

PLF Charts SOUTHERN PINE

SOUTHERN PINE 1-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 100% FLOOR (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	166	321	693	-	-	-	-	-	-	-	-	-	-
	TL	247	478	776	1046	1082	1348	1449	1826	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.8 / 4.5	2.4 / 6	2.5 / 6.2	3.1 / 7.7	3.3 / 8.3	4.2 / 10.5	-	-	-	-	-
8	LL	72	140	310	614	660	-	-	-	-	-	-	-	-
	TL	106	208	462	735	759	931	996	1229	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	2.3 / 5.8	2.9 / 7.1	3.1 / 7.6	3.8 / 9.4	-	-	-	-	-
10	LL	37	73	164	329	355	569	660	925	-	-	-	-	-
	TL	54	107	242	489	527	711	758	925	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2 / 5.1	2.7 / 6.8	2.9 / 7.3	3.5 / 8.9	-	-	-	-	-
12	LL		43	96	195	211	342	398	629	-	-	-	-	-
	TL		61	141	288	312	507	585	741	-	-	-	-	-
	BRG		1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.6	2.3 / 5.9	2.7 / 6.8	3.4 / 8.5	-	-	-	-	-
14	LL			61	125	135	220	257	410	-	-	-	-	-
	TL			88	183	198	325	380	577	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.1 / 5.1	3.1 / 7.8	-	-	-	-	-
16	LL			41	85	92	150	175	281	-	-	-	-	-
	TL			58	122	132	219	257	414	-	-	-	-	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.6 / 4	2.6 / 6.4	-	-	-	-	-
18	LL				60	65	106	124	201	-	-	-	-	-
	TL				85	92	154	181	294	-	-	-	-	-
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	2.1 / 5.2	-	-	-	-	-
20	LL				44	47	78	92	148	-	-	-	-	-
	TL				61	66	111	131	215	-	-	-	-	-
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	-	-	-	-	-
22	LL						59	69	112	-	-	-	-	-
	TL						83	98	161	-	-	-	-	-
	BRG						1.5 / 3	1.5 / 3	1.5 / 3.5	-	-	-	-	-
24	LL						46	54	87	-	-	-	-	-
	TL						63	74	123	-	-	-	-	-
	BRG						1.5 / 3	1.5 / 3	1.5 / 3	-	-	-	-	-
26	LL							42	69	-	-	-	-	-
	TL							57	96	-	-	-	-	-
	BRG							1.5 / 3	1.5 / 3	-	-	-	-	-
28	LL								55	-	-	-	-	-
	TL								76	-	-	-	-	-
	BRG								1.5 / 3	-	-	-	-	-
30	LL								45	-	-	-	-	-
	TL								60	-	-	-	-	-
	BRG								1.5 / 3	-	-	-	-	-

NOT APPLICABLE

SOUTHERN PINE 2-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 100% FLOOR (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	333	641	1385	-	-	-	-	-	-	-	-	-	-
	TL	495	957	1552	2092	2163	2695	2899	3653	4464	5395	6476	7744	9256
	BRG	1.5 / 3	1.5 / 3	1.8 / 4.5	2.4 / 6	2.5 / 6.2	3.1 / 7.7	3.3 / 8.3	4.2 / 10.5	5.1 / 12.8	6.2 / 15.5	7.4 / 18.6	8.9 / 22.2	10.6 / 26.5
8	LL	144	281	621	1228	1321	-	-	-	-	-	-	-	-
	TL	211	415	924	1471	1518	1862	1992	2457	2936	3462	4040	4679	5389
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	2.3 / 5.8	2.9 / 7.1	3.1 / 7.6	3.8 / 9.4	4.5 / 11.2	5.3 / 13.3	6.2 / 15.5	7.2 / 17.9	8.2 / 20.6
10	LL	74	146	327	658	710	1138	1321	-	-	-	-	-	-
	TL	107	214	484	978	1055	1421	1515	1849	2186	2546	2932	3348	3797
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2 / 5.1	2.7 / 6.8	2.9 / 7.3	3.5 / 8.9	4.2 / 10.5	4.9 / 12.2	5.6 / 14.1	6.4 / 16.1	7.3 / 18.2
12	LL	43	85	193	391	422	684	796	1258	-	-	-	-	-
	TL	61	123	282	577	623	1014	1171	1481	1739	2012	2300	2605	2928
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.6	2.3 / 5.9	2.7 / 6.8	3.4 / 8.5	4 / 10	4.6 / 11.6	5.3 / 13.3	6 / 15	6.7 / 16.9
14	LL		54	123	250	270	441	514	820	-	-	-	-	-
	TL		76	176	366	396	649	759	1155	1443	1662	1890	2130	2381
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.1 / 5.1	3.1 / 7.8	3.9 / 9.7	4.5 / 11.2	5.1 / 12.7	5.7 / 14.3	6.4 / 16
16	LL			83	169	183	300	350	562	820	1138	1519	-	-
	TL			117	245	265	438	513	829	1122	1389	1604	1800	2006
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.6 / 4	2.6 / 6.4	3.5 / 8.7	4.3 / 10.7	4.9 / 12.4	5.6 / 13.9	6.2 / 15.5
18	LL			58	120	130	213	249	401	588	820	1100	1429	-
	TL			80	170	185	308	361	587	865	1093	1323	1558	1731
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	2.1 / 5.2	3 / 7.6	3.8 / 9.5	4.6 / 11.5	5.4 / 13.6	6 / 15
20	LL			43	88	95	156	183	296	435	609	820	1070	1359
	TL			57	122	133	223	262	429	636	882	1068	1270	1487
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.5 / 6.2	3.4 / 8.6	4.1 / 10.4	4.9 / 12.3	5.8 / 14.4
22	LL			66	72	118	138	224	330	464	627	820	1045	1224
	TL			90	98	166	195	322	479	677	879	1045	1224	1424
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.1 / 5.2	2.9 / 7.3	3.8 / 9.4	4.5 / 11.2	5.2 / 13.1
24	LL			51	55	91	107	174	257	361	489	641	820	-
	TL			67	73	125	149	246	369	523	713	875	1025	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.5 / 6.2	3.4 / 8.4	4.1 / 10.3	4.8 / 12	-
26	LL			40	44	72	85	137	203	286	389	511	654	-
	TL			51	56	97	115	192	289	411	562	742	870	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.1 / 5.3	2.9 / 7.2	3.8 / 9.5	4.4 / 11.1	-
28	LL						58	68	110	164	231	314	413	530
	TL						75	90	151	229	328	450	597	747
	BRG						1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.8 / 4.6	2.5 / 6.3	3.3 / 8.3	4.1 / 10.3
30	LL						47	55	90	134	189	257	338	435
	TL						59	71	121	184	265	365	485	628
	BRG						1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.2 / 5.5	2.9 / 7.3	3.7 / 9.3

