



# The City of Garfield Heights

## Building Department

<b>Property Information</b>		<b>Type of Permit Requested</b>
Address of Project _____		<input type="radio"/> Building <input type="radio"/> Concrete <input type="radio"/> Electrical
PP Number _____		<input type="radio"/> HVAC <input type="radio"/> Plumbing <input type="radio"/> Sewer
S/L Number _____		<input type="radio"/> Other _____
Applicant/Contractor		
Print _____		<b>General Information</b>
Name _____		Lot Size _____
Address _____		Estimated Value of Const. _____
Phone Number _____		Description of Project _____
Email Address _____		_____
<b>Property Owner</b>		
Name _____		_____
Address _____		_____
Phone Number _____		_____
Email Address _____		_____
<b>Contractor</b>		
Name of Contractor _____		Fixtures # _____
Registration Number _____		Outlets # _____
Expires _____		Linear Ft. _____
		Square Ft. _____
Note: Attach required drawing on separate sheet		

THIS PROPOSED PROJECT COMPLIES WITH ALL DEED RESTRICTIONS: \_\_\_\_\_ YES

Signature of applicant \_\_\_\_\_

Date \_\_\_\_\_

Approved

Denied

Building Commissioner \_\_\_\_\_

Date \_\_\_\_\_

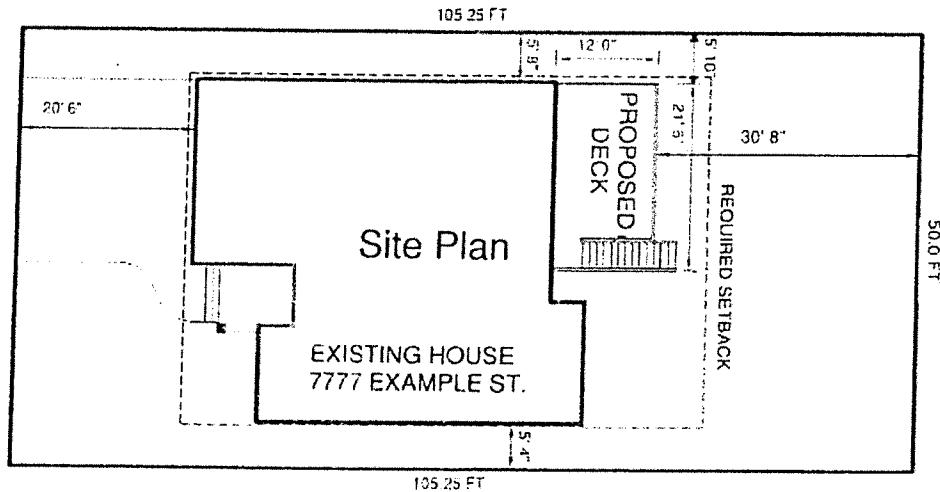
Permit Number \_\_\_\_\_

Application Number \_\_\_\_\_

Receipt Number \_\_\_\_\_

Correction Notice: \_\_\_\_\_

## \*Sample\*



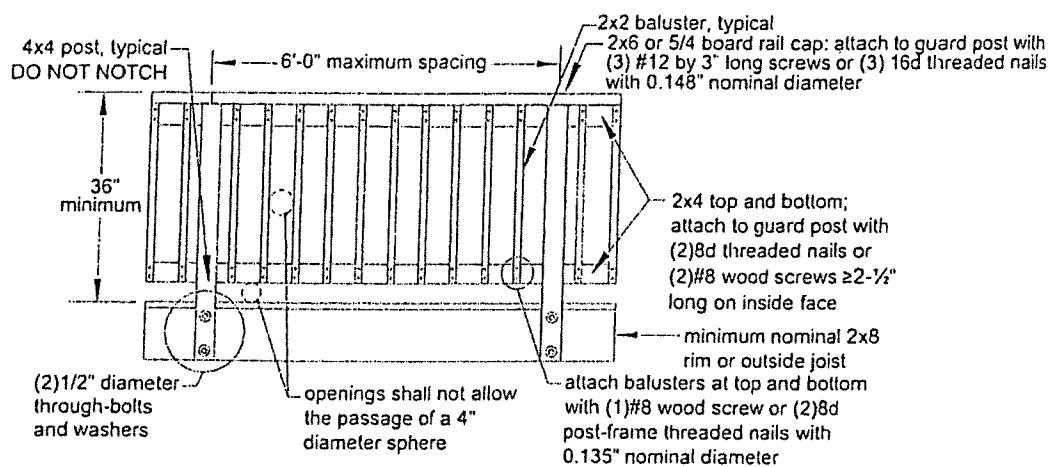
## \*Sample\*

### GUARD REQUIREMENTS

All decks greater than 30" above grade are required to have a guard [R312.1] - one example is shown in Figure

