

# Guidelines for Decks per 2025 Residential code of New York State

(See link at bottom for full residential code pertaining to decks)

Wood-framed decks shall be in accordance with section 507 or section R301 for materials and conditions not noted in deck code. 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 or nails subject to withdrawal. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self-supporting. For decks with cantilevered framing members connections to exterior walls or other framing members shall be designed and constructed to resist uplift resulting from the full live load specified in Table R301.5 acting on the cantilevered portion of the deck.

R507.9 Deck ledger connection to band joist.

Deck ledger connections to band joists shall be in accordance with section, Tables R507.9.1.3(1) and Tables R507.9.1.3(2). For other grades, species, connection details and loading conditions, deck ledger connections shall be designed in accordance with Section R301.

## **Deck Checklist of General Requirements:**

- Wood materials shall be number 2 grade or better lumber. Use preservative treated if follows conditions present:
  - Wood joists or the bottom of a wood structural floor where closer than 18 inches (457 mm) or wood girders where closer than 12 inches (305 mm) to the exposed ground in crawl spaces or unexcavated area located within the periphery of the building foundation.
  - Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches (203 mm) from the exposed ground.
  - Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.
  - The ends of wood girders entering exterior masonry or concrete walls having clearances of less than  $\frac{1}{2}$  inch (12.7 mm) on tops, sides and ends.
- Decks shall be positively anchored to structure. Ledger bolt patterns should be staggered to eliminate structural damage and “roll” per table R507.9.1.3(2)
- If connection cannot be verified deck must be self-supporting (fully supported with posts and footings)
- Designed for vertical and lateral loads. Mechanical fasteners required. (Joist hangers, hurricane ties, post caps and bases, and deck tension ties for lateral loads). All applicable joist hangers, post and girder connections are to be installed as required and comply with approved plans.
- Cantilevers must be designed for uplift forces. See table R507.6
- An acceptable method (flashing) must be installed to prevent rot and decay of ledger boards and attachment points
- All fasteners and flashing materials must be resistant to rust.

- Hangers and fasteners shall be rated for use with the type of pressure treating chemicals being used. Follow manufacturers recommendations regarding the type of hardware required.
- For decks attached to dwellings, footings shall be a least 36 inches below grade and capable of supporting the required loads. Free standing deck footings shall be a minimum of 12” below grade.
- Deck footings shall have a minimum diameter of 14” round or 12” x 12” square or as otherwise required by table R507.3.1
- Stairs are required to have minimum tread depth of 9 inches and a maximum riser height of 8 ¼ inches
- Guards are required on decks exceeding 30 inches above grade and shall not be less than 36 inches in height. Required guards shall not allow passage of a 4-inch sphere or more in diameter.
- Handrails shall be installed on all open sides where four or more risers exist and shall be between 34 and 38 inches measured from the nosing of the step. Handrails shall be continuous for the full length of the flight of steps.
- Guardrails and handrails shall have a live load of 200 psf. Decks shall have a live load of 40 psf.
- See deck code for specifics related to composite materials used for railing and decking.

**Note: The items listed on this sheet are common deficiencies noted during deck inspections and are not intended to list all code and structural requirements. For all code requirements see the New York State Residential Code and your design professional.**