

# **DECK PERMIT REQUIREMENTS LA CRESCENT, MINNESOTA**

The following information must be submitted to the building department before a deck permit can be processed and approved, more detailed information is listed below

## **Permit Application Form**

After a preliminary review, additional information may be required.

**Permit Application Form:** Application forms are available at the building department. Complete the form and include the General Contractors License Number, [owners doing work on their own properties are not required to be licensed]. A site plan and structural details for the proposed deck are required at the time of the permit application.

## **General Information**

**When is a Deck Permit Required?** A building permit is required for all decks that are either:

- attached to the principal building
- more than 30" above grade.

**Required Inspection:**

- A footing inspection is required when the holes have been dug (Minimum 42" deep) but before the concrete is poured. Cement "cookies" are not allowed.
- The final inspection to check the framing, guards, stairways and handrails.

If the deck is being completed on a weekend the inspection should be scheduled for the following Monday.

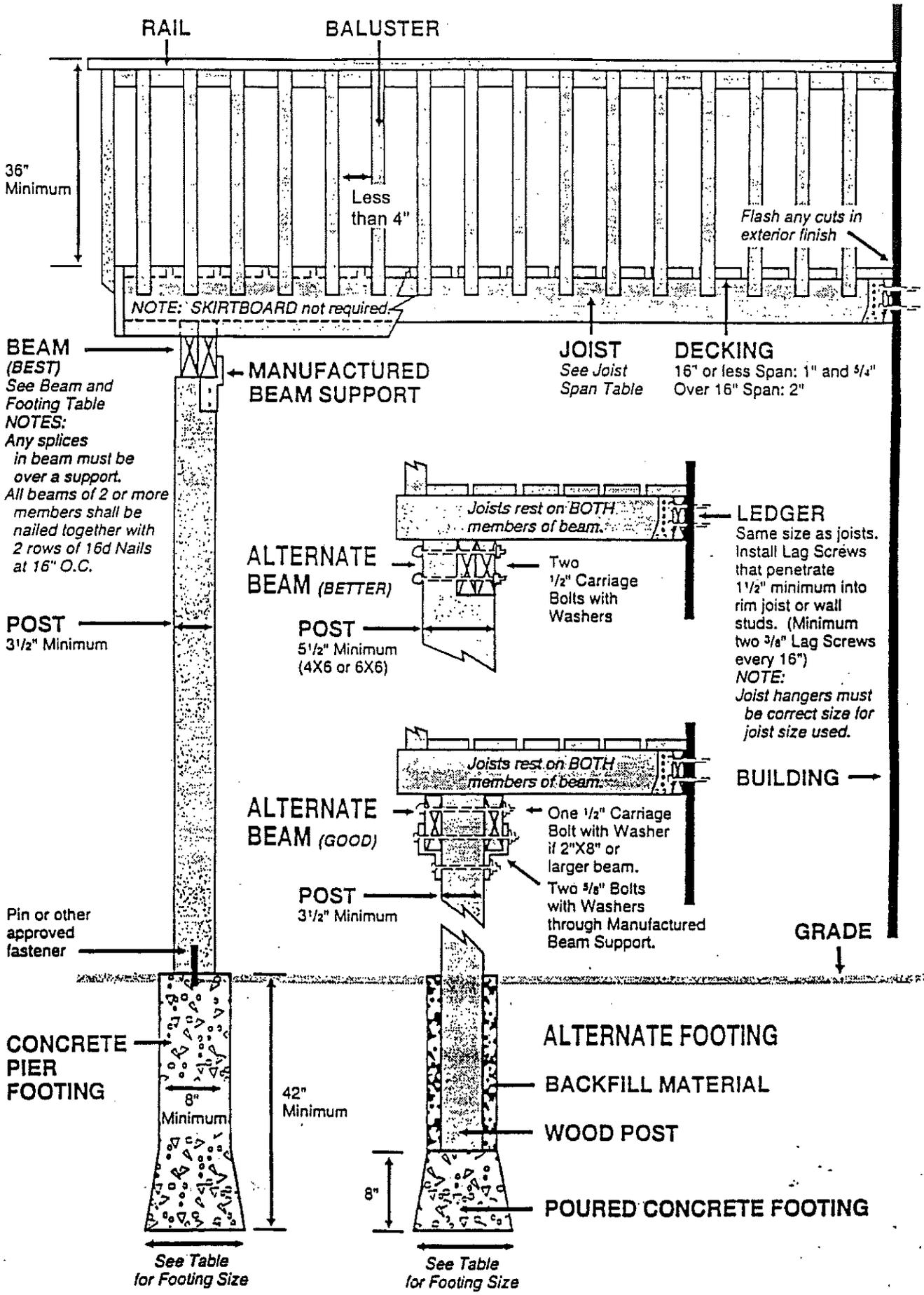
**Fees:** Are determined by the value of the proposed deck, including all labor and materials, (even if the homeowner will be doing the work .