- The PLF load values in this table are based on the LVL member having lateral bracing at 24" O.C. or less along its entire length
- 1-3/4" LVL members 16" and deeper and 1-1/2" LVL members 14" and deeper, must be a minimum of 2 plies unless designed by a design professional
- Allowable PLF loads for single or multiple ply 1-1/2" thick LVL members can be obtained by multiplying the table values by 0.85 (required bearing lengths are the same)
- This table may be used for either simple or multiple spans
- Span is centerline of bearing to centerline of bearing
- Loads shown can be applied to the beam in addition to its own weight
- See EWP Residential Design Guide for details on attaching multiple ply members

Key to Table:
 LL = Maximum live load - limits deflection to L/360
 TL = Maximum total load - limits deflections to L/240
 BRG = Required end/interior bearing length (inches), based on bearing stress of 750 PSI.

PLF Charts SOUTHERN PINE

SOUTHERN PINE 3-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 100% FLOOR (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	112	219	491	987	1065	1707	1981	-	-	-	-	-	-
	TL	161	321	726	1467	1582	2132	2273	2774	3279	3819	4398	5022	5695
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2 / 5.1	2.7 / 6.8	2.9 / 7.3	3.5 / 8.9	4.2 / 10.5	4.9 / 12.2	5.6 / 14.1	6.4 / 16.1	7.3 / 18.2
12	LL	65	128	289	586	633	1025	1194	1887	-	-	-	-	-
	TL	91	184	422	865	935	1521	1756	2222	2609	3017	3449	3907	4392
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.6	2.3 / 5.9	2.7 / 6.8	3.4 / 8.5	4 / 10	4.6 / 11.6	5.3 / 13.3	6 / 15	6.7 / 16.9
14	LL	41	81	184	375	405	661	771	1230	1783	2459	-	-	-
	TL	55	113	265	549	594	974	1139	1732	2165	2492	2835	3195	3572
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.1 / 5.1	3.1 / 7.8	3.9 / 9.7	4.5 / 11.2	5.1 / 12.7	5.7 / 14.3	6.4 / 16
16	LL		55	124	254	275	449	526	843	1230	1707	2279	-	-
	TL		73	175	367	397	657	770	1243	1683	2083	2405	2701	3008
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.6 / 4	2.6 / 6.4	3.5 / 8.7	4.3 / 10.7	4.9 / 12.4	5.6 / 13.9	6.2 / 15.5
18	LL			87	180	194	319	373	602	882	1230	1650	2144	-
	TL			120	255	277	461	542	881	1298	1640	1985	2338	2597
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	2.1 / 5.2	3 / 7.6	3.8 / 9.5	4.6 / 11.5	5.4 / 13.6	6 / 15
20	LL			64	132	142	234	275	444	652	913	1230	1605	2039
	TL			85	183	199	334	394	644	954	1323	1602	1905	2230
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.5 / 6.2	3.4 / 8.6	4.1 / 10.4	4.9 / 12.3	5.8 / 14.4
22	LL			48	99	107	177	208	336	496	696	940	1230	1568
	TL			61	135	147	248	293	483	719	1016	1319	1568	1837
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.1 / 5.2	2.9 / 7.3	3.8 / 9.4	4.5 / 11.2	5.2 / 13.1
24	LL			77	83	137	161	261	385	542	733	962	1230	-
	TL			101	110	188	223	370	553	785	1069	1312	1537	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.5 / 6.2	3.4 / 8.4	4.1 / 10.3	4.8 / 12	-
26	LL			60	65	108	127	206	305	430	583	766	981	-
	TL			77	84	145	172	288	433	617	844	1113	1305	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.1 / 5.3	2.9 / 7.2	3.8 / 9.5	4.4 / 11.1	-
28	LL			49	53	87	102	166	245	346	470	619	795	-
	TL			59	64	113	135	227	344	492	675	895	1120	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.8 / 4.6	2.5 / 6.3	3.3 / 8.3	4.1 / 10.3	-
30	LL				43	71	83	135	200	283	385	508	652	-
	TL				50	89	106	181	276	397	547	728	942	-
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.2 / 5.5	2.9 / 7.3	3.7 / 9.3	-
32	LL					58	69	112	166	234	319	421	542	-
	TL					70	85	146	224	324	448	598	776	-
	BRG					1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.9 / 4.9	2.6 / 6.4	3.3 / 8.3	-
34	LL					49	57	93	139	196	267	353	455	-
	TL					56	68	119	183	267	370	496	645	-
	BRG					1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	1.7 / 4.3	2.3 / 5.7	2.9 / 7.4	-
36	LL						48	79	117	166	226	299	385	-
	TL						54	97	151	221	308	414	541	-
	BRG						1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.9	2 / 5.1	2.6 / 6.6	-