24. Other methods and materials may be used for guard construction when *approved* by the authority having jurisdiction.

**Figure 24. Example Guard Detail.**



### STAIR HANDRAIL REQUIREMENTS

All stairs with 4 or more risers shall have a handrail on at least one side (see Figure 32A) [R311.7.8]. The handrail height measured vertically from the sloped plane adjoining the tread nosing shall be not less than 34 inches and not more than 38 inches (see Figure 30) [R311.7.8.1]. Handrails shall be graspable and shall be composed of decay-resistant and/or corrosion resistant material. Handrails shall be Type I, Type II, or provide equivalent graspability (see Figure 32B). Type I shall have a perimeter dimension of at least 4" and not greater than 6-1/4". Type II rails with a perimeter greater than 6-1/4" shall provide a graspable finger recess area on both sides of the profile [R311.7.8.3]. All shapes shall have a smooth surface with no sharp corners. Handrails shall run continuously from a point directly over the lowest riser to a point directly over the highest riser and shall return to the guard at each end (see Figure 33). Handrails may be interrupted by guard posts at a turn in the stair [R311.7.8.2].

Figure 32A. Handrail Mounting Examples.

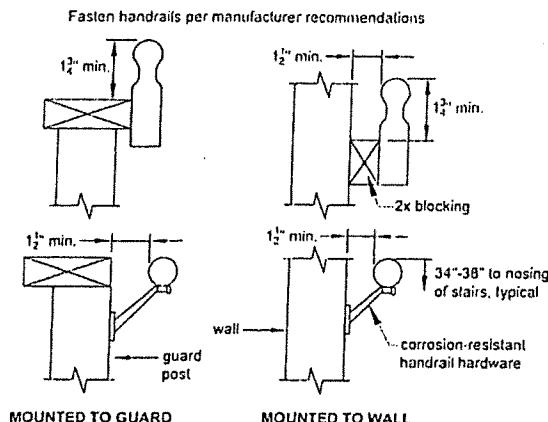
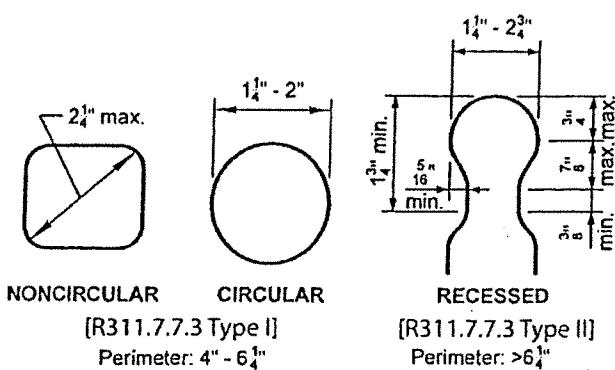


Figure 32B. Handrail Grip Size.



