

# Ceiling Joists

TABLE R802.4(1)\*

MINIMUM LOADS FOR UNINHABITABLE ATTICS WITHOUT STORAGE:

LIVE LOAD 10# / sf, DEAD LOAD 5# / sf

DEFLECTION = L / 240

## Limited Storage

TABLE R802.4(2)\* MINIMUM  
LOADS FOR UNINHABITABLE ATTICS

WITHOUT STORAGE: LIVE LOAD

20# / sf, DEAD LOAD 10# / sf

DEFLECTION = L / 240

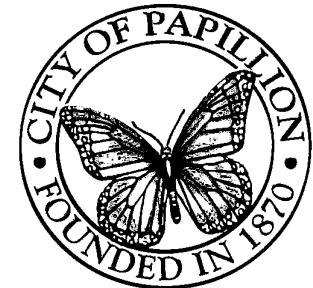
SIZE	SPACING	TYPE	DOUG-FIR & LARCH (DFL)	HEM-FIR (HF)	SOUTHERN PINE (SYP)	SPRUCE PINE-FIR (SPF)	(DFL)	(HF)	(SYP)	(SPF)
2x4	12" O.C.	#1	12'-8"	12'-2"	12'-8"	11'-10"	10'-0"	9'-8"	10'-0"	9'-5"
		#2	12'-5"	11'-7"	12'-5"	11'-10"	9'-10"	9'-2"	9'-10"	9'-5"
	16" O.C.	#1	11'-6"	11'-0"	11'-6"	9'-1"	9'-1"	8'-9"	9'-1"	8'-7"
		#2	11'-3"	10'-6"	11'-3"	10'-9"	8'-9"	8'-4"	8'-11"	8'-7"
	24" O.C.	#1	10'-0"	9'-8"	10'-0"	9'-5"	7'-8"	7'-6"	8'-0"	7'-2"
		#2	9'-10"	9'-2"	9'-10"	9'-5"	7'-2"	7'-1"	7'-8"	7'-2"
2x6	12" O.C.	#1	19'-11"	19'-1"	19'-11"	18'-8"	15'-9"	15'-2"	15'-9"	14'-9"
		#2	19'-6"	18'-2"	19'-6"	18'-8"	14'-10"	14'-5"	15'-6"	14'-9"
	16" O.C.	#1	18'-1"	17'-4"	18'-1"	16'-11"	13'-9"	13'-5"	14'-4"	12'-10"
		#2	17'-8"	16'-6"	17'-8"	16'-11"	12'-10"	12'-8"	13'-6"	12'-10"
	24" O.C.	#1	15'-9"	15'-2"	15'-9"	14'-9"	11'-2"	10'-11"	12'-6"	10'-6"
		#2	14'-10"	14'-5"	15'-6"	14'-9"	10'-6"	10'-4"	11'-0"	10'-6"
2x8	12" O.C.	#1	NOTE A	25'-2"	NOTE A	24'-7"	20'-1"	19'-7"	20'-10"	18'-9"
		#2	25'-8"	24'-0"	25'-8"	24'-7"	18'-9"	18'-6"	20'-1"	18'-9"
	16" O.C.	#1	23'-10"	22'-10"	23'-1"	22'-4"	17'-5"	16'-10"	18'-11"	16'-3"
		#2	23'-0"	21'-9"	23'-4"	22'-4"	16'-3"	16'-0"	17'-5"	16'-3"
	24" O.C.	#1	20'-1"	19'-7"	20'-10"	18'-9"	14'-2"	13'-10"	15'-10"	13'-3"
		#2	18'-9"	18'-6"	20'-1"	18'-9"	13'-3"	13'-1"	14'-2"	13'-3"
2x10	12" O.C.	#1	NOTE A	NOTE A	NOTE A	NOTE A	24'-6"	23'-11"	NOTE A	22'-11"
		#2	NOTE A	NOTE A	NOTE A	NOTE A	22'-11"	22'-7"	23'-11"	22'-11"
	16" O.C.	#1	NOTE A	NOTE A	NOTE A	NOTE A	21'-3"	20'-8"	23'-1"	19'-10"
		#2	NOTE A	NOTE A	NOTE A	NOTE A	19'-10"	19'-7"	20'-9"	19'-10"
	24" O.C.	#1	24'-6"	23'-11"	NOTE A	22'-11"	17'-4"	16'-11"	18'-10"	16'-3"
		#2	22'-11"	22'-7"	23'-11"	22'-11"	16'-3"	16'-0"	16'-11"	16'-3"

CHECK SOURCES FOR AVAILABILITY OF LUMBER IN LENGTHS GREATER THAN 20 FEET.

\*TABLE IS A CONDENSED VERSION OF THE 2006 IRC, TABLE 802.4(1).

