3	6/15
34'	Total Load (plf)	35	75	127	194	280	388	505	597	697	804	918
	Live Load (plf)	33	64	104	155	221	303	404	524	667	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.1	1.8/4.4	2.4/6.1	3.2/7.9	3.7/9.3	4.3/10.8	5/12.5	5.7/14.2
36'	Total Load (plf)	28	61	105	161	233	324	435	527	616	710	811
	Live Load (plf)	27	54	88	131	186	256	340	442	562	701	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.6/	2.2/5.4	2.9/7.2	3.5/8.7	4.1/10.2	4.7/11.7	5.3/13.4
38'	Total Load (plf)	23	51	87	135	196	273	367	468	547	631	721
	Live Load (plf)	–	45	75	111	158	217	289	376	477	596	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	2/4.9	2.6/6.5	3.3/8.2	3.8/9.6	4.4/11	5/12.6
40'	Total Load (plf)	19	42	73	114	166	231	312	409	489	565	645
	Live Load (plf)	–	39	64	95	136	186	248	322	409	511	629
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.2	1.8/4.4	2.3/5.9	3/7.6	3.6/9.1	4.2/10.4	4.8/11.9

NOTES

- **Live Load values are limited by deflection equal to L/240.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/180. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Roof

Snow, 115% Load Duration (PLF)

5½" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	2,843	3,730	4,601	5,499	6,482	6,615	6,612	6,609	6,606	6,604	6,601
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.6/6.4	3.4/8.5	4.2/10.4	5/12.5	5.9/14.7	6/15	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	1,890	2,840	3,465	4,095	4,770	5,286	5,284	5,281	5,278	5,276	5,273
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.1/5.4	3.2/8.1	3.9/9.8	4.6/11.6	5.4/13.5	6/15	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	1,309	2,049	2,778	3,261	3,771	4,310	4,398	4,395	4,393	4,390	4,387
	Live Load (plf)	1,162	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.8/4.5	2.8/7	3.8/9.5	4.4/11.1	5.1/12.9	5.9/14.7	6/15	6/15	6/15	6/15	6/15
14'	Total Load (plf)	958	1,501	2,090	2,708	3,117	3,545	3,766	3,763	3,760	3,758	3,755
	Live Load (plf)	732	1,430	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3.8	2.4/6	3.3/8.3	4.3/10.8	5/12.4	5.6/14.1	6/15	6/15	6/15	6/15	6/15
16'	Total Load (plf)	641	1,145	1,595	2,069	2,590	3,009	3,291	3,289	3,286	3,283	3,281
	Live Load (plf)	490	958	1,569	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.3	3.8/9.4	4.7/11.8	5.5/13.7	6/15	6/15	6/15	6/15	6/15
18'	Total Load (plf)	446	881	1,248	1,611	2,017	2,467	2,922	2,920	2,917	2,914	2,912
	Live Load (plf)	344	673	1,102	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.8/4.6	2.6/6.4	3.3/8.3	4.1/10.4	5.1/12.7	6/15	6/15	6/15	6/15	6/15
20'	Total Load (plf)	322	638	996	1,287	1,612	1,972	2,366	2,624	2,622	2,619	2,616
	Live Load (plf)	251	490	804	1,199	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.7	2.3/5.7	3/7.4	3.7/9.2	4.5/11.3	5.4/13.5	6/15	6/15	6/15	6/15
22'	Total Load (plf)	239	475	786	1,050	1,315	1,610	1,932	2,282	2,380	2,378	2,375
	Live Load (plf)	189	368	604	901	1,283	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.1	2/5	2.7/6.7	3.3/8.3	4.1/10.2	4.9/12.2	5.7/14.4	6/15	6/15	6/15
24'	Total Load (plf)	181	362	601	871	1,092	1,336	1,604	1,895	2,179	2,176	2,174
	Live Load (plf)	145	284	465	694	988	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.7/4.2	2.4/6	3/7.6	3.7/9.2	4.4/11.1	5.2/13.1	6/15	6/15	6/15
26'	Total Load (plf)	140	282	469	707	919	1,125	1,352	1,597	1,862	2,006	2,003
	Live Load (plf)	114	223	366	546	777	1,066	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.6	2.1/5.3	2.8/6.9	3.4/8.5	4.1/10.1	4.8/12	5.6/13.9	6/15	6/15
28'	Total Load (plf)	109	222	372	561	783	959	1,152	1,362	1,589	1,831	1,857
	Live Load (plf)	91	179	293	437	622	854	1,136	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.1	1.8/4.6	2.6/6.4	3.1/7.8	3.7/9.3	4.4/11	5.1/12.8	5.9/14.8	6/15
30'	Total Load (plf)	86	178	299	452	651	826	993	1,174	1,370	1,579	1,731
	Live Load (plf)	74	145	238	355	506	694	924	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	2.9/7.2	3.5/8.7	4.1/10.2	4.8/11.9	5.5/13.7	6/15
32'	Total Load (plf)	69	144	243	369	532	718	863	1,021	1,192	1,374	1,570
	Live Load (plf)	61	120	196	293	417	572	761	988	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/5	2.7/6.7	3.2/8.1	3.8/9.5	4.4/11.1	5.1/12.8	5.8/14.5
34'	Total Load (plf)	55	117	199	304	439	609	757	895	1,045	1,206	1,377
	Live Load (plf)	51	100	164	244	348	477	635	824	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.1	1.8/4.4	2.4/6.1	3/7.5	3.6/8.9	4.1/10.4	4.8/11.9	5.4/13.6
36'	Total Load (plf)	45	96	165	253	366	509	668	790	923	1,065	1,217
	Live Load (plf)	43	84	138	206	293	402	535	694	882	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.2/5.4	2.8/7.1	3.3/8.4	3.9/9.7	4.5/11.2	5.1/12.8
38'	Total Load (plf)	36	79	137	212	308	429	577	702	820	947	1,082
	Live Load (plf)	–	71	117	175	249	342	455	590	750	937	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	2/4.9	2.6/6.5	3.2/7.9	3.7/9.2	4.2/10.6	4.8/12
40'	Total Load (plf)	29	66	115	179	261	364	490	627	733	846	967
	Live Load (plf)	–	61	100	150	213	293	390	506	643	804	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.2	1.8/4.4	2.3/5.9	3/7.4	3.5/8.7	4/10	4.6/11.4

