



## Residential Deck Requirements

### General:

1. A building permit is required for all deck construction
2. The deck structure shall be designed for a 40lb per sq ft load rating
3. All wood used shall be pressured treated
4. Any alternate posts, decking, guard rail and handrail material used, must be approved by the Planning and Permitting Department
5. All fasteners and connectors for preservative treated wood shall be hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper,
6. All decks not built on site shall be approved prior to being installed by the Planning and Permitting Department.

### Footings:

1. The bottom of all footings must be a min. 42" below grade
2. Footings must be a min. of 6" thick below the post bottom
3. Poured concrete footings shall be a min of 4" wider than the posts (examples: 4x4 post=8" min width, 6x6 post=10" min width)
4. Suggested footings be placed a min of 36" away from the house foundation to avoid the back filled area
5. A deck may be exempt from the frost protected footing requirements if:
  - a) The deck serves a mobile home on a rented lot.
  - b) Free-standing decks consisting of joists directly supported on grade over their entire length.
  - c) The area of the free standing deck does not exceed 200 sq ft and the deck walking surface is 20" or less above grade.

### Posts:

1. Post can be set directly onto the footing with tamped back fill around the post or enclosed in concrete below grade or on top of a concrete pier at grade level with an approved post anchor
2. Post minimum of 4"x4". Recommended using 6x6 lumber size for post over 8' tall (refer to table R507.4 for specific allowances)
3. An engineered plan is required for a deck height over 10' tall.

**Decking:**

When using different species of wood or composite material follow the manufacturer's recommendations

**Rails:**

1. Guardrails on deck shall be a min of 36" in height above the walking surface and are required on all decks over 30" above grade or the level below
2. Railing systems shall be able to resist a concentrated load of 200 lbs on or against the top rail at any point and direction
3. Guard rails on stairs must be a min of 34" height above the tread nose if the stairs are 30" above grade
4. Balusters/pickets shall have no more than a 4" spacing between them on level surfaces and shall be vertical. (NO horizontal balusters or pickets are allowed.)
5. Continuous graspable handrails on stairs shall be between 34" and 38" above the tread nose (measured vertically) and are required on stairs of 4 or more risers and shall return to the newel posts or safety terminals.
6. The handgrip portion shall have a circular cross section of 1 1/4 " min to 2" max

**Stairs:**

1. Min. stair width is 3' at all points above and below the handrail at min. height
2. Max. riser is 7 3/4
3. Max. riser opening is 4" when more than 30" above walking area
4. Min tread is 10" measured horiz. From the leading edge to leading edge of the tread
5. 2"x12" stringers on stairs are required to be a max. of 24" OC and a flight of stairs shall not have a vertical rise greater than 12' 7" between landings.
6. All exterior stairways shall be provided with a means to illuminate the stairs, including the landings and the stairs.
7. Landings are required at the top and bottom of each stairway.

**Plans:**

1. All plans will be drawn to a scale of 1/4"=1'
2. A plot plan is required showing the actual set backs of the residence and the deck from the property line
3. A plan drawing showing size and height of the finished deck
4. A plan showing the footing sizes and material dimensions.

**For questions or concerns, please contact the Building Inspector at (605) 347-4422  
ext. 214**