

MINIMUM REQUIREMENTS FOR WOOD DECKS – 1996 B.O.C.A.

The following is a list of Code compliance items that are required to be submitted with the construction permit application for plan review processing and approval:

1. All proposed decks require approvals of the Zoning Officer and Code Enforcement before a Construction Permit can be issued and work allowed to begin.
2. A plot plan (survey) must show the size and location of the proposed deck, be approved by the Zoning Officer and included with the Construction Permit Application.
3. The following Must be submitted with the application:
 - a. Three (3) sets of plans indicating the size shape and location of the proposed deck.
 - b. The plans must indicate the location and dimensions of individual footings. This information must include a cross section of the footing indicating the depth below grade as well as a detail of the bearing intersection or connection of beams and girders to individual column with elevation between wood members and grade.
 - c. The drawing must show the deck in “Plan” view showing footings, beams, girders, etc. and in an “Elevation” view showing guards, railings, baluster spacing, etc.
 - d. All joist size, free span, and direction of span(s) must be indicated on the Construction Document.
 - e. Construction Materials must be specified.
 1. Wood post and columns in contact with the ground or embedded in concrete are required to be pressure treated. Wood posts and columns **SHOULD NOT** be designed to rest on the earth at the footing bottom. The design should show a minimum of 4” of solid concrete at the footing bottom.
 2. Girders within 12 inches of any exposed earth are required to be pressure treated.
 3. All floor joists and decking material within 18 inches of exposed earth are required to be constructed with pressure treated wood.
 4. Galvanized nails or screws are required.
 5. Metal hangers, straps, etc. must have manufacturers galvanized nails or approved equals.
 - f. Guards shall be required for decks and stairs as follows:
 1. Deck Guards:
 - a. Deck guardrails shall be a minimum of 36 inches (914 mm) in height and constructed to withstand a concentrated load of 200 pounds (91 kg) applied at any point and in any direction along the top railing member. BOCA 1615.8.2.
 - b. Open guards shall have balusters or be of solid material such that a sphere with a diameter of 4 inches (102 mm) cannot pass through any opening. BOCA 1021.3

- c. Guards shall not have an ornamental pattern that would provide a ladder effect.
2. Stair Guards/Handrails:
- a. Stair Guards/Handrails shall have balusters or be of solid material such that a sphere with a diameter of 4 inches (102 mm) cannot pass through any opening.
 - b. The triangular openings formed by the riser, tread and bottom rail at the open side of the stairway shall be a maximum size such that a sphere 6 inches (152 mm) in diameter cannot pass through any opening. BOCA 1021.2.2 & 1021.3
 - c. All Handrail gripping surfaces shall be continuous with any wall or other surface adjacent to the handrail and shall be free of projections. The clear space between the handrail and adjacent wall or surface shall not be less than 1½ inches (38 mm). Handrails shall not project more than 3 ½ inches (89 mm) into the stair. BOCA 1022.2 & 1022.2.1
 - d. Handrails shall not be less than 30 inches (762mm) nor more than 38 inches (965 mm), measured vertically, above the leading edge of the treads or above the finished floor of the landing or walking surface. BOCA 1022.2.2.2. Handrails that form part of a guard shall have a height of not less than 34 inches (864 mm) and not more than 42 inches (1067mm). BOCA 1022.2.2.1
 - e. Handrails shall be graspable with a cross-sectional area outside diameter a minimum of 1 ¼ inches (32mm) but not greater than 2 inches (51 mm). BOCA 1022.2.5. Please see attachment for other alternatives.
 - f. Stair Guard/Handrails shall be constructed to withstand a concentrated load of 200 pounds (91 kg) applied at any point and in any direction. BOCA 1615.8.1.
 - g. Intermediate handrails are required so that all portions of the width of stairs are within 30 inches (762 mm) of a handrail. On monumental stairs, handrails shall be located along the most direct path of travel. BOCA 1014.7
3. Stairways:
- a. Stairways with fewer than three risers are not required to have handrails, when serving a single family dwelling unit.
 - b. Stairways serving a residential occupancy shall not be less than 36 inches (914mm) in width. BOCA 1014.3.3
 - c. In all residential uses the MAXIMUM riser height shall be 8 ¼ inches (210mm) and the MINIMUM tread depth shall be 9 inches (229mm). A 1-inch (25mm) nosing shall be provided on stairways with solid risers. The leading edge of tread shall

not project more than 1 ½ inches (38mm) beyond the tread below. BOCA 1014.6.8 & 1014.6.1

- d. All treads and risers are to be equal. There shall not be variation exceeding 3/16 inch (5mm) in the depth of adjacent treads or in the height of adjacent risers. The tolerance between the largest and smallest tread shall not exceed 3/8 inch (10mm) in any flight of stairs. BOCA 1014.6.2
 - e. Stairway footings are to be supported by a minimum 4 inch (102mm) by 4 inch (102mm) wood post with a footing in conformance with Chapter 18 BOCA or the steps are to terminate on a minimum 4 inch (102mm) thick concrete slab which extends the width of the stairway and 3 feet (916mm) out from the bottom step nosing. Footings are to be concrete, in this area the footing depth required is 3 feet (916mm) minimum. The width of most footing in this area are a minimum 12 inches (102mm) square or round in order to carry the required dead load of 40 lbs.
 - f. All stairs with more than two (2) risers shall have approved footings under both stringers and a level and stable pad of 4 inch (102 mm) minimum thick x (the width of the stair) x 36 inch (916mm) concrete or equal. All stairs less than two (2) risers shall have a level and a stable concrete pad a minimum 4 inch (102mm) x (width of stair) x 36 inch (916mm) beyond the bottom riser.
4. Framing can be in progress prior to pouring of concrete foundation and piers when deck is temporarily blocked up with cinder blocks.
 5. Inspection is required for concrete foundation and piers prior to Pouring; decks with full skirting, lattice or less than 30" above finish grade need to call for a framing inspection when posts, girders and joists are in place; and a **final inspection is required upon completion of project.**