

**14.64.070 Table R-8, Low Slope Rafters.**

**TABLE R-8**

**LOW SLOPE RAFTERS**

**Slope 3 in 12 or less - 30 Lbs. Per Sq. Ft. Live Load**

**(No Finished Ceiling)**

**DESIGN CRITERIA:**

Strength - 10 lbs. per sq. ft. dead load plus

30 lbs. per sq. ft. live load determines

Required fiber stress.

Deflection - For 30 lbs. per sq. ft. live load. Limited to span in inches divided by 240.

RAFTER SIZE SPACING		Allowable Extreme Fiber Stress in Bending, "Fb" (psi).										
(IN)	(IN)	300	400	500	600	700	800	900	1000	1100	1200	1300
2x6	12.0	6-2 0.15	7-1 0.23	7-11 0.32	8-8 0.43	9-5 0.54	10-0 0.66	10-8 0.78	11-3 0.92	11-9 1.06	12-4 1.21	12-10 1.36
	13.7	5-9 0.14	6-8 0.22	7-5 0.30	8-2 0.40	8-9 0.50	9-5 0.61	10-0 0.73	10-6 0.86	11-0 0.99	11-6 1.13	12-0 1.27
	16.0	5-4 0.13	6-2 0.20	6-11 0.28	7-6 0.37	8-2 0.47	8-8 0.57	9-3 0.68	9-9 0.80	10-2 0.92	10-8 1.05	11-1 1.18
	19.2	4-10 0.12	5-7 0.18	6-3 0.26	6-11 0.34	7-5 0.43	7-11 0.52	8-5 0.62	8-11 0.73	9-4 0.84	9-9 0.95	10-1 1.08
	24.0	4-4 0.11	5-0 0.16	5-7 0.23	6-2 0.30	6-8 0.38	7-1 0.46	7-6 0.55	7-11 0.65	8-4 0.75	8-8 0.85	9-1 0.96
2x8	12.0	8-1 0.15	9-4 0.23	10-6 0.32	11-6 0.43	12-5 0.54	13-3 0.66	14-0 0.78	14-10 0.92	15-6 1.06	16-3 1.21	16-10 1.36
	13.7	7-7 0.14	8-9 0.22	9-9 0.30	10-9 0.40	11-7 0.50	12-5 0.61	13-2 0.73	13-10 0.86	14-6 0.99	15-2 1.13	15-9 1.27
	16	7-0 0.13	8-1 0.20	9-1 0.28	9-11 0.37	10-9 0.47	11-6 0.57	12-2 0.68	12-10 0.80	13-5 0.92	14-0 1.05	14-7 1.18
	19.2	6-5 0.12	7-5 0.18	8-3 0.26	9-1 0.34	9-9 0.43	10-6 0.52	11-1 0.62	11-8 0.73	12-3 0.84	12-10 0.95	13-4 1.08
	24.0	5-9 0.11	6-7 0.16	7-5 0.23	8-1 0.30	8-9 0.38	9-4 0.46	9-11 0.55	10-6 0.65	11-0 0.75	11-6 0.85	11-11 0.96
2x10	12.0	10-4 0.15	11-11 0.23	13-4 0.32	14-8 0.43	15-10 0.54	16-11 0.66	17-11 0.78	18-11 0.92	19-10 1.06	20-8 1.21	21-6 1.36
	13.7	9-8 0.14	11-2 0.22	12-6 0.30	13-8 0.40	14-9 0.50	15-10 0.61	16-9 0.73	17-8 0.86	18-6 0.99	19-4 1.13	20-2 1.27
	16.0	8-11 0.13	10-4 0.20	11-7 0.28	12-8 0.37	13-8 0.47	14-8 0.57	15-6 0.68	16-4 0.80	17-2 0.92	17-11 1.05	18-8 1.18
	19.2	8-2 0.12	9-5 0.18	10-7 0.26	11-7 0.34	12-6 0.43	13-4 0.52	14-2 0.62	14-11 0.73	15-8 0.84	16-4 0.95	17-0 1.08
	24.0	7-4 0.11	8-5 0.16	9-5 0.23	10-4 0.30	11-2 0.38	11-11 0.46	12-8 0.55	13-4 0.65	14-0 0.75	14-8 0.85	15-3 0.96
2x12	12.0	12-7 0.15	14-6 0.23	16-3 0.32	17-9 0.43	19-3 0.54	20-6 0.66	21-9 0.78	23-0 0.92	24-1 1.06	25-2 1.21	26-2 1.36
	13.7	11-9 0.14	13-7 0.22	15-2 0.30	16-8 0.40	18-0 0.50	19-3 0.61	20-5 0.73	21-6 0.86	22-6 0.99	23-6 1.13	24-6 1.27
	16.0	10-11 0.13	12-7 0.20	14-1 0.28	15-5 0.37	16-8 0.47	17-9 0.57	18-10 0.68	19-11 0.80	20-10 0.92	21-9 1.05	22-8 1.18
	19.2	9-11 0.12	11-6 0.18	12-10 0.25	14-1 0.34	15-2 0.43	16-3 0.52	17-3 0.62	18-2 0.73	19-0 0.84	19-11 0.95	20-8 1.08
	24.0	8-11 0.11	10-3 0.16	11-6 0.23	12-7 0.30	13-7 0.38	14-6 0.46	15-5 0.55	16-3 0.65	17-0 0.75	17-9 0.85	18-6 0.96

