

TABLE XX		NOTCHING & BORING JOISTS [502.8.1]			
Nominal ^A dimension joist or girder	Max. diameter bored hole	Max. notch length	Max. notch depth outer 1/3	Max. depth end notch	
6	1½ in.	1¾ in.	7/8 in.	1⅜ in.	
8	2⅜ in.	2⅝ in.	1⅜ in.	1⅞ in.	
10	3⅞ in.	3⅞ in.	1½ in.	2⅜ in.	
12	3¾ in.	3¾ in.	1⅞ in.	2⅞ in.	

A. Table numbers based on actual dimensions: Typically 5½, 7¼, 9¼ & 11¼

TABLE XX		ALLOWABLE GIRDER & HEADER SPANS IN INTERIOR BEARING WALLS [T602.7(2)]					
No. of floors supported	Min. Size	Building Width ^A					
		20 ft.		28 ft.		36 ft.	
		Span ^B	NJ ^C	Span ^B	NJ ^C	Span ^B	NJ ^C
1	2-2x4	3-1	1	2-8	1	2-5	1
	2-2x6	4-6	1	3-11	1	3-6	1
	2-2x8	5-9	1	5-0	2	4-5	2
	2-2x10	7-0	2	6-1	2	5-5	2
	2-2x12	8-1	2	7-0	2	6-3	2
	3-2x8	7-2	1	6-3	1	5-7	2
	3-2x10	8-9	1	7-7	2	6-9	2
2	3-2x12	10-2	2	8-10	2	7-10	2
	2-2x4	2-2	1	1-10	1	1-7	1
	2-2x6	3-2	2	2-9	2	2-5	2
	2-2x8	4-1	2	3-6	2	3-2	2
	2-2x10	4-11	2	4-3	2	3-10	3
	2-2x12	5-9	2	5-0	3	4-5	3
	3-2x8	5-1	2	4-5	2	3-11	2
3-2x10	6-2	2	5-4	2	4-10	2	
3-2x12	7-2	2	6-3	2	5-7	3	

A. Building width is measured perpendicular to the ridge
 B. Based on #2 grade lumber, spans are in ft.-in.
 C. NJ = number of jack studs under each end. If the number is 1, the header is permitted to be supported by framing anchors attached to full-length wall studs & the header.

TABLE XX		JOIST SPANS FOR 30 PSF LIVE LOAD T502.3.1(1) (IN FEET-INCHES)							
Size	Douglas fir-larch #2 ^A Spacing (in. o.c.)				Hem-fir #2 ^A Spacing (in. o.c.)				
	12	16	19.2	24	12	16	19.2	24	
2x6	11-10	10-9	10-1	9-3	11-0	10-0	9-5	8-9	
2x8	15-7	14-2	13-0	11-8	14-6	13-2	12-5	11-4	
2x10	19-10	17-5	15-11	14-3	18-6	16-10	15-6	13-10	
2x12	23-4	20-3	18-6	16-6	22-6	19-8	17-1	16-1	
Size	Southern Pine #2 ^A Spacing (in. o.c.)				Spruce-pine-fir #2 ^A Spacing (in. o.c.)				
	12	16	19.2	24	12	16	19.2	24	
2x6	11-3	10-3	9-6	8-6	11-3	10-3	9-8	8-11	
2x8	14-11	13-3	12-1	10-10	14-11	13-6	12-9	11-6	
2x10	18-1	15-8	14-4	12-10	19-0	17-2	15-8	14-1	
2x12	21-4	18-6	16-10	15-1	23-0	19-11	18-3	16-3	