**Questions:** If you have any questions, please contact the **Building Department**, Monday through Friday, 8 a.m. to 5:00 p.m. at **507-895-4409**, or write to, **Shawn Wetterlin-Building Official, 315 Main Street, City of La Crescent, Minnesota, 55947.**



## RESIDENTIAL DECKS INFORMATION SHEET

Building Permits	Required for any deck attached to a structure of any detached deck more than 30 inches above grade.
Setbacks	Varies from one area to another. Please inquire.
Frost Footings	Required for any deck attached to a dwelling, porch or garage that has frost footings. The minimum depth to the base of the footing is 42".
Live Load	All decks shall be designed to support a live load of 40 pounds per square foot.
Guardrails	Required on all decks more than 30 inches above grade or occupied roofs. Rail must be 36 inches minimum in height. Open guardrails and stair railings must have intermediate rails or an ornamental pattern that a four inch sphere cannot pass through. Exception: The triangular opening formed by the riser, tread and bottom element of a guardrail may be sized so that a six inch sphere cannot pass through.
Cantilevers "Overhanging Joists and Beams"	Joists should not overhang beams by more than two feet, nor should beams overhang posts by more than one foot unless a special design is approved.
Flashing	All connections between deck and dwelling shall be weatherproof. Any cuts in exterior finish shall be flashed.
Framing Details	Header beams and joists that frame into ledgers or beams shall be supported by approved framing anchors such as joist hangers.
Nails and Screws	Use only stainless steel, high strength aluminum or hot-dipped galvanized.
Wood Required	All exposed wood used in the construction of decks is required to be of approved wood of natural resistance to decay (redwood, cedar, etc.) or approved treated wood. This includes posts, beams, joists, decking and railings.
Stairs	Minimum width is 36 inches. Maximum rise is 8 inches, minimum rise is 4 inches. Minimum run is 9 inches. Largest tread width or riser height shall not exceed the smallest by more than 3/8 inch.
Handrails	The top shall be placed not less than 34 inches or more than 38 inches above the nosing of the treads. Stairways having four or more risers shall have at least one handrail. Handrail ends shall be returned or terminated in posts. The hand grips shall not be less than 1 1/4 inches or more than 2 inches in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip shall have a smooth surface with no sharp corners.
Special Design Note	Some deck designs may not be appropriate should the placement of a screen porch or 3-season porch on the deck platform be a future consideration. Setbacks for porches are not the same as setbacks for decks.



# JOIST SPAN

Based on No. 2 or better wood grades  
(Design Load = 40#LL + 10#DL, Deflection=L/360)

	Ponderosa Pine			Southern Pine			Western Cedar		
	12"OC	16"OC	24"OC	12"OC	16"OC	24"OC	12"OC	16"OC	24"OC
2 x 6	9-2	8-4	7-0	10-9	9-9	8-6	9-2	8-4	7-3
2 x 8	12-1	10-10	8-10	14-2	12-10	11-0	12-1	11-0	9-2
2 x 10	15-4	13-3	10-10	18-0	16-1	13-5	15-5	13-9	11-3
2 x 12	17-9	15-5	12-7	21-9	19-0	15-4	18-5	16-0	13-0

## Sample Calculations for Using Joist Span, Beam Size and Footing Size Tables

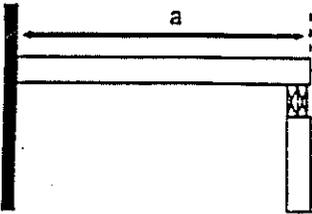
### CASE I SOLUTION:

Refer to tables for joist, beam and footing size requirements.

Example:  $a = 12'$ ; Post Spacing = 8'

Use the Joist Span table to find the acceptable joist sizes for a 12' span, 2 x 8's at 12" O.C., 2 x 10's at 16" O.C. or 2 x 12's at 24" O.C.

Use the Beam and Footing Sizes table and find the 8' post spacing column. With a 12' deck span, the beam may be either two 2 x 8's or two 2 x 10's, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 12", 10" or 9" for the corner post and 17", 14" or 12" for all intermediate posts.



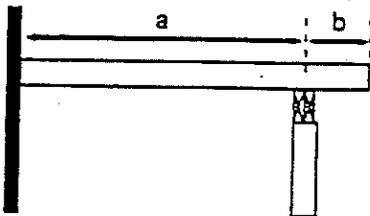
### CASE II SOLUTION:

Use "a" to determine joist size and "a" + "b" to determine beam and footing sizes. The length of "b" is restricted by both the length of "a" and the size of the joists.