SOUTHERN PINE 4-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 100% FLOOR (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	149	293	655	1316	1419	2277	2642	-	-	-	-	-	-
	TL	214	428	968	1955	2110	2843	3031	3699	4371	5092	5865	6696	7593
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2 / 5.1	2.7 / 6.8	2.9 / 7.3	3.5 / 8.9	4.2 / 10.5	4.9 / 12.2	5.6 / 14.1	6.4 / 16.1	7.3 / 18.2
12	LL	87	171	385	782	844	1367	1592	2517	-	-	-	-	-
	TL	121	245	563	1154	1247	2028	2342	2963	3479	4023	4599	5209	5856
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.6	2.3 / 5.9	2.7 / 6.8	3.4 / 8.5	4 / 10	4.6 / 11.6	5.3 / 13.3	6 / 15	6.7 / 16.9
14	LL	55	108	245	500	540	881	1029	1640	2378	-	-	-	-
	TL	73	151	353	731	791	1299	1519	2309	2887	3329	3780	4260	4763
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.1 / 5.1	3.1 / 7.8	3.9 / 9.7	4.5 / 11.2	5.1 / 12.7	5.7 / 14.3	6.4 / 16
16	LL		73	165	339	366	599	701	1124	1640	2277	3038	-	-
	TL		98	233	489	530	876	1027	1657	2244	2777	3207	3601	4011
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.6 / 4	2.6 / 6.4	3.5 / 8.7	4.3 / 10.7	4.9 / 12.4	5.6 / 13.9	6.2 / 15.5
18	LL		51	117	240	259	425	498	802	1176	1640	2200	2858	-
	TL		66	160	340	369	615	723	1175	1731	2187	2647	3117	3462
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	2.1 / 5.2	3 / 7.6	3.8 / 9.5	4.6 / 11.5	5.4 / 13.6	6 / 15
20	LL			85	176	190	312	366	592	870	1218	1640	2139	2718
	TL			113	244	265	446	525	859	1272	1764	2136	2539	2974
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.5 / 6.2	3.4 / 8.6	4.1 / 10.4	4.9 / 12.3	5.8 / 14.4
22	LL			64	132	143	236	277	448	661	928	1253	1640	2091
	TL			82	180	196	331	391	644	959	1355	1758	2091	2449
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.1 / 5.2	2.9 / 7.3	3.8 / 9.4	4.5 / 11.2	5.2 / 13.1
24	LL			50	102	111	183	214	348	513	722	978	1283	1640
	TL			60	135	147	251	297	493	737	1047	1426	1750	2050
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.4	2.5 / 6.2	3.4 / 8.4	4.1 / 10.3	4.8 / 12
26	LL			81	87	144	169	275	407	573	777	1021	1308	-
	TL			102	112	193	229	384	577	823	1125	1484	1739	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.1 / 5.3	2.9 / 7.2	3.8 / 9.5	4.4 / 11.1	-
28	LL			65	70	116	136	221	327	462	627	826	1060	-
	TL			78	86	151	180	303	458	656	900	1194	1493	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.8 / 4.6	2.5 / 6.3	3.3 / 8.3	4.1 / 10.3	-
30	LL			53	57	94	111	180	267	378	513	677	870	-
	TL			60	66	118	142	242	368	530	729	970	1256	-
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.2 / 5.5	2.9 / 7.3	3.7 / 9.3	-
32	LL				47	78	91	149	221	312	425	561	722	-
	TL				51	94	113	195	299	432	597	797	1034	-
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.9 / 4.9	2.6 / 6.4	3.3 / 8.3	-
34	LL				65	76	124	158	244	355	494	661	860	-
	TL				75	90	158	244	355	494	661	860	1034	-
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.2	1.7 / 4.3	2.3 / 5.7	2.9 / 7.4	-
36	LL					55	64	105	156	221	301	398	513	-
	TL					59	72	129	201	295	411	553	721	-
	BRG					1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.9	2		

PLF Charts SOUTHERN PINE

SOUTHERN PINE 1-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 11.5% ROOF SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	250	481	-	-	-	-	-	-	-	-	-	-	-
	TL	331	639	893	1203	1245	1551	1668	2101	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3.7	2 / 5.1	2.8 / 6.9	2.9 / 7.1	3.6 / 8.9	3.8 / 9.6	4.8 / 12	-	-	-	-	-
8	LL	108	211	466	-	-	-	-	-	-	-	-	-	-
	TL	142	278	617	846	873	1072	1146	1414	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.9 / 4.7	2.6 / 6.5	2.7 / 6.7	3.3 / 8.2	3.5 / 8.8	4.3 / 10.8	-	-	-	-	-
10	LL	56	110	246	494	532	-	-	-	-	-	-	-	-
	TL	72	143	324	620	651	818	872	1064	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.4 / 6	2.5 / 6.2	3.1 / 7.8	3.3 / 8.4	4.1 / 10.2	-	-	-	-	-
12	LL	-	64	144	293	317	513	597	-	-	-	-	-	-
	TL	-	83	189	386	417	611	674	853	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	2.8 / 7.1	3.1 / 7.8	3.9 / 9.8	-	-	-	-	-
14	LL	-	41	92	188	203	330	386	615	-	-	-	-	-
	TL	-	51	119	245	265	435	494	665	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.7	3.6 / 9	-	-	-	-	-
16	LL	-	62	127	137	225	225	263	421	-	-	-	-	-
	TL	-	79	165	178	294	294	344	507	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.1 / 7.8	-	-	-	-	-
18	LL	-	44	90	97	160	187	301	-	-	-	-	-	-
	TL	-	55	115	125	207	243	394	-	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	-	-	-	-	-
20	LL	-	-	66	71	117	137	222	-	-	-	-	-	-
	TL	-	-	83	90	150	177	289	-	-	-	-	-	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	-	-	-	-	-
22	LL	-	-	50	54	89	104	168	-	-	-	-	-	-
	TL	-	-	61	67	112	132	217	-	-	-	-	-	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	-	-	-	-	-	-
24	LL	-	-	42	68	80	130	-	-	-	-	-	-	-
	TL	-	-	51	86	101	167	-	-	-	-	-	-	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	-	-	-	-	-	-
26	LL	-	-	-	54	63	103	-	-	-	-	-	-	-
	TL	-	-	-	66	79	130	-	-	-	-	-	-	-
	BRG	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3.4	-	-	-	-	-	-	-
28	LL	-	-	-	43	51	83	-	-	-	-	-	-	-
	TL	-	-	-	52	62	103	-	-	-	-	-	-	-
	BRG	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	-	-	-	-	-	-	-
30	LL	-	-	-	-	68	83	-	-	-	-	-	-	-
	TL	-	-	-	-	83	103	-	-	-	-	-	-	-
	BRG	-	-	-	-	1.5 / 3	1.5 / 3	-	-	-	-	-	-	-