**\*Sample\***

### STAIR FOOTING REQUIREMENTS [R403]

Where the stairway meets grade, attach the stringers to the stair guard posts as shown in Figure 34. Posts shall bear on footings. All footings shall bear on solid ground and shall be placed at least 12 inches below the undisturbed ground surface or below the frost line, whichever is deeper (see Figure 34). Stringers shall bear on a 2x4 bearing block attached to the post as shown. Stringers shall not bear on new or existing concrete pads or patios that are not founded below this depth. When guards are not required (see GUARD REQUIREMENTS), posts may terminate below the bottom tread elevation. Bolts are only required if a guard post is required.

### STAIR LIGHTING REQUIREMENTS [R303.7]

Stairways shall have a light source located at the top landing such that all stairs and landings are illuminated. The light switch shall be operated from inside the house. However, motion detected or timed switches are acceptable.

Figure 33. Miscellaneous Stair Requirements.

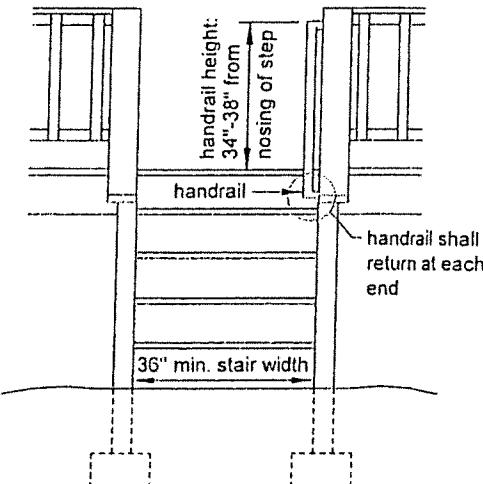


Figure 34. Stair Footing Detail.

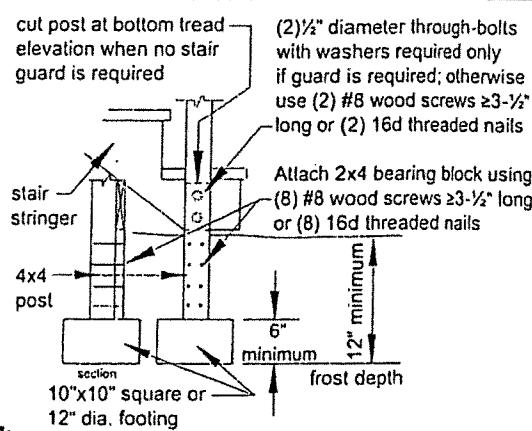


Figure 28. Stair Stringer Requirements.

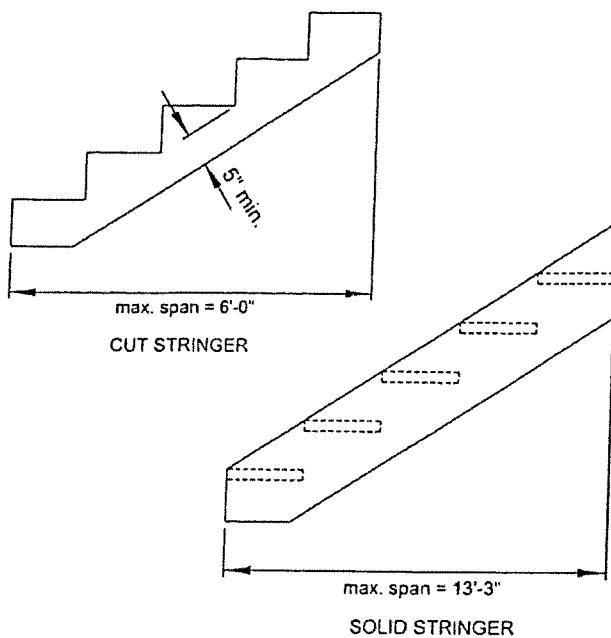


Figure 29. Tread Connection Requirements.