NOTES

- **Live Load values are limited by deflection equal to L/240.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/180. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Roof

Snow, 115% Load Duration (PLF)

7" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	3,618	4,747	5,856	6,998	8,249	8,418	8,415	8,412	8,408	8,405	8,401
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.6/6.4	3.4/8.5	4.2/10.4	5/12.5	5.9/14.7	6/15	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	2,406	3,614	4,410	5,212	6,070	6,728	6,725	6,721	6,718	6,714	6,711
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.1/5.4	3.2/8.1	3.9/9.8	4.6/11.6	5.4/13.5	6/15	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	1,666	2,608	3,535	4,150	4,799	5,486	5,598	5,594	5,591	5,587	5,584
	Live Load (plf)	1,479	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.8/4.5	2.8/7	3.8/9.5	4.4/11.1	5.1/12.9	5.9/14.7	6/15	6/15	6/15	6/15	6/15
14'	Total Load (plf)	1,219	1,910	2,643	3,410	3,967	4,512	4,793	4,789	4,786	4,782	4,779
	Live Load (plf)	932	1,819	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3.8	2.4/6	3.3/8.3	4.3/10.7	5/12.4	5.6/14.1	6/15	6/15	6/15	6/15	6/15
16'	Total Load (plf)	816	1,454	1,991	2,570	3,218	3,830	4,189	4,185	4,182	4,179	4,175
	Live Load (plf)	624	1,219	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.1/5.2	2.9/7.2	3.7/9.2	4.6/11.5	5.5/13.7	6/15	6/15	6/15	6/15	6/15
18'	Total Load (plf)	568	1,121	1,550	2,001	2,506	3,065	3,676	3,716	3,712	3,709	3,706
	Live Load (plf)	438	856	1,403	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.8/4.6	2.5/6.3	3.2/8.1	4.1/10.1	4.9/12.4	5.9/14.8	6/15	6/15	6/15	6/15
20'	Total Load (plf)	410	812	1,237	1,598	2,002	2,449	2,939	3,340	3,337	3,333	3,330
	Live Load (plf)	320	624	1,023	1,527	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.7	2.2/5.6	2.9/7.2	3.6/9	4.4/11	5.3/13.2	6/15	6/15	6/15	6/15
22'	Total Load (plf)	304	605	1,001	1,303	1,634	1,999	2,399	2,834	3,029	3,026	3,023
	Live Load (plf)	240	469	768	1,147	1,633	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.1	2/5	2.6/6.5	3.2/8.1	4/9.9	4.8/11.9	5.6/14	6/15	6/15	6/15
24'	Total Load (plf)	230	461	765	1,081	1,356	1,659	1,992	2,354	2,744	2,770	2,766
	Live Load (plf)	185	361	592	883	1,258	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.7/4.2	2.4/5.9	3/7.4	3.6/9	4.3/10.8	5.1/12.7	5.9/14.8	6/15	6/15
26'	Total Load (plf)	178	359	597	899	1,141	1,397	1,678	1,983	2,312	2,553	2,550
	Live Load (plf)	145	284	465	695	989	1,357	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.6	2.1/5.3	2.7/6.8	3.3/8.3	4/9.9	4.7/11.7	5.4/13.6	6/15	6/15
28'	Total Load (plf)	139	283	473	715	972	1,191	1,431	1,692	1,973	2,274	2,364
	Live Load (plf)	116	227	373	556	792	1,087	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.1	1.8/4.6	2.5/6.2	3/7.6	3.6/9.1	4.3/10.8	5/12.5	5.8/14.4	6/15
30'	Total Load (plf)	110	226	380	576	828	1,026	1,233	1,458	1,701	1,961	2,203
	Live Load (plf)	95	185	303	452	644	883	1,176	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	2.8/7.1	3.4/8.5	4/10	4.6/11.6	5.3/13.4	6/15
32'	Total Load (plf)	88	183	309	470	677	892	1,072	1,268	1,479	1,706	1,949
	Live Load (plf)	78	152	250	373	531	728	969	1,258	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/5	2.6/6.6	3.1/7.9	3.7/9.3	4.3/10.8	5/12.5	5.7/14.2
34'	Total Load (plf)	71	149	254	387	559	775	939	1,111	1,297	1,497	1,710
	Live Load (plf)	65	127	208	311	442	607	808	1,049	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.1	1.8/4.4	2.4/6.1	2.9/7.4	3.5/8.7	4/10.1	4.7/11.6	5.3/13.3
36'	Total Load (plf)	57	122	210	322	466	648	829	981	1,146	1,322	1,511
	Live Load (plf)	55	107	175	262	373	511	680	883	1,123	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.2/5.4	2.8/6.9	3.3/8.2	3.8/9.5	4.4/10.9	5/12.5
38'	Total Load (plf)	46	101	175	270	392	546	734	871	1,018	1,175	1,343
	Live Load (plf)	–	91	149	223	317	435	579	751	955	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	2/4.9	2.6/6.5	3.1/7.7	3.6/9	4.1/10.3	4.7/11.8
40'	Total Load (plf)	37	84	147	227	332	463	624	778	909	1,050	1,201
	Live Load (plf)	–	78	128	191	272	373	496	644	819	1,023	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.2	1.8/4.4	2.3/5.9	2.9/7.3	3.4/8.5	3.9/9.7	4.4/11.1

