



MIKE CAUSEY, INSURANCE COMMISSIONER & STATE FIRE MARSHAL
BRIAN TAYLOR, CHIEF STATE FIRE MARSHAL

July 27, 2021

Buddy Jenkins, PE
President, Jenkins Consulting Engineers, PA
1582 McArthur Road
Fayetteville, NC 28311-1002

**RE: Applicability of Table 403.1, Footnote e
2018 NCPC Table 403.1 – Minimum Number of Required Plumbing Fixtures**

Mr. Jenkins:

This letter is in response to your request for formal interpretation dated July 17, 2021 that was received in NCDOI on July 20, 2021. Your request for formal interpretation states:

“We assert the local code enforcement official from Cumberland County inspections office is requiring compliance with code provisions that are no longer referenced in the NC Plumbing Code. Footnote “e” is not referenced in Table 403.1”

Remarks:

Because a previous request for appeal from you was dealing with the same site referenced in the attached request for formal interpretation I am assuming you are referencing the 2018 NC Plumbing Code.

Per an email dated July 21, 2021 your request is for a formal interpretation instead of an appeal (see attachment B).

This formal interpretation will respond based on the above two “remarks”.

Code sections noted in this letter are referring to the 2018 edition of the NC Plumbing Code (NCPC) unless specifically noted.

Attachments:

- Attachment A: The letter of request for formal interpretation with supporting attachments
- Attachment B: July 21, 2021 email clarifying that the request is for a formal interpretation instead of an appeal.

Code Analysis:

The "Preface" of the code indicates that the International Code Council (ICC) inserted arrows into the margins of the code where ICC removed text. The arrows are placed between rows of text. ICC inserts these arrows where text that existed in the previous edition no longer exists in the current edition. The arrows do not imply that the code adjacent to and slightly lower than the arrow is no longer valid.

The underlined text of footnote "e" indicates that it was added by the North Carolina Building Code Council.

The reference to footnote "e" for occupancy classification A-3, "Places of worship and other religious services. Churches without assembly halls" of Table 403.1 was accidentally missing from the original printing of the code and will be addressed by errata. The 2018 NC Building Code, Table 2902.1 does correctly reference footnote "e" to occupancy classification A-3, "Places of worship and other religious services. Churches without assembly halls" and correctly indicates the NC Building Code Council's intent to reference footnote "e" to that occupancy and use. Although not published as of the release of this letter, the errata containing the correction will be found by going to the following website where code amendments and errata are addressed: <https://www.ncosfm.gov/2017-2021-approved-amendments-201310-plumbing-code>.

Conclusions:

The arrow in the margin adjacent and slightly above footnote "e" of Table 403.1 does not indicate that footnote "e" is not applicable; it indicates that ICC removed something from their 2015 edition that existed in their 2012 edition. The reference to footnote "e" of Table 403.1 was erroneously left out of Table 403.1 at occupancy classification A-3 for "Places of worship and other religious services. Churches without assembly halls". Table 403.1, footnote "e" that was originated by the North Carolina Building Code Council is applicable to occupancy classification A-3 for "Places of worship and other religious services. Churches without assembly halls". Consequently, the Cumberland County inspector is correctly enforcing code provisions that exist.

Please call if you have comments or questions.

Sincerely,



Carl Martin, RA
Deputy Commissioner
Division Chief of Engineering

cc: File
Robbie Davis, Chairman – BCC
Danny Priest, Vice-Chairman – BCC
Keith Rogers, Chairman Mechanical/Plumbing Standing Committee – BCC
Rawls Howard, Director of Planning and Inspections – Cumberland County

ATTACHMENT A



**APPENDIX E
APPEALS
NORTH CAROLINA
BUILDING CODE COUNCIL
325 North Salisbury Street, Room 5_44
Raleigh, North Carolina 27603
(919) 647-0095**

