

NC Department of Insurance Office of the State Fire Marshal - Engineering Division 1202 Mail Service Center, Raleigh, NC 27699-1202 919-647-0000

Pier, Dock, Bulkhead, and Waterway Structure Permit Requirements

Code: 2018 Residential Code Section: R101.2.2, R327

Date: March 20, 2019

Code: 2018 Administrative Code and Policies **Section:** 106.1

Question:

Is a permit required for residential piers, docks, bulkheads, and waterway structures?

Answer:

Yes. Section R327.1 has requirement limitations for these structures. A permit is required to verify the section's exception limitations have not been exceeded. Also, a plan shall be submitted for approval that the exceptions have been met. This plan does not require a design professional. These types of structures complying with the exceptions of R327.1 are not required to meet the provisions of this code or chapter 36 of the NC Building Code.

If these types of structures exceed the limitations in the exception of R327.1 they would also need to be permitted and constructed in accordance with Chapter 36 of the NC Building Code.

Question:

Is a permit required for *existing* residential piers, docks, bulkheads, and waterway structures that are repaired or altered?

Answer:

Yes. Any existing pier or dock that meets the limitations in the exception in Section R327.1 is not required to meet the provisions of Chapter 36 of the NC Building Code. A permit is required, and a plan shall be submitted for approval that the exceptions have been met. This plan does not require design professional.

Existing piers and docks that exceed the limitations in Section R327 are required to comply with Chapter 36 of the NC Building Code for the portion being repaired or altered. The work may require a sealed plan for the project based on the scope of work. The extent of the repair or alteration to an existing dock or pier will govern the need to require sealed plans for the structure. In general, minor repairs that do not impact the existing pier or dock structure would not require plans sealed by a registered design professional. Extensive repairs or alterations will likely require sealed plans. Ultimately, the local code official is responsible for whether or not an existing pier can be safely repaired or altered without plans that are sealed by a registered design professional as permitted by Section 106.2.2 of the NC Administrative Code and Policies.

Keywords:

Finger piers, crosswalks, boat slip, pile spacing, boatlift.

SECTION R327 DOCKS, PIERS, BULKHEADS AND WATERWAY STRUCTURES

R327.1 General. Docks, piers, bulkheads and waterway structures shall be constructed in accordance with Chapter 36 of the North Carolina Building Code.

Exception: Structures complying with the following are not required to meet the provisions of Chapter 36 of the *North Carolina Building Code* or this code.

- 1. Fixed piers associated with a one- or two-family dwelling meeting all of the following:
 - 1.1. A maximum of four boat slips for a single owner of a one- or two-family dwelling or two adjacent, riparian owners.
 - 1.2. A maximum height of 15 feet (4572 mm) measured from deck to mud line at any location along the pier.
 - 1.3. A maximum normal pool depth of 13 feet (3962 mm) on lakes and ponds and a maximum mean low water depth of 7 feet (2134 mm) in other locations.
 - 1.4. A maximum walkway width of 6 feet (1829 mm).
 - 1.5. A maximum pile spacing of 8 feet (2438 mm), in both directions.
 - 1.6. A maximum of 576 square feet (53.5 m²) for non-walkways areas.
 - 1.7. A maximum boat slip length of 40 feet (12.2 m).
 - 1.8. A maximum roofed area of 576 square feet. (53.5 m²) with an additional maximum 2 foot (610 mm) overhang.

- 1.9. Constructed with no enclosed or multilevel structures.
- 1.10. Supporting a boatlift with a maximum design capacity no greater than 16,000 pounds (71.2 kN).
- 2. Floating docks associated with a one- or two-family dwelling meeting all of the following:
 - 2.1. A maximum of four boat slips for a single owner of a one- or two-family dwelling or two adjacent, riparian owners.
 - 2.2. A maximum normal pool depth of 20 feet (6096 mm) for docks with guide piles on lakes and ponds and a maximum mean low water depth of 10 feet (3048 mm) for docks with guide piles in other locations.
 - 2.3. A maximum boat slip length of 40 feet (12.2 m).
 - 2.4. Finger piers, crosswalks or other floating surfaces having a minimum width of 3 feet (914 mm) wide to a maximum of 6 feet (1829 mm) wide, except for a single 8-foot by 16-foot (2438-mm by 4877-mm) section.
 - 2.5. When constructed with a roof and the following conditions exist:
 - i. Ultimate design wind speed is 115 mph (51 m/s) or less;
 - ii. Roof load is 20 psf (0.96 kPa) or less;
 - iii. A maximum eave height of 10 feet (3048 mm);
 - iv. A maximum roof slope of 4:12;
 - v. A maximum roofed area of 576 square feet. (53.5 m²) with an additional maximum 2 foot (610 mm) overhang;
 - vi. A minimum boat slip width of 12 feet (3658 mm);
 - vii. A minimum floating dock width of 4 feet (1219 mm) along both sides of the boat slip;
 - viii. A maximum dead load of 12 psf (0.57 kPa);
 - ix. Floating structures supporting roof structures are balanced or anchored to reduce the possibility of tipping.
 - 2.6. Constructed with no enclosed or multilevel structures.
 - 2.7. Supports a boat lift with a maximum design capacity no greater than 16,000 pounds (71.2 kN).