NOTES

- **Live Load values are limited by deflection equal to L/240.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/180. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Roof

Non-Snow, 125% Load Duration (PLF)

3½" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	1,967	2,581	3,184	3,805	4,211	4,209	4,208	4,206	4,204	4,202	4,201
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.8/7	3.7/9.2	4.5/11.3	5.4/13.6	6/15	6/15	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	1,308	1,965	2,398	2,834	3,300	3,364	3,362	3,361	3,359	3,357	3,355
	Live Load (plf)	1,278	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.3/5.8	3.5/8.8	4.3/10.7	5.1/12.6	5.9/14.7	6/15	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	906	1,418	1,922	2,257	2,610	2,800	2,799	2,797	2,795	2,794	2,792
	Live Load (plf)	740	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.9	3/7.6	4.1/10.3	4.8/12.1	5.6/14	6/15	6/15	6/15	6/15	6/15	6/15
14'	Total Load (plf)	613	1,039	1,446	1,874	2,157	2,398	2,396	2,395	2,393	2,391	2,389
	Live Load (plf)	466	910	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3.9	2.6/6.5	3.6/9.1	4.7/11.7	5.4/13.5	6/15	6/15	6/15	6/15	6/15	6/15
16'	Total Load (plf)	408	793	1,105	1,445	1,830	2,083	2,094	2,093	2,091	2,089	2,088
	Live Load (plf)	312	609	999	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.3/5.7	3.2/7.9	4.1/10.4	5.2/13.1	6/14.9	6/15	6/15	6/15	6/15	6/15
18'	Total Load (plf)	284	561	870	1,139	1,443	1,783	1,860	1,858	1,856	1,855	1,853
	Live Load (plf)	219	428	701	1,047	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.8/4.6	2.8/7	3.7/9.2	4.7/11.6	5.8/14.4	6/15	6/15	6/15	6/15	6/15
20'	Total Load (plf)	205	406	670	920	1,166	1,430	1,672	1,670	1,668	1,667	1,665
	Live Load (plf)	160	312	511	763	1,087	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.7	2.4/6	3.3/8.3	4.2/10.5	5.1/12.8	6/15	6/15	6/15	6/15	6/15
22'	Total Load (plf)	152	302	500	751	954	1,167	1,401	1,516	1,515	1,513	1,511
	Live Load (plf)	120	234	384	573	816	1,120	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.1	2/5	3/7.5	3.8/9.5	4.6/11.6	5.5/13.9	6/15	6/15	6/15	6/15
24'	Total Load (plf)	115	231	383	575	792	969	1,164	1,374	1,387	1,385	1,383
	Live Load (plf)	92	181	296	442	629	863	1,148	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.7/4.2	2.5/6.3	3.4/8.6	4.2/10.5	5/12.6	5.9/14.9	6/15	6/15	6/15
26'	Total Load (plf)	89	179	298	450	644	817	981	1,159	1,278	1,277	1,275
	Live Load (plf)	73	142	233	347	495	679	903	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.6	2.1/5.3	3/7.6	3.8/9.6	4.6/11.5	5.4/13.6	6/15	6/15	6/15
28'	Total Load (plf)	70	142	237	357	513	697	837	989	1,153	1,184	1,182
	Live Load (plf)	58	114	186	278	396	543	723	939	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.1	1.8/4.6	2.6/6.6	3.5/8.9	4.3/10.6	5/12.5	5.8/14.6	6/15	6/15
30'	Total Load (plf)	55	113	190	288	414	572	721	853	994	1,103	1,101
	Live Load (plf)	47	92	152	226	322	442	588	763	970	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	3.1/7.8	3.9/9.8	4.6/11.6	5.4/13.5	6/15	6/15
32'	Total Load (plf)	44	91	155	235	338	468	627	742	865	998	1,031
	Live Load (plf)	39	76	125	186	265	364	484	629	800	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/5	2.8/6.9	3.7/9.2	4.3/10.8	5/12.6	5.8/14.5	6/15
34'	Total Load (plf)	35	75	127	194	280	388	520	651	759	876	969
	Live Load (plf)	33	64	104	155	221	303	404	524	667	833	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.1	1.8/4.4	2.4/6.1	3.2/8.1	4/10.1	4.7/11.8	5.4/13.6	6/15
36'	Total Load (plf)	28	61	105	161	233	324	435	569	671	774	884
	Live Load (plf)	27	54	88	131	186	256	340	442	562	701	863
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.2/5.4	2.9/7.2	3.8/9.4	4.4/11.1	5.1/12.7	5.8/14.5
38'	Total Load (plf)	23	51	87	135	196	273	367	480	597	688	786
	Live Load (plf)	–	45	75	111	158	217	289	376	477	596	734
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	2/4.9	2.6/6.5	3.4/8.4	4.2/10.4	4.8/12	5.5/13.7
40'	Total Load (plf)	19	42	73	114	166	231	312	409	524	616	704
	Live Load (plf)	–	39	64	95	136	186	248	322	409	511	629
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.2	1.8/4.4	2.3/5.9	3/7.6	3.9/9.7	4.5/11.3	5.2/12.9

