



Bedford County

DEPARTMENT OF COMMUNITY DEVELOPMENT

RESIDENTIAL DECK CONSTRUCTION

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Joist Spans:

SPECIES ^b	SIZE	ALLOWABLE JOIST SPAN ^c		
		Spacing of deck joists (Inches)		
		12	16	24
Southern pine	2 x 6	9-11	9-0	7-7
	2 x 8	13-1	11-10	9-8
	2 x 10	16-2	14-0	11-5
	2 x 12	18-0	16-6	13-6

Decking Spans:

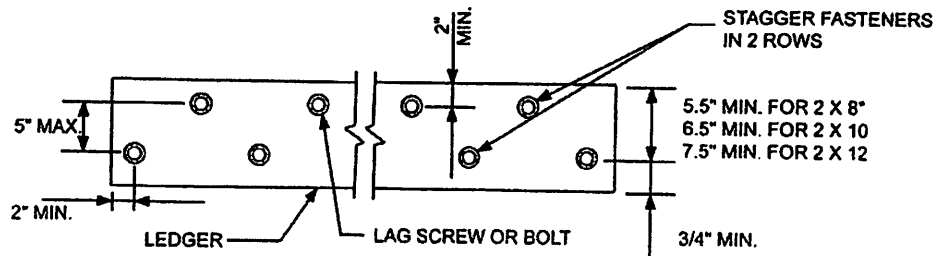
MATERIAL TYPE AND NOMINAL SIZE	MAXIMUM JOIST SPACING	
	PERPENDICULAR TO JOIST	DIAGONAL TO JOIST ^a
⁵ / ₄ -inch thick wood	16	12
2-inch thick wood	24	16
Wood/plastic composite	Per R507.3	Per R507.3

Bearing Bands:

SPECIES ^d	SIZE ^e	DECK JOIST SPAN (feet) LESS THAN OR EQUAL TO:						
		6	8	10	12	14	16	18
Southern pine	2-2x6	6-11	5-11	5-4	4-10	4-6	4-3	4-0
	2-2x8	8-9	7-7	6-9	6-2	5-9	5-4	5-0
	2-2x10	10-4	9-0	8-0	7-4	6-9	6-4	6-0
	2-2x12	12-2	10-7	9-5	8-7	8-0	7-6	7-0
	3-2x6	8-2	7-5	6-8	6-1	5-8	5-3	5-0
	3-2x8	10-10	9-6	8-6	7-9	7-2	6-8	6-4
	3-2x10	13-0	11-3	10-0	9-2	8-6	7-11	7-6
	3-2x12	15-3	13-3	11-10	10-9	10-0	9-4	8-10

Bolting:

Ledger bands must be bolted through the house band or the deck must be self-supporting.
 Manufactured (mobile) home decks must also be self-supporting.



JOIST SPAN	6' and less	6'1" to 8'	8'1" to 10'	10'1" to 12'	12'1" to 14'	14'1" to 16'	16'1" to 18'
Connection details							
On-center spacing of fasteners ^{d, e}							
¹ / ₂ inch diameter lag screw with ¹⁵ / ₃₂ inch maximum sheathing ^a	30	23	18	15	13	11	10
¹ / ₂ inch diameter bolt with ¹⁵ / ₃₂ inch maximum sheathing	36	36	34	29	24	21	19
¹ / ₂ inch diameter bolt with ¹⁵ / ₃₂ inch maximum sheathing and ¹ / ₂ inch stacked washers ^{e, h}	36	36	29	24	21	18	16

For SI: 1 inch = 25.4 mm. 1 foot = 304.8 mm. 1 pound per square foot = 0.0479 kPa.

- a. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
- b. The maximum gap between the face of the ledger board and face of the wall sheathing shall be ¹/₂ inch.
- c. Ledgers shall be flashed to prevent water from contacting the house band joists.
- d. Lag screws and bolts shall be staggered in accordance with Section R507.2.1.

FOR SPECIFIC CODE QUESTIONS PLEASE CONTACT BUILDING INSPECTIONS AT (540) 586-7616