

**FOOTING PAD JOIST LENGTH GUIDELINES CHART**  
Soil Capacity **2000 psf**      **50 lb psf** total load



FootingPad Size Chart (calculated from test data as certified in ESR-2147) on **2000 psf soil / 50# psf load**

Joist Length		Post Spacing (O. C) in Feet											
		4	5	6	7	8	9	10	11	12	13	14	
6 feet	Corner Footing	10	10	10	10	10	10	10	10	10	10	10	12
	Intermediate Footing	10	10	10	12	12	12	12	12	16	16	16	16
7 feet	Corner Footing	10	10	10	10	10	10	10	10	10	12	12	12
	Intermediate Footing	10	10	12	12	12	16	16	16	16	16	16	16
8 feet	Corner Footing	10	10	10	10	10	10	10	12	12	12	12	16
	Intermediate Footing	10	10	12	12	16	16	16	16	16	16	16	20
9 feet	Corner Footing	10	10	10	10	10	10	12	12	12	12	12	16
	Intermediate Footing	10	12	12	16	16	16	16	16	16	16	20	20
10 feet	Corner Footing	10	10	10	10	10	12	12	12	12	16	16	16
	Intermediate Footing	12	12	12	16	16	16	16	16	20	20	20	20
11 feet	Corner Footing	10	10	10	10	12	12	12	16	16	16	16	16
	Intermediate Footing	12	12	16	16	16	16	20	20	20	20	20	20
12 feet	Corner Footing	10	10	10	12	12	12	16	16	16	16	16	16
	Intermediate Footing	12	12	16	16	16	20	20	20	20	20	24	24
13 feet	Corner Footing	10	10	10	12	12	12	16	16	16	16	16	16
	Intermediate Footing	12	16	16	16	16	20	20	20	20	20	24	24
14 feet	Corner Footing	10	10	12	12	12	16	16	16	16	16	16	16
	Intermediate Footing	16	16	16	16	20	20	20	20	24	24	24	24
15 feet	Corner Footing	10	10	12	12	16	16	16	16	16	16	16	16
	Intermediate Footing	16	16	16	16	20	20	20	24	24	24	24	24
16 feet	Corner Footing	10	10	12	12	16	16	16	16	16	16	20	20
	Intermediate Footing	16	16	16	20	20	20	24	24	24	24	24	24

**Example:** If your joist length is 15 feet, and posts are spaced 5 feet apart, you would use a 16" diameter footing UNLESS the footing is at an outside corner

1. Footings must bear on solid ground below the frost line to prevent frost heave. Depth of frost line varies by geography
2. **The bearing capacity of the soil is presumed to be at least 2000 pounds per square foot (psf)**
3. Load per square foot is presumed to be 50 pounds per square foot (40 psf live load / snow load + 10 psf dead load)
4. For decks with an overhang, double the length of the overhang and add to joist length. For example, if 10 foot joist is used with a 2 foot overhang, double the overhang (4) and add to existing joist length (4 + 10 = 14) You will then use 14 feet as your joist length in the above chart.



**FOOTING PAD JOIST LENGTH GUIDELINES CHART**  
 Soil Capacity 3000 psf      50 lb psf total load



FootingPad Size Chart (calculated from test data as certified in ESR-2147) on **3000 psf soil / 50# psf load**

Joist Length		Post Spacing (O. C) in Feet										
		4	5	6	7	8	9	10	11	12	13	14
6 feet	Corner Footing	10	10	10	10	10	10	10	10	10	10	10
	Intermediate Footing	10	10	10	10	10	10	10	12	12	12	12
7 feet	Corner Footing	10	10	10	10	10	10	10	10	10	10	10
	Intermediate Footing	10	10	10	10	10	12	12	12	12	12	12
8 feet	Corner Footing	10	10	10	10	10	10	10	10	10	10	10
	Intermediate Footing	10	10	10	10	10	12	12	12	16	16	16
9 feet	Corner Footing	10	10	10	10	10	10	10	10	10	10	10
	Intermediate Footing	10	10	10	10	12	12	12	16	16	16	16
10 feet	Corner Footing	10	10	10	10	10	10	10	10	10	12	12
	Intermediate Footing	10	10	10	12	12	12	16	16	16	16	16
11 feet	Corner Footing	10	10	10	10	10	10	10	10	12	12	12
	Intermediate Footing	10	10	12	12	12	16	16	16	16	16	16
12 feet	Corner Footing	10	10	10	10	10	10	10	12	12	12	12
	Intermediate Footing	10	10	12	12	16	16	16	16	16	16	20
13 feet	Corner Footing	10	10	10	10	10	10	12	12	12	12	12
	Intermediate Footing	10	10	12	12	16	16	16	16	16	16	20
14 feet	Corner Footing	10	10	10	10	10	12	12	12	12	12	12
	Intermediate Footing	10	12	12	16	16	16	16	16	20	20	20
15 feet	Corner Footing	10	10	10	10	10	12	12	12	12	16	16
	Intermediate Footing	10	12	12	16	16	16	16	16	20	20	20
16 feet	Corner Footing	10	10	10	10	12	12	12	12	16	16	16
	Intermediate Footing	12	12	16	16	16	16	16	20	20	20	20

**Example:** If your joist length is 15 feet, and posts are spaced 5 feet apart, you would use a 12" diameter footing UNLESS the footing is at an outside corner

1. Footings must bear on solid ground below the frost line to prevent frost heave. Depth of frost line varies by geography
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3. Load per square foot is presumed to be 50 pounds per square foot (40 psf live load/snow load + 10 psf dead load)
4. For decks with an overhang, double the length of the overhang and add to joist length. For example, if 10 foot joist is used with a 2 foot overhang, double the overhang (4) and add to existing joist length (4 + 10 = 14) You will then use 14 feet as your joist length in the above chart.