NOT APPLICABLE

SOUTHERN PINE 2-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 11.5% ROOF SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	499	962	-	-	-	-	-	-	-	-	-	-	-
	TL	661	1277	1786	2407	2489	3101	3335	4203	5136	6207	7450	8910	10648
	BRG	1.5 / 3	1.5 / 3.7	2 / 5.1	2.8 / 6.9	2.9 / 7.1	3.6 / 8.9	3.8 / 9.6	4.8 / 12	5.9 / 14.7	7.1 / 17.8	8.5 / 21.3	10.2 / 25.5	12.2 / 30.5
8	LL	216	421	931	-	-	-	-	-	-	-	-	-	-
	TL	283	556	1235	1693	1747	2143	2292	2828	3379	3984	4649	5384	6201
	BRG	1.5 / 3	1.5 / 3	1.9 / 4.7	2.6 / 6.5	2.7 / 6.7	3.3 / 8.2	3.5 / 8.8	4.3 / 10.8	5.2 / 12.9	6.1 / 15.2	7.1 / 17.8	8.2 / 20.6	9.5 / 23.7
10	LL	112	219	491	987	1065	-	-	-	-	-	-	-	-
	TL	144	287	647	1240	1301	1636	1745	2129	2516	2930	3375	3854	4370
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.4 / 6	2.5 / 6.2	3.1 / 7.8	3.3 / 8.4	4.1 / 10.2	4.8 / 12.1	5.6 / 14	6.5 / 16.2	7.4 / 18.5	8.4 / 20.9
12	LL	65	128	289	586	633	1025	1194	-	-	-	-	-	-
	TL	82	165	378	772	834	1223	1348	1706	2003	2316	2648	2999	3371
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	2.8 / 7.1	3.1 / 7.8	3.9 / 9.8	4.6 / 11.5	5.3 / 13.3	6.1 / 15.2	6.9 / 17.3	7.8 / 19.4
14	LL	41	81	184	375	405	661	771	1230	-	-	-	-	-
	TL	50	103	238	491	531	870	987	1330	1662	1914	2177	2453	2742
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.7	3.6 / 9	4.5 / 11.2	5.2 / 12.9	5.9 / 14.6	6.6 / 16.5	7.4 / 18.4
16	LL	-	55	124	254	275	449	526	843	1230	-	-	-	-
	TL	-	67	158	329	356	588	689	1015	1293	1600	1847	2074	2310
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.1 / 7.8	4 / 10	4.9 / 12.3	5.7 / 14.2	6.4 / 16	7.1 / 17.8
18	LL	-	-	87	180	194	319	373	602	882	1230	-	-	-
	TL	-	-	109	230	249	414	486	788	1018	1260	1525	1796	1995
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	3.5 / 8.9	4.4 / 11	5.3 / 13.2	6.2 / 15.6	6.9 / 17.3
20	LL	-	-	64	132	142	234	275	444	652	913	1230	-	-
	TL	-	-	78	166	180	301	354	577	821	1017	1231	1464	1713
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	3.2 / 8	3.9 / 9.9	4.8 / 11.9	5.7 / 14.2	6.6 / 16.6
22	LL	-	-	48	99	107	177	208	336	496	696	940	-	-
	TL	-	-	57	123	134	225	265	434	644	837	1014	1206	1412
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 6.9	3.6 / 9	4.3 / 10.8	5.1 / 12.9	6 / 15
24	LL	-	-	77	83	137	161	261	385	542	733	962	-	-
	TL	-	-	93	101	171	202	333	497	701	849	1009	1182	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.3 / 5.9	3.3 / 8.2	4 / 9.9	4.7 / 11.8	5.5 / 13.8
26	LL	-	-	60	65	108	127	206	305	430	583	766	981	-
	TL	-	-	71	78	133	157	261	390	555	720	857	1004	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	2 / 5	2.8 / 7.1	3.7 / 9.2	4.4 / 10.9	5.1 / 12.7	-
28	LL	-	-	49	53	87	102	166	245	346	470	619	795	-
	TL	-	-	55	60	104	124	207	311	443	607	736	862	-
	BRG	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.4	2.5 / 6.2	3.3 / 8.4	4 / 10.1	4.7 / 11.8	-
30	LL	-	-	-	-	71	83	135	200	283	385	508	652	-
	TL	-	-	-	-	83	99	166	251	359	493	638	748	-
	BRG	-	-	-	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.2 / 5.4	2.9 / 7.3	3.8 / 9.4	4.4 / 11	-

- The PLF load values in this table are based on the LVL member having lateral bracing at 24" O.C. or less along its entire length
- 1-3/4" LVL members 16" and deeper and 1-1/2" LVL members 14" and deeper, must be a minimum of 2 plies unless designed by a design professional
- Allowable PLF loads for single or multiple ply 1-1/2" thick LVL members can be obtained by multiplying the table values by 0.85 (required bearing lengths are the same)
- This table may be used for either simple or multiple spans
- Span is centerline of bearing to centerline of bearing
- Loads shown can be applied to the beam in addition to its own weight
- See EWP Residential Design Guide for details on attaching multiple ply members

Key to Table:
 LL = Maximum live load - limits deflection to L/240
 TL = Maximum total load - limits deflections to L/180
 BRG = Required end/interior bearing length (inches), based on bearing stress of 750 PSI.