Note: The required modulus of elasticity, "E," in 1,000,000 pounds per square inch is shown below each span.

**TABLE R-8 (cont.)**

**RAFTERS:**

Spans are measured along the horizontal projection and loads are considered as applied on the horizontal projection.

Allowable Extreme Fiber Stress in Bending, "Fb" (psi)										RAFTER SPACING SIZE	
1400	1500	1600	1700	1800	1900	2000	2100	2200	2400	(IN)	(IN)
13-3 1.52	13-9 1.69	14-2 1.86	14-8 2.04	15-1 2.22	15-6 2.41	*15-11 2.60				12.0	2x6
12-5 1.42	*12-10 1.58	13-3 1.74	13-8 1.90	14-1 2.08	14-6 2.25	*14-10 2.43				13.7	
11-6 1.32	*11-11 1.46	12-4 1.61	12-8 1.76	13-1 1.92	13-5 2.08	13-9 2.25	14-1 2.42	14-5 2.60		16.0	
10-6 1.20	*10-10 1.33	11-3 1.47	11-7 1.61	*11-11 1.75	12-3 1.90	12-7 2.05	*12-10 2.21	13-2 2.37		19.2	
9-5 1.08	9-9 1.19	10-0 1.31	10-4 1.44	10-8 1.57	*10-11 1.70	11-3 1.84	11-6 1.98	11-9 2.12	12-4 2.41	24.0	
17-6 1.52	18-2 1.69	18-9 1.86	19-4 2.04	*19-10 2.22	20-5 2.41	*20-11 2.60				12.0	2x8
16-5 1.42	*16-11 1.58	17-6 1.74	18-1 1.90	18-7 2.08	19-1 2.25	19-7 2.43				13.7	
15-2 1.32	15-8 1.46	16-3 1.61	16-9 1.76	17-2 1.92	17-8 2.08	18-2 2.25	18-7 2.42	19-0 2.60		16.0	
*13-10 1.20	14-4 1.33	14-10 1.47	15-3 1.61	15-8 1.75	16-2 1.90	16-7 2.05	*16-11 2.21	17-4 2.37		19.2	
12-5 1.08	*12-10 1.19	13-3 1.31	13-8 1.44	14-0 1.57	14-5 1.70	*14-10 1.84	15-2 1.98	15-6 2.12	16-3 2.41	24.0	
22-4 1.52	23-2 1.69	*23-11 1.86	24-7 2.04	25-4 2.22	26-0 2.41	26-8 2.60				12.0	2x10
*20-11 1.42	21-8 1.58	22-4 1.74	23-0 1.90	23-8 2.08	24-4 2.25	25-0 2.43				13.7	
19-4 1.32	20-0 1.46	20-8 1.61	21-4 1.76	*21-11 1.92	22-6 2.08	23-2 2.25	23-8 2.42	24-3 2.60		16.0	
17-8 1.20	18-3 1.33	*18-11 1.47	19-6 1.61	20-0 1.75	20-7 1.90	21-1 2.05	21-8 2.21	22-2 2.37		19.2	
*15-10 1.08	16-4 1.19	*16-11 1.31	17-5 1.44	*17-11 1.57	18-5 1.70	*18-11 1.84	19-4 1.98	*19-10 2.12	20-8 2.41	24.0	
27-2 1.52	28-2 1.69	29-1 1.86	*29-11 2.04	*30-10 2.22	31-8 2.41	32-6 2.60				12.0	2x12
25-5 1.42	26-4 1.58	27-2 1.74	28-0 1.90	*28-10 2.08	29-7 2.25	30-5 2.43				13.7	
23-6 1.32	24-4 1.46	25-2 1.61	*25-1 1.76	26-8 1.92	27-5 2.08	28-2 2.25	*28-10 2.42	29-6 2.60		16.0	
21-6 1.20	22-3 1.33	23-0 1.47	23-8 1.61	24-4 1.75	25-0 1.90	25-8 2.05	26-4 2.21	*26-11 2.37		19.2	
19-3 1.08	*19-11 1.19	20-6 1.31	21-2 1.44	21-9 1.57	22-5 1.70	23-0 1.84	23-6 1.98	24-1 2.12	25-2 2.41	24.0	

