2.0E LVL JOIST ALLOWABLE LOADS & MINIMUM BEARING LENGTHS

DEFLECTION LIMITED TO L/360 OR ¼" MAX.

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Span (ft)	Thickness (in)		1½" JOIST							1¾" JOIST							2¼" JOIST						
	Depth (in)		3½	4½	5½	6½	7¼	9¼	11¼	3½	4½	5½	6½	7¼	9¼	11¼	3½	4½	5½	6½	7¼	9¼	11¼
4	Simple Span	Conc + DL [plf]	222	473	864	1428	1856	2115	2114	259	552	1008	1666	2165	2467	2466	333	709	1297	2142	2783	3172	3171
		Total Load [plf]	591	928	1215	1555	1856	2115	2114	689	1082	1417	1814	2165	2467	2466	886	1392	1822	2332	2783	3172	3171
	Continuous Spans	Conc + DL [plf]	420	727	933	1186	1418	2105	2905	490	848	1088	1384	1654	2456	3390	630	1091	1399	1779	2126	3158	4358
		Total Load [plf]	543	727	933	1186	1418	2105	2905	633	848	1088	1384	1654	2456	3390	814	1091	1399	1779	2126	3158	4358
	Minimum End Bearing [in]		1¾	1¾	2¼	3	3½	4	4	1¾	1¾	2¼	3	3½	4	4	1¾	1¾	2¼	3	3½	4	4
	Minimum Intermediate Bearing [in]		3½	3½	3¾	5	6¼	7¾	7¾	3½	3½	3¾	5	6¼	7¾	7¾	3½	3½	3¾	5	6¼	7¾	7¾
5	Simple Span	Conc + DL [plf]	113	241	442	730	1013	1718	1717	132	281	515	851	1182	2004	2003	169	362	662	1095	1520	2576	2575
		Total Load [plf]	378	594	853	1123	1310	1718	1717	441	693	995	1310	1528	2004	2003	566	891	1279	1684	1965	2576	2575
	Continuous Spans	Conc + DL [plf]	214	457	697	866	1006	1456	1930	250	533	814	1010	1174	1699	2252	322	685	1046	1298	1509	2185	2895
		Total Load [plf]	378	552	697	866	1006	1456	1930	441	644	814	1010	1174	1699	2252	566	828	1046	1298	1509	2185	2895
	Minimum End Bearing [in]		1¾	1¾	2	2¾	3¼	4	4	1¾	1¾	2	2¾	3¼	4	4	1¾	1¾	2	2¾	3¼	4	4
	Minimum Intermediate Bearing [in]		3½	3½	3½	4½	5¼	7¾	7¾	3½	3½	3½	4½	5¼	7¾	7¾	3½	3½	3½	4½	5¼	7¾	7¾
6	Simple Span	Conc + DL [plf]	65	139	255	421	585	1218	1445	76	162	297	491	683	1421	1686	97	208	382	632	878	1827	2168
		Total Load [plf]	262	412	592	799	973	1433	1445	305	481	690	933	1136	1672	1686	393	618	887	1199	1460	2150	2168
	Continuous Spans	Conc + DL [plf]	123	264	482	684	787	1104	1444	144	308	563	798	918	1288	1685	185	395	724	1026	1180	1656	2167
		Total Load [plf]	262	412	558	684	787	1104	1444	305	481	651	798	918	1288	1685	393	618	838	1026	1180	1656	2167
	Minimum End Bearing [in]		1¾	1¾	1¾	2¼	2¾	4	4	1¾	1¾	1¾	2¼	2¾	4	4	1¾	1¾	1¾	2¼	2¾	4	4
	Minimum Intermediate Bearing [in]		3½	3½	3½	4¼	5	7¼	7¾	3½	3½	3½	4¼	5	7¼	7¾	3½	3½	3½	4¼	5	7¼	7¾
7	Simple Span	Conc + DL [plf]		87	160	264	368	766	1247		101	186	308	429	893	1455	60	130	239	397	551	1148	1871
		Total Load [plf]		302	434	587	714	1108	1247		353	506	684	833	1293	1455	288	453	651	880	1072	1663	1871
	Continuous Spans	Conc + DL [plf]	77	165	303	501	647	890	1154	90	193	353	585	754	1038	1346	116	248	454	752	970	1335	1731
		Total Load [plf]	192	302	434	566	647	890	1154	224	353	506	660	754	1038	1346	288	453	651	848	970	1335	1731
	Minimum End Bearing [in]		1¾	1¾	1¾	2	2¼	3¾	4	1¾	1¾	1¾	2	2¼	3¾	4	1¾	1¾	1¾	2	2¼	3¾	4
	Minimum Intermediate Bearing [in]		3½	3½	3½	4	4¾	7	7¾	3½	3½	3½	4	4¾	7	7¾	3½	3½	3½	4	4¾	7	7¾
8	Simple Span	Conc + DL [plf]		54	99	165	230	479	865		63	116	193	268	559	1009		81	149	248	345	719	1297
		Total Load [plf]		231	332	449	546	848	1097		269	387	523	637	989	1280		346	498	673	819	1272	1646
	Continuous Spans	Conc + DL [plf]		103	189	314	436	746	960	56	120	221	366	509	870	1120	72	155	284	471	654	1119	1440
		Total Load [plf]		231	332	449	546	746	960	171	269	387	523	637	870	1120	220	346	498	673	819	1119	1440
	Minimum End Bearing [in]			1¾	1¾	1¾	2	3¼	4	1¾	1¾	1¾	1¾	2	3¼	4	1¾	1¾	1¾	1¾	2	3¼	4
	Minimum Intermediate Bearing [in]			3½	3½	3¾	4½	6¾	7¾	3½	3½	3½	3¾	4½	6¾	7¾	3½	3½	3½	3¾	4½	6¾	7¾
9	Simple Span	Conc + DL [plf]			61	102	142	298	538			71	119	166	348	628			92	153	214	447	807
		Total Load [plf]			262	354	431	669	952			305	413	503	781	1111			393	531	647	1004	1429
