

## NC ACCESSIBILITY CODE

2012 NC Bldg Code Ch. 11

2009 ICC/ANSI A117.1

**Mandatory:** 1 Jun 2012

1/1/19: 2018 NCBC Effective  
2009 ICC/ANSI A117.1

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### 2010 ADA STANDARDS:

- Mandatory 3/15/12
- Copy available: [www.ada.gov](http://www.ada.gov)

### Individual Highlights

Stacked W/D = OK in B 2

Type B W/D exceeds FHA 3

NCBC 1006.1 – Rstrm Emerg. Ltg 3

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## NCBC 1104.2 – 48" Exterior Path of Travel

From time-to-time, the 48" exterior path of travel requirement pops back up. Eventually this may go away, since the **2017 edition of ANSI A 117.1** does have language in **ANSI 403.5.1** stating *The clear width of an exterior accessible route shall be 48 inches minimum.* But for now, NC still enforces the **2012 NCBC 1104.1** and **NCBC 1104.2** scoping provisions.

**Q:** Please take a look at the information below. The contractor on my project does work all over the SE and has several other projects in NC. They are questioning why I have 48" clear between the handrails on my stairs. These are the sections he referenced:

- **IBC 1011.2** showing the stair width minimum of 44 with a handrail deduction;
- **IBC 1009.3** shows the clear width of 48" with exceptions for automatic sprinklers, etc.
- **ANSI 403.5** shows a minimum accessible route of 36".
- The **NCHFA** code showing the 40" clear between handrail/grabrail on our cover sheet. [NCHFA = North Carolina Housing Finance Agency]

The standard widest precast tread offered is 48" wide. Our buildings are sprinkled and appear to meet the exceptions noted. Am I OK to reduce the stair widths?

**A:** All the referenced scoping sections provided are in **NCBC Ch. 10** for egress. As is the case in many situations, there are overlapping requirements in the **NC Building Code**. In this case, the **NCBC 1104.02** requirements state clearly that an exterior path of travel is requirement to be 48" as measured between handrails. These requirements are applicable to exterior egress stairs as well.

This follows the general premise that whenever there are overlapping provisions, the more restrictive provision is applicable. In this case, that provision is **NCBC 1104.2**. If the contractor has built it elsewhere in NC to a dimension less than 48" clear between handrails, that means that the incorrect width may not have been checked by the local inspection department and that the exterior stair does not meet the minimum building code requirements at the time of construction, as this requirement has been in the NC Building Code since 1973.

The above resulted in a response that further clarified the issue with three additional questions.

1. If you enclose the breezeway and it is an "interior" stair does the requirement change?
  - a. Yes, it does. **NCBC 1104.1** and **NCBC 1104.2** address exterior paths of travel.
  - b. Interior paths of travel are addressed by **ANSI 403.5**, which requires minimum 36" clear.
2. If so, why is it different?
  - a. In 1973, when the requirement was first established for exterior paths of travel, the intent was to allow for a width sufficient to permit a person to walk adjacent to another person while assisting them, or for person to walk with a guide dog.
3. Without an elevator, why is the stair considered "accessible"?
  - a. With or without an elevator, stairs have never been considered 'accessible'. Stairs do have accessible elements, for example, the handrails are required to be placed to accommodate someone who may have issues with gripping handrails; also, tread nosings are addressed to minimize the likelihood of tripping.
  - b. Accessible egress from a building without an elevator requires either an area of refuge [**NCBC 1007.3**], and an exterior area for assisted rescue [**NCBC 1007.7**]. If the building has a monitored automatic sprinkler system throughout, only the area of refuge (ARA) is deleted, since the automatic sprinkler protection is expected to provide a similar degree of short-term protection until the fire department arrives to rescue someone as the fire-rated stair enclosure does.
4. I would question why a breezeway is not considered an interior stair? If it is covered and enclosed on all three sides. Why should an open entry as opposed to a door at the exit/entry cause such a huge difference in stair width? I would argue that an unencumbered opening is safer than a door.
  - a. Good question. Since the requirement originated relative to conditions where the path of travel was open to the sky above, this is how the language has been interpreted and enforced since 1973. A breezeway is not open to the sky above; it is within the overhang or the structure of the building proper, and is therefore protected by the building. Pathways that are open to the sky above are subject to the weather, which is something that walkways protected by the building structure typically do not have in common. So there is a greater likelihood for open walkways to have slippery steps due to rain, ice on the treads, or snow on the walkway, all of which support the need for additional width to allow a support animal adjacent to its owner, or room for a person to assist someone next to them.

