



HOMER GLEN

## **Deck Building Guide**

### **Single Family Residential Uncovered Decks and Porches**

#### **APPLICATION:**

- Submit a completed application
- Review Deck Code Requirements
- Complete the Deck Material Worksheet
- Show and submit location on plat of survey
- Submit three (3) sets of detailed plans of sufficient clarity showing all dimensions

#### **CODE REQUIREMENTS:**

- Review Accessory Structure Guidelines for Zoning Requirements regarding Size, Height, and Location
- Comply with Deck Code Requirements

#### **INSPECTIONS:**

- Post Holes (pre-pour)
- Rough Framing (pre-decking and rails)
- Final Inspection

## **DECK CODE REQUIREMENTS**

**Live Load-** Based on forty (40 lbs) per square foot

**Piers** - Minimum depth is 42 inches below grade.  
Minimum 10 inches in diameter.  
Minimum 2 inches above finished grade.

**Posts-** Shall be water resistant material or pressure treated lumber.  
Shall be secured on top of concrete piers.  
Are not permitted to be installed below grade.  
Posts 4 feet in height and under shall be a minimum of 4x4.  
Posts greater than 4 feet in height shall be 6x6.

**Beams-** Splices in beams shall be made over a post or pier; splices in beams mid span are prohibited.  
All beams must be fastened together and bear directly on a post.  
All post to beam connections must be made with a galvanized metal framing connector, minimum ½ inch diameter.

**Ledger Board-** Must be at least same dimension as the joist it is supporting.  
Ledger board shall be installed using a minimum ½ inch diameter fasteners.

**Floor Joists-** Maximum 16 inches on center joist spacing when using 5/4 nominal lumber or manufacturer's specifications.  
Must be rated at 40 PSF live-load using pressure treated lumber.  
Joists may bear directly on beam or hang from beam with an approved framing connector.

**Decking-** Indicate the size and material being used.  
Composite materials must meet manufactures installation specifications.  
Decking cannot cover basement emergency escape window.

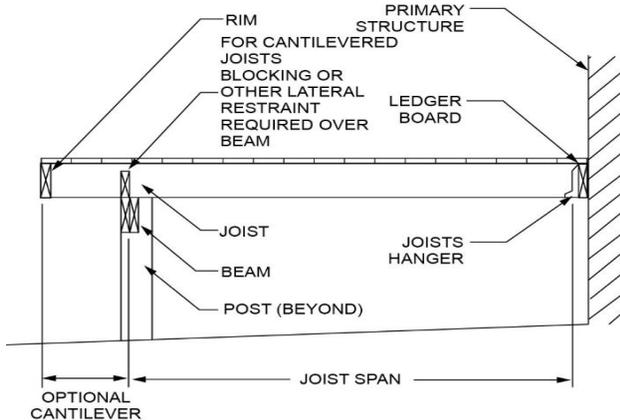
**Stairs-** 7  $\frac{3}{4}$  inch maximum riser height and 10-inch minimum tread width.  
All treads must be the same depth.  
Risers may not vary more than  $\frac{3}{8}$  inch.  
Guardrails are required on stairs 30 or more inches above grade.  
A handrail independent of the guardrail is required at all stairs with four or more risers

**Guardrails-** Maximum spacing on balusters and intermediate rails is 4 inches.  
Guardrails are required around the perimeter of all decks 30 inches or more above grade.

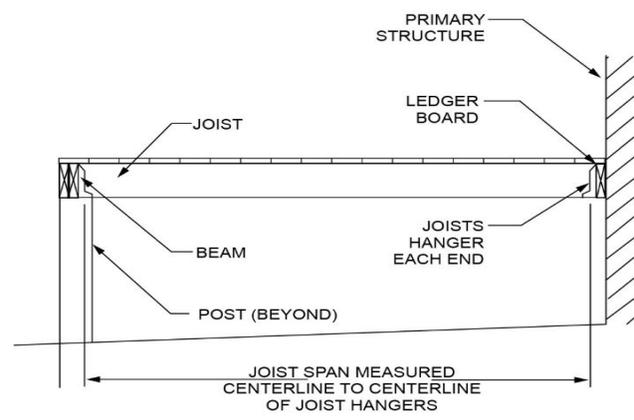
**Handrails-** Handrails are required at any stair with four (4) or more risers.  
Handrails are measured vertically from nosing of stair thread with a minimum height of thirty-four (34) inches and maximum height of thirty-eight (38) inches.  
Handrails must be graspable.