APPEAL TO NCDOI/NCBCC Hearing Date ____ / ____ / ____
GS 153A-374, GS 160A-434 | GS 143-140, GS 143-141
Formal Interpretation by NCDOI _____ | Appeal of Local Decision to NCBCC _____
Appeal of Local Decision to NCDOI _____ | Appeal of NCDOI Decision to NCBCC _____

APPELLANT Jenkins Consulting Engineers, PA **PHONE** (910) 822 - 1724
REPRESENTING Congregational Christian Church of American Samoa (6252 Camden Rd.)
ADDRESS 1606 McArthur Road
CITY Fayetteville **STATE** NC **ZIP** 28311
E-MAIL buddyj@jenkinsce.pro

North Carolina State Building Code, Volume Plumbing - Section 403

REQUEST ONE: Formal Interpretation by NCDOI Appeal of Local Decision to NCBCC
 Appeal of Local Decision to NCDOI Appeal of NCDOI Decision to NCBCC

Type or print. Include all background information as required by the referenced General Statutes and the attached policies. Attach additional supporting information.

We assert the local code enforcement official from Cumberland County Inspections office is requiring compliance with code provisions that are no longer referenced in the NC Plumbing Code. Footnote "e" is not referenced in Table 403.1

REASON:

The church does not want to install restrooms in their fellowship hall that is used once or twice per month.

Signature Buddy Jenkins

APPEAL TO NCDOI/NCBCC
DATE: 17 July 2021 **FORM 3/14/17**

1606 McArthur Rd.
910.822.1724



Fayetteville, North Carolina
910.822.4645 (FAX)

17 July 2021
Chief Code Consultant
North Carolina Department of Insurance
Office of the State Fire Marshal
Albemarle Building
325 N. Salisbury Street
Raleigh North Carolina 27603

Re: NCDOI Interpretation of Plumbing Code (1) CCCAS

Dear Mr. Martin,

The NC Plumbing Code, specifically *each Table with footnotes* in every Chapter is confirmed to include at least one assignment of the footnotes listed in the table.

Footnote "e" is not present in the table. Footnote "e" is described in the list of footnotes found at the end of Table 403.1. Page viii in the code preface provides guidance for the reader to follow Marginal and Text Markings in the body of the code specifically noting an arrow (→) as a deletion indication. This arrow is placed at footnote "e" and footnote "e" assignment is clearly eliminated from the code text in the Description area of Table 403.1. All of the listed footnotes are assigned to the Table in at least one occurrence, except footnote "e". Please see the attachments 1-A and 1-D

NCDOI website provides an extensive list of amendments for the 2018 NCPC. They are found in a document dated September 1, 2020. The amendments were approved by the Rules Review Commission. Page 13 of this document provides ERRATA -correcting footnote c locations as shown in Table 710.1(1) further adding "Other portions of the table are unchanged by this amendment". There is no similar amendment assigning footnote "e" to the Table area in the 2018 NC Plumbing Code. Please see attachment 1-B.

NCDOI website provides 2018 NC Building Code Plumbing Ad-Hoc Committee Recommended amendments for the 2018 NC Plumbing Code dated 13 December 2016. Page 74 includes Churches without assembly halls and it clearly *excludes* footnote "e" by reference or assignment. Please see attachment 1-C.

Using a simple and direct *code interpretation* we consider this footnote "e" deleted from the 2018 NC Plumbing Code and unenforceable by the local code enforcement official.

We request a formal interpretation of the 2018 NC Plumbing Code regarding the omission and lack of reference or assignment of footnote "e" in Table 403.1. (2018 NCPC, SECTION 403, TABLE 403.1)

Jenkins Consulting Engineers, PA

Fayetteville, North Carolina

Congregational Christian Church of American Samoa

Respectfully submitted,

Buddy



July 2021

Buddy Jenkins, PE, President
Jenkins Consulting Engineers, PA

Attachments:

NCDOT form, completed

PDF attachments Labeled 1-A, 1-B, 1-C & 1-D

FIXTURES, FAUCETS AND FIXTURE FITTINGS

TABLE 403.1 —continued
 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^{a, b}
 (See Sections 403.1.1 and 403.2)