Attachment per tread at each stringer or ledger:  
 2x<sub>6</sub> or 5/4 treads - (2)8d threaded nails or (2)#8 screws  $\geq$  2-1/2" long  
 3x<sub>6</sub> treads - (2)16d threaded nails or (2)#8 screws  $\geq$  3-1/2" long

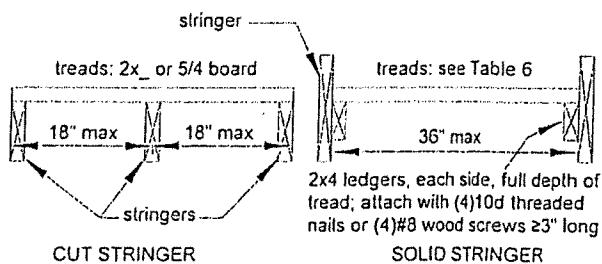
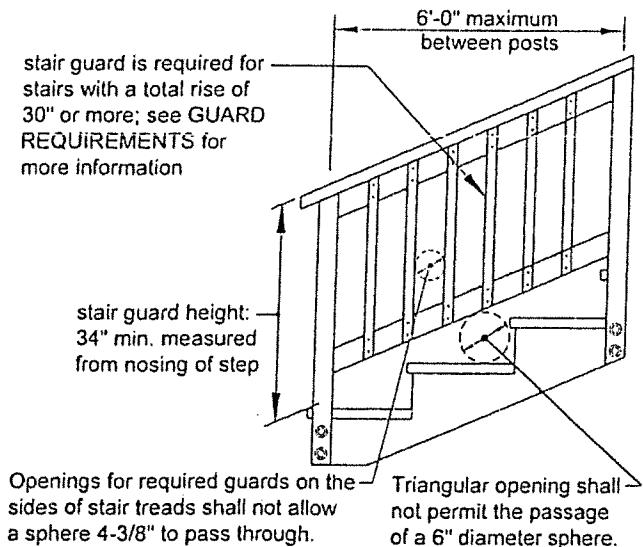
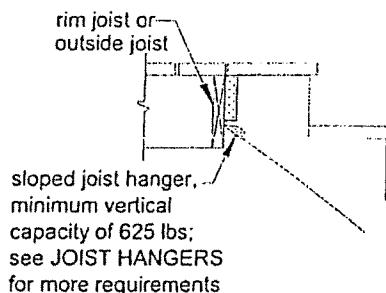


Figure 30. Stair Guard Requirements.



**\*Sample\***

Figure 31. Stair Stringer Attachment Detail.



ATTACHMENT WITH HANGERS

Table 6. Minimum Tread Size for Cut and Solid Stringers.<sup>1</sup>

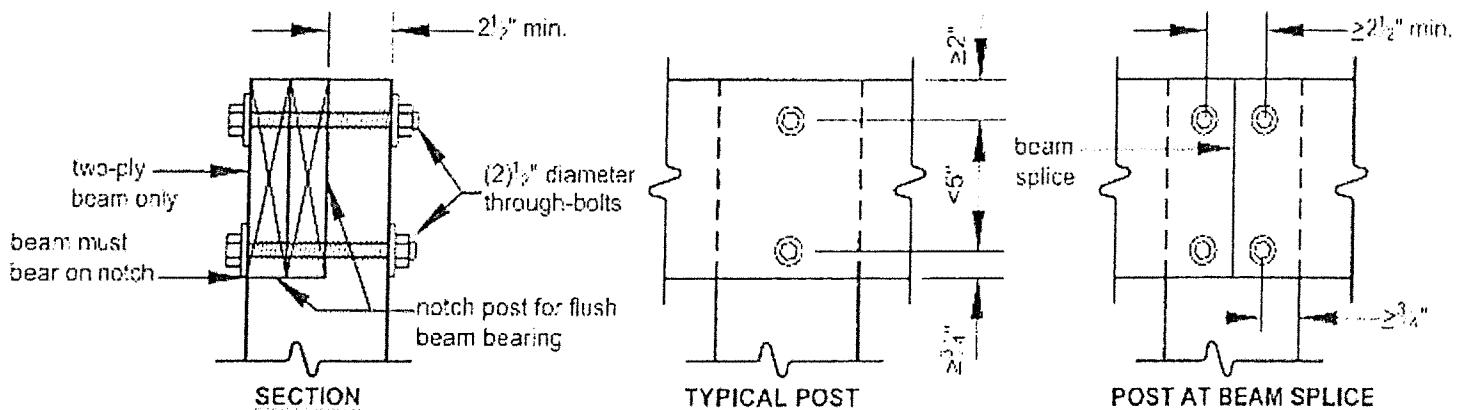
Species	Cut Stringer	Solid Stringer
Southern Pine	2x4 or 5/4	2x8
Douglas Fir Larch, Hem-Fir, SPF <sup>2</sup>	2x4 or 5/4	2x8 or 3x4
Redwood, Western Cedars, Ponderosa Pine, <sup>3</sup> Red Pine <sup>3</sup>	2x4 or 5/4	2x10 or 3x4