PLF Charts SOUTHERN PINE

SOUTHERN PINE 3-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 115% ROOF SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	168	329	737	1481	1597	-	-	-	-	-	-	-	-
	TL	217	430	971	1860	1952	2455	2617	3193	3774	4396	5063	5781	6555
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.4 / 6	2.5 / 6.2	3.1 / 7.8	3.3 / 8.4	4.1 / 10.2	4.8 / 12.1	5.6 / 14	6.5 / 16.2	7.4 / 18.5	8.4 / 20.9
12	LL	98	192	433	879	950	1538	1791	-	-	-	-	-	-
	TL	123	248	567	1158	1251	1834	2023	2559	3004	3474	3971	4498	5057
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	2.8 / 7.1	3.1 / 7.8	3.9 / 9.8	4.6 / 11.5	5.3 / 13.3	6.1 / 15.2	6.9 / 17.3	7.8 / 19.4
14	LL	62	122	276	563	608	991	1157	1845	-	-	-	-	-
	TL	76	154	356	736	796	1304	1481	1995	2494	2870	3265	3679	4113
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.7	3.6 / 9	4.5 / 11.2	5.2 / 12.9	5.9 / 14.6	6.6 / 16.5	7.4 / 18.4
16	LL		82	186	381	412	674	788	1264	1845	-	-	-	-
	TL		101	237	494	535	882	1033	1522	1939	2399	2771	3111	3465
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.1 / 7.8	4 / 10	4.9 / 12.3	5.7 / 14.2	6.4 / 16	7.1 / 17.8
18	LL		58	131	269	291	479	560	902	1322	1845	-	-	-
	TL		68	164	345	374	621	729	1182	1527	1890	2287	2693	2992
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	3.5 / 8.9	4.4 / 11	5.3 / 13.2	6.2 / 15.6	6.9 / 17.3
20	LL			96	197	214	352	412	666	979	1370	1845	-	-
	TL			117	249	270	451	531	866	1232	1526	1847	2195	2570
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	3.2 / 8	3.9 / 9.9	4.8 / 11.9	5.7 / 14.2	6.6 / 16.6
22	LL			72	149	161	266	311	504	743	1044	1410	-	-
	TL			85	184	200	337	397	651	967	1256	1521	1808	2118
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 6.9	3.6 / 9	4.3 / 10.8	5.1 / 12.9	6 / 15
24	LL			56	115	125	205	241	391	578	813	1100	1443	-
	TL			63	139	152	257	303	500	746	1051	1273	1514	1774
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.3 / 5.9	3.3 / 8.2	4 / 9.9	4.7 / 11.8	5.5 / 13.8
26	LL				91	98	162	190	309	457	645	874	1149	1472
	TL				107	116	199	236	391	585	832	1080	1285	1506
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	2 / 5	2.8 / 7.1	3.7 / 9.2	4.4 / 10.9	5.1 / 12.7
28	LL				73	79	130	153	249	368	520	706	929	1192
	TL				83	90	156	186	310	466	665	910	1104	1293
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.4	2.5 / 6.2	3.3 / 8.4	4 / 10.1	4.7 / 11.8
30	LL				59	64	106	125	203	301	425	578	761	979
	TL				65	71	124	148	249	376	539	739	957	1122
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.2 / 5.4	2.9 / 7.3	3.8 / 9.4	4.4 / 11
32	LL				49	53	88	103	168	249	352	479	632	813
	TL				51	56	100	119	202	307	441	607	808	982
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.9 / 4.8	2.6 / 6.5	3.4 / 8.6	4.1 / 10.3
34	LL					73	86	140	208	294	401	529	682	865
	TL					80	96	165	253	365	504	672	865	
	BRG					1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.3 / 5.8	3 / 7.6	3.9 / 9.7	
36	LL					62	72	118	176	249	339	448	578	733
	TL					65	78	136	210	304	421	564	733	
	BRG					1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.1 / 5.2	2.7 / 6.8	3.5 / 8.8	

SOUTHERN PINE 4-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 115% ROOF SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	223	439	982	1974	2129	-	-	-	-	-	-	-	-
	TL	289	574	1295	2480	2603	3273	3489	4258	5032	5861	6750	7707	8740
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.4 / 6	2.5 / 6.2	3.1 / 7.8	3.3 / 8.4	4.1 / 10.2	4.8 / 12.1	5.6 / 14	6.5 / 16.2	7.4 / 18.5	8.4 / 20.9
12	LL	130	256	578	1173	1266	2051	2389	-	-	-	-	-	-
	TL	165	331	756	1544	1669	2446	2697	3412	4005	4632	5295	5997	6742
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	2.8 / 7.1	3.1 / 7.8	3.9 / 9.8	4.6 / 11.5	5.3 / 13.3	6.1 / 15.2	6.9 / 17.3	7.8 / 19.4
14	LL	82	162	368	750	811	1322	1543	2460	-	-	-	-	-
	TL	101	205	475	981	1062	1739	1975	2660	3325	3827	4354	4905	5485
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.7	3.6 / 9	4.5 / 11.2	5.2 / 12.9	5.9 / 14.6	6.6 / 16.5	7.4 / 18.4
16	LL	55	109	248	508	549	899	1051	1686	2460	-	-	-	-
	TL	65	134	316	658	713	1176	1377	2030	2585	3199	3694	4148	4620
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.1 / 7.8	4 / 10	4.9 / 12.3	5.7 / 14.2	6.4 / 16	7.1 / 17.8
18	LL		77	175	359	389	638	747	1203	1763	2460	-	-	-
	TL		91	218	460	499	828	972	1576	2036	2520	3050	3591	3989
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	3.5 / 8.9	4.4 / 11	5.3 / 13.2	6.2 / 15.6	6.9 / 17.3
20	LL		56	128	263	285	469	549	887	1305	1827	2460	-	-
	TL		64	156	332	360	602	708	1155	1643	2034	2463	2927	3427
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	3.2 / 8	3.9 / 9.9	4.8 / 11.9	5.7 / 14.2	6.6 / 16.6
22	LL			96	199	215	354	415	672	991	1392	1880	-	-
	TL			114	246	267	449	529	868	1289	1675	2028	2411	2824
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 6.9	3.6 / 9	4.3 / 10.8	5.1 / 12.9	6 / 15
24	LL			74	153	166	274	321	521	770	1083	1467	1924	-
	TL			84	186	202	342	404	667	994	1401	1698	2019	2365
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.3 / 5.9	3.3 / 8.2	4 / 9.9	4.7 / 11.8	5.5 / 13.8
26	LL			59	121	131	216	254	412	610	859	1166	1532	1963
	TL			63	142	155	265	314	521	780	1109	1441	1714	2008
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	2 / 5	2.8 / 7.1	3.7 / 9.2	4.4 / 10.9	5.1 / 12.7
28	LL				97	105	174	204	331	491	693	941	1239	1590
	TL				110	121	208	247	413	622	887	1214	1471	1724
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.4	2.5 / 6.2	3.3 / 8.4	4 / 10.1	4.7 / 11.8
30	LL				79	86	141	166	270	401	566	770	1015	1305
	TL				86	95	166	197	332	502	718	986	1276	1496
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.2 / 5.4	2.9 / 7.3	3.8 / 9.4	4.4 / 11
32	LL				65	71	117	137	223	331	469	638	842	1083
	TL				68	75	133	159	269	409	588	810	1078	1309
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.9 / 4.8	2.6 / 6.5	3.4 / 8.6	4.1 / 10.3
34	LL				54	59	97	114	187	277	392	534	706	909
	TL				54	59	107	128	220	337	486	672	896	1154
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.3 / 5.8	3 / 7.6	3.9 / 9.7
36	LL					82	97	158	234	331	452	597	770	978
	TL					87	105	181	279	405	562	752	978	

