

City of Independence
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Residential Decks

This handout is a **guide** only and does not contain all of the requirements of the Minnesota State Building Code or city ordinances.

Required information when applying for permit :

1. Certificate of Survey / Site plan
Drawn to scale, indicating lot dimensions, deck location and setbacks from property lines.

2. Two (2) copies of deck plans, Drawn to Scale :
Plan view Cross Section Elevations

*Proposed deck size, location of stairs
headers

*Size, type and spacing of floor joists

*Size & type of decking. (**Plastic / composite decking
must be approved before installing.**)

* Size, type, location and spacing of post, beams &

* Height of structure from grade

* Joist, hangers, flashing and fasteners

* Diameter and depth of footings

* Guardrail height and spacing of Intermediate rails

Deck Building Requirements

1. **Setbacks** – Check zoning requirements.

2. **Live load** – All deck floor systems must be designed to support a live load of 40# 's psf,
(60 # 's psf for balconies)

3. **Footings** - Frost footings must extend to at least 42" inches below grade for any deck that is attached to a dwelling or a garage that has frost footing. The diameter of the footing should be at least 12" inches, attached three-season or screen porches may require larger footing such as 16" – 24" inch in diameter. The future addition of a porch roof should be considered at the time of permit application. A positive mechanical connection between post and footing is required.

4. **Wood Required** – All wood used in the construction of decks is required to be of approved naturally durable wood or treated wood. This includes post, beams, joists, decking, guards and rails. All lumber shall bear the quality mark of an approved inspection agency. (SEC. R 317.2) Plastic/composite deck material must be **approved** before installing; and material must be installed and supports spaced O.C. or spans per ES report. Copy of report must be available for installer and inspector. A list of decking material can be found at : www.10klakes.org/unifomity/plastic and the ES reports can be found at; www.iccsafe.org **click on ES reports.**

5. **Flashing** – (Sec. 703.8)

6. **Ledger Board** – Siding must be removed to allow this member to be properly fastened. Where supported by attachment to an exterior wall, decks shall be positively anchored to the Primary structure and designed for both vertical and lateral loads. Such attachment shall not be accomplished by the use of toenails subject to withdrawal. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self-supporting. (Sec. R507.2) Fasteners must be long enough to penetrate framing

members. Decks shall not be supported by cantilever floor framing without specific engineering.

7. **Joist/Beams** – Joist spacing of 24 inches on center requires decking with a 2” inch nominal thickness, 5/4” inch decking material requires joist spacing no greater than 16” inches on center (decking installed perpendicular to joist). Joist with cantilevers which exceed 3 times the (nominal) depth of the joist will require structural engineering.
Beams must not overhang posts by more than 12 inches unless a special design is approved. Built up beams (two or more members) are to be nail together. A positive mechanical connection between post and beam is required. (see example in illustration)
8. **Joist Hangers** – Joists framing into the side of a beam or ledger shall be supported by approved framing anchors . (Sec. R502.6.2)
9. **Fasteners** – Fasteners for pressure-preservative wood shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. The coating weights for zinc-coated fasteners shall be in accordance with ASTM A 153. (IRC Sec.317.3)
10. **Guards – (IRC 312.1)** All open sides of decks, landings, balconies and porches which are more than 30”inches above grade or floor below, must be protected by a guard not less than 36” inches in height. Open sides of stairs with a total rise of more than 30” inches above the floor or grade below shall have guards not less than 34” inches in height measured vertically from the nosing of the treads. Required guards shall have intermediate or ornamental closures that do not allow passage of a sphere 4” inch in diameter (4 3/8 “for guards on open sides of stairways). The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway may be of such size that a sphere 6 inch in diameter cannot pass through.
11. **Stairs** – Stairways shall not be less than 36 inches in width. The maximum riser height shall be 7 ¾ inch (3/8 inch maximum variation in riser heights) and the minimum depth shall be 10 inches (3/8 inch maximum variation in tread depths). Open risers are permitted, provided that the opening between treads dose not permit the passage of a 4 inch sphere, (Sec. 311.7.5.1) For minimum width stairs, a minimum of three stringers is required. If 5/4 “ decking material is used for treads, stringers shall be spaced maximum 16 inches on center. (For plastic/composite material see the ICC ES report for the product).
12. **Handrails** – A handrail shall be provided on at least one side of all stairways having 4 or more risers. Handrails shall be placed not less than 34 inches or more than 38 inches above the nosing of treads and be continuous the full length of the stairs. Handrails projecting from a wall or guardrail must have a space of not less than 1 ½ inch between the wall or guardrail and the handrail. The handgrip portion of handrails shall have a cross section of 1 1/4inch minimum to 2 inch maximum in cross-sectional dimension and have a smooth surface with no sharp corners. Handrail ends shall be returned or shall terminate in newel posts. (IRC 311.7.8)

REQUIRED INSPECTIONS

1. **Footing:** After the holes are dug, but before concrete is poured.
2. **Final / Framing :** In most instances the framing can be inspected at the final inspection. If your deck is less than three (3) feet above the ground, a separate framing inspection will be required before the decking is installed.

PLEASE NOTE

If you plan to use plastic/composite materials to build your deck, you must provide

an Evaluation Services Report and the manufacturer's Installation Instructions at the time of permit application (this report must remain on the job for all inspections. Each ES report is unique to the manufacturer and will include requirements for decking, stair treads, or railing system. If they are not included in report then it cannot be used for that installation.