

**NC Office of the State Fire Marshal
Engineering and Codes Division
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Ceiling Height and Clearances at Bathroom Fixtures

Code: 2018 NC Residential Code
Sections: R305.1 and R307.1

Date: February 5, 2026

Question:

Is 6 foot 8 inches the minimum ceiling height for the entire area in front of a water closet installed below a sloped ceiling?

Answer:

Yes, for a person to be capable of using a water closet for its intended purpose the entire 21 inches of fixture clearance floor area in front of the water closet (NC Residential Code Figure R307.1, see Figure 1 below) is provided for the full width of the plumbing fixture with the minimum ceiling height of not less than 6 foot 8 inches (see Figure 2 for NC Residential Code R305.1 code language).

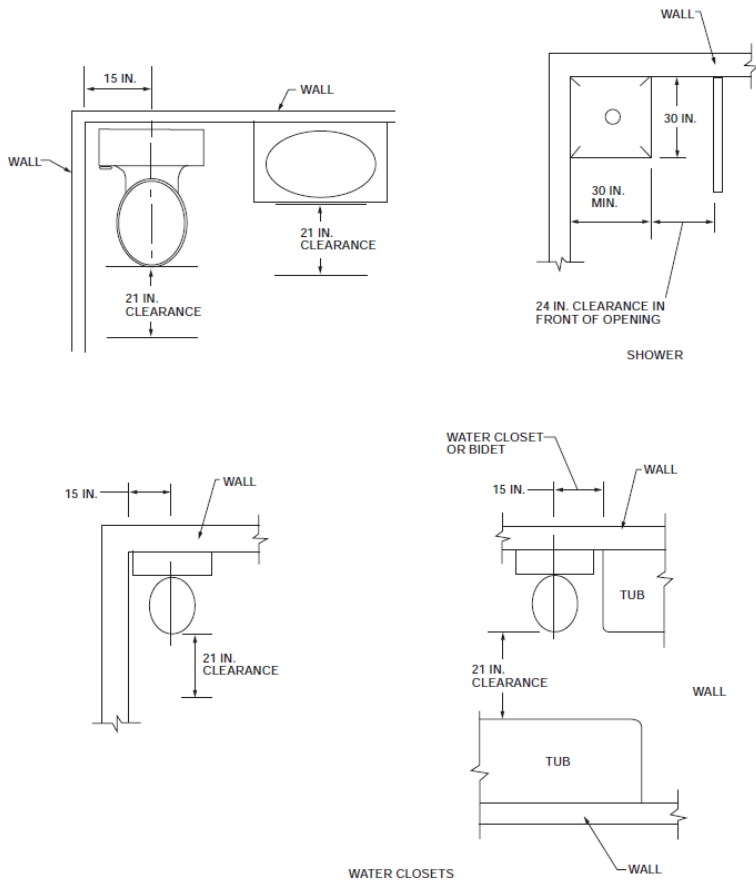


Figure 1. 2018 NC Residential Code Figure R307.1 – Water Closets

Example:

When there is a sloped bathroom or toilet room ceiling the plumbing fixtures may be located in the areas where the ceiling is less than 6 foot 8 inches as long as they are capable of being used for their intended purpose from the clearance area with full ceiling height. Per NC Residential Code Figure 307.1 the bathtub has no clearance assigned, while the water closet and lavatory each require 21” and the shower 24” in front of their full width. See figure 1. above and figure 3. below.

Additional question:

Can the ceiling over the plumbing fixture slope from side to side, or back to front, rather than sloping down away from the front approach?

Answer:

Yes, the slope of the ceiling can be in any direction as long as the minimum ceiling height of six feet eight inches is provided in the entire fixture clearance area, and the fixture can be used for its intended purpose.

R305.1 Minimum height. *Habitable space*, hallways and portions of *basements* containing these spaces shall have a ceiling height of not less than 7 feet (2134 mm). Bathrooms, toilet rooms and laundry rooms shall have a ceiling height of not less than 6 feet 8 inches (2032 mm).