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410)	OTHER
				MALE	FEMALE	MALE	FEMALE			
1 (cont.)	Assembly (see Sections 403.2, 403.3 and 403.3.3.2)	A-3 ^d	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200		—	1 per 500	1 service sink
			Gymnasiums in K-12 schools ^f	1 per 125	1 per 100	1 per 200		—	1 per 500	1 service sink
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750		—	1 per 1,000	1 service sink
			Places of worship and other religious services. Churches without assembly halls	1 per 150	1 per 75	1 per 200		—	1 per 1,000	1 service sink
		A-4	Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink
		A-5	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities ^h	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink
			K-12 stadiums, bleachers and grandstands for outdoor sporting events and activities ^{h,k}	1 per 125	1 per 100	1 per 250	1 per 200	—	1 per 1,000	
2	Business (see Sections 403.2, 403.3 and 403.3.3.1)	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		—	1 per 100	1 service sink ^a
3	Educational ^l	E ^l	K-8 9-12 Teacher/staff	1 per 25 1 per 30 1 per 30	1 per 25 1 per 25 1 per 25	1 per 60 1 per 100 1 per 100		—	1 per 100	—

(continued)

FIXTURES, FAUCETS AND FIXTURE FITTINGS

TABLE 403.1 —continued
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES*
 (See Sections 403.1.1 and 403.2)

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410)	OTHER
				MALE	FEMALE	MALE	FEMALE			
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials (see Section 403.3.1 for adjustments in occupant content)	1 per 100		1 per 100		(see Section 411)	1 per 400	1 service sink
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8		
		I-2	Hospitals and other healthcare facilities	Fixture requirements are regulated and enforced by state licensing and certification jurisdictions only.						
			Employees ^b	1 per 25	1 per 35	—	1 per 100	—		
			Visitors	1 per 75	1 per 100	—	1 per 500	—		
		I-3	Prisons ^b	Fixture requirements are regulated and enforced by state licensing and certification jurisdictions only.						
			Reformatories, detention centers, and correctional centers ^b	Fixture requirements are regulated and enforced by state licensing and certification jurisdictions only.						
			Employees ^b	1 per 25	1 per 35	—	1 per 100	—		
			Visitors	1 per 75	1 per 100	—	1 per 500	—		
		I-4	Adult day care	Fixture requirements are regulated and enforced by state licensing and certification jurisdictions only.						
			Child care ^b	1 per 15	1 per 25	—	—	—		
Employees	1 per 25		1 per 35	—	1 per 100	—				
Visitors	1 per 75		1 per 100	—	1 per 500	—				
6	Mercantile (see Sections 403.2, 403.3 and 403.3.3.2)	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		—	100 – 1,000 1, greater than 1,000 require 1 more for each additional 1,000.	1 service sink ^b
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit		1 per sleeping unit	—	—
		R-2	Dormitories, fraternities, sororities and boarding houses (not transient)	1 per 10		1 per 10		1 per 8	1 per 100	—
		R-2	Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units

(continued)

FIXTURES, FAUCETS AND FIXTURE FITTINGS

TABLE 403.1 —continued
 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES*
 (See Sections 403.1.1 and 403.2)

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410)	OTHER
				MALE	FEMALE	MALE	FEMALE			
7	Residential (cont.)	R-3	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		R-3	One- and two-family dwellings and lodging houses with five or fewer guestrooms	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per dwelling unit
		R-4	<u>Residential care/ unlicensed assisted living facilities</u> Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	—	—
8	Storage	S-1 S-2	Structures for the storage of goods, warehouses, storehouse and freight depots. Low and Moderate Hazard ^{2b-4}	1 per 100		1 per 100		See Section 411	—	—