## Stacked W/D = OK in Type B

**January's Newsletter** questioned the acceptability of stacked washer/dryers in Type B dwelling units. While the approaches to washer/dryers in common use areas, Accessible, Type A and Type B dwelling units are identical, there are some minor differences that were glossed over in the article. My apologies that an incorrect statement was made in the final sentence.

Let's look at the commentary statements for each classification separately and resolve the issues. [NOTE: It was never the intent of this newsletter to replace or eliminate the resource provided by the ANSI Commentary. Readers are encouraged to purchase their own copy of the **ANSI Commentary**.]

### **Commercial or Common Use Area Washer/Dryers**

**ANSI 611...** Laundry equipment within an individual dwelling unit or sleeping unit in Accessible, Type A or Type B units is addressed in Chapter 10 with reference to this section as applicable.

**ANSI 611.1 General.** Laundry facilities present some complex problems of accessibility to the person in a wheelchair. The reach ranges provided in Section 308 do not include criteria for accessing things that require bending the elbow joint such as reaching over the top of and into the basket of a top loading clothes washing machine or down and into the front of a front-loading washer or dryer. Many devices are used to aid the user in reaching into these appliances to retrieve clothes at the bottom of the washer basket or rear of the dryer drum.

This standard provides specifics for top and front-loading laundry equipment and basically assumes separate pieces of equipment. Criteria included are clear floor space, height of the door and operational requirements for all operable parts (e.g., doors, lint traps) and controls (e.g., time or temperature settings, on/off control). It is not the intent of this standard to prohibit dual use equipment or stacked units if they meet the provisions in the subsection (see Section 103). [AU Newsletter: look at \* and \*\* below. The comments are applicable to common use area facilities as well, unless you have an alternate design that makes it equivalent or better per 103.]

### **ANSI 103 Compliance Alternatives**

Nothing in this standard is intended to prevent the use of designs, products, or technologies as alternatives to those prescribed by this standard, provided they result in equivalent or greater accessibility and such equivalency is approved by the administrative authority adopting this standard...The requirements in this standard are not intended to inhibit innovative ideas or technological advances. A comprehensive regulatory document cannot envision and then address all future innovations in the industry. The fact that a material, product or method of construction is not addressed is not an indication that prohibition of the material, product or method is intended. The building official is expected to apply sound technical judgment in accepting materials, systems or methods that, although not anticipated by the drafters of the current text, can be demonstrated to offer equivalent performance. The responsibility for providing information for demonstrating equivalent facilitation lies with the designer or contractor who is working with the code official.

### **Accessible Dwelling Units**

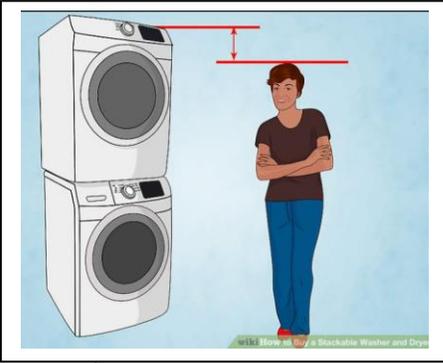
**ANSI 1002.10 Laundry Equipment.** Washing machines and clothes dryers shall comply with Section 611...The standard does not require laundry equipment within the unit; however, if provided, the washers and dryers must meet the same accessibility provisions as in a common laundry room (see Section 611).\*

**ANSI 1003.10 Laundry Equipment.** Washing machines and clothes dryers shall comply with Section 611...It is not the intent of this standard to prohibit dual use equipment or stacked units if they show equivalent or greater levels of accessibility (see Section 103). \*\*

**1004.10 Laundry Equipment.** Washing machines and clothes dryers shall comply with Section 1004.10...The standard does not require laundry equipment in the unit; however, where they are provided in units, washers and dryers must meet the minimal level of accessibility in Section 1004.10.1. These provisions are less than those in a common laundry room (see Section 611).

**Conclusion:** Stackable W/D are not acceptable for Common Use facilities, within Accessible or Type A dwelling units. Since the only **Type B** W/D requirement is a clear floor space approach to the machine, stackable W/Ds are acceptable within **Type B** units.

Please note that projects financed by the NCHFA will have to comply with NCHFA rules, also.



\***ANSI 1002.10 (Accessible)** - Stacked washers and dryers typically do not meet the opening requirements in Section 611.4 or the reach range for the operable parts in Section 611.3.