A. Dead load = 10psf. For other grades or dead loads, see IRC Table R502.3.1(1)

TABLE XX		ALLOWABLE GIRDER & HEADER SPANS IN EXTERIOR BEARING WALLS [T602.7(1)]					
Support	Min. Size	Building Width ^A					
		20 ft.		28 ft.		36 ft.	
		Span ^B	NJ ^C	Span ^B	NJ ^C	Span ^B	NJ ^C
Roof & Ceiling	1-2x8	4-6	1	3-10	1	3-5	1
	1-2x10	5-8	1	4-11	1	4-4	1
	1-2x12	6-11	1	5-11	2	5-3	2
	2-2x4	3-6	1	3-2	1	2-10	1
	2-2x6	5-5	1	4-8	1	4-2	1
	2-2x8	6-10	1	5-11	2	5-4	2
	2-2x10	8-5	2	7-3	2	6-6	2
	2-2x12	9-9	2	8-5	2	7-6	2
	3-2x8	8-4	1	7-5	1	6-8	1
	3-2x10	10-6	1	9-1	2	8-2	2
	3-2x12	12-2	2	10-7	2	9-5	2
Roof, Ceiling & 1 Center-Bearing Floor	1-2x8	3-11	1	3-5	1	3-0	1
	1-2x10	5-0	2	4-4	2	3-10	2
	1-2x12	5-10	2	4-9	2	4-2	2
	2-2x4	3-1	1	2-9	1	2-5	1
	2-2x6	4-6	1	4-0	1	3-7	2
	2-2x8	5-9	2	5-0	2	4-6	2
	2-2x10	7-0	2	6-2	2	5-6	2
	2-2x12	8-1	2	7-1	2	6-5	2
	3-2x8	7-2	1	6-3	2	5-8	2
	3-2x10	8-9	2	7-8	2	6-11	2
	3-2x12	10-2	2	8-11	2	8-0	2
Roof, Ceiling & 1 Clear-Span Floor	1-2x8	3-6	1	3-0	1	2-8	1
	1-2x10	4-6	1	3-10	1	3-3	1
	1-2x12	5-6	1	4-2	2	3-3	2
	2-2x4	2-8	1	2-4	1	2-1	1
	2-2x6	3-11	1	3-5	2	3-0	2
	2-2x8	5-0	2	4-4	2	3-10	2
	2-2x10	6-1	2	5-3	2	4-8	2
	2-2x12	7-1	2	6-1	2	5-5	2
	3-2x8	6-3	2	5-5	2	4-10	2
	3-2x10	7-7	2	6-7	2	5-11	2
	3-2x12	8-10	2	7-8	2	6-10	2
Roof, Ceiling & 2 Center-Bearing Floors	2-2x4	2-7	1	2-3	1	2-0	1
	2-2x6	3-9	2	3-3	2	2-11	2
	2-2x8	4-9	2	4-2	2	3-9	2
	2-2x10	5-9	2	5-1	2	4-7	3
	2-2x12	6-8	2	5-10	3	5-3	3
Roof, Ceiling & 2 Clear-Span Floors	2-2x4	2-1	1	1-8	1	1-6	1
	2-2x6	3-1	2	2-8	2	2-4	2
	2-2x8	3-10	2	3-4	2	3-0	3
	2-2x10	4-9	2	4-1	3	3-8	3
	2-2x12	5-6	3	4-9	3	4-3	3
	3-2x8	4-10	2	4-2	2	3-9	2
	3-2x10	5-11	2	5-1	2	4-7	3
3-2x12	6-10	2	5-11	2	5-4	3	

A. Building width is measured perpendicular to the ridge.
 B. Based on #2 grade lumber, spans are in ft.-in. & assume 30 psf snow load. If snow load is greater, see full table in the IRC.
 C. NJ = number of jack studs under each end. If the number is 1, the header is permitted to be supported by framing anchors attached to full-length wall studs & the header.

TABLE XX		JOIST SPANS FOR 40 PSF LIVE LOAD T502.3.1(2) (IN FEET-INCHES)							
Size	Douglas fir-larch #2 ^A Spacing (in. o.c.)				Hem-fir #2 ^A Spacing (in. o.c.)				
	12	16	19.2	24	12	16	19.2	24	
2x6	10-9	9-9	9-2	8-3	10-0	9-1	8-7	7-11	
2x8	14-2	12-9	11-8	10-5	13-2	12-0	11-3	10-2	
2x10	18-0	15-7	14-3	12-9	16-10	15-2	13-10	12-5	
2x12	20-11	18-1	16-6	14-9	20-4	17-7	16-1	14-4	
Size	Southern Pine #2 ^A Spacing (in. o.c.)				Spruce-pine-fir #2 ^A Spacing (in. o.c.)				
	12	16	19.2	24	12	16	19.2	24	
2x6	10-3	9-4	8-6	7-7	10-3	9-4	8-9	8-1	
2x8	13-6	11-10	10-10	9-8	13-6	12-3	11-6	10-3	
2x10	16-2	14-0	12-10	11-5	17-3	15-5	14-1	12-7	
2x12	19-1	16-6	15-1	13-6	20-7	17-10	16-3	14-7	

A. Dead load = 10psf. For other grades or dead loads, see IRC Table R502.3.1(2)