Note: The required modulus of elasticity, "E," in 1,000,000 pounds per square inch is shown below each span.  
(Part of Ord. passed 10/3/73).

### 14.64.080 Table R-10, High Slope Rafters.

**TABLE R-10**

**HIGH SLOPE RAFTERS**

Slope over 3 in 12 - 20 Lbs. Per Sq. Ft. Live Load  
(Heavy Roof Covering)

**DESIGN CRITERIA:**

Strength - 15 lbs. per sq. ft. dead load plus  
20 lbs. per sq. ft. live load determines  
required fiber stress.

Deflection - For 20 lbs. per sq. ft. live load.  
Limited to span in inches divided by 180.

RAFTER SIZE SPACING		Allowable Extreme Fiber Stress in Bending, "Fb" (psi).											
(IN)	(IN)	200	300	400	500	600	700	800	900	1000	1100	1200	1300
2x4	12.0	3-5 0.05	4-2 0.09	4-10 0.14	5-5 0.20	5-11 0.26	6-5 0.33	6-10 0.40	7-3 0.48	7-8 0.56	8-0 0.65	8-4 0.74	8-8 0.83
	13.7	3-2 0.05	3-11 0.09	4-6 0.13	5-1 0.19	5-6 0.24	6-0 0.31	6-5 0.38	6-9 0.45	7-2 0.52	7-6 0.61	7-10 0.69	8-2 0.78
	16.0	2-11 0.04	3-7 0.08	4-2 0.12	4-8 0.17	5-1 0.23	5-6 0.28	5-11 0.35	6-3 0.41	6-7 0.49	6-11 0.56	7-3 0.64	7-6 0.72
	19.2	2-8 0.04	3-4 0.07	3-10 0.11	4-3 0.16	4-8 0.21	5-1 0.26	5-5 0.32	5-9 0.38	6-0 0.44	6-4 0.51	6-7 0.58	6-11 0.66
	24.0	2-5 0.04	2-11 0.07	3-5 0.10	3-10 0.14	4-2 0.18	4-6 0.23	4-10 0.28	5-1 0.34	5-5 0.40	5-8 0.46	5-11 0.52	6-2 0.59
	24.0	5-4 0.05	6-7 0.09	7-7 0.14	8-6 0.20	9-4 0.26	10-0 0.33	10-9 0.40	11-5 0.48	12-0 0.56	12-7 0.65	13-2 0.74	13-8 0.83
2x6	12.0	5-4 0.05	6-7 0.09	7-7 0.14	8-6 0.20	9-4 0.26	10-0 0.33	10-9 0.40	11-5 0.48	12-0 0.56	12-7 0.65	13-2 0.74	13-8 0.83
	13.7	5-0 0.05	6-2 0.09	7-1 0.13	7-11 0.19	8-8 0.24	9-5 0.31	10-0 0.38	10-8 0.45	11-3 0.52	11-9 0.61	12-4 0.69	12-10 0.78
	16.0	4-8 0.04	5-8 0.08	6-7 0.12	7-4 0.17	8-1 0.23	8-8 0.28	9-4 0.35	9-10 0.41	10-5 0.49	10-11 0.56	11-5 0.64	11-10 0.72
	19.2	4-3 0.04	5-2 0.07	6-0 0.11	6-9 0.16	7-4 0.21	7-11 0.26	8-6 0.32	9-0 0.38	9-6 0.44	9-11 0.51	10-5 0.58	10-10 0.66
	24.0	3-10 0.04	4-8 0.07	5-4 0.10	6-0 0.14	6-7 0.18	7-1 0.23	7-7 0.28	8-1 0.34	8-6 0.40	8-11 0.46	9-4 0.52	9-8 0.59