- a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by the *International Building Code*.
- b. Toilet facilities for employees shall be separate from facilities for inmates, students or care recipients.
- c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted provided that each patient sleeping unit has direct access to the toilet room and provision for privacy for the toilet room user is provided.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. The number of fixtures provided shall be based on either the capacity of the church sanctuary or the church educational building (including fellowship halls and multiple purpose rooms), whichever is larger and within 300 feet (91.44 m).
- f. For attached one- and two-family dwellings, one automatic clothes washer connection shall be required per 20 dwelling units.
- g. A mop receptacle with a water supply, or a hose bib and floor drain, may be used in lieu of a service sink.
- h. A can wash may be used in lieu of a service sink.
- i. See Section 403.9 for additional information on plumbing fixtures for schools.
- j. When the rearrangement of an area or space increases the occupant content, the plumbing facilities shall be increased in accordance with this code.
- k. For baseball stadiums, the number of fixtures shall be reduced by 50 percent.
- l. Service sink may be omitted when located within a single-family dwelling.
- m. Self-service mini-storage facilities without an office area are exempt.
- n. Unheated storage buildings that are used periodically are not required to have toilet rooms.
- o. For business and mercantile occupancies with an occupant load of 25 or fewer, service sinks shall not be required.
- p. See Section 403.6 for adjustments in occupant count.

2018 NC State Plumbing Code Amendments

(adopted December 2017 through December 2020)

(Note: includes identified NC Errata)

The North Carolina Codes are available at <https://codes.iccsafe.org/codes/north-carolina> for purchase online or free "view only". Bound hard copies are available for walk-in purchase only at the following location.

NC Department of Insurance, 325 North Salisbury Street, Raleigh, NC 27603
919-647-0029 (call for availability)

The following pages represent a summary of the Building Code Council adopted amendments that have been approved by the Rules Review Commission.



2018 NC Plumbing Code (based on the 2015 International Plumbing Code)
effective 1/1/2019

These amendments revise, delete or add to the adopted NC Plumbing Code.

2018 NC Plumbing Code

ERRATA – correcting footnote c location as shown



TABLE 710.1(1)
BUILDING DRAINS AND SEWERS

DIAMETER OF PIPE (inches)	MAXIMUM NUMBER OF DRAINAGE FIXTURE UNITS CONNECTED TO ANY PORTION OF THE BUILDING DRAIN OR THE BUILDING SEWER, INCLUDING BRANCHES OF THE BUILDING DRAIN ^{a,b,c,d}			
	Slope per foot			
	$\frac{1}{16}$ inch	$\frac{1}{8}$ inch	$\frac{1}{4}$ inch	$\frac{1}{2}$ inch
$\frac{1}{4}$	—	—	1	1
$\frac{1}{2}$	—	—	3	3
2	—	—	21	26
$2\frac{1}{2}$	—	—	24	31
3	—	36	42	50
4	—	180	216	250
5	—	390	480	575
6	—	700	840	1,000
8	1,400	1,600	1,920	2,300
10	2,500	2,900	3,500	4,200
12	3,900	4,600	5,600	6,700
15	7,000	8,300	10,000	12,000

For SI: 1 inch = 25.4 mm, 1 inch per foot = 83.3 mm/m.

a. The minimum size of any *building drain* serving a water closet shall be 3 inches.

b. No building sewer shall be less than 4 inches in size.

c. No more than three water closets.

d. Minimum of 2-inch diameter underground.

2018 NC Plumbing Code
 Table 403.1 Minimum Number of Required Plumbing Fixtures. (191210 Item B-18 and B-20)
 (Only affected portions of the table are displayed here. Other portions of the table are unchanged by this amendment.)



