

Bonus Room Floor

Joist Selection for Bonus Room Floor^(a)

Knee wall location x (ft)	I-joist span L (ft)	Roof loading							
		Snow load = 30 psf, Dead load = 15 psf				Snow load = 40 psf, Dead load = 15 psf			
		On center spacing				On center spacing			
		12	16	19.2	24	12	16	19.2	24
4 or less	20	11-7/8" NI-40x	14" NI-40x 11-7/8" NI-80	14" NI-80 11-7/8" NI-80	16" NI-60 14" NI-80	11-7/8" NI-40x	14" NI-40x 11-7/8" NI-80	14" NI-80 11-7/8" NI-80	16" NI-60 14" NI-80
	22	11-7/8" NI-40x	11-7/8" NI-80	14" NI-80	14" NI-80	14" NI-40x 11-7/8" NI-80	16" NI-60 14" NI-80	16" NI-60 14" NI-80	16" NI-80
	24	14" NI-40x 11-7/8" NI-80	14" NI-80	16" NI-60 14" NI-80	16" NI-80	14" NI-40x 11-7/8" NI-80	16" NI-60 14" NI-80	16" NI-80	16" NI-80
	26	14" NI-80	16" NI-60	16" NI-80	--	16" NI-60 14" NI-80	16" NI-80	16" NI-80	--
6 or less	20	11-7/8" NI-40x	14" NI-40x 11-7/8" NI-80	14" NI-80 11-7/8" NI-80	16" NI-60 14" NI-80	11-7/8" NI-40x	11-7/8" NI-80	14" NI-80 11-7/8" NI-80	16" NI-60 14" NI-80
	22	14" NI-40x 11-7/8" NI-80	14" NI-80 11-7/8" NI-80	16" NI-60 14" NI-80	16" NI-80 14" NI-80	14" NI-40x 11-7/8" NI-80	16" NI-60 14" NI-80	16" NI-60 14" NI-80	16" NI-80
	24	14" NI-40x 11-7/8" NI-80	16" NI-60 14" NI-80	16" NI-80	16" NI-80	14" NI-80	16" NI-60 14" NI-80	16" NI-80	--
	26	16" NI-60 14" NI-80	16" NI-80	16" NI-80	--	16" NI-60 14" NI-80	16" NI-80	--	--

a) This table has been limited to the following I-joists series: 11-7/8" NI-40x, 11-7/8" NI-80, 14" NI-40x, 14" NI-80, 16" NI-60 and 16" NI-80.

Notes:

1. Roof design loads: Snow loads as shown; roof dead load 15 psf. The design is based on a load duration factor, C_D , of 1.15.
2. Floor design loads: Dead load of floor 10 psf; dead load of knee wall 40 pif; live load between knee walls 40 psf, attic load behind knee walls 20 psf.
3. Roof slope assumed to be between 8/12 and 12/12.
4. The live load deflection is limited to $L/480$ and the total load deflection to $L/240$.
5. Minimum bearing length shall be 3-1/2 inches for the end bearings. Bearing web stiffeners are required for I-joists noted in **italic bold**.
6. Straight gable roof framing. Hip roofs are outside the scope of this table.
7. For sizing with other dimensions and loads, contact your local distributor.