**FOOTING PAD JOIST LENGTH GUIDELINES CHART**  
 Soil Capacity 2000 psf      60 lb psf total load



FootingPad Size Chart (calculated from test data as certified in ESR-2147) on **2000 psf soil / 60# psf load**

Joist Length		Post Spacing (O. C) in Feet										
		4	5	6	7	8	9	10	11	12	13	14
6 feet	Corner Footing	10" FP	10	10	10	10	10	10	10	10	12	12
	Intermediate Footing	10" FP	10	10	12	12	12	16	16	16	16	16
7 feet	Corner Footing	10" FP	10	10	10	10	10	10	10	12	12	12
	Intermediate Footing	10" FP	10	12	12	16	16	16	16	16	16	20
8 feet	Corner Footing	10" FP	10	10	10	10	10	12	12	16	16	16
	Intermediate Footing	10" FP	12	12	16	16	16	16	16	20	20	20
9 feet	Corner Footing	10" FP	10	10	10	10	12	12	12	16	16	16
	Intermediate Footing	10" FP	12	16	16	16	16	16	20	20	20	20
10 feet	Corner Footing	10" FP	10	10	10	16	16	16	16	16	16	16
	Intermediate Footing	12" FP	12	16	16	16	16	20	20	20	20	24
11 feet	Corner Footing	10" FP	10	10	12	12	12	16	16	16	16	16
	Intermediate Footing	12" FP	16	16	16	16	20	20	20	20	24	24
12 feet	Corner Footing	10" FP	10	10	12	12	16	16	16	16	16	16
	Intermediate Footing	12" FP	16	16	16	20	20	20	20	24	24	24
13 feet	Corner Footing	10" FP	10	12	12	16	16	16	16	16	16	16
	Intermediate Footing	12" FP	16	16	16	20	20	20	24	24	24	24
14 feet	Corner Footing	10" FP	10	12	12	16	16	16	16	16	16	20
	Intermediate Footing	16" FP	16	16	20	20	20	24	24	24	24	24
15 feet	Corner Footing	10" FP	12	12	16	16	16	16	16	16	20	20
	Intermediate Footing	16" FP	16	16	20	20	24	24	24	24	24	24
16 feet	Corner Footing	10" FP	12	12	16	16	16	16	16	20	20	20
	Intermediate Footing	16" FP	16	20	20	20	24	24	24	24	24	24

**Example:** If your joist length is 15 feet, and posts are spaced 5 feet apart, you would use a 16" diameter footing UNLESS the footing is at an outside corner

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Joist Length		Post Spacing (O. C) in Feet											
		4	5	6	7	8	9	10	11	12	13	14	
6 feet	Corner Footing	10" FP	10	10	10	10	10	10	10	10	10	10	10
	Intermediate Footing	10" FP	10	10	10	10	10	12	12	12	12	16	
7 feet	Corner Footing	10" FP	10	10	10	10	10	10	10	10	10	10	
	Intermediate Footing	10" FP	10	10	10	12	12	12	12	16	16	16	
8 feet	Corner Footing	10" FP	10	10	10	10	10	10	10	10	10	12	
	Intermediate Footing	10" FP	10	10	12	12	12	16	16	16	16	16	
9 feet	Corner Footing	10" FP	10	10	10	10	10	10	10	10	12	12	
	Intermediate Footing	10" FP	10	10	12	12	16	16	16	16	16	16	
10 feet	Corner Footing	10" FP	10	10	10	10	10	10	12	12	12	12	
	Intermediate Footing	10" FP	10	12	12	16	16	16	16	16	16	16	
11 feet	Corner Footing	10" FP	10	10	10	10	10	12	12	12	12	12	
	Intermediate Footing	10" FP	12	12	12	16	16	16	16	16	20	20	
12 feet	Corner Footing	10" FP	10	10	10	10	10	12	12	12	12	16	
	Intermediate Footing	10" FP	12	12	16	16	16	16	16	20	20	20	
13 feet	Corner Footing	10" FP	10	10	10	10	12	12	12	12	16	16	
	Intermediate Footing	10" FP	12	12	16	16	16	16	20	20	20	20	
14 feet	Corner Footing	10" FP	10	10	10	12	12	12	12	16	16	16	
	Intermediate Footing	12" FP	12	16	16	16	16	16	20	20	20	20	
15 feet	Corner Footing	10" FP	10	10	10	12	12	12	16	16	16	16	
	Intermediate Footing	12" FP	12	16	16	16	16	20	20	20	20	20	
16 feet	Corner Footing	10" FP	10	10	12	12	12	16	16	16	16	16	
	Intermediate Footing	12" FP	16	16	16	16	20	20	20	20	20	24	

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