	24.0	7-1 0.05	8-8 0.09	10-0 0.14	11-2 0.20	12-3 0.26	13-3 0.33	14-2 0.40	15-0 0.48	15-10 0.56	16-7 0.65	17-4 0.74	18-0 0.83
2x8	12.0	7-1 0.05	8-8 0.09	10-0 0.14	11-2 0.20	12-3 0.26	13-3 0.33	14-2 0.40	15-0 0.48	15-10 0.56	16-7 0.65	17-4 0.74	18-0 0.83
	13.7	6-7 0.05	8-1 0.09	9-4 0.13	10-6 0.19	11-6 0.24	12-5 0.31	13-3 0.38	14-0 0.45	14-10 0.52	15-6 0.61	16-3 0.69	16-10 0.78
	16.0	6-2 0.04	7-6 0.08	8-8 0.12	9-8 0.17	10-7 0.23	11-6 0.28	12-3 0.35	13-0 0.41	13-8 0.49	14-4 0.56	15-0 0.64	15-7 0.72
	19.2	5-7 0.04	6-10 0.07	7-11 0.11	8-10 0.16	9-8 0.21	10-6 0.26	11-2 0.32	11-10 0.38	12-6 0.44	13-1 0.51	13-8 0.58	14-3 0.66
	24.0	5-0 0.04	6-2 0.07	7-1 0.10	7-11 0.14	8-8 0.18	9-4 0.23	10-0 0.28	10-7 0.34	11-2 0.40	11-9 0.46	12-3 0.52	12-9 0.59
	24.0	9-0 0.05	11-1 0.09	12-9 0.14	14-3 0.20	15-8 0.26	16-11 0.33	18-1 0.40	19-2 0.48	20-2 0.56	21-2 0.65	22-1 0.74	23-0 0.83
2x10	12.0	9-0 0.05	11-1 0.09	12-9 0.14	14-3 0.20	15-8 0.26	16-11 0.33	18-1 0.40	19-2 0.48	20-2 0.56	21-2 0.65	22-1 0.74	23-0 0.83
	13.7	8-5 0.05	10-4 0.09	11-11 0.13	13-4 0.19	14-8 0.24	15-10 0.31	16-11 0.38	17-11 0.45	18-11 0.52	19-10 0.61	20-8 0.69	21-6 0.78
	16.0	7-10 0.04	9-7 0.08	11-1 0.12	12-4 0.17	13-6 0.23	14-8 0.28	15-8 0.35	16-7 0.41	17-6 0.49	18-4 0.56	19-2 0.64	19-11 0.72
	19.2	7-2 0.04	8-9 0.07	10-1 0.11	11-3 0.16	12-4 0.21	13-4 0.26	14-3 0.32	15-2 0.38	15-11 0.44	16-9 0.51	17-6 0.58	18-2 0.66
	24.0	6-5 0.04	7-10 0.07	9-0 0.10	10-1 0.14	11-1 0.18	11-11 0.23	12-9 0.28	13-6 0.34	14-3 0.40	15-0 0.46	15-8 0.52	16-3 0.59
	24.0	11-1 0.05	13-1 0.09	15-1 0.14	17-1 0.20	19-1 0.26	21-1 0.33	23-1 0.40	25-1 0.48	27-1 0.56	29-1 0.65	31-1 0.74	33-1 0.83

Note: The required modulus of elasticity, "E," in 1,000,000 pounds per square inch is shown below each span.

**TABLE R-10 (cont.)**

**RAFTERS:** Spans are measured along the horizontal projection and loads are considered as applied on the horizontal projection.