NOTES

- **Live Load values are limited by deflection equal to L/240.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/180. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Roof

Non-Snow, 125% Load Duration (PLF)

5½" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	3,091	4,056	5,003	5,979	6,617	6,615	6,612	6,609	6,606	6,604	6,601
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.8/7	3.7/9.2	4.5/11.3	5.4/13.6	6/15	6/15	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	2,056	3,088	3,768	4,453	5,186	5,286	5,284	5,281	5,278	5,276	5,273
	Live Load (plf)	2,008	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.3/5.8	3.5/8.8	4.3/10.7	5.1/12.6	5.9/14.7	6/15	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	1,424	2,228	3,021	3,546	4,101	4,401	4,398	4,395	4,393	4,390	4,387
	Live Load (plf)	1,162	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.9	3/7.6	4.1/10.3	4.8/12.1	5.6/14	6/15	6/15	6/15	6/15	6/15	6/15
14'	Total Load (plf)	963	1,633	2,273	2,945	3,390	3,768	3,766	3,763	3,760	3,758	3,755
	Live Load (plf)	732	1,430	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3.9	2.6/6.5	3.6/9.1	4.7/11.7	5.4/13.5	6/15	6/15	6/15	6/15	6/15	6/15
16'	Total Load (plf)	641	1,246	1,736	2,251	2,818	3,273	3,291	3,289	3,286	3,283	3,281
	Live Load (plf)	490	958	1,569	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.3/5.7	3.2/7.9	4.1/10.3	5.1/12.8	6/14.9	6/15	6/15	6/15	6/15	6/15
18'	Total Load (plf)	446	881	1,358	1,753	2,195	2,684	2,922	2,920	2,917	2,914	2,912
	Live Load (plf)	344	673	1,102	1,645	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.8/4.6	2.8/7	3.6/9	4.5/11.3	5.5/13.8	6/15	6/15	6/15	6/15	6/15
20'	Total Load (plf)	322	638	1,053	1,401	1,755	2,146	2,575	2,624	2,622	2,619	2,616
	Live Load (plf)	251	490	804	1,199	1,708	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.7	2.4/6	3.2/8	4/10	4.9/12.3	5.9/14.7	6/15	6/15	6/15	6/15
22'	Total Load (plf)	239	475	786	1,143	1,432	1,752	2,102	2,383	2,380	2,378	2,375
	Live Load (plf)	189	368	604	901	1,283	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.1	2/5	2.9/7.2	3.6/9	4.4/11	5.3/13.2	6/15	6/15	6/15	6/15
24'	Total Load (plf)	181	362	601	904	1,189	1,455	1,746	2,063	2,179	2,176	2,174
	Live Load (plf)	145	284	465	694	988	1,356	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.7/4.2	2.5/6.3	3.3/8.2	4/10	4.8/12	5.7/14.2	6/15	6/15	6/15
26'	Total Load (plf)	140	282	469	707	1,001	1,226	1,472	1,739	2,009	2,006	2,003
	Live Load (plf)	114	223	366	546	777	1,066	1,419	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.6	2.1/5.3	3/7.5	3.7/9.2	4.4/11	5.2/13	6/15	6/15	6/15
28'	Total Load (plf)	109	222	372	561	806	1,045	1,255	1,484	1,730	1,860	1,857
	Live Load (plf)	91	179	293	437	622	854	1,136	1,475	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.1	1.8/4.6	2.6/6.6	3.4/8.5	4.1/10.2	4.8/12	5.6/13.9	6/15	6/15
30'	Total Load (plf)	86	178	299	452	651	899	1,082	1,279	1,492	1,720	1,731
	Live Load (plf)	74	145	238	355	506	694	924	1,199	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	3.1/7.8	3.8/9.4	4.4/11.1	5.2/12.9	6/14.9	6/15
32'	Total Load (plf)	69	144	243	369	532	736	941	1,113	1,298	1,497	1,620
	Live Load (plf)	61	120	196	293	417	572	761	988	1,257	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/5	2.8/6.9	3.5/8.8	4.1/10.3	4.8/12	5.5/13.9	6/15
34'	Total Load (plf)	55	117	199	304	439	609	817	976	1,139	1,314	1,500
	Live Load (plf)	51	100	164	244	348	477	635	824	1,048	1,308	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.1	1.8/4.4	2.4/6.1	3.2/8.1	3.9/9.7	4.5/11.3	5.2/13	5.9/14.8
36'	Total Load (plf)	45	96	165	253	366	509	683	862	1,006	1,161	1,326
	Live Load (plf)	43	84	138	206	293	402	535	694	882	1,102	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.2/5.4	2.9/7.2	3.6/9.1	4.2/10.6	4.9/12.2	5.6/13.9
38'	Total Load (plf)	36	79	137	212	308	429	577	755	894	1,032	1,179
	Live Load (plf)	–	71	117	175	249	342	455	590	750	937	1,153
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	2/4.9	2.6/6.5	3.4/8.4	4/10	4.6/11.5	5.2/13.1
40'	Total Load (plf)	29	66	115	179	261	364	490	643	800	923	1,055
	Live Load (plf)	–	61	100	150	213	293	390	506	643	804	988
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.2	1.8/4.4	2.3/5.9	3/7.6	3.8/9.4	4.3/10.8	4.9/12.4

NOTES

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- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

Beam Load Tables — Roof

Non-Snow, 125% Load Duration (PLF)