1. Assumes 300 lb concentrated load, L/288 deflection limit, No. 2 stress grade, and wet service conditions.

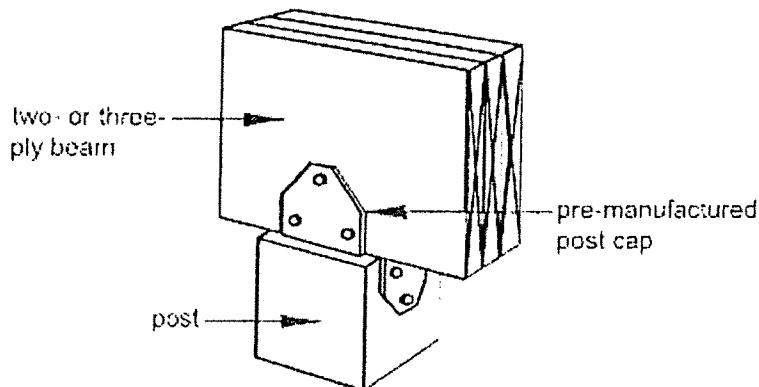
2. Incising assumed for Douglas fir-larch, hem-fir, and spruce-pine-fir.

3. Design values based on northern species with no incising assumed.

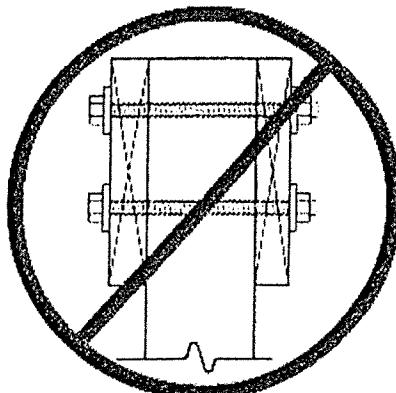