Allowable Extreme Fiber Stress in Bending, "Fb" (psi).												RAFTER SPACING SIZE	
1400	1500	1600	1700	1800	1900	2000	2100	2200	2400	2700	3000	(IN)	(IN)
9-0*	9-4*	9-8*	9-11	10-3	10-6	*10-10	11-1	11-4	*11-10	12-7		12.0	2x4
0.93	1.03	1.14	1.24	1.36	1.47	1.59	1.71	1.83	2.09	2.49			
8-5*	8-9*	9-0*	9-4*	9-7*	9-10	10-1	10-4	10-7	11-1	11-9		13.7	
0.87	0.96	1.06	1.16	1.27	1.37	1.48	1.60	1.71	1.95	2.33			
7-10	8-1*	8-4*	8-7*	8-10	9-1*	9-4*	9-7*	9-10	10-3	*10-10	11-5	16.0	
0.80	0.89	0.98	1.08	1.17	1.27	1.37	1.48	1.59	1.81	2.16	2.53		
7-2*	7-5*	7-8*	7-10	8-1*	8-4*	8-6*	8-9*	8-11	9-4*	9-11	10-5	19.2	
0.73	0.81	0.90	0.98	1.07	1.16	1.25	1.35	1.45	1.65	1.97	2.31		
6-5*	6-7*	6-10	7-0*	7-3*	7-5*	7-8*	7-10	8-0*	8-4*	8-10	9-4*	24.0	
0.66	0.73	0.80	0.88	0.96	1.04	1.12	1.21	1.29	1.48	1.76	2.06		
14-2	14-8	15-2	15-8	16-1	16-7	17-0	17-5	*17-10	18-7	19-9		12.0	2x6
0.93	1.03	1.14	1.24	1.36	1.47	1.59	1.71	1.83	2.09	2.49			
13-3	13-9	14-2	14-8	15-1	15-6	*15-11	16-3	16-8	17-5	18-5		13.7	
0.87	0.96	1.06	1.16	1.27	1.37	1.48	1.60	1.71	1.95	2.33			
12-4	12-9	13-2	13-7	*13-11	14-4	14-8	15-1	15-5	16-1	17-1	18-0	16.0	
0.80	0.89	0.98	1.08	1.17	1.27	1.37	1.48	1.59	1.81	2.16	2.53		
11-3	11-7	12-0	12-4	12-9	13-1	13-5	13-9	14-1	14-8	15-7	16-5	19.2	
0.73	0.81	0.90	0.98	1.07	1.16	1.25	1.35	1.45	1.65	1.97	2.31		
10-0	10-5	10-9	11-1	11-5	11-8	12-0	12-4	12-7	13-2	*13-11	14-8	24.0	
0.66	0.73	0.80	0.88	0.96	1.04	1.12	1.21	1.29	1.48	1.76	2.06		
18-9	19-5	20-0	20-8	21-3	*21-10	22-4	*22-11	23-6	24-6	26-0		12.0	2x8
0.93	1.03	1.14	1.24	1.36	1.47	1.59	1.71	1.83	2.09	2.49			
17-6	18-2	18-9	19-4	*19-10	20-5	*20-11	21-5	*21-11	*22-11	24-4		13.7	
0.87	0.96	1.06	1.16	1.27	1.37	1.48	1.60	1.71	1.95	2.33			
16-3	16-9	17-4	*17-10	18-5	*18-11	19-5	*19-10	20-4	21-3	22-6	23-9	16.0	
0.80	0.89	0.98	1.08	1.17	1.27	1.37	1.48	1.59	1.81	2.16	2.53		
*14-10	15-4	*15-10	16-4	16-9	17-3	17-8	18-2	18-7	19-5	20-7	21-8	19.2	
0.73	0.81	0.90	0.98	1.07	1.16	1.25	1.35	1.45	1.65	1.97	2.31		
13-3	13-8	14-2	14-7	15-0	15-5	*15-10	16-3	16-7	17-4	18-5	19-5	24.0	
0.66	0.73	0.80	0.88	0.96	1.04	1.12	1.21	1.29	1.48	1.76	2.06		
*23-11	24-9	25-6	26-4	27-1	*27-10	28-7	29-3	*29-11	31-3	33-2		12.0	2x10
0.93	1.03	1.14	1.24	1.36	1.47	1.59	1.71	1.83	2.09	2.49			
22-4	23-2	*23-11	24-7	25-4	26-0	26-8	27-4	28-0	29-3	31-0		13.7	
0.87	0.96	1.06	1.16	1.27	1.37	1.48	1.60	1.71	1.95	2.33			
20-8	21-5	22-1	*22-10	23-5	24-1	24-9	25-4	*25-11	27-1	28-9	30-3	16.0	
0.80	0.89	0.98	1.08	1.17	1.27	1.37	1.48	1.59	1.81	2.16	2.53		
*18-11	19-7	20-2	*20-10	21-5	22-0	22-7	23-2	23-8	24-9	26-3	27-8	19.2	
0.73	0.81	0.90	0.98	1.07	1.16	1.25	1.35	1.45	1.65	1.97	2.31		
*16-11	17-6	18-1	18-7	19-2	19-8	20-2	20-8	21-2	22-1	23-5	24-9	24.0	
0.66	0.73	0.80	0.88	0.96	1.04	1.12	1.21	1.29	1.48	1.76	2.06		