7" Width

Simple or Multiple Span | F_b = 3,000 psi | F_v = 300 psi | E = 2.3 x 10^6 psi

Span	Condition	Depth										
		9½"	11⅞"	14"	16"	18"	20"	22"	24"	26"	28"	30"
8'	Total Load (plf)	3,934	5,162	6,367	7,609	8,422	8,418	8,415	8,412	8,408	8,405	8,401
	Live Load (plf)	–	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.8/7	3.7/9.2	4.5/11.3	5.4/13.6	6/15	6/15	6/15	6/15	6/15	6/15	6/15
10'	Total Load (plf)	2,616	3,930	4,796	5,668	6,601	6,728	6,725	6,721	6,718	6,714	6,711
	Live Load (plf)	2,556	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	2.3/5.8	3.5/8.8	4.3/10.7	5.1/12.6	5.9/14.7	6/15	6/15	6/15	6/15	6/15	6/15
12'	Total Load (plf)	1,812	2,836	3,845	4,513	5,219	5,601	5,598	5,594	5,591	5,587	5,584
	Live Load (plf)	1,479	–	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.9/4.9	3/7.6	4.1/10.3	4.8/12.1	5.6/14	6/15	6/15	6/15	6/15	6/15	6/15
14'	Total Load (plf)	1,226	2,078	2,875	3,709	4,314	4,796	4,793	4,789	4,786	4,782	4,779
	Live Load (plf)	932	1,819	–	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3.9	2.6/6.5	3.6/9	4.6/11.6	5.4/13.5	6/15	6/15	6/15	6/15	6/15	6/15
16'	Total Load (plf)	816	1,582	2,166	2,795	3,500	4,166	4,189	4,185	4,182	4,179	4,175
	Live Load (plf)	624	1,219	1,997	–	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	2.3/5.7	3.1/7.8	4/10	5/12.5	6/14.9	6/15	6/15	6/15	6/15	6/15
18'	Total Load (plf)	568	1,121	1,686	2,177	2,726	3,334	3,719	3,716	3,712	3,709	3,706
	Live Load (plf)	438	856	1,403	2,094	–	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.8/4.6	2.7/6.8	3.5/8.8	4.4/11	5.4/13.4	6/15	6/15	6/15	6/15	6/15
20'	Total Load (plf)	410	812	1,340	1,739	2,179	2,665	3,198	3,340	3,337	3,333	3,330
	Live Load (plf)	320	624	1,023	1,527	2,174	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.7	2.4/6	3.1/7.8	3.9/9.8	4.8/12	5.7/14.4	6/15	6/15	6/15	6/15
22'	Total Load (plf)	304	605	1,001	1,419	1,778	2,176	2,611	3,033	3,029	3,026	3,023
	Live Load (plf)	240	469	768	1,147	1,633	–	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3.1	2/5	2.8/7.1	3.5/8.8	4.3/10.8	5.2/12.9	6/15	6/15	6/15	6/15
24'	Total Load (plf)	230	461	765	1,151	1,476	1,807	2,169	2,562	2,773	2,770	2,766
	Live Load (plf)	185	361	592	883	1,258	1,725	–	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.7/4.2	2.5/6.3	3.2/8	3.9/9.8	4.7/11.7	5.5/13.9	6/15	6/15	6/15
26'	Total Load (plf)	178	359	597	899	1,243	1,522	1,827	2,159	2,517	2,553	2,550
	Live Load (plf)	145	284	465	695	989	1,357	1,806	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.6	2.1/5.3	2.9/7.3	3.6/9	4.3/10.8	5.1/12.7	5.9/14.8	6/15	6/15
28'	Total Load (plf)	139	283	473	715	1,025	1,298	1,559	1,842	2,148	2,367	2,364
	Live Load (plf)	116	227	373	556	792	1,087	1,446	–	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3.1	1.8/4.6	2.6/6.6	3.3/8.3	4/9.9	4.7/11.7	5.4/13.6	6/15	6/15
30'	Total Load (plf)	110	226	380	576	828	1,118	1,343	1,588	1,852	2,136	2,203
	Live Load (plf)	95	185	303	452	644	883	1,176	1,527	–	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.6/4	2.3/5.7	3.1/7.7	3.7/9.2	4.3/10.8	5/12.6	5.8/14.5	6/15
32'	Total Load (plf)	88	183	309	470	677	937	1,168	1,382	1,612	1,859	2,062
	Live Load (plf)	78	152	250	373	531	728	969	1,258	1,599	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.5	2/5	2.8/6.9	3.4/8.6	4/10.1	4.7/11.8	5.4/13.5	6/15
34'	Total Load (plf)	71	149	254	387	559	775	1,024	1,212	1,414	1,631	1,863
	Live Load (plf)	65	127	208	311	442	607	808	1,049	1,333	–	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3.1	1.8/4.4	2.4/6.1	3.2/8	3.8/9.4	4.4/11	5.1/12.7	5.8/14.4
36'	Total Load (plf)	57	122	210	322	466	648	870	1,070	1,249	1,441	1,646
	Live Load (plf)	55	107	175	262	373	511	680	883	1,123	1,403	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.6/4	2.2/5.4	2.9/7.2	3.5/8.9	4.1/10.3	4.8/11.9	5.4/13.6
38'	Total Load (plf)	46	101	175	270	392	546	734	951	1,110	1,281	1,464
	Live Load (plf)	–	91	149	223	317	435	579	751	955	1,193	–
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.6	2/4.9	2.6/6.5	3.3/8.4	3.9/9.7	4.5/11.2	5.1/12.8
40'	Total Load (plf)	37	84	147	227	332	463	624	818	992	1,146	1,309
	Live Load (plf)	–	78	128	191	272	373	496	644	819	1,023	1,258
	Bearing (in.)	1.5/3	1.5/3	1.5/3	1.5/3	1.5/3.2	1.8/4.4	2.3/5.9	3/7.6	3.7/9.2	4.2/10.6	4.8/12.1