**Connectors-** Hardware and fasteners need to be corrosion resistant.  
Joist hangers shall be sized correctly and fastened using approved nail; screws are not permitted.

JOIST SPECIES <sup>b</sup>	JOIST SIZE	ALLOWABLE JOIST SPAN <sup>b, c</sup> (feet-inches)			MAXIMUM CANTILEVER <sup>d, f</sup> (feet-inches)							
		Joist spacing (inches)			Joist back span <sup>g</sup> (feet)							
		12	16	24	4	6	8	10	12	14	16	18
Southern pine	2 x 6	9-11	9-0	7-7	1-0	1-6	1-5	NP	NP	NP	NP	NP
	2 x 8	13-1	11-10	9-8	1-0	1-6	2-0	2-6	2-3	NP	NP	NP
	2 x 10	16-2	14-0	11-5	1-0	1-6	2-0	2-6	3-0	3-4	3-4	NP
	2 x 12	18-0	16-6	13-6	1-0	1-6	2-0	2-6	3-0	3-6	4-0	4-1
Douglas fir-larch <sup>e</sup> Hem-fir <sup>e</sup> Spruce-pine-fir <sup>e</sup>	2 x 6	9-6	8-4	6-10	1-0	1-6	1-4	NP	NP	NP	NP	NP
	2 x 8	12-6	11-1	9-1	1-0	1-6	2-0	2-3	2-0	NP	NP	NP
	2 x 10	15-8	13-7	11-1	1-0	1-6	2-0	2-6	3-0	3-3	NP	NP
	2 x 12	18-0	15-9	12-10	1-0	1-6	2-0	2-6	3-0	3-6	3-11	3-11

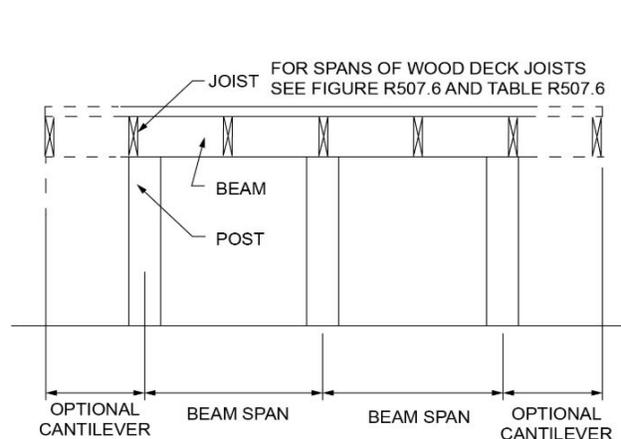
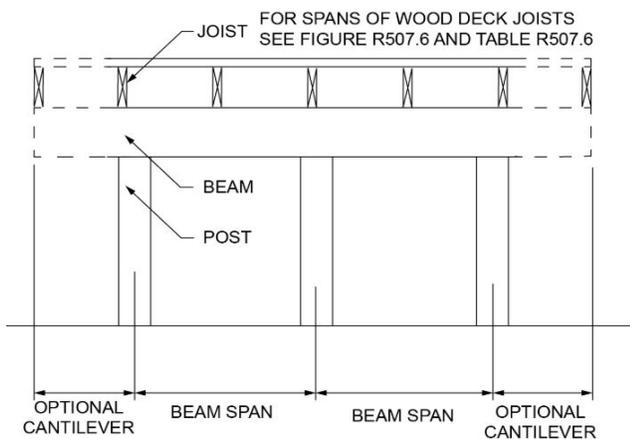