	Continuous Spans	Conc + DL [plf]		64	117	195	271	565	822		74	137	227	316	660	959		96	176	292	407	848	1233
		Total Load [plf]		182	262	354	431	642	822		212	305	413	503	750	959		273	393	531	647	964	1233
	Minimum End Bearing [in]			1¾	1¾	1¾	1¾	2¾	4		1¾	1¾	1¾	1¾	2¾	4		1¾	1¾	1¾	1¾	2¾	4
	Minimum Intermediate Bearing [in]			3½	3½	3½	4	6½	7¾		3½	3½	3½	4	6½	7¾		3½	3½	3½	4	6½	7¾
10	Simple Span	Conc + DL [plf]				66	92	194	352				77	108	227	410			59	99	139	291	527
		Total Load [plf]				286	349	541	771				334	407	631	899			317	429	523	812	1156
	Continuous Spans	Conc + DL [plf]			76	127	177	370	667			89	148	206	431	779		62	115	191	265	555	1001
		Total Load [plf]			212	286	349	541	719			247	334	407	631	838		221	317	429	523	812	1078
	Minimum End Bearing [in]				1¾	1¾	1¾	2½	3½			1¾	1¾	1¾	2½	3½		1¾	1¾	1¾	1¾	2½	3½
	Minimum Intermediate Bearing [in]				3½	3½	3½	5¾	7¾			3½	3½	3½	5¾	7¾		3½	3½	3½	3½	5¾	7¾
11	Simple Span	Conc + DL [plf]					62	132	239				52	73	153	279				67	93	197	358
		Total Load [plf]					288	447	636				275	336	521	742				354	431	670	954
	Continuous Spans	Conc + DL [plf]			51	86	120	251	454			60	100	140	293	530			77	129	180	377	682
		Total Load [plf]			174	236	288	447	636			204	275	336	521	742			262	354	431	670	954
	Minimum End Bearing [in]				1¾	1¾	1¾	2¼	3¼			1¾	1¾	1¾	2¼	3¼			1¾	1¾	1¾	2¼	3¼
	Minimum Intermediate Bearing [in]				3½	3½	3½	5¼	7½			3½	3½	3½	5¼	7½			3½	3½	3½	5¼	7½
12	Simple Span	Conc + DL [plf]						92	167					50	107	195					65	138	251
		Total Load [plf]						375	534					281	437	623					362	562	801
	Continuous Spans	Conc + DL [plf]				60	84	176	320				70	98	206	373			54	90	126	265	479
		Total Load [plf]				198	241	375	534				231	281	437	623			219	297	362	562	801
	Minimum End Bearing [in]					1¾	1¾	2¼	3				1¾	1¾	2¼	3			1¾	1¾	1¾	2¼	3
	Minimum Intermediate Bearing [in]					3½	3½	4¾	6¾				3½	3½	4¾	6¾			3½	3½	3½	4¾	6¾
13	Simple Span	Conc + DL [plf]						66	120						77	140						99	180
		Total Load [plf]						319	454						372	530						478	681
	Continuous Spans	Conc + DL [plf]					60	127	231				50	70	148	269				64	90	191	346
		Total Load [plf]					205	319	454				196	239	372	530				252	308	478	681
	Minimum End Bearing [in]						1¾	2	2¾				1¾	1¾	2	2¾				1¾	1¾	2	2¾
	Minimum Intermediate Bearing [in]						3½	4¼	6¼				3½	3½	4¼	6¼				3½	3½	4¼	6¼
14	Simple Span	Conc + DL [plf]							88						56	103						72	132
		Total Load [plf]							391						320	456						412	587
	Continuous Spans	Conc + DL [plf]						94	170					51	109	199					66	140	256
		Total Load [plf]						274	391					206	320	456					265	412	587
	Minimum End Bearing [in]							1¾	2½					1¾	1¾	2½					1¾	1¾	2½
	Minimum Intermediate Bearing [in]							4	5¾					3½	4	5¾					3½	4	5¾

Notes:

1. Table values are for beam orientation except for shaded cells.
2. Span is measured from center to center of supports.
3. Table values for Conc + DL (concrete plus dead load) are limited by deflection equal to the lesser of ¼ inch or span/360.
4. 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.
5. Table values are for joist spacings of 24 inches on center or less.
6. 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:

1. 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.
2. Select a table that matches the width of the joist under consideration.
3. Select a span from the first column.
4. Select Simple Span or Continuous Spans from the second column.
5. Scan across the table for a pair of Conc + DL and Total Load values that exceed the design requirements identified in Step 1.
6. 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.
7. Select the joist depth at the top of the column that satisfies the criteria provided by Steps 5 and 6.