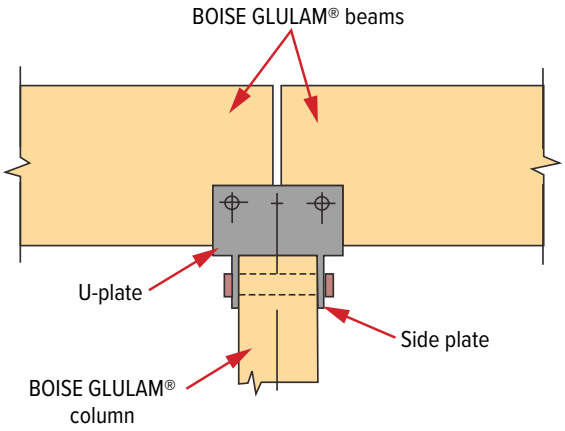
NOTES

- **Live Load values are limited by deflection equal to L/240.** Check the local building code for other deflection limits that may apply.
- Total Load values are limited by shear, moment or deflection equal to L/180. Total Load values are the capacity of the beam in addition to its own weight (based upon a beam density of 35 pcf).
- Table values assume that lateral support is provided at each support and continuously along the top edge and applicable compression edges of the beam.
- Table values represent the most restrictive of simple or multiple span applications. Span is measured center to center of the supports. Analyze multiple span beams with BC Calc® software if the length of any span is less than half the length of an adjacent span.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with BC Calc® software.

BOISE GLULAM Bearing Details

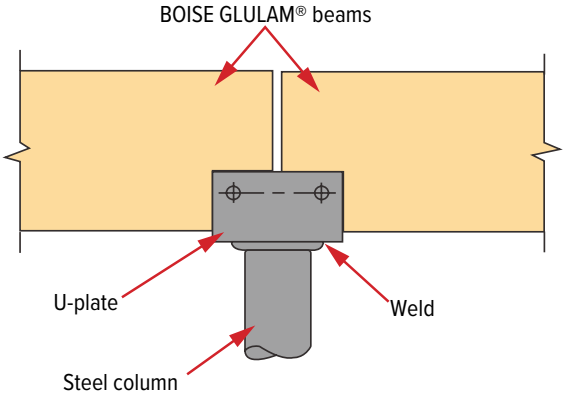
Beams to Column

Steel U-plate passes under abutting BOISE GLULAM® beams and is welded to steel plates bolted to BOISE GLULAM® column.



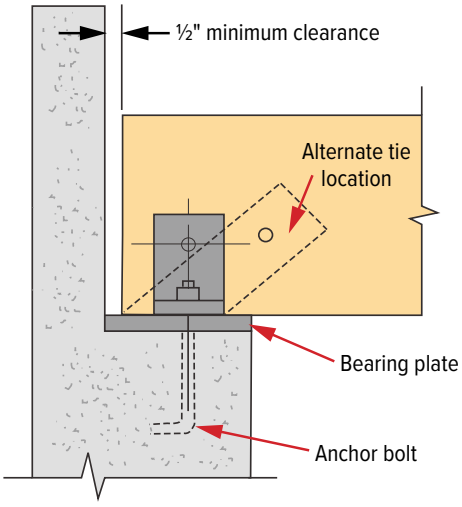
Beams to Steel Column

Steel U-plate is welded to steel column and U-plate is bolted to BOISE GLULAM® beams. Lateral beam-to-beam tie may be required.



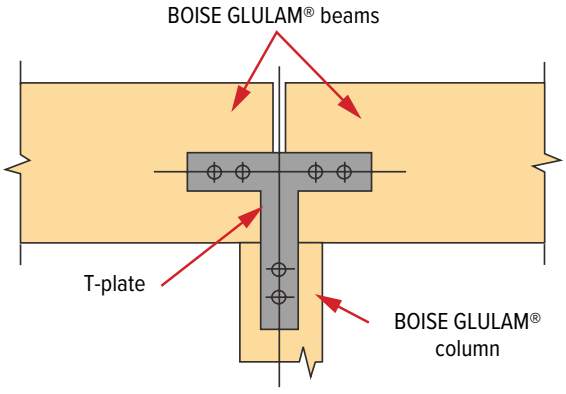
Beam Anchorage Clearance

For beam depths of 24" or less. Resists uplift and small lateral forces. Bearing plate or moisture barrier recommended.



Beams to Column T-Plate

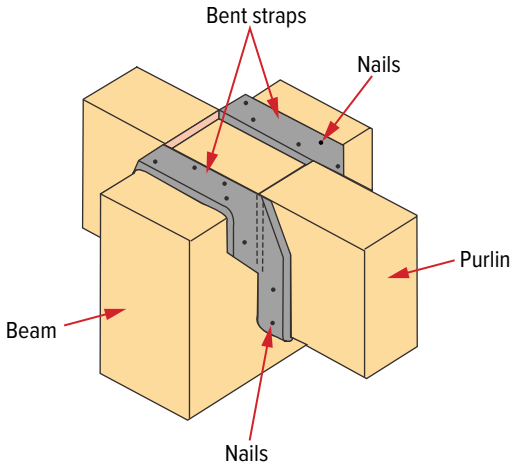
Steel T-plate is bolted to abutting BOISE GLULAM® beams and to BOISE GLULAM® column. Loose bearing plate may be used where column cross-sectional area is insufficient to provide bearing for beams in compression perpendicular-to-grain.



