

2.0E LVL JOIST ALLOWABLE LOADS & MINIMUM BEARING LENGTHS

DEFLECTION LIMITED TO L/360 OR 1/4" MAX.

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Span (ft)	Thickness (in)		2 1/2" JOIST							3 1/2" JOIST						
	Depth (in)		3 1/2	4 1/2	5 1/2	6 1/2	7 1/4	9 1/4	11 1/4	3 1/2	4 1/2	5 1/2	6 1/2	7 1/4	9 1/4	11 1/4
4	Simple Span	Conc + DL [plf]	370	788	1441	2380	3093	3525	3523	518	1103	2017	3332	4330	4935	4933
		Total Load [plf]	985	1546	2025	2591	3093	3525	3523	839	2165	2834	3628	4330	4935	4933
	Continuous Spans	Conc + DL [plf]	700	1212	1555	1977	2363	3509	4842	665	1697	2177	2768	3308	4913	6779
		Total Load [plf]	905	1212	1555	1977	2363	3509	4842	665	1697	2177	2768	3308	4913	6779
	Minimum End Bearing [in]		1 1/4	1 1/4	2 1/4	3	3 1/2	4	4	1 1/4	1 1/4	2 1/4	3	3 1/2	4	4
	Minimum Intermediate Bearing [in]		3 1/2	3 1/2	3 3/4	5	6 1/4	7 3/4	7 3/4	3 1/2	3 1/2	3 3/4	5	6 1/4	7 3/4	7 3/4
5	Simple Span	Conc + DL [plf]	188	402	736	1216	1689	2863	2861	264	563	1030	1703	2365	4008	4006
		Total Load [plf]	629	990	1421	1871	2183	2863	2861	546	1386	1990	2620	3057	4008	4006
	Continuous Spans	Conc + DL [plf]	357	761	1162	1443	1677	2427	3217	500	1066	1627	2020	2348	3398	4504
		Total Load [plf]	629	920	1162	1443	1677	2427	3217	510	1289	1627	2020	2348	3398	4504
	Minimum End Bearing [in]		1 1/4	1 1/4	2	2 3/4	3 1/4	4	4	1 1/4	1 1/4	2	2 3/4	3 1/4	4	4
	Minimum Intermediate Bearing [in]		3 1/2	3 1/2	3 1/2	4 1/2	5 1/4	7 3/4	7 3/4	3 1/2	3 1/2	3 1/2	4 1/2	5 1/4	7 3/4	7 3/4
6	Simple Span	Conc + DL [plf]	108	231	424	702	975	2030	2408	151	324	594	983	1366	2841	3372
		Total Load [plf]	436	687	986	1332	1622	2389	2408	378	961	1380	1865	2271	3344	3372
	Continuous Spans	Conc + DL [plf]	206	439	804	1140	1311	1840	2407	288	615	1126	1596	1836	2576	3370
		Total Load [plf]	436	687	931	1140	1311	1840	2407	378	961	1303	1596	1836	2576	3370
	Minimum End Bearing [in]		1 1/4	1 1/4	1 3/4	2 1/4	2 3/4	4	4	1 1/4	1 1/4	1 3/4	2 1/4	2 3/4	4	4
	Minimum Intermediate Bearing [in]		3 1/2	3 1/2	3 1/2	4 1/4	5	7 1/4	7 3/4	3 1/2	3 1/2	3 1/2	4 1/4	5	7 1/4	7 3/4
7	Simple Span	Conc + DL [plf]	67	145	266	441	613	1276	2079	94	203	372	617	858	1786	2911
		Total Load [plf]	320	504	723	978	1191	1847	2079	277	705	1013	1369	1667	2586	2911
	Continuous Spans	Conc + DL [plf]	129	276	505	835	1078	1483	1923	180	386	707	1169	1509	2076	2692
		Total Load [plf]	320	504	723	943	1078	1483	1923	277	705	1013	1320	1509	2076	2692
	Minimum End Bearing [in]		1 1/4	1 1/4	1 3/4	2	2 1/4	3 3/4	4	1 1/4	1 1/4	1 3/4	2	2 1/4	3 3/4	4
	Minimum Intermediate Bearing [in]		3 1/2	3 1/2	3 1/2	4	4 3/4	7	7 3/4	3 1/2	3 1/2	3 1/2	4	4 3/4	7	7 3/4
8	Simple Span	Conc + DL [plf]	90	166	275	383	799	1441	58	126	232	385	536	1119	2018	
		Total Load [plf]	385	553	748	910	1413	1829	211	539	774	1047	1275	1978	2560	
	Continuous Spans	Conc + DL [plf]	80	172	316	523	727	1243	1600	112	241	442	732	1018	1740	2240
		Total Load [plf]	244	385	553	748	910	1243	1600	211	539	774	1047	1275	1740	2240
	Minimum End Bearing [in]		1 1/4	1 1/4	1 3/4	1 3/4	2	3 1/4	4	1 1/4	1 1/4	1 3/4	1 3/4	2	3 1/4	4
	Minimum Intermediate Bearing [in]		3 1/2	3 1/2	3 1/2	3 3/4	4 1/2	6 3/4	7 3/4	3 1/2	3 1/2	3 1/2	3 3/4	4 1/2	6 3/4	7 3/4
9	Simple Span	Conc + DL [plf]	55	102	170	237	497	897		77	143	238	332	695	1256	
		Total Load [plf]	304	436	590	718	1115	1587		425	611	826	1006	1561	2222	
	Continuous Spans	Conc + DL [plf]	106	196	325	452	942	1370	69	149	274	455	633	1319	1918	
		Total Load [plf]	304	436	590	718	1071	1370	166	425	611	826	1006	1499	1918	
	Minimum End Bearing [in]		1 1/4	1 1/4	1 3/4	1 3/4	2 1/4	3 1/4	4	1 1/4	1 1/4	1 3/4	1 3/4	2 1/4	3 1/4	
	Minimum Intermediate Bearing [in]		3 1/2	3 1/2	3 1/2	4	6 1/2	7 3/4	3 1/2	3 1/2	3 1/2	3 1/2	4	6 1/2	7 3/4	
10	Simple Span	Conc + DL [plf]		66	110	154	324	586			92	154	216	453	820	
		Total Load [plf]		353	477	581	902	1284			494	668	813	1263	1798	
	Continuous Spans	Conc + DL [plf]		69	127	212	295	616	1112		96	178	296	413	863	1557
		Total Load [plf]		245	353	477	581	902	1198		343	494	668	813	1263	1677
	Minimum End Bearing [in]		1 1/4	1 1/4	1 3/4	1 3/4	2 1/2	3 1/2	3 1/2		1 1/4	1 1/4	1 3/4	1 3/4	2 1/2	3 1/2
	Minimum Intermediate Bearing [in]		3 1/2	3 1/2	3 1/2	3 1/2	5 1/4	7 3/4	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	5 1/4	7 3/4
11	Simple Span	Conc + DL [plf]		74	104	219	398				61	104	145	307	557	
		Total Load [plf]		393	479	744	1060					407	551	671	1042	1484
	Continuous Spans	Conc + DL [plf]		86	143	200	419	757			64	120	201	280	587	1060
		Total Load [plf]		291	393	479	744	1060			283	407	551	671	1042	1484
	Minimum End Bearing [in]			1 1/4	1 1/4	1 3/4	2 1/4	3 1/4			1 1/4	1 1/4	1 3/4	1 3/4	2 1/4	3 1/4
	Minimum Intermediate Bearing [in]			3 1/2	3 1/2	3 1/2	5 1/4	7 1/2			3 1/2	3 1/2	3 1/2	3 1/2	5 1/4	7 1/2
12	Simple Span	Conc + DL [plf]		51	72	153	279					71	101	214	390	
		Total Load [plf]		330	402	625	890					462	563	874	1246	
	Continuous Spans	Conc + DL [plf]		60	100	140	294	533			83	140	196	412	746	
		Total Load [plf]		244	330	402	625	890			341	462	563	874	1246	
	Minimum End Bearing [in]			1 1/4	1 1/4	1 3/4	2 1/4	3			1 1/4	1 1/4	1 3/4	2 1/4	3	
	Minimum Intermediate Bearing [in]			3 1/2	3 1/2	3 1/2	4 3/4	6 3/4			3 1/2	3 1/2	3 1/2	4 3/4	6 3/4	
13	Simple Span	Conc + DL [plf]		51	109	200						50	71	153	281	
		Total Load [plf]		342	531	757						393	479	744	1060	
	Continuous Spans	Conc + DL [plf]		71	100	212	385				59	100	140	297	539	
		Total Load [plf]		281	342	531	757				290	393	479	744	1060	
	Minimum End Bearing [in]			1 1/4	1 1/4	2	2 3/4				1 1/4	1 1/4	1 3/4	2	2 3/4	
	Minimum Intermediate Bearing [in]			3 1/2	3 1/2	4 1/4	6 1/4				3 1/2	3 1/2	3 1/2	4 1/4	6 1/4	
14	Simple Span	Conc + DL [plf]					80	147					51	112	206	
		Total Load [plf]					457	652						412	640	912
	Continuous Spans	Conc + DL [plf]			52	73	156	284					73	103	218	398
		Total Load [plf]			241	294	457	652					338	412	640	912
	Minimum End Bearing [in]				1 1/4	1 1/4	1 3/4	2 1/2					1 1/4	1 1/4	1 3/4	2 1/2
	Minimum Intermediate Bearing [in]				3 1/2	3 1/2	4	5 3/4					3 1/2	3 1/2	4	5 3/4