**TABLE 403.1
 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES**

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410)	OTHER
				MALE	FEMALE	MALE	FEMALE			
2	Business (see sections 403.2, 403.3 and 403.3.3.1)	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 <u>30</u> for the first 50 <u>30</u> and 1 per 50 for the remainder exceeding 50 <u>30</u>		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		—	1 per 100	1 service sink ^o
6	Mercantile (see sections 403.2, 403.3 and 403.3.3.2)	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers		1 per 500		1 per 750	—	100 - 1,000 1 greater than 1,000 require 1 more for each additional 1,000	1 service sink ^o

- a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code.
- b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.
- c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient *sleeping units* shall be permitted, provided that each patient *sleeping unit* has direct access to the toilet room and provisions for privacy for the toilet room user are provided.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. The number of fixtures provided shall be based on either the capacity of the church sanctuary or the church educational building (including fellowship halls and multiple purpose rooms), whichever is larger and within 300 feet (91.44 m).
- f. For attached one- and two-family dwellings, one automatic clothes washer connection shall be required per 20 dwelling units.
- g. A mop receptacle with a water supply, or a hose bib and floor drain, may be used in lieu of a service sink.
- h. A can wash may be used in lieu of a service sink.
- i. See Section 403.9 for additional information on plumbing fixtures for schools.
- j. When the rearrangement of an area or space increases the occupant content, the plumbing facilities shall be increased in accordance with this code.
- k. For baseball stadiums, the number of fixtures shall be reduced by 50 percent.
- l. Service sink may be omitted when located within a single-family dwelling.
- m. Self-service mini-storage facilities without an office area are exempt.
- n. Unheated storage buildings which are used periodically are not required to have toilet rooms.
- o. For business and mercantile occupancies with an occupant load of ~~25~~ 30 or fewer, service sinks shall not be required.

NC Building Code Plumbing Ad-Hoc Committee

Submitted to
the NC Building Code Council on
December 13, 2016

Recommended Amendments for the 2018 NC Plumbing Code

**SECTION 403
MINIMUM PLUMBING FACILITIES**

403.1 Minimum number of fixtures. In new construction or building additions and in changes of occupancy as defined in the *North Carolina Building Code*, plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 403.1 based on the actual use of the building or space. Uses not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined by the *International Building Code*. Occupancy classification shall be determined in accordance with the *International Building Code*.

**TABLE 403.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^{a,b}
(See Sections 403.1.1 and 403.2)**

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410)	OTHER
				MALE	FEMALE	MALE	FEMALE			
1	Assembly (see sections 403.2.403.3 and 403.3.3.2)	A-1 ^d	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		—	1 per 500	—
			Theaters in K-12 schools	1 per 125	1 per 100	1 per 200			1 per 500	1 service sink
		A-2 ^d	Nightclubs, bars, taverns, dance halls and buildings for similar purposes	1 per 40	1 per 40	1 per 75		—	1 per 500	1 service sink
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200		—	1 per 500	1 service sink ^h
			Cafeterias in K-12 schools	1 per 125	1 per 100	1 per 200		■	1 per 500	1 service sink

		A-3 ^d	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200	—	1 per 500	1 service sink
			Gymnasiums in K-12 schools	1 per 125	1 per 100	1 per 200		1 per 500	1 service sink
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750	—	1 per 1,000	1 service sink
			Places of worship and other religious services. Churches without assembly halls	1 per 150	1 per 75	1 per 200	—	1 per 1,000	1 service sink

(continued)

TABLE 403.1—continued
 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^{a,p}
 (See Sections 403.1.1 and 403.2)

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 419.2)		LAVATORIES		BATHTUBS/SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410)	OTHER
				MALE	FEMALE	MAL E	FEMALE			
1 (cont.)	Assembly (see sections 403.2.403.3 and 403.3.3.2)	A-4	Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink

Attachment 1-C

		A-5	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 80 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink
		A-5	K-12 stadiums, bleachers and grandstands for outdoor sporting events and activities ^h	1 per 125	1 per 100	1 per 250	1 per 200	—	1 per 1000	
2	Business (see sections 403.2.403.3 and 403.3.3.1)	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		—	1 per 100	1 service sink ^c
3	Educational	E	Educational facilities	1 per 50		1 per 50		—	1 per 400	1 service sink
3	Educational	E ^b	K-8 9-12 Teacher/staff	1 per 25 1 per 30 1 per 30	1 per 25 1 per 25 1 per 25	1 per 60 1 per 100 1 per 100		—	1 per 100	—
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials (see Section 403.3.1 for adjustments in occupant content)	1 per 100 (See OSHA 29 CFR paragraph 1910.144)		1 per 100		(see Section 411)	1 per 400	1 service sink

