DECKS

CHAMPLIN BUILDING DEPARTMENT 763-421-2629

DECK PERMIT REQUIREMENTS:

The following information must be submitted to the Building Department before a building permit can be reviewed and approved. After preliminary review additional information may be required. Allow 5 to 7 working days for processing. We will call you when your permit is ready to be picked up.

1. **Building Permit Application:**
   Complete and sign a building permit application form. Forms are available at City Hall or online at www.ci.champlin.mn.us

2. **Survey or Site Plan:**
   Provide a survey of the property showing all property lines, existing buildings (with dimensions) and project address. Diagram the proposed building location, dimensions and proposed setbacks from property lines, and existing buildings. A registered survey may be required. *We do have surveys for most properties, check with the Building Department regarding your home.

3. **Building Plans:**
   A section drawing (side and cutaway drawing) showing the footing diameter and thickness, depth, post size, joist size, beam size, decking, height above grade, guardrail, cantilevers (overhangs), anchoring, flashing, connectors and hanger types.

   A floor plan of the deck showing the length and width of the deck, beam location, post spacing, joist spacing, stair location and type of lumber (pressure treated, redwood, cedar, etc.).

4. **Permit Fees:**
   Building permit fees are based on valuation and will be determined after the application and required plans have been approved. Fees must be paid in full before a permit can be issued or work can begin.

Required Inspections:

1. Footing inspection, before concrete is poured.
2. Framing/Final

2017
GENERAL INFORMATION

Footings/Posts:
Footings must be a minimum of 42” inches below final grade. The base of the footing must be flared/belled to transfer the weight of the deck to the soil. Posts must be pressure treated or other approved materials. Concrete footings shall be a minimum of 8” inches thick. For posts that are embedded in the ground pressure treatment shall be .6, in contact with grade .4.

Framing:
The joists and beams must be sized to support a 40lb per sq. ft. live load. Cedar and Redwood materials shall be labeled as heartwood material. A list of approved composite deck material may be obtained from the City.

Guardrails:
Residential decks 30” inches or more above adjacent grade must be protected by a guard with a minimum height of 36” inches. Open guardrails shall have intermediate rails or ornamental pattern such that a 4” inch (four-inch) sphere cannot pass through.

Stairs/Residential: The minimum width of a stairway is 36” inches. The maximum rise on stairs is 7-3/4” inches. The minimum run of the treads is 10” inches. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8” inch. Open risers are permitted, provided that the opening does not permit the passage of a 4” inch diameter sphere.

Handrails:
A handrail is required on one side of a stairs with four or more risers. The handrail must be 34” inches to 38” inches high measured from the nose of the tread, be continuous and uninterrupted the full length of the stairs. The handgrip portion of the handrail shall be not less than 1-1/4” inches nor more than 2-5/8” inches in diameter. The ends of the handrail shall be returned or terminate in a newel post or safety terminal.

Fasteners:
Fasteners shall be of a corrosion resistant material i.e.: galvanized.

Special Design Note:
Some designs may not be appropriate if a future porch, addition or hot tub is to be installed on the deck. Footings, beams and joists should be sized for all future loads. Excavations: Before any type of excavating call Gopher State One Call with at least 48 hours of advance notice at 651-454-0002 to verify the location of underground utilities, etc.

PLEASE CONTACT THE CITY OF CHAMPLIN BUILDING INSPECTIONS DEPARTMENT FOR A LIST OF APPROVED SYNTHETIC DECK MATERIALS.
### Span Tables for No. 2 Grade Wood Members and "I" Joists

#### Floor Joists

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<th>2x8</th>
<th>2x10</th>
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#### Decks

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<td>12-1</td>
<td>15-4</td>
<td>17-9</td>
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<td>14-2</td>
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<td>17-3</td>
<td>20-7</td>
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<td>9-2</td>
<td>12-1</td>
<td>15-5</td>
<td>18-5</td>
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<tr>
<td>Western Woods</td>
<td>9-2</td>
<td>12-1</td>
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<td>17-9</td>
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</tbody>
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**Sample Elevation**

- **Ledger Joist Hanger**
- **Railing Height**
- **Height Above Grade**
- **Footing Depth**
- **Scale 1=x**

**10' Minimum Clearance**

A 4-inch sphere cannot pass through.

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**Sample Floor Plan**

- **Dimension**
- **Show Beam Size**
- **Show Footing Size and Depth**
- **Show Joist Size and Spacing**
- **Show Post Size and Spacing**
- **Show Size and Direction of Decking**
- **Show Type of Lumber**

**Existing Home**

**Scale = x**
DECK DESIGN DETAILS

36" Min. Guardrail Ht.

Alternate Beam Design: Rim joists used as beam

4x6, 5x6, 6x6 60 CCA Treated Posts

Alternate Footing Design: For decks elevated 6+ above grade

Sand Fill

8' Min.

Deck Footing: cast-in-place concrete; base with 12" to 24" depending on joist length and beam span

12" Min. (8" for landings)

Beams:
- 2x6 or 2x8 for 24" o.c. joints
- 5x4x6 for 18" o.c. joints

Remove siding, install flashing and fasten new rim joists to solid wood

Flashings Required:
- Over top of rim joist
- Under siding ("Z" flashing)

Joint Hanger

(See Detail Below)

Joist hangers

FOOTING ANCHOR OR BRACKET

HOUSE

Install new rim joists with 3/8" lag bolts 16" o.c. staggered, or other approved corrosion resistant fasteners

BEAM DETAIL

Post to Beam Connection:
- Direct bearing, 2 carriage bolts with washers and nuts each post; nail beam together throughout length

Rail must not pass 4" sphere

Stairs with four or more risers must have a grippable handrail on at least one side

Min. tread length 10" (3/8" max. variation in tread length)

Max. riser height 7-3/4" (3/8" max variation in riser heights)

Riser must not pass a 4" sphere.

The triangular openings formed by the riser, tread and bottom element of a guardrail at the open side of a stairway may be of such size that a sphere 6" in diameter cannot pass through.

GRIPPABLE HANDRAIL DESIGNS:
- Grippable Area = 1 1/4" to 2" cross section