PLF Charts SOUTHERN PINE

SOUTHERN PINE 1-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 125% ROOF NON-SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	250	481	-	-	-	-	-	-	-	-	-	-	-
	TL	331	639	971	1308	1353	1686	1813	2285	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3.7	2.2 / 5.6	3 / 7.5	3.1 / 7.8	3.9 / 9.7	4.2 / 10.4	5.2 / 13.1	-	-	-	-	-
8	LL	108	211	466	-	-	-	-	-	-	-	-	-	-
	TL	142	278	617	920	950	1165	1246	1537	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 7	2.9 / 7.3	3.6 / 8.9	3.8 / 9.5	4.7 / 11.8	-	-	-	-	-
10	LL	56	110	246	494	532	854	-	-	-	-	-	-	-
	TL	72	143	324	653	705	890	949	1158	-	-	-	-	-
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.5 / 6.3	2.7 / 6.8	3.4 / 8.5	3.6 / 9.1	4.4 / 11.1	-	-	-	-	-
12	LL	-	64	144	293	317	513	597	-	-	-	-	-	-
	TL	-	83	189	386	417	665	733	928	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	3.1 / 7.7	3.4 / 8.5	4.3 / 10.7	-	-	-	-	-
14	LL	-	41	92	188	203	330	386	615	-	-	-	-	-
	TL	-	51	119	245	265	435	508	723	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.9	3.9 / 9.7	-	-	-	-	-
16	LL	-	62	127	137	137	225	263	421	-	-	-	-	-
	TL	-	79	165	178	178	294	344	552	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.4 / 8.5	-	-	-	-	-
18	LL	-	44	90	97	97	160	187	301	-	-	-	-	-
	TL	-	55	115	125	125	207	243	394	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	-	-	-	-	-
20	LL	-	66	71	117	117	137	177	222	-	-	-	-	-
	TL	-	83	90	150	150	177	289	289	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	2.3 / 5.6	-	-	-	-	-
22	LL	-	50	54	89	89	104	168	168	-	-	-	-	-
	TL	-	61	67	112	112	132	217	217	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	1.9 / 4.7	-	-	-	-	-
24	LL	-	42	68	80	80	130	130	130	-	-	-	-	-
	TL	-	51	86	101	101	167	167	167	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	1.6 / 4	-	-	-	-	-
26	LL	-	54	63	103	103	130	130	130	-	-	-	-	-
	TL	-	66	79	130	130	166	166	166	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.5 / 3.4	-	-	-	-	-
28	LL	-	43	51	83	83	103	103	103	-	-	-	-	-
	TL	-	52	62	103	103	130	130	130	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	-	-	-	-	-
30	LL	-	68	83	130	130	166	166	166	-	-	-	-	-
	TL	-	83	103	166	166	217	217	217	-	-	-	-	-
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	-	-	-	-	-