ANSI COMMENTARY



\*\***ANSI 1003.10 (Type A)** - Stacked washers and dryers typically do not meet the door height limitations in Section 611.4 or the reach range for the operable parts in Section 611.3.

ANSI COMMENTARY



## Type B W/D Approach exceeds FHA Reqmts.

Rather than cut this short because we are at the end of our 2-page newsletter, it seems appropriate to fine tune the **Type B issues** while we are at it. If you have not purchased a copy of the **ANSI Commentary**, this is an excellent example of when having one would be helpful!

There are a handful of times and locations when **ANSI A117.1** has requirements that exceed either the **2010 ADA Standards**, the federal **Fair Housing Act** or some other document. This is one of those times.

Back to the **2009 ANSI A117.1 Commentary for ANSI 1004.10 Laundry Equipment [Type B]**:

*...The standard does not require laundry equipment in the unit; however, where they are provided in units, washers and dryers must meet the minimal level of accessibility in Section 1004.10.1. These provisions are less than those in a common laundry room (see Section 611). When designing the laundry area, several items must be considered. Section 1004.10.1 requires a parallel clear floor space in front of each top-loading appliance, and forward or parallel approach in front*

*of each front-loading machine. Though not specifically referenced, the requirements of Section 611.2 regarding the location of the clear floor space should be followed for guidance. This would center the clear floor space on a top-loading appliance and allow up to a 24-inch (610 mm) offset for either a forward or parallel approach to a front-loading machine [see Commentary Figure C1004.10(c)]. The ICC A117.1 did not state this requirement because clearances at laundry equipment are not required by the Fair Housing Act (FHA). This means that the ICC A117.1 requirements in Section 1004.10.1 exceed the requirements of the FHA simply by requiring the clear floor space. It is for that same reason that the standard no longer requires the clear floor space be centered on the laundry equipment in a Type B unit.*



## NCBC 1006.1 – Emergency Lighting in Restrooms

The January 2018 NCDI Engineering Newsletter had the following Q and A from the Deputy Commissioner:

**Q: Can an inspector require emergency light in a restroom under the NC Building Code?**

**A: No. An inspector cannot require anything more than Code.**

**R: The result of such a requirement is the building, design, council and/or legislature creating new rules of law.**

**Comment:** While emergency lighting is not required, **NCBC 1006.1** also needs to be addressed.

**NCBC 1006.1** states *The required means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.* This means that *exit illumination* is required for egress from the restroom, but that *emergency-powered lighting* is not required for that exit illumination.

In verifying the interpretation with Carl Martin, Chief Building Code Consultant, Mr. Martin did state that "Section **1006.1** requires illumination in toilet rooms, but it does not require emergency power (ref. **1006.3**). An unswitched light on standard power that provides 1 footcandle (ref. **1006.2**) at the floor level in the toilet room will satisfy **NCBC 1006.1**....'Emergency lighting' is what most people call emergency powered lighting. What we are talking about is egress lighting. Egress lighting complying with **1006.1** is required in toilet rooms, but emergency powered egress lighting is not required."

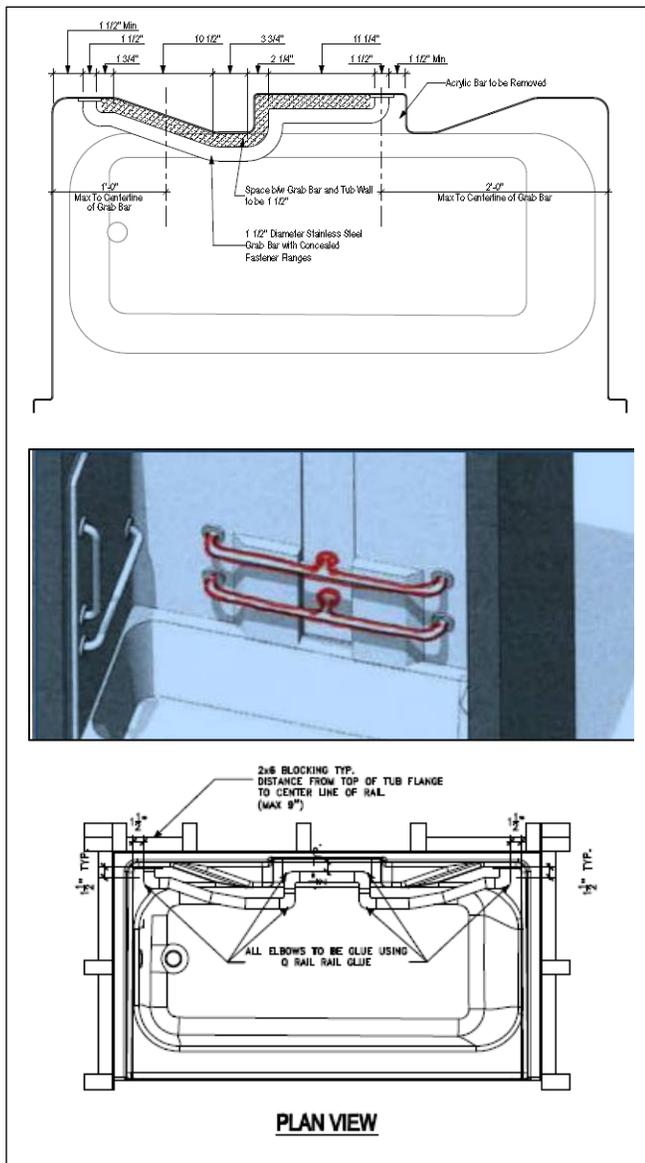
- Emergency [powered] lighting has battery backup attached to the fixture and is **not required (NCBC 1006.6)** for toilet rooms.
- Egress lighting [illumination] is **required** for toilet rooms with more than one water closet (NCBC 1006.1) with a minimum of 1 footcandle.
- If you have been requiring emergency [powered] lighting (or battery back-up) there is no requirement. Any change in requirements would require a code change request to the Building Code Council.
- The lack of a specific requirement does not prevent a designer or owner from providing more than the minimum required by code, it simply cannot be required by a Code Official.

