

ALLOWABLE SPAN TABLES FOR ROOF RAFTERS

w psf

California Building Code 2007 Edition (CBC), NDS 2005

Lumber: Douglas Fir-Larch, Surfaced-Dry condition (19% maximum moisture content).

Roofing: Composition Shingles, Metal, Wood Shakes or Shingles. Not supporting ceiling finish.

Design Criteria: 20# LL + 10 DL =30# TL per sq. ft. and Deflection L/180 for LL (Roof Slopes less than 5:12).

19# LL + 10 DL =29# TL per sq. ft. and Deflection L/180 for LL (Roof Slopes 5:12 or Steeper).

15% Repetitive member factor included where applicable. 25% Duration load adjustment applied.

ROOF SLOPE LESS THAN 5:12 (30#/sf)							ROOF SLOPE 5:12 OR GREATER (29#/sf)								
SIZE		GRADE	RAFTER SPACING IN INCHES					SIZE		GRADE	RAFTER SPACING IN INCHES				
W	D		12	16	24	32	42	W	D		12	16	24	32	42
2	x 4	SS	11-3	10-3	9-0	8-3	7-6	2	x 4	SS	11-6	10-6	9-3	8-3	7-6
		#1+	11-3	10-0	8-9	8-0	7-0			#1+	11-3	10-3	9-0	8-3	7-0
		#1	11-0	10-0	8-6	7-3	6-3			#1	11-0	10-0	8-6	7-6	6-6
		#2	10-9	9-9	8-0	7-0	6-0			#2	11-0	10-0	8-3	7-0	6-0
		#3	8-9	7-6	6-0	5-3	4-6			#3	8-9	7-6	6-3	5-3	4-9
2	x 6	SS	18-0	16-3	14-3	12-9	11-6	2	x 6	SS	18-3	16-6	14-6	13-0	11-9
		#1+	17-6	16-0	13-6	11-9	10-3			#1+	18-0	16-3	13-9	12-0	10-6
		#1	17-3	15-3	12-6	10-9	9-3			#1	17-6	15-6	12-6	11-0	9-6
		#2	16-9	14-6	11-9	10-3	8-9			#2	17-0	14-9	12-0	10-3	9-0
		#3	12-9	11-0	9-0	7-9	6-9			#3	13-0	11-3	9-0	7-9	6-9
2	x 8	SS	23-9	21-6	18-9	16-9	14-6	2	x 8	SS	24-0	21-9	19-0	17-0	14-9
		#1+	23-3	21-0	17-3	15-0	13-0			#1+	23-6	21-6	17-6	15-3	13-3
		#1	22-3	19-3	15-9	13-6	11-9			#1	22-9	19-9	16-0	13-9	12-0
		#2	21-3	18-3	15-0	13-0	11-3			#2	21-6	18-9	15-3	13-3	11-6
		#3	16-3	14-0	11-3	9-9	8-6			#3	16-6	14-3	11-6	10-0	8-9
2	x 10	SS	30-3	27-6	23-6	20-6	17-9	2	x 10	SS	30-9	28-0	24-0	20-9	18-3
		#1+	29-9	26-0	21-0	18-3	16-0			#1+	30-3	26-3	21-6	18-6	16-3
		#1	27-3	23-6	19-3	16-9	14-6			#1	27-9	24-0	19-6	17-0	14-9
		#2	26-0	22-6	18-3	15-9	13-9			#2	26-3	22-9	18-6	16-0	14-0
		#3	19-9	17-0	14-0	12-0	10-6			#3	20-0	17-3	14-3	12-3	10-9
SIZE		GRADE	RAFTER SPACING IN INCHES					SIZE		GRADE	RAFTER SPACING IN INCHES				
W	D		32	42	48	60	72	W	D		32	42	48	60	72
4	x 4	SS	10-9	10-0	9-6	8-9	8-3	4	x 4	SS	11-0	10-0	9-6	9-0	8-6
		#1+	10-9	9-9	9-3	8-3	7-6			#1+	10-9	10-0	9-6	8-6	7-9
		#1	10-6	9-0	8-6	7-6	7-0			#1	10-6	9-3	8-9	7-9	7-0
		#2	10-0	8-9	8-0	7-3	6-6			#2	10-0	8-9	8-3	7-3	6-9
4	x 6	SS	17-0	15-6	15-0	13-9	12-6	4	x 6	SS	17-6	16-0	15-3	14-0	12-9
		#1+	16-9	14-9	13-9	12-3	11-3			#1+	17-0	15-0	14-0	12-6	11-3
		#1	15-3	13-3	12-6	11-3	10-3			#1	15-6	13-6	12-9	11-3	10-3
		#2	14-6	12-9	11-9	10-6	9-9			#2	14-9	13-0	12-0	10-9	9-9
4	x 8	SS	22-6	20-9	19-9	18-0	16-6	4	x 8	SS	23-0	21-0	20-0	18-6	16-9
		#1+	22-3	19-3	18-0	16-3	14-9			#1+	22-6	19-9	18-6	16-6	15-0
		#1	20-3	17-9	16-6	14-9	13-6			#1	20-6	18-0	16-9	15-0	13-9
		#2	19-3	16-9	15-9	14-0	12-9			#2	19-6	17-0	16-0	14-3	13-0
4	x 10	SS	28-9	26-3	24-9	22-3	20-3	4	x 10	SS	29-3	26-9	25-3	22-6	20-6
		#1+	27-3	23-9	22-3	19-9	18-0			#1+	27-9	24-3	22-6	20-3	18-6
		#1	24-9	21-9	20-3	18-0	16-6			#1	25-3	22-0	20-6	18-6	16-9
		#2	23-6	20-6	19-3	17-3	15-9			#2	24-0	21-0	19-6	17-6	16-0
SIZE		GRADE	RAFTER SPACING IN INCHES				SIZE		GRADE	RAFTER SPACING IN INCHES					
W	D		48	60	72	96	W	D		48	60	72	96		
6	x 6	SS	16-6	15-0	13-9	12-0	6	x 6	SS	16-9	15-3	14-0	12-0		
		#1	15-0	13-6	12-3	10-6			#1	15-3	13-9	12-6	10-9		
		#2	12-0	10-6	9-9	8-3			#2	12-0	10-9	9-9	8-6		
6	x 8	SS	22-6	20-6	18-9	16-3	6	x 8	SS	22-9	21-0	19-0	16-6		
		#1	20-6	18-6	16-9	14-6			#1	21-0	18-9	17-0	14-9		
		#2	16-3	14-6	13-3	11-6			#2	16-6	14-9	13-6	11-9		
6	x 10	SS	28-6	26-6	24-9	21-3	6	x 10	SS	29-0	26-9	25-0	21-9		
		#1	27-9	24-9	22-6	19-6			#1	28-3	25-3	23-0	20-0		
		#2	22-3	20-0	18-3	15-9			#2	22-9	20-3	18-6	16-0		
8	x 8	SS	24-9	23-0	21-9	19-0	8	x 8	SS	25-3	23-6	22-0	19-3		
		#1	24-0	21-6	19-9	17-0			#1	24-6	22-0	20-0	17-3		
		#2	19-0	17-0	15-6	13-6			#2	19-3	17-3	15-9	13-9		

**DIVISION OF BUILDING AND SAFETY
COUNTY OF VENTURA**

**B & S
STD B-27**

BUILDING OFFICIAL

Jim MacDonald

DATE: 01/01/08