NOT APPLICABLE

SOUTHERN PINE 2-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 125% ROOF NON-SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
6	LL	499	962	-	-	-	-	-	-	-	-	-	-	-
	TL	661	1277	1942	2617	2706	3372	3627	4570	5584	6748	8100	9686	11576
	BRG	1.5 / 3	1.5 / 3.7	2.2 / 5.6	3 / 7.5	3.1 / 7.8	3.9 / 9.7	4.2 / 10.4	5.2 / 13.1	6.4 / 16	7.7 / 19.3	9.3 / 23.2	11.1 / 27.7	13.3 / 33.1
8	LL	216	421	931	-	-	-	-	-	-	-	-	-	-
	TL	283	556	1235	1841	1900	2331	2492	3075	3675	4332	5055	5854	6742
	BRG	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 7	2.9 / 7.3	3.6 / 8.9	3.8 / 9.5	4.7 / 11.8	5.6 / 14.1	6.6 / 16.6	7.7 / 19.3	9 / 22.4	10.3 / 25.8
10	LL	112	219	491	987	1065	1707	-	-	-	-	-	-	-
	TL	144	287	647	1307	1410	1780	1897	2315	2736	3187	3670	4191	4752
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.5 / 6.3	2.7 / 6.8	3.4 / 8.5	3.6 / 9.1	4.4 / 11.1	5.2 / 13.1	6.1 / 15.3	7 / 17.6	8 / 20.1	9.1 / 22.7
12	LL	65	128	289	586	633	1025	1194	-	-	-	-	-	-
	TL	82	165	378	772	834	1330	1467	1855	2178	2519	2880	3261	3666
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	3.1 / 7.7	3.4 / 8.5	4.3 / 10.7	5 / 12.5	5.8 / 14.5	6.6 / 16.6	7.5 / 18.8	8.4 / 21.1
14	LL	41	81	184	375	405	661	771	1230	1783	-	-	-	-
	TL	50	103	238	491	531	870	1016	1447	1808	2082	2368	2668	2983
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.9	3.9 / 9.7	4.9 / 12.2	5.6 / 14	6.4 / 15.9	7.2 / 17.9	8 / 20
16	LL	55	124	254	275	275	449	526	843	1230	1707	-	-	-
	TL	67	158	329	356	356	588	689	1104	1406	1740	2010	2256	2513
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.4 / 8.5	4.3 / 10.8	5.4 / 13.4	6.2 / 15.5	6.9 / 17.4	7.7 / 19.3
18	LL	-	87	180	194	194	319	373	602	882	1230	1650	-	-
	TL	-	109	230	249	249	414	486	788	1108	1371	1659	1954	2170
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	3.9 / 9.6	4.8 / 11.9	5.8 / 14.4	6.8 / 16.9	7.5 / 18.8
20	LL	-	64	132	142	142	234	275	444	652	913	1230	-	-
	TL	-	78	166	180	180	301	354	577	853	1107	1340	1593	1865
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	3.3 / 8.3	4.3 / 10.7	5.2 / 13	6.2 / 15.4	7.2 / 18
22	LL	-	48	99	107	107	177	208	336	496	696	940	1230	-
	TL	-	57	123	134	134	225	265	434	644	909	1104	1312	1537
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 6.9	3.9 / 9.7	4.7 / 11.8	5.6 / 14	6.5 / 16.4
24	LL	-	77	83	137	137	161	261	385	542	733	962	1230	-
	TL	-	93	101	171	171	202	333	497	704	924	1099	1287	1537
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.3 / 5.9	3.3 / 8.3	4.3 / 10.8	5.1 / 12.8	6 / 15
26	LL	-	60	65	108	108	127	206	305	430	583	766	981	-
	TL	-	71	78	133	133	157	261	390	555	757	933	1093	1330
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	2 / 5	2.8 / 7.1	3.8 / 9.6	4.7 / 11.8	5.5 / 13.8	6.5 / 16.4
28	LL	-	49	53	87	87	102	166	245	346	470	619	795	-
	TL	-	55	60	104	104	124	207	311	443	607	802	939	1170
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.4	2.5 / 6.2	3.3 / 8.4	4.4 / 11	5.1 / 12.9	6.1 / 15.4
30	LL	-	71	83	135	135	166	251	359	493	654	815	1015	-
	TL	-	83	99	166	166	203	311	443	607	802	939	1170	1410
	BRG	-	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.2 / 5.4	2.9 / 7.3	3.9 / 9.7	4.8 / 12

- The PLF load values in this table are based on the LVL member having lateral bracing at 24" O.C. or less along its entire length
- 1-3/4" LVL members 16" and deeper and 1-1/2" LVL members 14" and deeper, must be a minimum of 2 plies unless designed by a design professional
- Allowable PLF loads for single or multiple ply 1-1/2" thick LVL members can be obtained by multiplying the table values by 0.85 (required bearing lengths are the same)
- This table may be used for either simple or multiple spans
- Span is centerline of bearing to centerline of bearing
- Loads shown can be applied to the beam in addition to its own weight
- See EWP Residential Design Guide for details on attaching multiple ply members

Key to Table:
 LL = Maximum live load – limits deflection to L/240
 TL = Maximum total load – limits deflections to L/180
 BRG = Required end/interior bearing length (inches), based on bearing stress of 750 PSI.

PLF Charts SOUTHERN PINE

SOUTHERN PINE 3-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 125% ROOF NON-SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	168	329	737	1481	1597	2561	-	-	-	-	-	-	-
	TL	217	430	971	1960	2114	2670	2846	3473	4104	4780	5506	6286	7128
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.5 / 6.3	2.7 / 6.8	3.4 / 8.5	3.6 / 9.1	4.4 / 11.1	5.2 / 13.1	6.1 / 15.3	7 / 17.6	8 / 20.1	9.1 / 22.7
12	LL	98	192	433	879	950	1538	1791	-	-	-	-	-	-
	TL	123	248	567	1158	1251	1995	2200	2783	3267	3779	4319	4892	5500
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	3.1 / 7.7	3.4 / 8.5	4.3 / 10.7	5 / 12.5	5.8 / 14.5	6.6 / 16.6	7.5 / 18.8	8.4 / 21.1
14	LL	62	122	276	563	608	991	1157	1845	2675	-	-	-	-
	TL	76	154	356	736	796	1304	1525	2170	2713	3122	3552	4002	4474
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.9	3.9 / 9.7	4.9 / 12.2	5.6 / 14	6.4 / 15.9	7.2 / 17.9	8 / 20
16	LL		82	186	381	412	674	788	1264	1845	2561	-	-	-
	TL		101	237	494	535	882	1033	1657	2110	2610	3014	3384	3770
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.4 / 8.5	4.3 / 10.8	5.4 / 13.4	6.2 / 15.5	6.9 / 17.4	7.7 / 19.3
18	LL		58	131	269	291	479	560	902	1322	1845	2475	-	-
	TL		68	164	345	374	621	729	1182	1662	2057	2489	2930	3255
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	3.9 / 9.6	4.8 / 11.9	5.8 / 14.4	6.8 / 16.9	7.5 / 18.8
20	LL			96	197	214	352	412	666	979	1370	1845	-	-
	TL			117	249	270	451	531	866	1280	1661	2010	2389	2797
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	3.3 / 8.3	4.3 / 10.7	5.2 / 13	6.2 / 15.4	7.2 / 18
22	LL			72	149	161	266	311	504	743	1044	1410	1845	-
	TL			85	184	200	337	397	651	967	1364	1656	1969	2305
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 6.9	3.9 / 9.7	4.7 / 11.8	5.6 / 14	6.5 / 16.4
24	LL			56	115	125	205	241	391	578	813	1100	1443	1845
	TL			63	139	152	257	303	500	746	1056	1387	1649	1931
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.3 / 5.9	3.3 / 8.3	4.3 / 10.8	5.1 / 12.8	6 / 15
26	LL				91	98	162	190	309	457	645	874	1149	1472
	TL				107	116	199	236	391	585	832	1135	1400	1640
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	2 / 5	2.8 / 7.1	3.8 / 9.6	4.7 / 11.8	5.5 / 13.8
28	LL				73	79	130	153	249	368	520	706	929	1192
	TL				83	90	156	186	310	466	665	910	1202	1409
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.4	2.5 / 6.2	3.3 / 8.4	4.4 / 11.1	5.1 / 12.9
30	LL				59	64	106	125	203	301	425	578	761	979
	TL				65	71	124	148	249	376	539	739	982	1223
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.2 / 5.4	2.9 / 7.3	3.9 / 9.7	4.8 / 12
32	LL				49	53	88	103	168	249	352	479	632	813
	TL				51	56	100	119	202	307	441	607	808	1047
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.9 / 4.8	2.6 / 6.5	3.4 / 8.6	4.4 / 11
34	LL						73	86	140	208	294	401	529	682
	TL						80	96	165	253	365	504	672	872
	BRG						1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.3 / 5.8	3 / 7.6	3.9 / 9.8
36	LL						62	72	118	176	249	339	448	578
	TL						65	78	136	210	304	421	564	733
	BRG						1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.1 / 5.2	2.7 / 6.8	3.5 / 8.8