Notes:

- Table values are for beam orientation except for shaded cells.
 Values in shaded cells are for either plank or beam orientation.
- Span is measured from center to center of supports.
- Table values for Conc + DL (concrete plus dead load) are limited by deflection equal to the lesser of 1/4 inch or span/360.
- Table values have been adjusted by C_M = 0.90 for unprotected use. Total Load has also been adjusted by C_D = 1.25 for construction load duration.
- Table values are for joist spacings of 24 inches on center or less.
- Continuous Spans values are based on the worst case of 2 or 3 equal, continuous spans. Use sizing software or consult a professional engineer when a continuous span is less than half the length of an adjacent span, when loading is not uniform, or when design conditions are otherwise outside the scope of this table.

HOW TO USE THESE TABLES:

- Determine the Conc + DL (concrete plus dead load) and Total Load in pounds per lineal foot (plf) that must be supported by the formwork. Neglect joist weight.
- Select a table that matches the width of the joist under consideration.
- Select a span from the first column.
- Select Simple Span or Continuous Spans from the second column.
- Scan across the table for a pair of Conc + DL and Total Load values that exceed the design requirements identified in Step 1.
- Support across the full width of each joist is required. Verify that the required Minimum End/Intermediate Bearing length can be provided. If not, consider wider joists and return to Step 2.
- Select the joist depth at the top of the column that satisfies the criteria provided by Steps 5 and 6.