## \*Sample\*



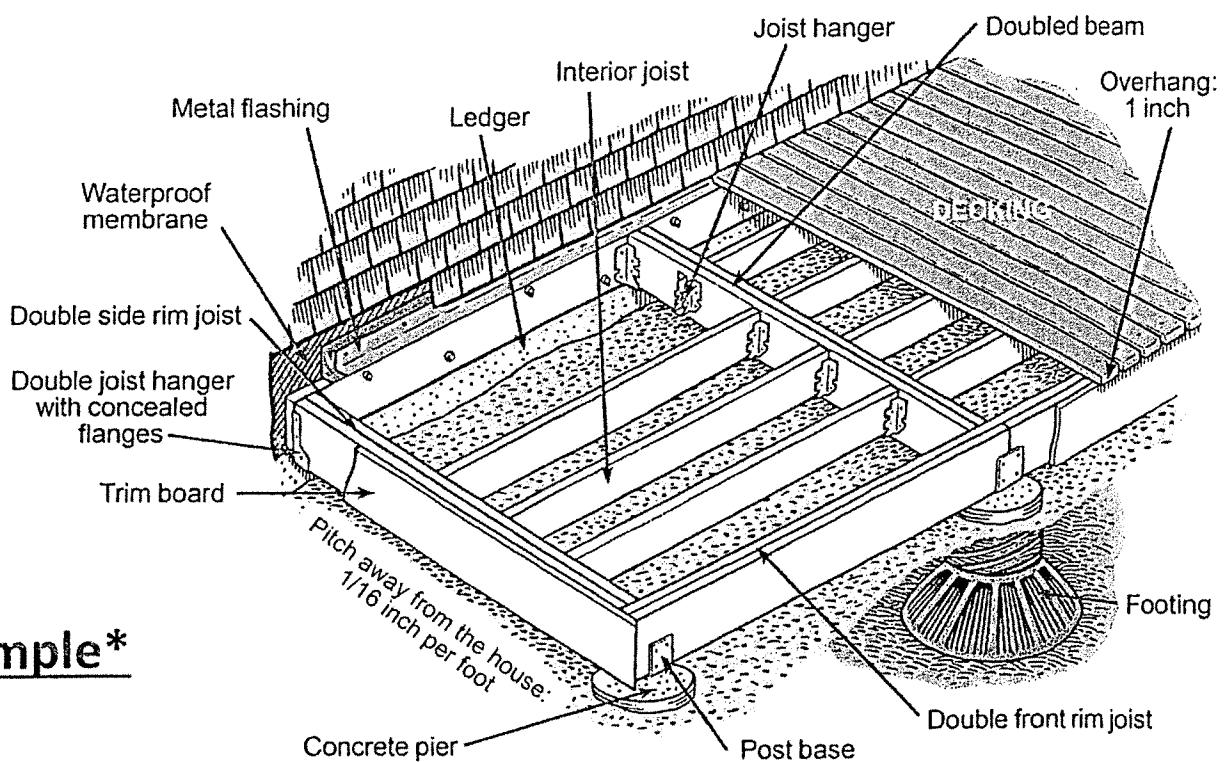
**FIGURE 18: NOTCHED 6X6 POST-TO-BEAM CONNECTION**



**FIGURE 19: POST CAP CONNECTION**



**FIGURE 20: PROHIBITED CONNECTION**



## \*Sample\*

Table 3A. Dimension Lumber Deck Beam Spans ( $L_B$ )<sup>1</sup> for Joists Framing from One Side Only.