5	Institutional	I-1	Residential care	1 per 10	1 per 10	1 per 8	1 per 100	1 service sink	
		I-2	Hospitals, ambulatory, nursing home care recipient and other healthcare facilities	1 per room ^e Fixture requirements are regulated and enforced by state licensing and certification jurisdictions only.					
			Employees ^a , other than residential care ^b	1 per 25	1 per 35	—	1 per 100	—	
			Visitors, other than residential care	1 per 75	1 per 100	—	1 per 500	—	
		I-3	Prisons ^b	Fixture requirements are regulated and enforced by state licensing and certification jurisdictions only.					
			Reformatories, detention centers, and correctional centers ^b	Fixture requirements are regulated and enforced by state licensing and certification jurisdictions only.					
			Employees ^b	1 per 25	1 per 35	—	1 per 100	—	
			Visitors	1 per 75	1 per 100	—	1 per 500	—	
		I-4	Adult day care and child day care	Fixture requirements are regulated and enforced by state licensing and certification jurisdictions only.					
			Child care ^b	1 per 15	1 per 25	—	—	—	
			Employees	1 per 25	1 per 35	—	1 per 100	—	
			Visitors	1 per 75	1 per 100	—	1 per 500	—	

(continued)

TABLE 403.1 — continued
 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^{a,p}
 (See Sections 403.1.1 and 403.2)

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS: SEE SECTION 419.2)		LAVATORIES		BATHTUBS/SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410)	OTHER
				MAL E	FEMAL E	MAL E	FEMAL E			
6	Mercantile (see sections 403.2, 403.3 and 403.3.3.2)	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		—	100 - 1,000: 1 greater than 1,000: require 1 more for each additional 1,000	1 service sink
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit		1 per sleeping unit	—	1 service sink
		R-2	Dormitories, fraternities, sororities and boarding houses (not transient)	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		R-2	Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units
		R-3	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
R-3	One- and two-family dwellings and lodging houses with five or fewer guestrooms	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per dwelling unit		

		R-4	Residential care/ unlicensed assisted living facilities	1 per 10	1 per 10	1 per 8	—	—
			Congregate living facilities with 16 or fewer persons	1 per 10	1 per 10	1 per 8	1 per 100	1 service sink
8	Storage	S-1 S-2	Structures for the storage of goods, warehouses, storehouse and freight depots. Low and Moderate Hazard. ^{m,n}	1 per 100	1 per 100	See Section 411	—	—

- a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by the *International Building Code*.
- b. Toilet facilities for employees shall be separate from facilities for inmates, **students** or **care recipients**.
- c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted provided that each patient sleeping unit has direct access to the toilet room and provision for privacy **for the toilet room user is** provided.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. **The number of fixtures provided shall be based on either the capacity of the church sanctuary or the church educational building (including fellowship halls and multiple purpose rooms), whichever is larger and within 300 feet (91.44 m).**
- f. **For attached one- and two-family dwellings, one automatic clothes washer connection shall be required per 20 dwelling units.**
- g. **A mop receptacle with a water supply, or a hose bib and floor drain, may be used in lieu of a service sink.**
- h. **A can wash may be used in lieu of a service sink.**
- i. **See Section 403.9 for additional information on plumbing fixtures for schools.**

- j. When the rearrangement of an area or space increases the occupant content, the plumbing facilities shall be increased in accordance with this code.
- k. For baseball stadiums, the number of fixtures shall be reduced by 50 percent.
- l. Service sink may be omitted when located within a single-family dwelling.
- m. Self-service mini-storage facilities without an office area are exempt.
- n. Unheated storage buildings which are used periodically are not required to have toilet rooms.
- o. For business and mercantile occupancies with an occupant load of 25 or fewer, service sinks shall not be required.
- p. See section 403.6 for adjustments in occupant count.