Note: The required modulus of elasticity, "E," in 1,000,000 pounds per square inch is shown below each span.

(Part of Ord. passed 10/3/73).

**14.64.090 Table No. 4, Nailing Schedule.**

<b>Building Element</b>	<b>Nail Type</b>	<b>Number and Distribution</b>
Stud to plate	Common-toe nail	4—8d
Stud to plate	Common-direct	2—16d
Double studs	Common-direct	16d 30" o.c.
Corner studs	Common-direct	16d 30" o.c.
Sole plate to joist or blocking	Common	16d 16" o.c.
Double cap plate	Common-direct	16d 24" o.c.
Cap plate laps	Common-direct	2—16d
Ribbon strip — 6" or less	Common-direct	2—10d each bearing
Ribbon strip — over 6"	Common-direct	3—10d each bearing
Roof rafter to plate	Common-toe nail	3—16d
Roof rafter to ridge	Common-direct	2—16d each rafter
Jack rafter to hip/valley	Common-toe nail	3—10d
Floor joists to studs	Common-direct	5—10d or 3—16d
Ceiling joists to studs	Common-direct	4—10d or 2—16d
Floor joists to sill or girder	Common-toe nail	2—16d
Ledger strip	Common-direct	2—16d at each joist
Ceiling joists to plate	Common-toe nail	2—16d
Ceiling joists to rafters	Common-direct	3—16d
Ceiling joists (laps over partition)	Common-direct	3—16d
Collar beam — 1" thick	Common-direct	4—10d
Collar beam — 2" thick	Common-direct	2—16d
Bridging to joists	Common-direct	2—8d each end
Diagonal brace (to stud and plate)	Common-direct	2—8d each bearing
Tail beams to headers	Common-end nail	3—16d
Header beams to trimmers	Common-end nail	3—16d each header
1" sub-flooring 6" or less	Common-direct	2—8d each joist
1" sub-flooring 8" or more	Common-direct	3—8d each joist
2" sub-flooring	Common-direct	2—16d each joist
1" sheathing — 6" or less	Common-direct	2—8d each stud or rafter
1" sheathing — over 6"	Common-direct	3—8d each stud or rafter
Plywood sheathing	Common-direct	8d 5" o.c. exterior edges
Plank roof decking and sub-floor	Common-direct	4" or 6" wide 2-10d 8" wide 3-10d
Roof sheathing — 6" or less	Common-direct	2—8d each rafter
Roof sheathing — over 6"	Common-direct	3—8d each rafter
Fiber board sheathing	Large head	7—No. 11gx13/4" per bearing under shingles 6" o.c.
Gypsum sheathing	Large head	2—length to penetrate sheathing
Shingles — wood 8" or less	Corrosion-resistive	3—length to penetrate sheathing
over 8"	Corrosion-resistive	2—8d each bearing
Weather boarding	Corrosion-resistive	6 per shingle-length to penetrate sheathing
Shingles — asphalt	roofing nail	
Plywood subfloor	Common-direct	8d panel edges 6" o.c. intermediate 10" o.c.

"

Building Element	Nail Type	Number and Distribution
Gypsum lath	Common-direct	3d blue lathing nail
	For 3/8" - 13 Ga. 11/8", 19/64" Dia.	16" width require 4 nails per lath each support
	Head-Flat	
Shingle nails shall penetrate not less than 3/4" into nailing strips, sheathing or supporting construction except as otherwise provided in paragraph 30.41(4).	For 1/2" - 13 Ga. 11/4", 19/64" Dia.	Head-24" width require 5 nails per lath each support
	Flat	

(Part of Ord. passed 10/3/73).