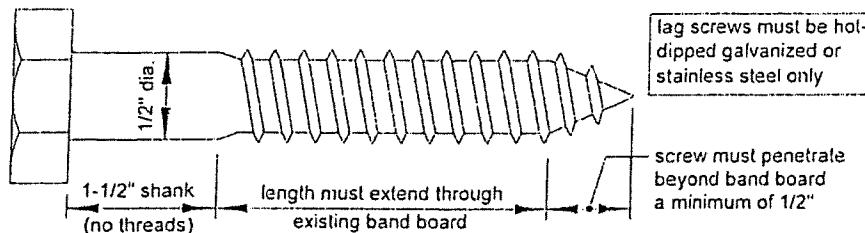
Species	Size <sup>4</sup>	Joist Spans (L) Less Than or Equal to:						
		6'	8'	10'	12'	14'	16'	18'
Southern Pine	2-2x6	6'- 8"	5'- 8"	5'- 1"	4'- 7"	4'- 3"	4'- 0"	3'- 9"
	2-2x8	8'- 6"	7'- 4"	6'- 6"	5'- 11"	5'- 6"	5'- 1"	4'- 9"
	2-2x10	10'- 1"	8'- 9"	7'- 9"	7'- 1"	6'- 6"	6'- 1"	5'- 9"
	2-2x12	11'- 11"	10'- 4"	9'- 2"	8'- 4"	7'- 9"	7'- 3"	6'- 9"
	3-2x6	7'- 11"	7'- 2"	6'- 5"	5'- 10"	5'- 5"	5'- 0"	4'- 9"
	3-2x8	10'- 7"	9'- 3"	8'- 3"	7'- 6"	6'- 11"	6'- 5"	6'- 1"
	3-2x10	12'- 9"	11'- 0"	9'- 9"	8'- 9"	8'- 3"	7'- 8"	7'- 3"
	3-2x12	15'- 0"	13'- 0"	11'- 7"	10'- 6"	9'- 9"	9'- 1"	8'- 7"
	3x6 or 2-2x6	5'- 2"	4'- 5"	3'- 11"	3'- 7"	3'- 3"	2'- 10"	2'- 6"
	3x8 or 2-2x8	6'- 7"	5'- 8"	5'- 1"	4'- 7"	4'- 3"	3'- 10"	3'- 5"
Douglas Fir- Larch <sup>2</sup> , Hem- Fir <sup>2</sup> , Spruce- Pine-Fir <sup>2</sup> , Redwood, Western Cedars, Ponderosa Pine <sup>3</sup> , Red Pine <sup>3</sup>	3x10 or 2-2x10	8'- 1"	7'- 0"	6'- 3"	5'- 8"	5'- 3"	4'- 10"	4'- 5"
	3x12 or 2-2x12	9'- 5"	8'- 2"	7'- 3"	6'- 7"	6'- 1"	5'- 8"	5'- 4"
	4x6	6'- 2"	5'- 3"	4'- 8"	4'- 3"	3'- 11"	3'- 8"	3'- 5"
	4x8	8'- 2"	7'- 0"	6'- 3"	5'- 8"	5'- 3"	4'- 11"	4'- 7"
	4x10	9'- 8"	8'- 4"	7'- 5"	6'- 9"	6'- 3"	5'- 10"	5'- 5"
	4x12	11'- 2"	9'- 8"	8'- 7"	7'- 10"	7'- 3"	6'- 9"	6'- 4"
	3-2x6	7'- 1"	6'- 5"	5'- 9"	5'- 3"	4'- 10"	4'- 6"	4'- 3"
	3-2x8	9'- 5"	8'- 3"	7'- 4"	6'- 8"	6'- 2"	5'- 9"	5'- 5"
	3-2x10	11'- 9"	10'- 2"	9'- 1"	8'- 3"	7'- 7"	7'- 1"	6'- 8"
	3-2x12	13'- 8"	11'- 10"	10'- 6"	9'- 7"	8'- 10"	8'- 3"	7'- 10"

1. Assumes 40 psf live load, 10 psf dead load, L/360 simple span beam deflection limit, cantilever length/180 deflection limit, No. 2 stress grade, and wet service conditions.