Example:  $a = 8'$ ,  $b = 2'$ , Post Spacing = 10'

Refer to the Joist Span table. For an 8' joist span, either 2 x 8's at 24" O.C. or 2 x 6's at 16" O.C. are acceptable.

For sizing the beam, use a joist length of 10' ( $8' + 2'$ ) and a post spacing of 10'. The Beam and Footing Sizes table indicates that the beam may be either two 2 x 10's or two 2 x 12's, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 13", 11" or 10" for the corner post and 18", 15" or 13" for all intermediate posts. Note that because of the 2' cantilever all footing sizes were increased by 1" as required by footnote 2 at the end of the table.



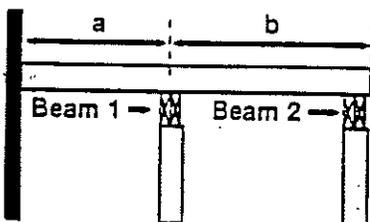
### CASE III SOLUTION:

Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b" to determine the size of Beam 1 and the post footing size for the posts supporting Beam 1. Use joist length "b" to determine both the size of Beam 2 and the post footing size for the posts supporting Beam 2.

Example:  $a = 6'$ ,  $b = 7'$ , Post Spacing = 9'

Joist size is determined by using the longest span joist (7'). The Joist Span table indicates that 2 x 6's at 24" O.C. would be adequate for this span.

For Beam 1 and footings, use a joist length of 13' ( $6' + 7'$ ) and a post spacing of 9'. The Beam and Footing Sizes table indicates that the beam may be two 2 x 10's or two 2 x 12's, depending on the wood used. Depending on the type of soil, the footing diameters for Beam 1 posts shall be 13", 11" or 9" for the corner (outside) post and 19", 15" or 13" for all intermediate posts. For Beam 2 and footings use a joist length of 7' and post spacing of 9'. The beam may be two 2 x 8's or two 2 x 10's, depending on wood used. The footing diameters for Beam 2 shall be 10", 8" or 7" for the corner posts, and 14", 11" or 10" for all intermediate posts.



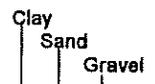
# BEAM AND FOOTING SIZES

Based on No. 2 or better Ponderosa Pine and Southern Pine  
(Treated for weather and/or ground exposure)