403.1.1 Fixture calculations.

To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with Table 403.1. Fractional numbers resulting from applying the fixture ratios of Table 403.1 shall be rounded up to the next whole number. For calculations involving multiple *occupancies*, such fractional numbers for each *occupancy* shall first be summed and then rounded up to the next whole number.

Exception:

1. The total occupant load shall not be required to be divided in half where *approved* statistical data indicates a distribution of the sexes of other than 50 percent of each sex.
2. In buildings that contain dwellings or sleeping units that have a pool dedicated to the residents, a percentage reduction of the total required fixtures provided for a pool and pool deck without bleachers and grandstands may be taken equal to the percentage of total residential units whose entries fall within 500 feet of the pool deck.

403.1.2 Family or assisted-use toilet and bath fixtures.

Fixtures located within family or assisted-use toilet and bathing rooms required by Section 1109.2.1 of the *International Building Code* are permitted to be included in the number of required fixtures for either the male or female occupants in assembly and mercantile *occupancies*.

403.2 Separate facilities.

Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for dwelling units and sleeping units.
2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of ~~45~~ 25 or fewer.
3. Separate facilities shall not be required in mercantile *occupancies* in which the maximum occupant load is 100 or fewer.

PREFACE

Introduction

Internationally, code officials recognize the need for a modern, up-to-date plumbing code addressing the design and installation of plumbing systems through requirements emphasizing performance. The *International Plumbing Code*[®], in this 2015 edition, is designed to meet these needs through model code regulations that safeguard the public health and safety in all communities, large and small.

This comprehensive plumbing code establishes minimum regulations for plumbing systems using prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new plumbing designs. This 2015 edition is fully compatible with all of the *International Codes*[®] (I-Codes[®]) published by the International Code Council (ICC)[®], including the *International Building Code*[®], *International Energy Conservation Code*[®], *International Existing Building Code*[®], *International Fire Code*[®], *International Fuel Gas Code*[®], *International Mechanical Code*[®], *ICC Performance Code*[®], *International Private Sewage Disposal Code*[®], *International Property Maintenance Code*[®], *International Residential Code*[®], *International Wildland-Urban Interface Code*[®] and *International Zoning Code*[®].

The *International Plumbing Code* provisions provide many benefits, among which is the model code development process that offers an international forum for plumbing professionals to discuss performance and prescriptive code requirements. This forum provides an excellent arena to debate proposed revisions. This model code also encourages international consistency in the application of provisions.

Development

The first edition of the *International Plumbing Code* (1995) was the culmination of an effort initiated in 1994 by a development committee appointed by the ICC and consisting of representatives of the three statutory members of the International Code Council at that time, including: Building Officials and Code Administrators International, Inc. (BOCA), International Conference of Building Officials (ICBO) and Southern Building Code Congress International (SBCCI). The intent was to draft a comprehensive set of regulations for plumbing systems consistent with and inclusive of the scope of the existing model codes. Technical content of the latest model codes promulgated by BOCA, ICBO and SBCCI was utilized as the basis for the development. This 2015 edition presents the code as originally issued, with changes as reflected in the subsequent editions through 2012 and with changes approved through the ICC Code Development Process through 2013 (completion of Group B). A new edition such as this is promulgated every 3 years.

This code is founded on principles intended to establish provisions consistent with the scope of a plumbing code that adequately protects public health, safety and welfare; provisions that do not unnecessarily increase construction costs; provisions that do not restrict the use of new materials, products or methods of construction; and provisions that do not give preferential treatment to particular types or classes of materials, products or methods of construction.

Adoption

The International Code Council maintains a copyright in all of its codes and standards. Maintaining copyright allows ICC to fund its mission through sales of books, in both print and electronic formats. The *International Plumbing Code* is designed for adoption and use by jurisdictions that recognize and acknowledge the ICC's copyright in the code, and further acknowledge the substantial shared value of the public/private partnership for code development between jurisdictions and the ICC.