NOTE A: SPAN EXCEEDS 26 FEET IN LENGTH

SPAN TABLES FOR  
**JOISTS & RAFTERS**



INSPECTION HOTLINE (402) 597-2072

CITY OF PAPIILLION  
122 EAST THIRD ST.  
PAPIILLION, NE 68046

DIGGERS HOTLINE 811

WWW.PAPIILLION.ORG

# Floor Joists

TABLE R502.3.1(2)\*  
 MINIMUM LOADS FOR UNINHABITABLE ATTICS WITHOUT STORAGE;  
 LIVE LOAD 40# / sf, DEAD LOAD 10# / sf  
 DEFLECTION = L / 360

# Roof Rafters

TABLE R802.5.1(3)\*  
 MINIMUM LOADS FOR UNINHABITABLE ATTICS WITHOUT STORAGE;  
 LIVE LOAD 30# / sf, DEAD LOAD 10# / sf  
 DEFLECTION = L / 180

SIZE	SPACING	TYPE	DOUG-FIR & LARCH (DFL)	HEM-FIR (HF)	SOUTHERN PINE (SYP)	SPRUCE PINE-FIR (SPF)
2x6	12" O.C.	#1	10'-11"	10'-6"	10'-11"	10'-3"
		#2	10'-9"	10'-0"	10'-9"	10'-3"
	16" O.C.	#1	9'-11"	9'-6"	9'-11"	9'-4"
		#2	9'-9"	9'-1"	9'-9"	9'-4"
	24" O.C.	#1	8'-8"	8'-4"	8'-8"	8'-1"
		#2	8'-1"	7'-11"	8'-6"	8'-1"
2x8	12" O.C.	#1	14'-5"	13'-10"	14'-5"	13'-6"
		#2	14'-2"	13'-2"	14'-2"	13'-6"
	16" O.C.	#1	13'-1"	12'-7"	13'-1"	12'-3"
		#2	12'-7"	12'-0"	12'-10"	12'-3"
	24" O.C.	#1	11'-0"	10'-9"	11'-5"	10'-3"
		#2	10'-3"	10'-2"	11'-0"	10'-3"
2x10	12" O.C.	#1	18'-5"	17'-8"	18'-5"	17'-3"
		#2	17'-9"	16'-10"	18'-0"	17'-3"
	16" O.C.	#1	16'-5"	16'-0"	16'-9"	15'-5"
		#2	15'-5"	15'-2"	16'-1"	15'-5"
	24" O.C.	#1	13'-5"	13'-1"	14'-7"	12'-7"
		#2	12'-7"	12'-5"	13'-1"	12'-7"
2x12	12" O.C.	#1	22'-0"	21'-6"	22'-5"	20'-7"
		#2	20'-7"	20'-4"	21'-9"	20'-7"
	16" O.C.	#1	19'-1"	18'-7"	20'-4"	17'-10"
		#2	17'-10"	17'-7"	18'-10"	17'-10"
	24" O.C.	#1	15'-7"	15'-2"	17'-5"	14'-7"
		#2	14'-7"	14'-4"	15'-5"	14'-7"

SIZE	SPACING	TYPE	DOUG-FIR & LARCH (DFL)	HEM-FIR (HF)	SOUTHERN PINE (SYP)	SPRUCE PINE-FIR (SPF)
2x4	12" O.C.	#1	9'-8"	9'-3"	9'-8"	9'-1"
		#2	9'-5"	8'-10"	9'-6"	9'-1"
	16" O.C.	#1	8'-9"	8'-5"	8'-9"	8'-2"
		#2	8'-2"	8'-0"	8'-7"	8'-2"
	24" O.C.	#1	7'-1"	6'-11"	7'-8"	6'-8"
		#2	6'-8"	6'-7"	7'-1"	6'-8"
2x6	12" O.C.	#1	14'-9"	14'-4"	15'-2"	13'-9"
		#2	13'-9"	13'-7"	14'-5"	13'-9"
	16" O.C.	#1	12'-9"	12'-5"	13'-9"	11'-11"
		#2	11'-11"	11'-9"	12'-6"	11'-11"
	24" O.C.	#1	10'-5"	10'-2"	11'-9"	9'-9"
		#2	9'-9"	9'-7"	10'-2"	9'-9"
2x8	12" O.C.	#1	18'-8"	18'-2"	20'-0"	17'-5"
		#2	17'-5"	17'-2"	18'-8"	17'-5"
	16" O.C.	#1	16'-2"	15'-9"	18'-1"	15'-1"
		#2	15'-1"	14'-11"	16'-2"	15'-1"
	24" O.C.	#1	13'-2"	12'-10"	14'-9"	12'-4"
		#2	12'-4"	12'-2"	13'-2"	12'-4"
2x10	12" O.C.	#1	22'-9"	22'-2"	24'-9"	21'-4"
		#2	21'-4"	21'-0"	22'-3"	21'-4"
	16" O.C.	#1	19'-9"	19'-3"	21'-5"	18'-5"
		#2	18'-5"	18'-2"	19'-3"	18'-5"
	24" O.C.	#1	16'-1"	15'-8"	17'-6"	15'-1"
		#2	15'-1"	14'-10"	15'-9"	15'-1"
2x12	12" O.C.	#1	NOTE B	25'-9"	NOTE B	24'-8"
		#2	24'-8"	24'-4"	NOTE B	24'-8"
	16" O.C.	#1	22'-10"	22'-3"	25'-7"	21'-5"
		#2	21'-5"	21'-1"	12'-7"	21'-5"
	24" O.C.	#1	18'-8"	18'-2"	20'-11"	17'-6"
		#2	17'-6"	17'-3"	18'-5"	17'-6"

CHECK SOURCES FOR AVAILABILITY OF LUMBER IN LENGTHS GREATER THAN 20 FEET.  
 \* TABLES ARE A CONDENSED VERSION OF THE 2006 IRC, TABLE 802.5.1(3) & 502.3.1(2).  
 NOTE B: SPAN EXCEEDS 26 FEET IN LENGTH