SOUTHERN PINE 4-PLY 1-3/4" 2.1E RIGIDLAM® LVL - 125% ROOF NON-SNOW (PLF)

Span (ft.)	Depth	4-3/8"	5-1/2"	7-1/4"	9-1/4"	9-1/2"	11-1/4"	11-7/8"	14"	16"	18"	20"	22"	24"
10	LL	223	439	982	1974	2129	3415	-	-	-	-	-	-	-
	TL	289	574	1295	2614	2819	3559	3795	4630	5472	6374	7341	8381	9504
	BRG	1.5 / 3	1.5 / 3	1.5 / 3.1	2.5 / 6.3	2.7 / 6.8	3.4 / 8.5	3.6 / 9.1	4.4 / 11.1	5.2 / 13.1	6.1 / 15.3	7 / 17.6	8 / 20.1	9.1 / 22.7
12	LL	130	256	578	1173	1266	2051	2389	-	-	-	-	-	-
	TL	165	331	756	1544	1669	2660	2933	3711	4357	5038	5759	6523	7333
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.5	1.9 / 4.8	3.1 / 7.7	3.4 / 8.5	4.3 / 10.7	5 / 12.5	5.8 / 14.5	6.6 / 16.6	7.5 / 18.8	8.4 / 21.1
14	LL	82	162	368	750	811	1322	1543	2460	3567	-	-	-	-
	TL	101	205	475	981	1062	1739	2033	2894	3617	4163	4736	5336	5966
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.3	1.5 / 3.6	2.3 / 5.9	2.7 / 6.9	3.9 / 9.7	4.9 / 12.2	5.6 / 14	6.4 / 15.9	7.2 / 17.9	8 / 20
16	LL	55	109	248	508	549	899	1051	1686	2460	3415	-	-	-
	TL	65	134	316	658	713	1176	1377	2209	2813	3481	4019	4512	5026
	BRG	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 4.6	2.1 / 5.3	3.4 / 8.5	4.3 / 10.8	5.4 / 13.4	6.2 / 15.5	6.9 / 17.4	7.7 / 19.3
18	LL		77	175	359	389	638	747	1203	1763	2460	3300	-	-
	TL		91	218	460	499	828	972	1576	2216	2742	3319	3907	4340
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.6	1.7 / 4.3	2.8 / 6.9	3.9 / 9.6	4.8 / 11.9	5.8 / 14.4	6.8 / 16.9	7.5 / 18.8
20	LL		56	128	263	285	469	549	887	1305	1827	2460	-	-
	TL		64	156	332	360	602	708	1155	1707	2214	2680	3186	3729
	BRG		1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.5	2.3 / 5.6	3.3 / 8.3	4.3 / 10.7	5.2 / 13	6.2 / 15.4	7.2 / 18
22	LL			96	199	215	354	415	672	991	1392	1880	2460	-
	TL			114	246	267	449	529	868	1289	1819	2208	2625	3073
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 4.7	2.8 / 6.9	3.9 / 9.7	4.7 / 11.8	5.6 / 14	6.5 / 16.4
24	LL			74	153	166	274	321	521	770	1083	1467	1924	2460
	TL			84	186	202	342	404	667	994	1408	1849	2198	2575
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 4	2.3 / 5.9	3.3 / 8.3	4.3 / 10.8	5.1 / 12.8	6 / 15
26	LL			59	121	131	216	254	412	610	859	1166	1532	1963
	TL			63	142	155	265	314	521	780	1109	1513	1867	2187
	BRG			1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	2 / 5	2.8 / 7.1	3.8 / 9.6	4.7 / 11.8	5.5 / 13.8
28	LL				97	105	174	204	331	491	693	941	1239	1590
	TL				110	121	208	247	413	622	887	1214	1603	1879
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.4	2.5 / 6.2	3.3 / 8.4	4.4 / 11.1	5.1 / 12.9
30	LL				79	86	141	166	270	401	566	770	1015	1305
	TL				86	95	166	197	332	502	718	986	1309	1630
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.8	2.2 / 5.4	2.9 / 7.3	3.9 / 9.7	4.8 / 12
32	LL				65	71	117	137	223	331	469	638	842	1083
	TL				68	75	133	159	269	409	588	810	1078	1396
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3.4	1.9 / 4.8	2.6 / 6.5	3.4 / 8.6	4.4 / 11
34	LL				54	59	97	114	187	277	392	534	706	909
	TL				54	59	107	128	220	337	486	672	896	1163
	BRG				1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 4.2	2.3 / 5.8	3 / 7.6	3.9 / 9.8
36	LL						82	97	158	234	331	452	597	770
	TL						87							