2. Incising assumed for Douglas fir-larch, hem-fir, and spruce-pine-fir.

3. Design values based on northern species with no incising assumed.

4. Beam depth must be equal to or greater than joist depth if joist hangers are used (see Figure 6, Option 3).



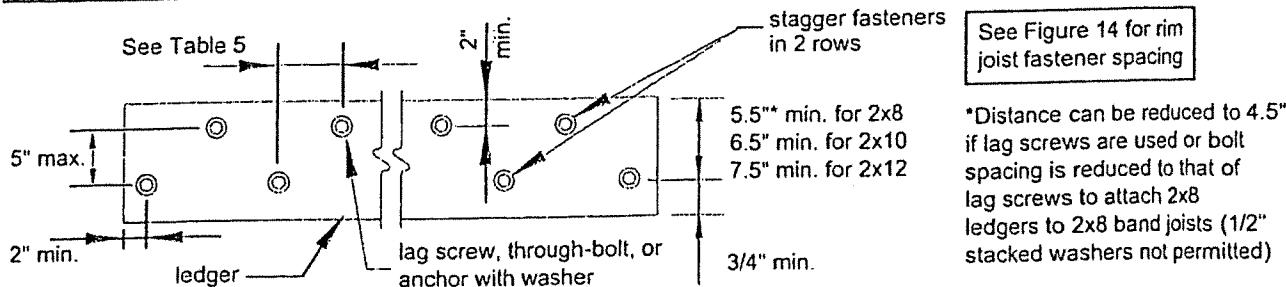
**\*Sample\***

## 16 PRESCRIPTIVE RESIDENTIAL WOOD DECK CONSTRUCTION GUIDE

**Placement of lag screws or bolts in deck ledgers**  
The lag screws or bolts shall be placed as shown in Figure 19. The lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of

the deck ledger (see Figure 19). Proper installation of lag screws or bolts shall be verified by the authority having jurisdiction.

Figure 19. Ledger Board Fastener Spacing and Clearances.



**\*Sample\***

**MINIMUM FOOTING SIZE FOR DECKS (sq ft)<sup>1</sup>**

		SOIL BEARING CAPACITY (psf)											
		1500			2000			2500			≥ 3000		
		LIVE OR GROUND LOAD <sup>2</sup> (psf)	TRIBUTARY AREA	SIDE OF A SQUARE FOOTING (in)	DIA. OF A ROUND FOOTING (in)	THICKNESS (in)	SIDE OF A SQUARE FOOTING (in)	DIA. OF A ROUND FOOTING (in)	THICKNESS (in)	SIDE OF A SQUARE FOOTING (in)	DIA. OF A ROUND FOOTING (in)	THICKNESS (in)	SIDE OF A SQUARE FOOTING (in)
40	20	12	14	6	12	14	6	12	14	6	12	14	6
	40	14	16	6	12	14	6	12	14	6	12	14	6
	60	17	19	6	15	17	6	13	15	6	12	14	6
	80	20	22	7	17	19	6	15	17	6	14	16	6
	100	22	25	8	19	21	6	17	19	6	15	17	6
	120	24	27	9	21	23	7	19	21	6	17	19	6
	140	26	29	10	22	25	8	20	23	7	18	21	7
	160	28	31	11	24	27	9	21	24	8	20	22	7
50	20	12	14	6	12	14	6	12	14	6	12	14	6
	40	15	17	6	13	15	6	12	14	6	12	14	6
	60	19	21	6	16	18	6	14	16	6	13	15	6
	80	21	24	8	19	21	6	17	19	6	15	17	6
	100	24	27	9	21	23	7	19	21	6	17	19	6
	120	26	30	10	23	26	8	20	23	7	19	21	6
	140	28	32	11	25	28	9	22	25	8	20	23	7
	160	30	34	12	26	30	10	24	27	9	21	24	8
60	20	12	14	6	12	14	6	12	14	6	12	14	6
	40	16	19	6	14	16	6	13	14	6	12	14	6
	60	20	23	7	17	20	6	16	18	6	14	16	6
	80	23	26	9	20	23	7	18	20	6	16	19	6
	100	26	29	10	22	25	8	20	23	7	18	21	6
	120	28	32	11	25	28	9	22	25	8	20	23	7
	140	31	35	12	27	30	10	24	27	9	22	24	8
	160	33	37	13	28	32	11	25	29	10	23	26	9
70	20	12	14	6	12	14	6	12	14	6	12	14	6
	40	18	20	6	15	17	6	14	15	6	12	14	6
	60	21	24	8	19	21	6	17	19	6	15	17	6
	80	25	29	9	21	24	8	19	22	7	18	20	6
	100	28	31	11	24	27	9	21	24	8	20	22	7
	120	30	34	12	25	30	10	24	27	9	21	24	8
	140	33	37	13	26	32	11	25	29	10	23	26	9
	160	35	40	15	30	34	12	27	31	11	25	28	9

**\*Sample\***

