DECKS

Zoning Requirements (Where Can I Build My Deck?)

- Attached decks more than 8 inches high must meet the same zoning requirements as those for principal structures. Setbacks from property lines vary depending on lot width and orientation. Contact the Planning Division (763-593-8095 or planning@goldenvalleymn.gov) for information about setbacks on your property, including:
  - front, rear, and side setback amounts
  - information on any past variances granted to your property

- Contact the Inspections Division (763-593-8090) to verify permits and inspections for the original deck if it will be replaced with a deck of the same size and design.

- A Zoning Permit is required for free-standing decks or for decks attached to accessory structures.

- Practical difficulties in meeting the zoning requirements may be grounds for receiving a variance. A certified as-built survey is required in order to fully evaluate such a request.

Building Permit Requirements

Decks require either a Building Permit or a Zoning Permit. When applying for a Building Permit, include the following with your application (on ePermits):

- Submit certified as-built survey and a site plan showing setbacks from property line. (If there isn't an as-built survey in your street file, you will have to locate survey corner stakes and have a building inspector verify the setback.)

- Submit two complete sets of construction drawings showing proposed design and materials, which should include:
  - ¼" = one foot scaled floor plan showing:
    - overall dimensions
    - materials
    - location and size of stairs
  - 3/8" = one foot (minimum) scaled wall section (see example inside) showing:
    - size, depth, and shape of footings
    - beams, joists, decking material, anchors, and guardrail construction
    - all vertical dimensions

Additional information may be required, including soil tests (if existing house is on piles or other soil correction, then the deck foundation must be engineered), elevations, and important details.

CALL BEFORE YOU DIG

Call at least 2 full business days before you dig.

651-454-0002
800-252-1166
www.gopherstateonecall.org

THREE INSPECTION MUSTS

1. Post the inspection report card or summary sheet on the job site until the final inspection is completed.

2. Notify Inspections when the installation is completed.

3. Schedule a final inspection at least 24 hours in advance (please have your permit number available).

You can reach the Inspections Department between 8 am and 4:30 pm at 763-593-8090.
DECKS (CONTINUED)

Building Requirements

FOOTINGS
- Frost footings must be a minimum of 42 inches deep.
- Footings must be on undisturbed soil.

JOINTS & LEDGER BOARDS
- Ledger board must be anchored to existing rim joist with 1/2-inch lag bolts minimum at eight inches OC staggered. Alternate ledger anchoring must be identified and approved before permit is issued.
- Anchor floor joists to ledger board and flush beams with joist hangers of appropriate size. Make certain correct fasteners are used in double shear joist hangers.
- Joist hangers must be approved for use with treated material.

POSTS
- Buried posts must be surrounded with granular fill for drainage.
- Maximum height for a 4x4 post is 8 feet. Maximum height for a 6x6 post is 14 feet. A post higher than 14 feet must be engineered.

GUARDRAILS
- Decks 30 inches or more above grade require a 36-inch minimum high guardrail. Open guardrails shall have intermediate rails so that a 4-inch-diameter sphere cannot pass through.

STAIRS
- Stairway shall be at least 36 inches wide with a 7¾-inch maximum rise and a 10-inch minimum run. A four-inch-diameter sphere cannot pass through riser.
- Stair and landing illumination is required.
- Handrails and frost footings shall be provided for all stairs having four or more risers.
- Handrails shall be graspable and placed not less than 34 inches or more than 38 inches above the nosing of treads. Handrails must not have open ends.
- Stair stringers shall be a maximum 18 inches OC. With composite deck, stringer spacing shall be per manufacturer’s instructions.

USE APPROVED MATERIALS
- All materials used for posts, joists, beams, and decking shall be approved treated wood or approved wood of natural resistance to decay, such as cedar, redwood, or composite decking material.
- Not all composite decking materials are approved for use in Minnesota. Check with the Inspections Department for verification.
- All fasteners shall be of approved materials and grades.

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Post Footings
(based on 1500-lb per square foot soil load bearing capacity)

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Square Feet</th>
<th>Lbs Supported</th>
<th>Tibutary Area Supported (square feet)</th>
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<td>24&quot;</td>
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Example
To figure load on footing A in example below:

Total Load On Soil = Area x (Dead Load + Live Load)
- Area of load on footing: 5' x 6' = 30 square feet
- Dead Load + Live Load for deck = pounds per square foot (psf). This example uses 50 psf.
- Total Load On Soil = 30 square feet x 50 psf = 1,500 lbs

For typical soil conditions, go down the Lbs Supported column until you come to a number larger than 1,500 (in this case 1,605). Read to the left for 14"-diameter size footing.
Example: Foundation Plan

Indicate Scale Used (¼" = 1')

- Provide site plan showing location of house and proposed deck with distances to property lines.
- Indicate minimum decking dimensions.
- Indicate post size and span (location of posts).
- Space between decking shall not exceed ½".
- Indicate joist material, size, spacing, and span (see table on back page).
- Beams must bear on posts or have solid blocking per detail below.
- Diameter of base of footing shall be determined by using 1,500 lb/sq ft of soil bearing unless soil report states otherwise.

Example: Wall Section Plan

Indicate Scale Used (¼" = 1')

- Bolting pattern for ledger board:
  - 8" 8" 8" 16" 16" OC
- Indicate connection of ledger to house:
  - Minimum of ½" or ⅝" bolts or lag screws 8" on center (see detail above for bolting pattern).

- Use ½" bolts or lag screws 8" OC if connecting into rim joist or foundation, or two vertically at 16" OC if connecting into wall stud area. Alternate ledger anchors must be approved before permit is issued.

- Indicate footing dimensions:
  - Note: Footing width may vary according to load.

- Provide drainage around buried posts with granular fill.

- The base of stairs with four or more risers must rest on footings.

- Fasten securely with metal connector. Flashing required.

- Stairs of four or more risers require grippable handrails. Handrail profile must be in accordance with Code.

- 36" Min. on rim joist.

- Less than 4" openings:
  - 10" Min. Run (Nosing to Nosing)
  - 7½" Max. Rise
  - 6" sphere cannot pass through grade.

- 42" Min. on footing.

- 42" Min. on footing.
Joist & Beam Size Chart\textsuperscript{a,b,c}

<table>
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<tr>
<th>Joist Length</th>
<th>6'</th>
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<th>10'</th>
<th>12'</th>
<th>14'</th>
<th>16'</th>
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\textsuperscript{d} Joist Sizes

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<th>5'</th>
<th>6'</th>
<th>7'</th>
<th>8'</th>
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<th>10'</th>
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<th>12'</th>
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</table>

\textsuperscript{e} Beam Sizes

- Assumes 40 psf live load, 10 psf dead load, and L/360 deflection
- Spruce-Pine-Fir No. 2 grade, and wet service conditions
- Section R502.3 and R502.5 of the 2015 MN Residential Code is acceptable as an alternate to this table. This table is provided as a courtesy to construct a deck that meets or exceeds the requirements of the 2015 MSBC.
- Maximum cantilever of 2x6 joist over beam is 12", 2x8 joists is 18", and all others is 24"
- Maximum cantilever of beam over post is 12"