The ICC also recognizes the need for jurisdictions to make laws available to the public. All ICC codes and ICC standards, along with the laws of many jurisdictions, are available for free in a non-downloadable form on the ICC's website. Jurisdictions should contact the ICC at adoption@iccsafe.org to learn how to adopt and distribute laws based on the *International Plumbing Code* in a manner that provides necessary access, while maintaining the ICC's copyright.

Maintenance

The *International Plumbing Code* is kept up to date through the review of proposed changes submitted by code enforcing officials, industry representatives, design professionals and other interested parties. Proposed changes are carefully considered through an open code development process in which all interested and affected parties may participate.

The contents of this work are subject to change through both the Code Development Cycles and the governmental body that enacts the code into law. For more information regarding the code development process, contact the Codes and Standards Development Department of the International Code Council.

While the development procedure of the *International Plumbing Code* ensures the highest degree of care, the ICC, its members and those participating in the development of this code do not accept any liability resulting from compliance or noncompliance with the provisions because the ICC does not have the power or authority to police or enforce compliance with the contents of this code. Only the governmental body that enacts the code into law has such authority.

Code Development Committee Responsibilities (Letter Designations in Front of Section Numbers)

In each code development cycle, proposed changes to the code are considered at the Committee Action Hearings by the International Plumbing Code Development Committee, whose action constitutes a recommendation to the voting membership for final action on the proposed change. Proposed changes to a code section that has a number beginning with a letter in brackets are considered by a different code development committee. For example, proposed changes to code sections that have [BS] in front of them (e.g., [BS] 309.2) are considered by the IBC – Structural Code Development Committee at the code development hearings.

Marginal and Text Markings

Solid vertical lines in the margins within the body of the code indicate a technical change from the requirements of the 2012 edition. Deletion indicators in the form of an arrow (➤) are provided in the margin where an entire section, paragraph, exception or table has been deleted or an item in a list of items or a table has been deleted. Underlining within the body of the code indicate a technical change to the 2018 North Carolina Plumbing Code from the requirements of the 2015 edition of the *International Plumbing Code*.

A single asterisk [*] placed in the margin indicates that text or a table has been relocated within the code. A double asterisk [**] placed in the margin indicates that the text or table immediately following it has been relocated there from elsewhere in the code. The following table indicates such relocations in the 2015 edition of the *International Plumbing Code*.

2015 LOCATION	2012 LOCATION
Appendix C	Appendix F
Section 716	Appendix C

Italicized Terms

Selected terms set forth in Chapter 2, Definitions, are italicized where they appear in code text. Such terms are not italicized where the definition set forth in Chapter 2 does not impart the intended meaning in the use of the term. The terms selected have definitions that the user should read carefully to facilitate better understanding of the code.

ATTACHMENT B

From: Buddy Jenkins <buddyj@jenkinsce.pro>
Sent: Wednesday, July 21, 2021 12:43 PM
To: Martin, Carl <Carl.Martin@ncdoi.gov>
Subject: [External] RE: JCE - Code Interpretation Appeal Request 20-July-21

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Yes, an appeal of an interpretation, by the local inspector. Your formal interpretation, I presume. Thank you.

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: "Martin, Carl" <Carl.Martin@ncdoi.gov>
Date: 7/21/21 12:36 PM (GMT-05:00)
To: Buddy Jenkins <buddyj@jenkinsce.pro>
Cc: Robin Depew <robind@jenkinsce.pro>
Subject: RE: JCE - Code Interpretation Appeal Request 20-July-21

Buddy,

I wanted to let you know that I received your email yesterday and will processing it soon. I noticed that you indicated on the email and the form that it is an “appeal”, but what you are actually asking about is a “formal interpretation” regarding footnote e. I, therefore, plan to process it as a formal interpretation unless you have an objection.

Carl Martin, RA
Deputy Commissioner
Division Chief of Engineering



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“Consistency” as defined by Merriam-Webster – “harmony of conduct or practice with profession”