BOISE GLULAM Bearing Details

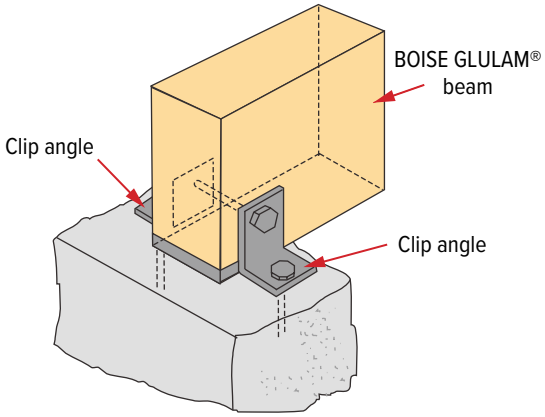
Welded and Bent Strap Purlin Hanger

For moderate and heavy loads. Provides uniform fit where good appearance is desired. Purlins must be raised above top of the beam to allow sheathing to clear straps.



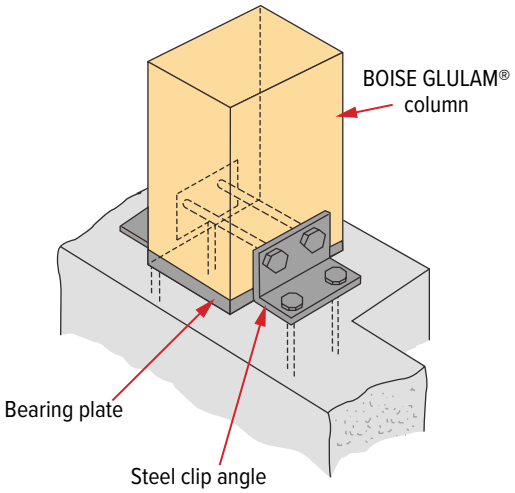
Beam Anchorage

For conditions where anchorage must resist both uplift and lateral forces. May have one or more anchor bolts in masonry and one or more bolts with or without shear plates through the beam. Maintain ½" minimum clearance or use impervious moisture barrier on all wall contact surfaces, ends, and sides; and on tops (if masonry exists above beam end).



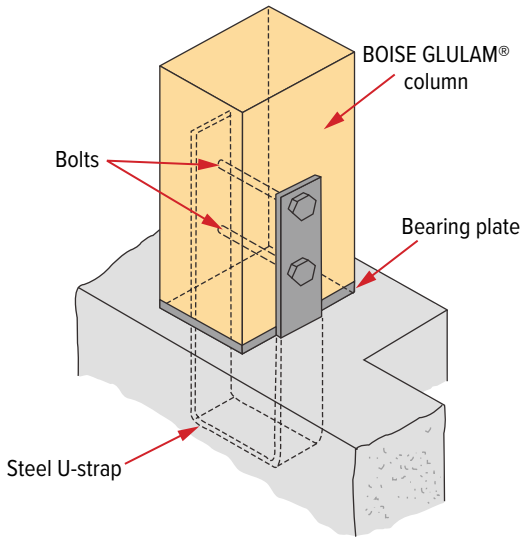
Clip Angle Anchorage to Concrete Base

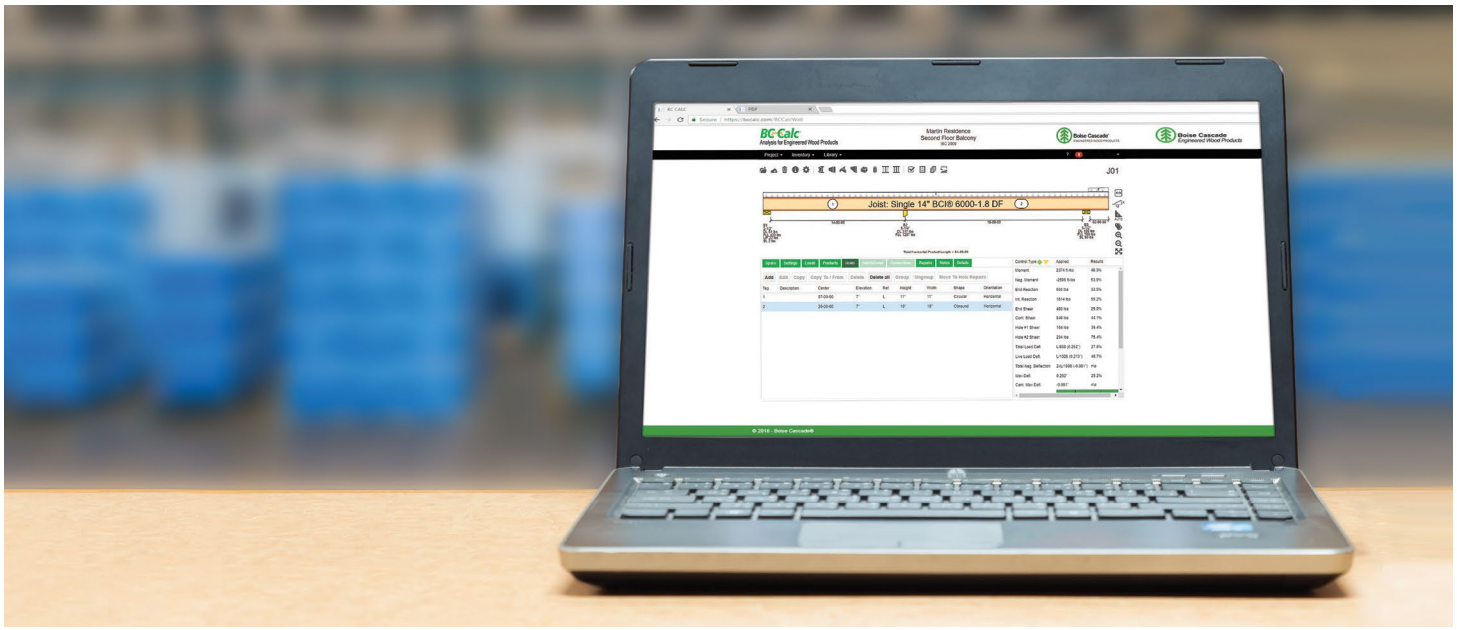
Recommended for industrial buildings and warehouses to resist both lateral forces and uplift. Bearing plate or moisture barrier is recommended.