Exceptions:

1. For rooms with sloped ceilings, the required floor area of the room shall have a ceiling height of not less than 5 feet (1524 mm) and not less than 50 percent of the required floor area shall have a ceiling height of not less than 7 feet (2134 mm).
2. The ceiling height above bathroom and toilet room fixtures shall be such that the fixture is capable of being used for its intended purpose. A shower or tub equipped with a showerhead shall have a ceiling height of not less than 6 feet 8 inches (2032 mm) above an area of not less than 30 inches (762 mm) by 30 inches (762 mm) at the showerhead.
3. Beams, girders, ducts or other obstructions in *habitable space* shall be permitted to project to within 6 feet 4 inches (1931 mm) of the finished floor.

Figure 2. 2018 NC Residential Code Section R305.1

Additional question:

Does R305.1 Exception 1 apply to bathrooms?

Answer:

No.

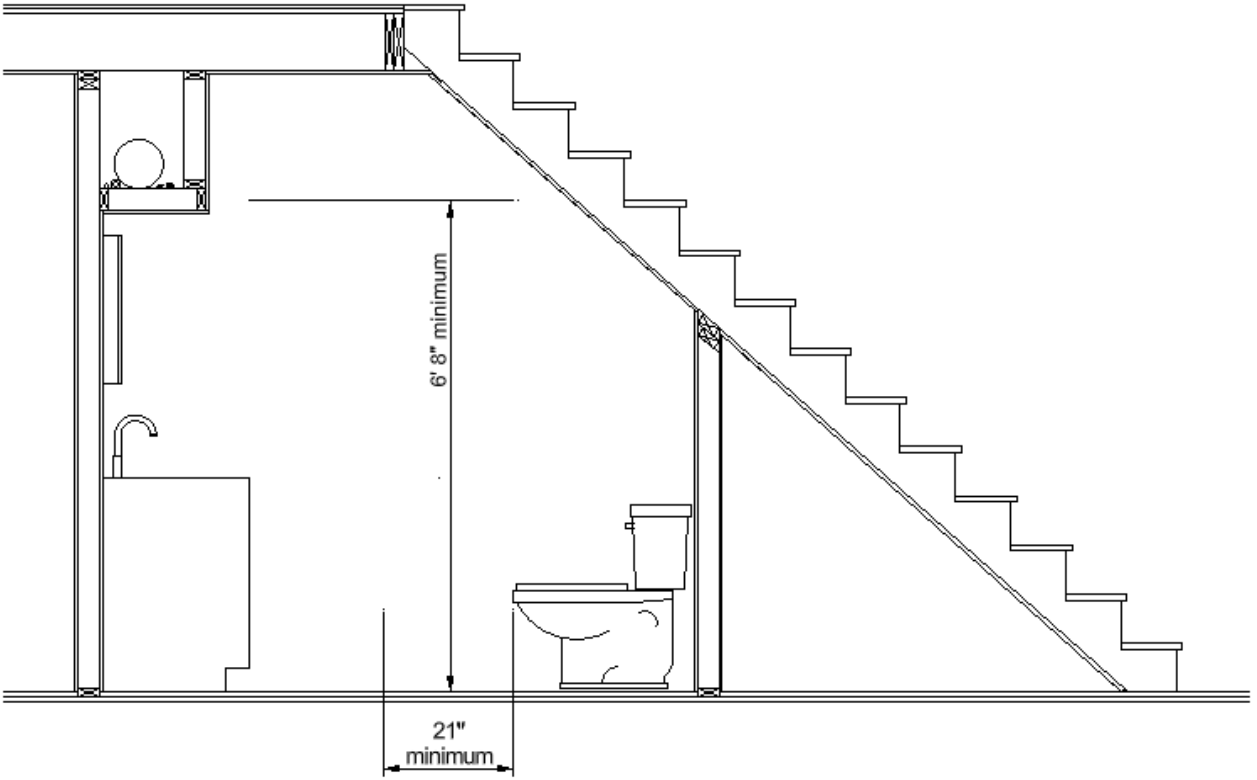


Figure 3. Compliant clearance and ceiling height from the front of the fixture

Keywords: below stairs, sloped ceiling, fixture clearance, bathroom ceiling height