**14.64.100 Table No. 5, Minimum Girder Size.**

**TABLE NO. 5**

**Minimum Girder Size**

A36 Steel — F = 22,000 PSI

A. Girders Supporting First Floor Joists, One-Story Building — No Roof Loading.

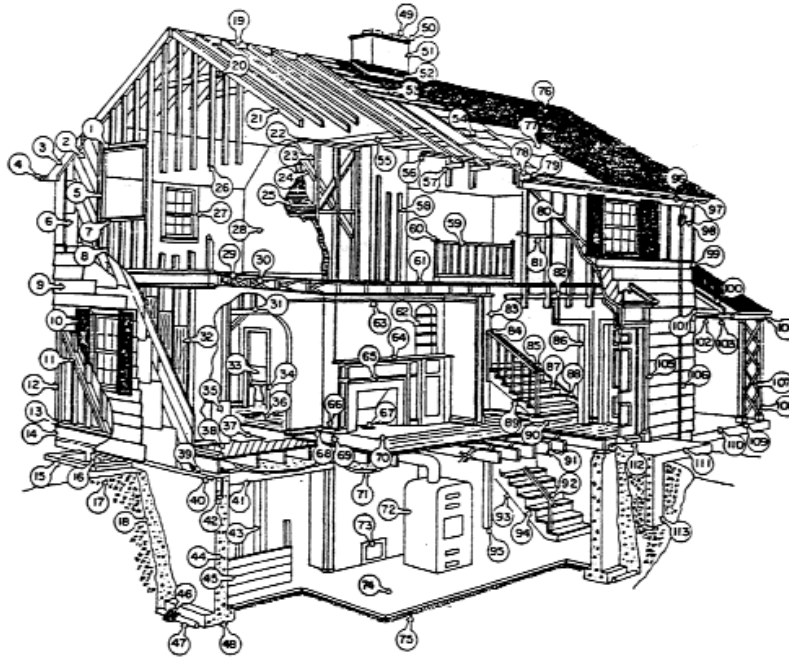
Assumed Load	Span C to C of Bearing	Width of Floor Tributary to Beam	Size of Steel Beam
LL = 40 PSF	7'	10' -12'	4 WF 13
Partition = *10 PSF	7'	12' -18'	6 B 12
DL Floor = *20 PSF			
DL Ceiling = *20 PSF	8'	10' -12'	6 B 12
LL Attic = 100 PSF	8'	12' -18'	8 B 13
	9'	10' -12'	6 B 12
	9'	12' -18'	8 B 15
	10'	10'	6 B 12
	10'	10' -14'	8 B 13
	10'	14' -18'	8 WF 17
	11'	10'	8 B 13
	11'	10' -14'	8 WF 17
	11'	14' -18'	8 WF 20
	12'	10'	8 B 15
	12'	10' -14'	8 WF 17
	12'	14' -18'	8 WF 24

B. Girders Supporting First Floor Joists, Two-Story Building — No Roof Loading.

Assumed Load		Span C to C of Bearing	Width of Floor Tributary to Beam	Size of Steel Beam
LL 1st	=	*40 PSF	7'	6 B 12
Partition 1st	=	*10 PSF	7'	8 B 15
DL 1 <sup>st</sup>	=	*20 PSF		
LL 2 <sup>nd</sup>	=	*40 PSF	8'	8 B 13
Partitions 2 <sup>nd</sup>	=	*10 PSF	8'	8 WF 17
DL 2 <sup>nd</sup>	=	*20 PSF		
Ceiling	=	*10 PSF	9'	8 B 15
LL Attic	=	*20 PSF	9'	8 WF 17
		170 PSF	9'	8 WF 20
			10'	8 B 15
			10'	8 WF 20
			10'	10 WF 21
			11'	8 WF 20
			11'	10 WF 25
			11'	10 WF 25
			12'	10 WF 21
			12'	12 WF 27
			12'	12 WF 27

NOTE: Where Girders support greater or lesser uniform or concentrated loads, or are subject to other unusual loading condition, calculations shall be submitted to prove acceptable performance.  
(Part of Ord. passed 10/3/73).