		Post Spacing										
		4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
6'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 1-2x6	1-2x6 2-2x8	2-2x6 2-2x8	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x12	2-2x10 2-2x12	2-2x10 3-2x10
	Corner Footing Intermediate Footing	6 5 4 9 8 7	7 6 5 10 8 7	7 6 5 10 9 7	8 7 6 11 9 8	9 7 6 12 10 9	9 7 6 13 10 9	10 8 7 14 11 10	10 8 7 14 12 10	10 9 7 15 12 10	11 9 8 16 13 11	11 9 8 16 13 11
7'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 1-2x6	1-2x6 2-2x8	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x10	2-2x10 2-2x12	2-2x10 3-2x10	2-2x12 3-2x10
	Corner Footing Intermediate Footing	7 5 5 9 8 7	7 6 5 10 8 7	8 7 6 11 9 8	9 7 6 12 10 9	9 8 7 13 11 9	10 8 7 14 11 10	10 8 7 15 12 10	11 9 8 15 13 11	11 9 8 16 13 11	12 10 9 17 14 12	12 10 9 17 14 12
8'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 2-2x6	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x10	2-2x10 3-2x10	2-2x12 2-2x12	2-2x12 3-2x12
	Corner Footing Intermediate Footing	7 6 5 10 8 7	8 6 6 11 9 8	9 7 6 12 10 9	9 8 7 13 11 9	10 8 7 14 11 10	10 8 7 15 12 10	11 9 8 16 13 11	11 9 8 16 13 12	12 10 9 17 14 12	13 10 9 18 15 13	13 11 9 18 15 13
9'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 2-2x6	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x10	2-2x10 3-2x10	2-2x12 3-2x10	2-2x12 3-2x12	3-2x12 3-2x12
	Corner Footing Intermediate Footing	7 6 5 10 9 7	8 7 6 12 10 8	9 7 6 13 10 9	10 8 7 14 11 10	10 9 7 15 12 10	11 9 8 16 13 11	12 10 8 17 14 12	12 10 9 17 14 12	13 10 9 18 15 13	13 11 9 19 15 13	14 11 10 20 16 14
10'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 1-2x6	1-2x6 1-2x6	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x12	2-2x12 3-2x10	2-2x12 3-2x12	3-2x12 3-2x12	3-2x12 Eng Bm
	Corner Footing Intermediate Footing	8 6 6 11 9 8	9 7 6 12 10 9	10 8 7 14 11 10	10 8 7 15 12 10	11 9 8 16 13 11	12 10 8 17 14 12	12 10 9 17 14 12	13 11 9 18 15 13	14 11 10 19 16 14	14 12 10 20 16 14	15 12 10 21 17 15
11'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 2-2x6	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x8	2-2x8 2-2x10	2-2x10 2-2x12	2-2x10 2-2x12	2-2x12 3-2x12	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm
	Corner Footing Intermediate Footing	8 7 6 12 9 8	9 7 6 13 11 9	10 8 7 14 12 10	11 9 8 15 12 10	12 9 8 16 13 11	12 10 9 17 14 12	13 11 9 17 14 12	14 11 10 18 15 13	14 12 10 19 16 14	15 12 10 20 16 14	15 13 11 21 17 15
12'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 2-2x6	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 2-2x12	2-2x10 2-2x12	2-2x12 3-2x12	3-2x10 3-2x12	3-2x10 Eng Bm	3-2x12 Eng Bm
	Corner Footing Intermediate Footing	9 7 6 12 10 9	10 8 7 14 11 10	10 9 7 15 12 10	11 9 8 16 13 11	12 10 9 17 14 12	13 10 9 18 15 13	14 11 10 19 16 14	14 12 10 20 16 14	15 12 10 21 17 15	15 13 11 22 18 15	15 13 11 23 19 16
13'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 2-2x6	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x12	2-2x10 2-2x12	2-2x10 2-2x12	2-2x12 3-2x12	3-2x12 3-2x12	3-2x12 Eng Bm	3-2x12 Eng Bm
	Corner Footing Intermediate Footing	9 7 6 13 10 9	10 8 7 14 12 10	11 9 8 15 13 11	12 10 8 17 14 12	13 10 9 18 15 13	13 11 9 19 15 13	14 12 10 20 16 14	15 12 10 21 17 15	15 13 11 22 18 15	16 13 11 23 19 16	17 14 12 24 19 17
14'	Southern Pine Beam Ponderosa Pine Beam	1-2x6 2-2x6	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x10 2-2x12	2-2x10 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm	3-2x12 Eng Bm	3-2x12 Eng Bm
	Corner Footing Intermediate Footing	9 8 7 13 11 9	10 8 7 15 12 10	11 9 8 16 13 11	12 10 9 17 14 12	13 11 9 18 15 13	14 11 10 20 16 14	15 12 10 21 17 15	15 13 11 22 18 15	16 13 11 23 18 16	17 14 12 24 19 17	17 14 12 24 19 17
15'	Southern Pine Beam Ponderosa Pine Beam	2-2x6 2-2x6	2-2x6 2-2x8	2-2x8 2-2x8	2-2x8 2-2x10	2-2x10 3-2x10	2-2x12 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm	3-2x12 Eng Bm	Eng Bm Eng Bm
	Corner Footing Intermediate Footing	10 8 7 14 11 10	11 9 8 15 12 11	12 10 8 17 14 12	13 10 9 18 15 13	14 11 10 19 18 14	14 12 10 20 17 14	15 12 11 21 17 15	16 13 11 22 18 16	17 14 12 23 19 17	17 14 12 24 20 17	18 15 13 25 21 18
16'	Southern Pine Beam Ponderosa Pine Beam	2-2x6 2-2x8	2-2x6 2-2x8	2-2x8 2-2x10	2-2x8 2-2x10	2-2x10 3-2x10	2-2x12 3-2x10	2-2x12 3-2x12	3-2x10 3-2x12	3-2x12 Eng Bm	3-2x12 Eng Bm	Eng Bm Eng Bm
	Corner Footing Intermediate Footing	10 8 7 14 11 10	11 9 8 16 13 11	12 10 9 17 14 12	13 11 9 18 15 13	14 11 10 20 16 14	15 12 10 21 17 15	16 13 11 22 18 16	16 13 12 23 19 16	17 14 12 24 20 17	18 15 13 25 21 18	18 15 13 26 22 19

Notes:

- Joist length is total length of joist, including any cantilevers.
- When joist extends (cantilevers) beyond support beam by 18" or more, add 1" to footing dimensions shown.
- Requirements for future 3-season porches or screen porches:
  - Increase corner footing size shown by 90%.
  - Increase center footing size shown by 55%.
  - Locate all footings at extremities of deck (no cantilevers).
  - Beam sizes indicated need not be altered.
- All footing sizes above are base diameters (in inches) and are listed  
**THREE SOIL TYPES:**



Corner Footing	10 8 7
Intermediate Footing	14 11 10