The **2018 NCBC 1008.3.3.5** will require emergency-powered illumination for public restrooms with an area greater than 300 sf.



**BATTERY BACK-UP  
NOT REQUIRED**

## Type B, Option A/B - Curved Grab Bars at Tub



The accessible bath tubs shown on most manufacturers' websites show flat back tubs with grab bars installed in accordance with the ANSI information it contains. For example, check out the grab bar and tub on AquaBath's [Accessible Brochure: Accessible Brochure \[Adaptable and Barrier-Free Bathing Collection\]](#).

NCDOL's concern regarding the use of a custom grab bar in the projects recently proposed for approval was that someone will have to wait several weeks to order and receive a custom grab bar that we think was intended to be able to be installed and available within a day or two at most. From experience, the need for a dwelling unit grab bar often arises and becomes evident with a short, often unanticipated, period of time.

While, it is understandable that bathtub options, which result in a curved tub back wall and a curved grab bar requirement, may be desirable, do they affect minimum code provisions?

### USAB Response:

In checking with the **US Access Board** regarding the acceptability of a custom grab bar, it was confirmed that no one ever anticipated a situation where a custom grab bar would be needed '...since we all assumed that grab bars must be straight (unbent) because the bathtub or shower wall is typically flat and the spacing between the bar and the wall must be consistent...this is a new wrinkle...one that neither **A117** or the **ADA** anticipated. ...The unanticipated consequence is that in **FHA** covered units that are not also **ADA** covered, the occupant will have to either find and purchase that custom bar or replace the tub – either way an expensive and timely process, not intended by the exception that allows later installation of grab bars.'

So, **NCDOL** had to determine how to address this new 'wrinkle'.

## NCDOL Interpretation re: Use of Custom Grab Bars

After consideration in-house and consultation with others, **NCDOL** has determined that all **Type A** and **Type B** dwelling units where the bathing tub is provided as the accessible bathing fixture shall comply with either one of the following:

**OPTION 1:** Provide a tub with a reinforced flat back wall that permits the installation of off-the-shelf grab bars complying with **ANSI 607.4**;

or

**OPTION 2:** Provide custom grab bars complying with **ANSI 607.4** for each and every individual **Type A** and **Type B** dwelling unit at the time of construction.

**OPTION 2** will permit the installation of a tub with contoured back walls so long as the custom grab bars complying with **ANSI 607.4** are provided for every unit required to have grab bar reinforcements. [This means that a contoured grab bar is required to be located within a closet of each and every dwelling unit with a contoured back wall tub that is used as the accessible bathing device at the time the Certificate of Occupancy is issued.]

**NOTE:** if anyone signed up for the newsletter recently, or knows someone who did, who has not received a copy since signing up, a bug was discovered in the sign-up process that is currently being fixed. **Between now and March 31, 2018**, if you send me your name and e-mail address, we will add you to the server listing so that you receive the newsletter. By then, the bug should be exterminated and sign-up can continue as usual. 😊 Sorry for the inconvenience but thanks for subscribing!