



DECKS

- Building Permits are required for all decks/platforms that are attached to a structure or are 30" or more above grade. A deck/platform that is less than 30" above grade, is not attached to a structure with frost footings, and is not part of an accessible route, does not require a building permit. Landings must be attached to structures or be engineered to resist both lateral and vertical forces.
- Along with the completed Building Permit Application, submit:
 - Two copies of the site plan drawn to scale with the proposed deck.
 - Two copies of a signed Certificate of Survey with proposed deck (if required by the municipality).
 - Two copies of plans showing the proposed design, including:
 - Location of footings
 - Location of posts
 - Location of beams
 - Direction of joists
 - Direction of decking
 - All window locations adjacent to new decks and stairways
 - Additional information may be required by the plan reviewer
 - The SUPPLEMENT to Deck Permit Application worksheet (attached) **MUST** be included with the application.
- All materials and the installation of all materials must comply with the Minnesota State Building Code and the manufacturers' installation specifications for each product.

PROJECT CHECKLIST:

The following is a guideline to assist in compliance with the requirements of the MN State Building Code.

- Before you build, check required setbacks established by your municipality.
- BEFORE DIGGING, CALL "GOPHER STATE ONE CALL" AT 811. The person doing the excavation is responsible for verifying that there are no conflicts with utilities, both public and private.
- The minimum live load for an exterior deck is 40 pounds per square foot.
- Refer to Figure R507.2.1(1) & Tables R507.2 & 507.2.1 in the MN State Residential Code for fastener spacing.
- See Figure 507.2.3 in the MN State Residential Code for deck attachment for lateral loads; 2 locations per deck.
- A minimum of 36" clear space is required above emergency escape and rescue openings.
- Decks shall not be hung from the cantilever of a house unless joists/trusses are designed/engineered to carry additional deck loads, and documentation to that effect is provided with plan submittal.
- Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed to resist both vertical and lateral loads.
- All connections between deck and dwelling shall be weatherproof. Any cuts in exterior finish shall be flashed.
- Frost footings are required for any deck attached to any structure that has frost footings. Footings shall be designed to support the structure. The minimum depth to the base of the footing is 42".
- Cantilevers (overhanging joists and beams) – joists cannot extend more than 2' beyond the beam, nor should beams extend more than 1' beyond the posts without engineering.
- All joist to beam, beam to post, and post to footing connections must have a positive connection to resist lateral displacement.
- All exposed wood used in the construction of decks is required to be a type with natural resistance to decay (redwood, cedar, etc.) or approved treated wood. This includes posts, beams, joists, decking and railings. If wood is to be used below or in contact with grade, it must be approved for ground contact.
- Field-cut ends, notches, and drilled holes of preservative-treated wood shall be treated in the field in accordance with AWPA M4.
- Fasteners - all fasteners (nails, bolts, screws, hangers, etc.) must be corrosion resistant as required by the code.
- All (round) joist hangers holes must be filled with nails/screws approved for joist hanger structural connections.
- Composite decking must be pre-approved by the Building Inspection Department.
- If decking is installed **perpendicular** to the joists, joist spacing of 24" on center requires 2" minimum (nominal) decking, and joist spacing of 16" on center requires 5/4" minimum decking. 1" decking may only be used for projects with joist spacing of 12" on center (or less). For **diagonally** installed decking, joist spacing of 12" on center requires 5/4" minimum decking, and joist spacing of 16" on center requires 2" minimum (nominal) decking. Decking may not be installed diagonally if joist spacing is greater than 16" on center. **Composite** decking shall be installed according to the manufacturer's instructions.
- Guards are required on all decks more than 30" above grade or floor below. Guardrails must be 36" minimum in height. Open guardrails must have intermediate rails or an ornamental pattern that a 4" sphere cannot pass through. The top section of guardrails must be built to withstand 200 lbs of load applied from any direction. Spindles and/or ornamental fill must withstand 50 lbs of applied force.
Stair Exception: Guardrails on stairs must be 34" minimum in height. Open guardrails on stairs must have intermediate rails or an ornamental pattern that a 4-3/8" sphere cannot pass through. The triangular opening formed by the riser, tread, and bottom element of a guardrail may be sized so that a 6" sphere cannot pass through.
- Stairways must be a minimum width of 36" above the handrail. Maximum riser height is 7-3/4". Tread depth is measured excluding nosing. Minimum tread depth is 10". The largest tread depth or riser height shall not exceed the smallest by more than 3/8". Open risers are permitted, provided that the opening between treads does not permit the passage of a 4" sphere, or the stair is less than 30" above grade. Nosing not less than 3/4" and not more than 1-1/4" shall be provided with solid risers (unless the tread depth is 11" or greater).
- Stairways must be attached to supporting construction with steel hangers or straps.
- Lighting must be provided to illuminate the stairway and shall have a light source in the immediate vicinity of the top landing of the stairway.
- Handrails are required on at least one side of any stairway with 4 or more risers. The handrail must be placed so that the top of the handrail is between 34 and 38" measured above the plane of the nosing of the treads. The handrails must be continuous the full length of stairs to include ALL risers and be returned at the ends. The handgrip must have a smooth surface with no sharp corners, must be between 1 and 2-5/8" in width, and shall provide a grippable surface. Please contact the inspection office for specific design details if you are using a 2x_ material placed on end.
- Landings are required at the top and bottom of each stairway. Minimum size of a landing shall be 3' in the direction of travel, by the width of the stair served.

SUPPLEMENT to Deck Permit Application

(MUST be included when applying for permit)

The following information is required to be included with a Deck permit application.

1. Footing Diameter: _____ Depth: _____
2. Size of posts: _____
3. Size of beams: _____ Number of plys: _____
4. Cantilever on beams: _____ (cantilevers over 12" require engineering)
5. Size of joists: _____ Spacing: _____
6. Cantilever on joists: _____ (cantilevers over 24" require engineering)
7. Species of lumber (please check one): Southern Yellow Pine Ponderosa Pine
 Spruce Pine Fir Hemlock Fir Douglas Fir Cedar Composite Unknown
8. Dimensions of floor boards: _____ Type: _____
If using composite decking materials please indicate the manufacturer. _____
9. Height of deck from ground: _____
10. Height of guardrail: _____
11. Spacing of spindles: _____
12. Height of handrail: _____
13. Dimensions of deck: _____
14. Distance to property lines (also identify on site plan):
 - a. Side 1: _____
 - b. Side 2: _____
 - c. Rear: _____
 - d. Other: _____