U-Strap Anchorage to Concrete Base

Recommended for industrial buildings and warehouses to resist both lateral forces and uplift. Bearing plate or moisture barrier is recommended. May be used with shear plates.



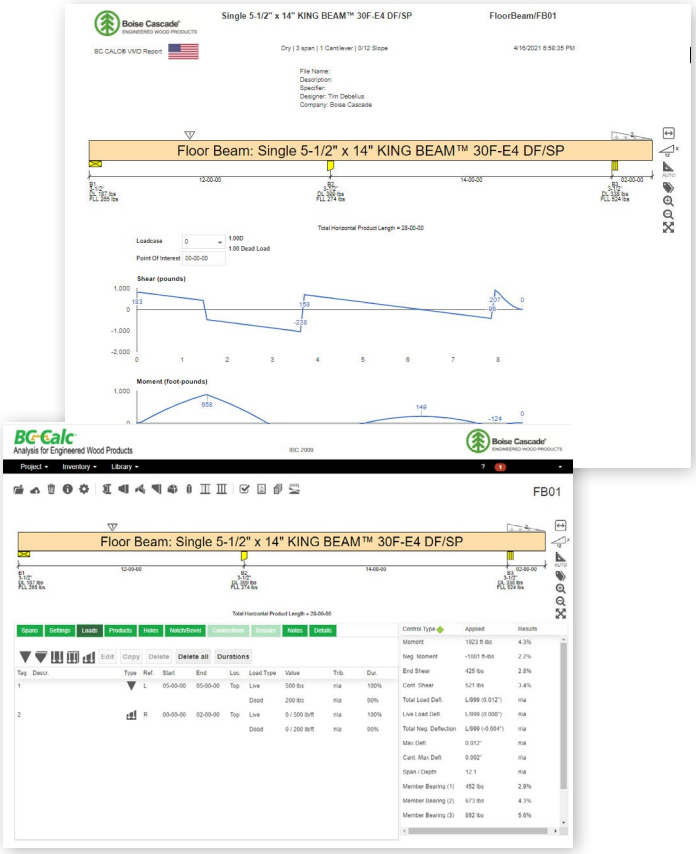


INTEGRATED SOFTWARE FOR EASY SPECIFICATION

All Boise Cascade's engineered wood products are incorporated into the Boise Cascade® software suite. BC Framer®, BC Connect®, BC Calc®, and SawTek® all work together, seamlessly integrating design and processing technology into one automated system.

SOFTWARE BENEFITS

- Design member by member in BC Calc, or create a complete 3D model in BC Framer
- Dealers can manage projects and material lists and optimize manual or automated saw cut patterns in BC Connect
- SawTek's processing software cuts, drills, and labels job packs according to your specifications



With Boise Cascade's software suite, there's no need to worry about missing pieces or manual entry errors. The software applications share data digitally, ensuring nothing gets lost or mistyped.

Boise Cascade's software suite is available at www.bc.com/ewp/software/

Notes

Our goal is to help our customers succeed

Boise Cascade's line of engineered wood products provide strength, stability and consistent performance for demanding construction projects. But a successful build requires more than quality products—it takes teamwork. As your partner, Boise Cascade provides on-time delivery, innovative software tools, superior technical support and a long-term relationship you can count on.

BCI® and AJS® Joists

High-performance floors start with BCI® and AJS® joists — providing strong, high-quality results along with the consistency and easy handling needed to get the job done efficiently.

Versa-Lam® LVL Beams and Headers

Get industry-leading overall value without sacrificing strength. Versa-Lam LVL beams and headers resist twisting, shrinking, and splitting — creating flatter, quieter floors that keep customers happy.

Versa-Stud® Wall Framing

Whether tackling a grand stairway, tall window walls, or beyond, Versa-Stud LVL is manufactured with the reliability and strength needed to get the job done right.

Boise Cascade® OSB Rimboard

Give floors the support they need with Boise Cascade® OSB Rimboard — a one-step, easy-to-install solution designed for use with BCI® and AJS® joists.

BOISE GLULAM® Beams

Adaptable. Affordable. Easy to install. With a variety of sizes and appearance grades, BOISE GLULAM® products are some of the most appealing engineered wood solutions available.

Boise Cascade Software Solutions

From 3D design tools to workflow management and beyond, the Boise Cascade® suite of software is built to make lumberyards, distributors, and their teams operate faster, stronger, and easier.

Limited Lifetime Warranty

Boise Cascade's BOISE GLULAM® and KING BEAM® 3000 products, as listed in ICC-ES ESR-6004, are covered by a limited lifetime warranty. View the complete warranty (including limitations and exclusions) at www.BC.com/terms-conditions/sales-terms-and-conditions/

Boise Cascade also manufactures:

- Curves and Arches in Douglas Fir and Alaska Yellow Cedar
- Douglas Fir Glulam Beams
- Rough Sawn Texture Available

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or call 800-232-0788

Boise Cascade®
ENGINEERED WOOD PRODUCTS

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