**14.64.110 Key To Construction Details.**



HUNNICUTT & ASSOCIATES  
 433 4th STREET NO.  
 ST. PETERSBURG, FLORIDA

**KEY TO CONSTRUCTION DETAILS**

- |                               |                                 |                               |                                |
|-------------------------------|---------------------------------|-------------------------------|--------------------------------|
| 1. Window Head Frame          | 31. Arch Framing                | 59. Stair Rail & Balusters    | 87. Main Stair Treads & Risers |
| 2. Wall Sheathing, Diagonal   | 32. Insulation, Batts           | 60. Stair Landing Newel       | 88. Wall Stair Stringer        |
| 3. Verge Board                | 33. Dining Nook                 | 61. Finish Flooring Over Felt | 89. Face Stringer & Moulds     |
| 4. Gutter                     | 34. Interior Door Trim          | Over Sub-flooring on          | 90. Starting Riser & Tread     |
| 5. Window Jamb Trimmer        | 35. Plaster Base, Rock Lath     | Wood Joists                   | 91. First Floor Joists         |
| 6. Wall Building Paper        | 36. Finish Floor                | 62. Book Shelves              | 92. Basement Stair Rail & Post |
| 7. Window Sill Frame          | 37. Floor Lining Felt           | 63. Picture Mould             | 93. Basement Stair Horses      |
| 8. Cripple Stud               | 38. Sub-Flooring, Diagonally    | 64. Mantel and Trim           | 94. Basement Stair Treads      |
| 9. Wall Siding                | 39. Sill Plate                  | 65. Damper Control            | & Risers                       |
| 10. Window Shutters           | 40. Termite Shield              | 66. Base Top Mould            | 95. Basement Post              |
| 11. Corner Bracing 45°95      | 41. Girder                      | 67. Ash Dump                  | 96. Facia Board                |
| 12. Corner Studs, Double      | 42. Plate Anchor Bolt           | 68. Baseboards                | 97. Cornice Bed Mould          |
| 13. Sole Plate                | 43. Post                        | 69. Shoe Mould                | 98. Leader Head or Conductor   |
| 14. Box Sill                  | 44. Foundation Wall             | 70. Hearth                    | Head                           |
| 15. Basement Areaway          | 45. Frame Partition             | 71. Plaster Ceiling           | 99. Belt Course                |
| 16. Basement Sash             | 46. Tarred Felt Joint Cover     | 72. Boiler or Furnace         | 100. Porch Rafter              |
| 17. Grade Line                | 47. Drain Tile                  | 73. Cleanout Door             | 101. Porch Ceiling Joists      |
| 18. Gravel Fill               | 48. Footing                     | 74. Basement Concrete Floor   | 102. Porch Ceiling Soffit      |
| 19. Ridge Board               | 49. Flue Liner Tops             | 75. Cinder Fill               | 103. Porch Roof Beam           |
| 20. Collar Beam               | 50. Chimney Cap                 | 76. Roof Cover (Shingles)     | 104. Porch Beam Facia          |
| 21. Roof Rafters              | 51. Brick Chimney               | 77. Roofing Felts             | 105. Entrance Door Trim        |
| 22. Interior Partition Plates | 52. Flashing & Counter Flashing | 78. Soffit of Cornice         | 106. Leader, Downspout or      |
| 23. Interior Studs            | 53. Spaced 1" x 4" Sheathing    | 79. Facia of Cornice          | Conductor                      |
| 24. Cross Bracing             | (Wood Shingles)                 | 80. Vert. Board & Batten      | 107. Porch Trellice            |
| 25. Plaster Base, Lath        | 54. Tight Roof Sheathing (All   | 81. Fire Stops                | 108. Porch Column              |
| 26. Gable Studs               | Other Coverings)                | 82. Ribbon Plate              | 109. Porch Column Base         |
| 27. Interior Window Trim      | 55. Ceiling Joists              | 83. Stair Wall Partition      | 110. Concrete Porch Floor      |
| 28. Plaster Walls             | 56. Exterior Wall Plates        | 84. Stair Rail or Easing      | 111. Concrete Stoop            |
| 29. Cross Bridging            | 57. Lookouts                    | 85. Starting Newel            | 112. Entrance Door Sill        |
| 30. Second Floor Joists       | 58. Furring Strips              | 86. Cased Opening Trim        | 113. Stoop Foundation          |

(Part of Ord. passed 10/3/73).