CANTILEVERED JOISTS WITH DROPPED BEAM



JOISTS WITH FLUSH BEAM

JOIST SPAN		JOIST SPAN LENGTH AND JOIST CANTILEVER LENGTH <sup>a, i</sup> (feet & feet)									
6		6 & 0	6 & 1.5	—	—	—	—	—	—	—	—
8		—	8 & 0	8 & 1	8 & 2	—	—	—	—	—	—
10		—	—	10 & 0	10 & 1	10 & 2.5	—	—	—	—	—
12		—	—	—	12 & 0	12 & 1	12 & 2	12 & 3	—	—	—
14		—	—	—	—	14 & 0	14 & 1	14 & 2	14 & 3.5	—	—
16		—	—	—	—	—	16 & 0	16 & 1	16 & 2.5	—	—
18		—	—	—	—	—	—	18 & 0	18 & 1.5	18 & 3	18 & 4.5
BEAM SPECIES <sup>d</sup>	BEAM SIZE <sup>e</sup>	MAXIMUM DECK BEAM SPAN LENGTH <sup>a, b, f</sup> (feet-inches)									
Southern pine	1-2 x 6	4-10	4-7	4-3	4-0	3-7	3-5	3-3	3-0	2-10	2-8
	1-2 x 8	6-4	5-11	5-6	5-1	4-7	4-4	4-2	3-10	3-7	3-5
	1-2 x 10	7-6	7-0	6-6	6-0	5-5	5-2	4-11	4-7	4-3	4-0
	1-2 x 12	8-8	8-3	7-8	7-1	6-4	6-1	5-10	5-5	5-0	4-9
	2-2 x 6	7-4	6-11	6-5	5-11	5-4	5-1	4-10	4-6	4-3	4-0
	2-2 x 8	9-4	8-9	8-2	7-7	6-9	6-5	6-2	5-9	5-4	5-0
	2-2 x 10	11-0	10-4	9-8	9-0	8-0	7-8	7-4	6-9	6-4	6-0
	2-2 x 12	13-0	12-2	11-4	10-7	9-5	9-0	8-7	8-0	7-5	7-0
	3-2 x 6	9-0	8-6	7-11	7-5	6-8	6-4	6-1	5-8	5-3	4-11
	3-2 x 8	11-7	10-11	10-3	9-6	8-6	8-1	7-9	7-2	6-8	6-4
	3-2 x 10	13-11	13-0	12-1	11-2	10-0	9-7	9-2	8-6	7-11	7-6
	3-2 x 12	16-3	15-3	14-3	13-3	11-10	11-3	10-9	10-0	9-4	8-10



## Deck Material Worksheet

(Please complete worksheet & submit with permit)

- Indicate the deck size \_\_\_\_\_.
- Indicate if the deck is ATTACHED or UNATTACHED. (circle one)
- Indicate type of framing and decking materials being use: Cedar, Treated, Composite, Other \_\_\_\_\_.
- Indicate the size of the decking material \_\_\_\_\_ x \_\_\_\_\_.
- Indicate the size of the ledger board **2 x** \_\_\_\_\_, fastened with ½" bolts spaced \_\_\_\_\_ on center staggered.
- Indicate the size of floor joists **2 x** \_\_\_\_\_ @ 12" or 16" on center.
- Indicate the span of the floor joists \_\_\_\_\_, see Table 1 attached.
- Indicate the size of the beams **2 x** \_\_\_\_\_. Two (2) carriage bolts are required at every beam/post intersection if not carried directly onto post.
- Indicate the beam span between post holes \_\_\_\_\_, see Table 2 attached.
- Indicate size of posts **4x4** or **6x6**, as well as height from grade to deck \_\_\_\_\_.
- Indicate the size of post holes \_\_\_\_\_. The minimum diameter is ten (10) inches with a minimum depth of 42" inches for a frost protected pier.
- Indicate the size of the guard rail \_\_\_\_\_. A minimum of 36" inches is required if deck is 30" inches or more above finished grade.
- Indicate the height of the hand rail \_\_\_\_\_. A minimum of 34" inches and maximum of 38" inches.
- Indicate the stair rise \_\_\_\_\_. Maximum rise is 7 ¾ "inches.
- Indicate the stair tread \_\_\_\_\_. Minimum thread is 10" inches.
- Indicate the size and number of the stair stringers **2 x** \_\_\_\_\_ \_\_\_\_\_.